

# Journal of Food Law & Policy

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—Journal of—  
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Volume Sixteen

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Spring 2020

Dairy Tales:  
Global Portraits of Milk and Law

Articles

DAIRY TALES:

GLOBAL PORTRAITS OF MILK AND LAW  
*Jessica Eisen, Xiaoqian Hu & Erum Sattar*

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DEMOTING DAIRY IN CANADA'S  
NATIONAL FOOD GUIDE  
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MILK AND LAW IN THE ANTHROPOCENE:  
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"A GLASS OF MILK STRENGTHENS A NATION."  
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MILK AND THE MOTHERLAND?  
COLONIAL LEGACIES OF TASTE AND THE LAW  
IN THE ANGLOPHONE CARIBBEAN  
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A PUBLICATION OF THE UNIVERSITY OF ARKANSAS SCHOOL OF LAW



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## **Dairy Tales: Global Portraits of Milk and Law**

Jessica Eisen, Xiaoqian Hu & Erum Sattar\*

Cow's milk has enjoyed a widespread cultural signification in many parts of the world as "nature's perfect food."<sup>1</sup> A growing body of scholarship, however, has challenged the image of cow's milk in human diets and politics as a product of "nature," and has instead sought to illuminate the political, scientific, colonial and postcolonial, economic, and social forces that have in fact defined the production, consumption, and cultural signification of cow's milk in human societies. This emerging attention to the social, legal, and political significance of milk sits at the intersection of several fields of academic inquiry: anthropology, history, animal studies, development studies, gender studies, food studies, postcolonial and decolonial studies, and more. In each of these contexts, milk is not only the product of an animal, but also a product of human social, cultural, and legal choice.

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\* Jessica Eisen is an Assistant Professor at the University of Alberta Faculty of Law. Xiaoqian Hu is an Associate Professor at the University of Arizona James E. Rogers College of Law. Erum Sattar is a Professor at Pace University Elisabeth Haub School of Law. The authors wish to thank the University of Arizona for their generous sponsorship of a symposium in support of this special volume, and the contributing authors for their thoughtful engagement throughout this process. We are particularly grateful to Mathilde Cohen, who attended the symposium and provided invaluable feedback throughout (although she does not have an article appearing in this collection) and to symposium participants and discussants Albertina Antognini, James C. Hopkins, Justin Pidot, Sergio Puig, Dan Scheitrum, Russell Tronstad, Heather Whiteman Runs Him, and Andrew Woods. Thanks are also owed to the University of Alberta and the Kule Institute for Advanced Studies for supporting research and collaboration in connection with this project. The authors are also grateful to the editors of the Journal of Food Law and Policy for their care and attention in bringing this volume to completion. Finally, the authors thank Zachary Wilson for his able research assistance on this article, and Sonali Khurana for her research and administrative support in the early stages of this project.

<sup>1</sup> See E. MELANIE DUPUIS, *NATURE'S PERFECT FOOD: HOW MILK BECAME AMERICA'S DRINK* (N.Y. Univ. Press 2002); ANNE MENDELSON, *MILK: THE SURPRISING STORY OF MILK THROUGH THE AGES* (Alfred A. Knopf 2008); ANDREA S. WILEY, *RE-IMAGINING MILK* (Routledge 2011); DEBORAH VALENZE, *MILK: A LOCAL AND GLOBAL HISTORY* (Yale Univ. Press 2011); Mathilde Cohen, *Of Milk and the Constitution*, 40 HARV. J. L. & GENDER 115 (2017). While this introductory article primarily discusses cow's milk, it should be noted that in some jurisdictions, the milk of other non-human animals is more common in human diets. See, e.g., Erum Sattar, *Towards Industrial Dairy Farming in Pakistan? The End of Small Farms and the Transformation of Cattle-Rearing Practices*, 16 J. FOOD L. & POL'Y (forthcoming 2020) (discussing the relative prominence of buffalo milk in Pakistan).

This special volume of the *Journal of Food Law & Policy* brings together a series of “dairy tales,” each of which addresses some distinct, jurisdictionally-grounded aspect of the legal forces shaping milk production, distribution, and consumption. Taken together, these explore a particular and under-studied dimension of milk studies—the relationship between *law* and milk—from an interdisciplinary and interjurisdictional perspective. Jurisdictions canvassed in this volume include Canada, China, Pakistan, Trinidad and Tobago, Ukraine, and the United States. Through these studies, legal relations around milk are revealed as being shaped by race, class, ethnicity, gender, and animality. They are further revealed as being driven both by broad colonial, economic, and social forces, and by the choices, experiences, and power relationships of particular interspecies communities.

The present collection enriches existing explorations of milk within and across jurisdictions. As the interdisciplinary study of milk has amply demonstrated, milk is often represented in distinct and, at times, contradictory ways: as a symbol of purity and nature<sup>2</sup> and a symbol of advanced capitalism and commercialization;<sup>3</sup> as an emblem of a distant agrarian past and as a harbinger of futuristic and technoscientific food production;<sup>4</sup> as a universally revered and nutritionally perfect food<sup>5</sup> and as a consumer product whose global reach is attributable to coercive colonial and economic practices;<sup>6</sup> as

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<sup>2</sup> See DUPUIS, *supra* note 1; WILEY, *supra* note 1; Jessica Eisen, *Milked: Nature, Necessity and American Law*, 34 BERKELEY J. GENDER L. & JUST. 71 (2019).

<sup>3</sup> See, e.g., RICHIE NIMMO, *MILK, MODERNITY AND THE MAKING OF THE HUMAN: PURIFYING THE SOCIAL* (Routledge 2010).

<sup>4</sup> See PETER ATKINS, *LIQUID MATERIALITIES: A HISTORY OF MILK, SCIENCE AND THE LAW* (Ashgate 2010); KENDRA SMITH-HOWARD, *PURE AND MODERN MILK: AN ENVIRONMENTAL HISTORY SINCE 1990* (Oxford Univ. Press 2014); Melanie Jackson & Esther Leslie, *Unreliable Matriarchs*, in *MAKING MILK: THE PAST, PRESENT AND FUTURE OF OUR PRIMARY FOOD* (Mathilde Cohen & Yoriko Otomo eds., 2017); Taija Kaarlenkaski, ‘*Machine Milking is More Manly than Hand Milking*’: *Multispecies Agencies and Gendered Practices in Finnish Cattle Tending from the 1950s to the 1970s*, 7 ANIMAL STUD. J. 76 (2018); Richie Nimmo, *The Mechanical Calf: On the Making of a Multispecies Machine*, in *MAKING MILK: THE PAST, PRESENT AND FUTURE OF OUR PRIMARY FOOD*, *supra* note 4; Deidre Wicks, *Demystifying Dairy*, 7 ANIMAL STUD. J. 45 (2018).

<sup>5</sup> See DUPUIS, *supra* note 1; WILEY, *supra* note 1; ALISSA HAMILTON, *GOT MILKED?* (HarperCollins Publishers 2015).

<sup>6</sup> See Mathilde Cohen, *Animal Colonialism: The Case of Milk*, 111 AM. J. INT’L L. UNBOUND 267 (2013); Yoriko Otomo, *The Gentle Cannibal: The Rise and Fall of Lawful Milk*, 40 AUSTRALIAN FEMINIST L. J. 215 (2014); Greta Gaard, *Toward a Feminist Postcolonial Milk Studies*, 65 AM. Q. 595 (2013); Iselin Gambert & Tobias Linné, *From Rice Eaters to Soy Boys: Race, Gender, and Tropes of ‘Plant Food Masculinity’*, 7 ANIMAL STUD. J. 129 (2018); Vasile Stănescu, *‘White Power Milk’: Milk, Dietary Racism, and the ‘Alt-Right’*, 7 ANIMAL STUD. J. 103 (2018). See also

a source of salutary and familial inter-species connection<sup>7</sup> and as a source of animal abuse, exploitation, and harm—often in terms that echo and magnify gendered harm within human communities.<sup>8</sup>

The present collection stands to enrich and complicate these accounts. The colonial and post-colonial dimensions of dairying are engaged in the contexts of Trinidad and Tobago (Merisa Thompson, this issue) and Canada and the United States (Kelly Struthers Montford, this issue). Distinct political and economic structures shaping and being shaped by dairy relations are studied in the socialist and post-socialist jurisdictions of China (Xiaoqian Hu, this issue) and Ukraine (Monica Eppinger, next issue). The relationships between market interventions, technological change, and intensification of dairy production are the focus of inquiries respecting Pakistan (Erum Sattar, next issue) and the United States (George Frisvold, next issue). The details of regulatory interventions—regarding official dietary guidelines and animal protection, respectively—are explored in Canada (Maneesha Deckha, this issue) and in a cross-jurisdictional study of Canada and the United States (Jessica Eisen, next issue).

Tracing the history of dairy in Trinidad and Tobago, Thompson reveals a complex and evolving interplay between colonialism, animality, race, gender, and commercialization. She

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ANDREA FREEMAN, *SKIMMED: BREASTFEEDING, RACE AND INJUSTICE* (Stanford Univ. Press 2019).

<sup>7</sup> C.f. Jocelyne Porcher & Tiphaine Schmitt, *Dairy Cows: Workers in the Shadows?*, 20 *SOC'Y & ANIMALS* 39 (2012).

<sup>8</sup> See, e.g., KATHRYN GILLESPIE, *THE COW WITH EAR TAG #1389* (Univ. of Chi. Press 2018); Kathryn Gillespie, *Sexualized Violence and the Gendered Commodification of the Animal Body in Pacific Northwest US Dairy Production*, 21 *GENDER, PLACE & CULTURE: J. FEMINIST GEOGRAPHY* 1321 (2014); Carol J. Adams, *Feminized Protein: Meaning, Representations, and Implications*, in *MAKING MILK: THE PAST, PRESENT AND FUTURE OF OUR PRIMARY FOOD*, *supra* note 4; Carol J. Adams, *Provocations from the Field: Female Reproductive Exploitation Comes Home*, 7 *ANIMAL STUD. J.* 1 (2018); Melissa Boyde, *The Dairy Issue: Practicing the Art of War*, 7 *ANIMAL STUD. J.* 9 (2018); Mathilde Cohen, *Regulating Milk: Women and Cows in France and the United States*, 65 *AM. J. COMP. L.* 469 (2017); Cohen, *supra* note 1; Kendra Coulter, *Beyond Human to Humane: A Multispecies Analysis of Care Work, Its Repression, and Its Potential*, 10 *STUD. SOC. JUST.* 199 (2016); Jessica Eisen, *Milk and Meaning: Puzzles in Posthumanist Method*, in *MAKING MILK: THE PAST, PRESENT AND FUTURE OF OUR PRIMARY FOOD*, *supra* note 4; Eisen, *supra* note 2; Greta Gaard, *Critical Ecofeminism: Milk Fauna and Flora*, in *MAKING MILK: THE PAST, PRESENT AND FUTURE OF OUR PRIMARY FOOD*, *supra* note 4; Gaard, *supra* note 6; Iselin Gambert, *Got Mylk? The Disruptive Possibilities of Plant Milk*, 84 *BROOK. L. REV.* 801 (2019); Yamini Narayanan, "Cow is a Mother, Mothers Can Do Anything for Their Children!" *Gaushalas as Landscapes of Anthropatriarchy and Hindu Patriarchy* 34 *HYPATIA* 195 (2019); Otomo, *supra* note 6.

begins with a puzzle: that milk is prominent in Caribbean diets despite high levels of lactose intolerance within the population. The history she details by way of explanation engages the intermingling of legal and economic power throughout various periods in the twin-island nation's history. Prior to colonization, Indigenous populations had no connection to either cattle or cow's milk. Livestock was first brought to the Caribbean by the Spanish as part of the colonial project to improve landscapes and peoples. The taste for milk and dairy produce was first imported by Europeans who established and ruled over an export-driven plantation economy that increasingly relied on the labor of enslaved African people. It was, on Thompson's account, the shifting of British legislative power to local administrators, the abolition of slavery and the attendant arrival of indentured laborers from India, that shaped the development of more robust domestic dairy economies. Arriving in Trinidad and Tobago with their own religious and cultural attachments to dairy, and with significant skills in dairying, Indian women in particular were central to the early local dairy economy. Colonial powers thus introduced milk to this jurisdiction not only through direct imposition, but also through the importation of another colonized population who brought their distinct local dairy practices with them. Throughout this process and beyond, colonial and postcolonial European power continued to shape this emerging economy and food practice—first, through regulations respecting sanitization and adulteration, and, later, through the arrival of Nestlé and the corporation's marketing and distribution of dairy products. In Thompson's account, these forces worked both to reinforce particular ideologies around the consumption of cow's milk and, ultimately to displace the dwindling local market.

Struthers Montford's article examines a number of recent legislative and litigation initiatives in the United States aiming to legally prevent plant-based products from using the word "milk" in their marketing and product naming (e.g., soymilk, almond milk, etc.). Struthers Montford argues that these recent efforts must be understood in the context of colonial introduction and imposition of milk and dairying in North America. On Struthers Montford's account, milk has formed an integral component of the European colonial project in North America, inextricably linked to the suppression and control of Indigenous peoples, legal systems, and lands. Milk, she argues, has been culturally linked to white supremacy, with this link, in turn, tied to a pervasive cultural coding of milk as a universal and perfect food. In Struthers Montford's view, recent litigation and legislative efforts to preserve animal milk's status as the standard and normative "milk" are best

understood as a continuation of the colonial project of domesticating North American peoples, animals, lands, and legal orders.

Hu frames China's dairy tale under the meta-narrative of milk as a vehicle for nation building, unveiling milk's multifaceted roles in colonialism, globalization, and the recent hardening of authoritarianism in China. In her narrative, military conquering, (semi-)colonialism, and advocacy by domestic elites propelled the cultivation of a taste for milk in modern China—a state in which milk had not formed part of the traditional diet, and in which lactose malabsorption remains prevalent. Among the reasons for dairy's growing role in China, Hu argues, are the international forces that were unleashed after China's entry into the World Trade Organization in 2001. Together, these shifts worked to flood the Chinese market with cheap dairy imports from the United States, Europe, and New Zealand, crushing the small Chinese farms created by China's property regime. According to Hu, what happened to Chinese dairy farmers is a microcosm to what globalization has meant for rural Chinese citizens: Since 2001, 155 million farmers and their sons and daughters have been pushed out of agriculture and out of their communities and pulled into factories and cities far away from home. The socio-economic dislocation and the subsequent governmental programs of social protection, Hu opines, may be creating a populist base receptive to paternalist governance and a political strongman in defiance of Western, particularly American, (neo)liberalism.

Eppinger's piece tracks Ukraine's Soviet and post-Soviet dairy histories, revealing dynamic interrelationships between international forces, national policies, and highly local individual and collective relationships amongst dairy maids and cows. Unlike many jurisdictions canvassed in this collection, Ukraine stands out as a place in which dairying has deep historic roots as a local practice, as opposed to more recent introduction through colonialism or economic globalization. Eppinger describes contemporary Ukrainian dairying as a primarily small-scale, often household-based, practice in which cows are hand-milked by dairy maids who know and name each individual cow. In an analysis foregrounding gender and agency, dairy maids are at the centre of Eppinger's account, shaping and responding to dramatic changes in local, national, and international contexts—from Soviet collectivization, to devastating famine, to official and unofficial decollectivization, to the emergence of an increasingly internationalized and corporatized food system. As Eppinger elaborates, Ukraine's dairy maids have not passively received the consequences of these transformations,

but have actively engaged and shaped the local manifestations of these national and international shifts.

Sattar's article explores the dynamic relationships between local dairy producers and international development agencies in Pakistan—one of the world's largest milk producers. As Sattar explains, milk production and consumption are widely regarded in Pakistan as integral to a natural and wholesome way of life. Tracing the history of the country's vast agricultural economy to British colonial rule and beyond, Sattar shows that dispersed small farmers and landless agricultural workers are now the primary producers of raw milk. Sattar details the increasing presence of foreign and national conglomerates working to integrate these small producers into modern value chains in order to supply urban consumers with modern packaged brands. This development trajectory for the dairy sector has emerged as a national priority of the Pakistani government, partly in response to well-funded projects of international development agencies such as the United States Agency for International Development (USAID). The increasing presence of corporate entities paying cash for milk has supplied crucial income to small farmers. However, Sattar argues, this corporatization and commercialization of milk has also compelled a focus on efficiency that has driven consolidation of dairy operations, imperiling the interests and survival of the very same small farmers whom the corporations and development agencies purport to aid. At the same time, Sattar explains, this search for efficiency has profound consequences for the lives of animals in dairying.

Frisvold traces the industrial and regulatory history of the United States dairy sector over the past century, with a focus on the role of market regulation. Frisvold's account traces the role of government in the establishment and maintenance of dairy cooperatives, and the subsequent support of dairy production through the ebb and flow of policies such as direct government purchases of dairy products, import controls and export subsidies, and disposal of domestic dairy surpluses through foreign relief, the School Lunch Program, and other social programs. As Frisvold explains, these governmental interventions have interacted with technological transformations, industry consolidation, and demographic shifts to create the United States' contemporary dairy economy: one in which most dairy products now come from large operations housing hundreds or thousands of cows, increasingly reliant on computers and highly specialized in their focus on dairy production (e.g., no longer growing their own forage or raising heifers on site). Frisvold emphasizes that dairy currently occupies a significant role in the

United States' diets and economies, and concludes by charting emerging regulatory and market challenges within the dairy sector. He notes, in particular, regulatory responses to the environmental and climate impact of dairy operations as well as proposed market interventions to protect dairy producers in the face of growing consumer interest in plant-based milk alternatives.

Deckha explores the relationship between personal dietary choices and official nutritional and agricultural policy in her study of recent changes to the Canada Food Guide. Deckha's contribution adopts a critical animal studies lens, interrogating the extent to which animal advocates critical of dairying should "celebrate" the recent "de-emphasis on dairy products" in the latest government-issued Canada Food Guide. Deckha's study concludes that, while there may be some cause for encouragement, this should be tempered by an appreciation for the cultural durability of animal-product consumption in Canada—particularly in light of studies demonstrating the intersection between animal-based diets and politics of gender, race, and social stratification. Moreover, Deckha notes, the official food guide's retreat from dairy represents only one component of governmental involvement in the food system. As Deckha observes, many other elements of Canadian governmental power are still deployed to support dairying—perhaps most notably through the maintenance of an elaborate system of supply management that continues to protect the Canadian dairy industry.

Eisen's article examines regulatory approaches to the protection of cows used for dairy in Canada and the United States. In particular, Eisen focuses on the role of private actors in standard-setting across both jurisdictions. As Eisen details, both jurisdictions deploy a range of approaches to farmed animal welfare protections. Across jurisdictions, however, a common thread is the reliance, in varying modes and degrees, on private industry actors to set legal standards for animal use and care. As Eisen explains, agricultural use of animals often engages or requires harmful practices for the convenience and economic benefit of producers, noting tail docking and calf separation as areas of special concern in the dairy sector. In this context, Eisen argues, the official and unofficial delegation of animal welfare standard-setting to producers is particularly problematic. In developing this critique, Eisen calls for the embrace of public law values—such as transparency, accountability, and impartiality—as crucial elements of meaningful animal protection regimes.

It should be emphasized that these case studies do not represent a comprehensive or even representative sampling of jurisdictions with significant dairy histories. For example, India's complex system of dairy cooperatives, and the unique constitutional and legal status accorded to cows in that jurisdiction, are not addressed in any detail.<sup>9</sup> Nor is France, another major dairy-producing and dairy-consuming jurisdiction that has attracted the interest of legal scholars, given dedicated treatment.<sup>10</sup> The issues and lenses canvassed are also selective—ranging from animal welfare, to dietary guidelines, to colonialism. The glaring concerns of climate change, environmental justice, and workers' rights related to dairying are just a few examples of directions not offered dedicated treatment in this volume, but well-deserving of further study.<sup>11</sup> The aim of this volume is to offer a glimpse into the complex and polyvalent forces and discourses engaged by milk and dairy, not to

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<sup>9</sup> See, e.g., ANDREA S. WILEY, *CULTURES OF MILK: THE BIOLOGY AND MEANING OF DAIRY PRODUCTS IN THE UNITED STATES AND INDIA* (Harv. Univ. Press 2014); Andrea S. Wiley, *Growing a Nation: Milk Consumption in India Since the Raj*, in *MAKING MILK: THE PAST, PRESENT AND FUTURE OF OUR PRIMARY FOOD*, *supra* note 4; Mathilde Cohen, *The Comparative Constitutional Law of Cows and Milk: India and the United States*, 7 *INDIAN J. CONST. L.* 1 (2017); T. N. Madan, *Wither Indian Secularism*, 27 *MOD. ASIAN STUD.* 667, 687 (1993); Narayanan, *supra* note 8; Yamini Narayanan, *Jugaad and Informality as Drivers of India's Cow Slaughter Economy*, 51 *ENV'T & PLAN. A: ECON. & SPACE* 7 (2019); Yamini Narayanan, *Cow Protection as 'Casteised Speciesism': Sacralisation, Commercialisation and Politicisation*, 41 *SOUTH ASIA: J. SOUTH ASIAN STUD.* 331 (2018); Yamini Narayanan, *Cow Protectionism and Bovine Frozen-Semen Farms in India*, 26 *SOC'Y & ANIMALS* 13 (2018); Krithika Srinivasan & Smitha Rao, *Meat Cultures in Globalizing India*, 39 *ECON. & POL. WKLY.* 13 (2015).

<sup>10</sup> See Cohen, *supra* note 8. See also U.S. DEP'T OF AGRIC, DAIRY: WORLD MARKETS & TRADE (2019), <https://apps.fas.usda.gov/psdonline/circulars/dairy.pdf> (providing a jurisdictional accounting of the world's largest milk exporters, producers, and consumers).

<sup>11</sup> But see George B. Frisvold, *The U.S. Dairy Industry: The Role of Technological and Institutional Change*, 16 *J. FOOD L. & POL'Y* (forthcoming 2020) (providing a brief treatment of climate change). On dairying and climate change, see, e.g., Fredrik Hedenus, Stefan Wirsenius & Danieal J.A. Johansson, *The Importance of Reduced Meat and Dairy Consumption for Meeting Stringent Climate Change Targets*, 124 *CLIMATE CHANGE* 79 (2014); Stefan Wirsenius, Fredrik Hedenus & Kristina Mohlin, *Greenhouse Gas Taxes on Animal Food Products: Rationale, Tax Scheme and Climate Mitigation Effects*, 108 *CLIMATE CHANGE* 159 (2011). On dairying and environmental justice, see, e.g., *Environmental Racism*, FOOD EMPOWERMENT PROJECT, <https://foodispower.org/environmental-and-global/environmental-racism/> (last visited May 16, 2020). On dairy and workers' rights, see, e.g., Julia Jagow, *Dairy Farms and H-2A Harms: How Present Immigration Policy Is Hurting Wisconsin and Immigrant Workers*, 2019 *WIS. L. REV.* 1269; CARLY FOX, REBECCA FUENTES, FABIOLA ORTIZ VALDEZ, GRETCHEN PURSER & KATHLEEN SEXSMITH, *WORKERS' CTR. OF CENT. N.Y. & WORKER JUSTICE CENT. OF N.Y., MILKED: IMMIGRANT DAIRY FARMWORKERS IN NEW YORK STATE* (2017).



offer a comprehensive or final word on this rich and evolving area of study.

Selective as the enclosed studies may be, they nonetheless provide important critical and comparative insights. First, it is notable that every ostensibly ‘local’ ‘dairy tale’ is deeply intertwined with global economic and political imperatives—even as each tale also speaks to cultural and material contexts that are highly particular to the jurisdiction(s) under consideration. Second, the dairy tales presented here seem in some aspects to mirror or track broad social and economic developments, while in other aspects these tales illuminate milk’s truly exceptional social and cultural properties. Third, across jurisdictions, milk occupies complex social positions, engaging pressing and interconnected issues of human social and economic justice, questions about our relationship with the earth and its resources, and our obligations to the millions of animals globally who live and die at the center of our dairy relations. In other words, these case studies demonstrate that milk’s legal statuses and histories are at once local and interconnected, human and beyond, specific to this unique substance and resonant with broader patterns and relationships.

This collaborative project has uniquely engaged scholars with a wide range of perspectives on dairy production and consumption. Some in our group came to the project supportive of some or all aspects of dairy production and consumption as sources of important positive social, nutritional, and economic good. Others in our group approached the topic of dairying from a deeply critical posture, concerned about dairy’s negative environmental and social impacts, and about the isolation, kinship disruption, and physical harm experienced by many animals whose lives are defined by their use in dairy production. Still, others were relatively agnostic on these questions, having arrived at their study of dairy more obliquely, as peripheral to other questions at the core of their research agendas.

There were challenges and opportunities that arose in our efforts to bring together scholars with a range of disciplinary and ideological orientations toward their shared object of study: milk. Milk engages entrenched and vastly divergent intuitions about humans, animals, economics, and ‘the common good,’ making conversation across difference particularly challenging—and particularly important—in this field. Any effort to identify a single coherent approach or perspective across these articles would necessarily minimize the complexity of the divisions that shaped our engagement on these questions. While we did not leave this process

more united in our intuitions about the costs and benefits of human use of cow's milk, we did leave convinced of the value of dialogue across these differences. As milk studies—and milk *legal* studies—continue to develop, we hope that this collection serves as a model for engagement across academic disciplines, jurisdictions, and ethical commitments.

# Something to Celebrate?: Demoting Dairy in Canada's *National Food Guide*

Maneesha Deckha\*

## Abstract

In early 2019, the Canadian Government released the much-anticipated new *Canada Food Guide*. It is a food guide that de-emphasizes dairy products and promotes plant-based eating. Notably, in the new version, milk and milk products are de-listed as one of the previously four essential food groups. On the surface, it seems that the federal government is promoting veganism and helping to bring about a friendlier future for animals and humans harmed by being producers and consumers of dairy, as the new Guide may seriously contract the currently robust Canadian dairy industry and its powerful lobby. On closer inspection, the messaging from Health Canada is easily overtaken by an administrative landscape that protects the dairy industry and markets dairy products to Canadians and abroad as well as a legal landscape that completely commodifies cows. Adopting a critical animal studies perspective, this paper situates Health Canada's de-listing of dairy as a nutritionally foundational food source within a larger socio-legal Canadian regulatory landscape to assess the potential of the new *Canada Food Guide* to contest the entrenched legal and cultural norm of the dairy cow and her milk as products for human consumption.

## I. Introduction

Through its agency, Health Canada, the Canadian government issued an updated version of its national food guide on healthy eating, titled *Canada Food Guide*, in 2019 ("2019 Guide").<sup>1</sup>

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The new *Canada Food Guide*'s de-emphasis on dairy products and promotion of plant-based eating in general has attracted both extensive media attention and industry pushback.<sup>2</sup> This position represents a notable shift from previous versions of the *Canada Food Guide*, which started in 1942 and from the onset reflected the views of the meat and dairy lobbies, notably listing meat and dairy as lead anchors to two of the essential four food groups for human consumption—a stance reflected in the 2007 version of the food guide (“2007 Guide”).<sup>3</sup> In the 2019 Guide—the first in over a decade—milk and milk products are de-listed as an essential food group and animal-based proteins are classified alongside plant-based proteins, with the latter promoted as preferred protein sources.<sup>4</sup>

On one level, this shift in messaging about healthy eating is to be celebrated by farmed animal advocates (as well as other stakeholders seeking to combat the deleterious environmental, health, and global food insecurity ramifications of animal-based diets). Scholars have noted the lackluster pace by which most countries of the global North have promoted plant-based eating to their populations.<sup>5</sup> It is perhaps even more rare to see government de-emphasis on consuming dairy products, in particular as compared to “meat.” The de-listing of dairy seems especially progressive given

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<sup>1</sup> HEALTH CANADA, CANADA'S DIETARY GUIDELINES (2019), <https://food-guide.canada.ca/static/assets/pdf/CDG-EN-2018.pdf> [hereinafter CANADA'S DIETARY GUIDELINES].

<sup>2</sup> See, e.g., Colin Macleod, *Canada's Food Guide Changes: Health is Set to Update Its Recommendations for Healthy Eating, So Make Sure You're Ready*, CHRONICLE HERALD, Aug. 24, 2017, at V10; Howard Courtney & Ian Culbert, *Canada's Food Guide Revamp is Good for People and the Planet*, THERECORD.COM (Feb. 19, 2018), <https://www.therecord.com/opinion-story/81401>

42-canada-s-food-guide-revamp-is-good-for-people-and-the-planet; Aleksandra Sagan, *Canada Food Guide Starts Fight Over Beef, Butter*, CHRONICLE HERALD, Aug. 10, 2017, at B3; Ann Hui, *'Secret' Memos Reveal Efforts to Influence Canada's Food Guide*, GLOBE & MAIL (Oct. 26, 2017), <https://www.theglobeandmail.com/news/national/secret-memos-reveal-efforts-to-influence-canadas-food-guide/article36725482/>; Elizabeth Fraser, *Dairy and Cattle Farmers Worry New Food Guide will Hurt Business*, CBC RADIO-CANADA, (Jan. 13, 2019), <https://www.cbc.ca/news/canada/new-brunswick/canadian-food-guide-dairy-farmers-changes-1.4971792>; Sharon Kirkey, *Got Milk? Not So Much. Health Canada's New Food Guide Drops 'Milk and Alternatives' and Favours Plant-based Protein*, NAT'L POST (Jan. 22, 2019), <https://nationalpost.com/health/health-canada-new-food-guide-2019>.

<sup>3</sup> HEALTH CAN., EATING WELL WITH CANADA'S FOOD GUIDE (2007), [https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/fn-an/alt\\_formats/hpfb-dgpsa/pdf/print\\_eatwell\\_bienmang-eng.pdf](https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/fn-an/alt_formats/hpfb-dgpsa/pdf/print_eatwell_bienmang-eng.pdf) [hereinafter EATING WELL].

<sup>4</sup> Courtney & Culbert, *supra* note 2.

<sup>5</sup> See Paula Acari, *Normalised, Human-Centric Discourses of Meat and Animals in Climate Change, Sustainability, and Food Security Literature*, 34 AGRIC. & HUM. VALUES 69, 70 (2016) (describing strong social and cultural attachments to meat as a dietary necessity).

the Eurocentric whiteness of consuming milk and its normalized status in global North countries where whiteness predominates.<sup>6</sup> On another level, this messaging from Health Canada is easily overtaken by an administrative landscape that protects and promotes the dairy industry<sup>7</sup> as well as a legal landscape that completely commodifies cows.<sup>8</sup> Working from a critical animal studies perspective, this paper will seek to situate Health Canada's de-listing of dairy as a nutritionally foundational food source within a larger socio-legal Canadian landscape in terms of the regulation of dairy products and the dynamics of dietary behavioural change in order to assess the potential of the new *Canada Food Guide* to challenge, however minimally, the entrenched legal and cultural norm of the dairy cow and her milk as commodities.

Part II of this paper first describes in greater detail the shift in the *Canada Food Guide* ("the Guide") towards a decrease in the consumption of dairy and an increase in plant-based eating in general, its government rationale, public support, and industry resistance. This Part aims to contextualize the shift toward a plant-based diet and the de-emphasis on dairy within the history of the Guide as well as the Guide's other key new messages regarding healthy eating to better analyze the magnitude of the changes. I conclude that the 2019 Guide's emphasis is a significant victory for plant-based eating in general and veganism in particular in that the change would represent, if implemented, formal governmental policy opposition to the status quo regarding the normativity of quotidian animal consumption. In Part III, I evaluate this policy victory against two larger forces inhibiting relief for farmed animals, namely: (1) broad-based government support for animal agriculture despite the work of Health Canada in revising the Guide; and (2) the multiple and gendered factors inhibiting the adoption of plant-based diets and the tendency of those who switch to vegetarian and vegan diets to shift back to animal meat consumption. Focusing on the dairy industry and veganism in particular, I discuss why these two larger forces combined have the ability to prevent the hoped-for drop in consumer demand for animal-based products that farmed animal

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<sup>6</sup> See Mathilde Cohen, *Animal Colonialism: The Case of Milk*, 111 AM. J. INT'L L. UNBOUND 267, 268–69 (2017); Andrea Freeman, *The Unbearable Whiteness of Milk: Food Oppression and the USDA*, 3 U.C. IRVINE L. REV. 1251, 1268; Greta Gaard, *Toward a Feminist Postcolonial Milk Studies*, 65 AM. Q. 595, 608 (2013).

<sup>7</sup> See, e.g., Jen Gerson, *The Dairy Lobby's Iron Grip on Canadian Political Leaders is Frightening to Behold*, MACLEAN'S (Aug. 30, 2018), <https://www.macleans.ca/politics/the-dairy-lobbys-iron-grip-on-canadian-political-leaders-is-frightening-to-behold/>.

<sup>8</sup> See, e.g., Annika Lonkila, *Making Invisible Cattle: Commodifying Genomic Knowledge in Dairy Cattle Breeding*, 3 FIN. J. HUM. ANIMAL STUD. 28, 29 (2017).

activists would arguably like to see over time result from the Guide. The paper thus concludes that, while Health Canada's policy shift is valuable as a precedent-setting discursive government message, the material effect for farmed animals is likely to be negligible without greater government action against the dairy industry and overall stronger public educations regarding the animal rights/social justice benefits to Health Canada's rationale for Canadians to adopt a plant-based diet.

## II. A Revolution at Health Canada?

By its own account, Health Canada is the Ministry "responsible for helping Canadians maintain and improve their health. It ensures that high-quality health services are accessible, and works to reduce health risks."<sup>9</sup> As part of this mandate, Health Canada has published a national food guide since 1942.<sup>10</sup> In recent years, it has been the public's most requested Government of Canada document after income tax forms.<sup>11</sup>

### A. *The 2007 Guide and its Critics*

The 2007 Guide was called *Eating Well with Canada's Food Guide*.<sup>12</sup> It was a 6-page infographic booklet that classified healthy food into four food groups and advised Canadians through illustration, design, and text what they should eat.<sup>13</sup> The four food groups in the 2007 Guide included: (1) Vegetables and Fruit; (2) Grain Products; (3) Milk and Alternatives; and (4) Meat and Alternatives.<sup>14</sup> The first page of the 2007 Guide (Figure 3) depicted four "rainbow" arcs, representing the four current food groups.<sup>15</sup> The second page (Figure 4) listed the recommended number of servings

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<sup>9</sup> Health Canada, CANADA.CA, <https://www.canada.ca/en/health-canada.html> (last visited Feb. 10, 2020).

<sup>10</sup> Laura Anderson et al., *Eating Well With Canada's Food Guide? Authoritative Knowledge About Food and Health Among Newcomer Mothers*, 91 APPETITE 357 (2015).

<sup>11</sup> Joyce J. Slater & Adriana N. Mudryj, *Are we Really 'Eating Well with Canada's Food Guide'?*, 18 B.M.C. PUB. HEALTH 1, 2 (2018).

<sup>12</sup> EATING WELL, *supra* note 3.

<sup>13</sup> I leave for other analyses the healthism that is promoted by Health Canada through the Guide and its effects in terms of equity considerations and biopolitical normalization of bodies. For more on these concerns about healthism in relation to veganism, see Megan A. Dean, *You Are How You Eat? Femininity, Normalization, and Veganism as an Ethical Practice of Freedom*, 4 SOCIETIES 127, at 142–44 (2014).

<sup>14</sup> EATING WELL, *supra* note 3, at 2; see *infra* Figure 4.

<sup>15</sup> EATING WELL, *supra* note 3, at 1; see *infra* Figure 3.

from each food group that people should consume daily.<sup>16</sup> Recommendations as to the number of serving sizes were broken down by age (children 2-3; children 4-8; children 9-13; teens 14-18; adults 19-50; and adults 51+) and gender (females/males).<sup>17</sup> The third page (Figure 5) illustrated various foods and how much of each to consume to reach a single serving size.<sup>18</sup> For example, the first picture for “Milk and Alternatives” was a carton of milk and a carton of powdered milk with the instruction that 250 mL or one cup constitutes one serving size.<sup>19</sup> The fourth page (Figure 6), entitled “[m]ake each [f]ood [g]uide [s]erving count . . . wherever you are—at home, at school, at work or when eating out,” gave directives about each of the food groups.<sup>20</sup> It also told Canadians to “enjoy a variety of foods from the four food groups”—which some commentators have identified as the Guide’s “key message”<sup>21</sup>—as well as “satisfy your thirst with water.”<sup>22</sup> The fifth page (Figure 7) gave “[a]dvice for different ages and stages . . .” and instructions on how to figure out how many servings of different food groups are in a meal.<sup>23</sup> Finally, the sixth page (Figure 8) talked about the importance of reading labels and limiting trans fats as well as “the benefits of eating well and being active.”<sup>24</sup> Further contact information was also listed on this page.<sup>25</sup>

Comparatively, the content of the earlier Guide shared much in common with national dietary recommendations across various parts of the world.<sup>26</sup> A study comparing the visual depictions of food in national food guides in twelve countries in North America, Europe, and Asia found that all of the countries used the concept of food groups and recommended daily amounts; the study found that the guides also exhibited a “remarkable similarity in the basic food groupings . . . [d]espite the differences in indigenous foods of each culture, along with the differences in the cultural definitions of food and what constitutes a usual dietary pattern.”<sup>27</sup> The catalyst for the recent revisions was the Standing Senate Committee on Social

<sup>16</sup> EATING WELL, *supra* note 3, at 2; *see infra* Figure 4.

<sup>17</sup> EATING WELL, *supra* note 3, at 2; *see infra* Figure 4.

<sup>18</sup> EATING WELL, *supra* note 3, at 3; *see infra* Figure 5.

<sup>19</sup> EATING WELL, *supra* note 3, at 3; *see infra* Figure 5.

<sup>20</sup> EATING WELL, *supra* note 3, at 4; *see infra* Figure 6.

<sup>21</sup> Anderson et al., *supra* note 10, at 157.

<sup>22</sup> EATING WELL, *supra* note 3, at 4; *see infra* Figure 6.

<sup>23</sup> EATING WELL, *supra* note 3, at 5; *see infra* Figure 7.

<sup>24</sup> EATING WELL, *supra* note 3, at 6; *see infra* Figure 8.

<sup>25</sup> EATING WELL, *supra* note 3, at 6; *see infra* Figure 8.

<sup>26</sup> James Painter et al., *Comparison of International Food Guide Pictorial Representations*, 102 J. AM. DIETETIC ASS’N. 483, 484–86 (2002).

<sup>27</sup> *Id.* at 487.

Affairs, Science and Technology (“SSCSST”), which advocated for national recommendations that reflected current nutritional science.<sup>28</sup> In its call for an evidence-based Guide, the SSCSST aligned itself implicitly with those that have criticized the Guide as thinly veiled government support influenced by and in favor of the farmed animal industries.<sup>29</sup> The earlier Guide was updated in 2007 under the auspices of the then conservative Harper government, which involved industry stakeholders in policy-setting through its Food Guide Advisory Committee and also declined to disclose the scientific basis on which the policy-setting relied.<sup>30</sup> In addition to this element being criticized as a gross conflict of interest, nutritionists, scientists, and physicians also argued that the Guide was a “recipe for dramatic increases in premature death resulting from chronic diet-related disease.”<sup>31</sup>

### *B. National Consultations to Update the 2007 Guide*

Revising the 2007 Guide under the centrist Trudeau government formed part of Health Canada’s “Healthy Eating Strategy,” an initiative aimed at “improving healthy eating information; improving nutrition quality of foods; protecting vulnerable populations; [and] supporting increased access to and availability of nutritious foods.”<sup>32</sup> As part of its revision process to offer “practical, evidence-based, healthy eating recommendations to help Canadians make food choices,”<sup>33</sup> Health Canada engaged a trusted pollster to conduct two major national consultations, inviting all members of the public, health professionals, and policy makers to

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<sup>28</sup> John David Grant & David J.A. Jenkins, *Resisting Influence from Agri-food Industries on Canada’s New Food Guide*, 190 CMAJ 451, 457 (2018).

<sup>29</sup> Anne Kingston, *Have We been Milked by the Dairy Industry?*, MACLEAN’S (Apr. 22, 2015), <https://www.macleans.ca/society/health/have-we-been-milked-by-the-dairy-industry/>; Sophia Harris, *Canada’s ‘Broken’ Food Guide Under Review, But Critics Want Drastic Overhaul Now*, CBC RADIO-CANADA (Mar. 22, 2016), <https://www.cbc.ca/news/business/health-canada-food-guide-1.3501318>; Sophia Harris, *Health Canada Reviewing Food Guide, Critics Demand Drastic Changes Now*, CBC (Mar. 22, 2016), <http://www.cbc.ca/news/business/health-canada-food-guide-1.3501318>; Mahsa Jessri & Mary L’Abbe, *The Time for an Updated Canadian Food Guide Has Arrived*, NRC RES. PRESS, July 9, 2015, at 854, 855–56.

<sup>30</sup> MacLeod, *supra* note 2; Wayne Kondro, *Proposed Canada Food Guide Called Obesogenic*, 174 CMAJ 605, 605 (2006).

<sup>31</sup> *Id.*

<sup>32</sup> GOV’T CAN., HEALTH CANADA’S HEALTHY EATING STRATEGY (2019), <https://www.canada.ca/en/services/health/campaigns/vision-healthy-canada/healthy-eating.html>.

<sup>33</sup> HEALTH CAN., CANADA’S FOOD GUIDE CONSULTATION WHAT WE HEARD REPORT—PHASE 1, at 4 (2017), <https://www.canada.ca/content/dam/hc-sc/document/s/services/publications/food-nutrition/canada-food-guide-phase1-what-we-heard-eng.pdf> [hereinafter, WHAT WE HEARD REPORT—PHASE 1].



participate.<sup>34</sup> The first major consultation was conducted over seven weeks in the fall of 2016 and the second in the summer of 2017.<sup>35</sup> Health Canada then published two reports based on these consultations: “What We Heard Report–Phase 1” and “What We Heard Report–Phase 2.”<sup>36</sup> Health Canada has affirmed that the consultations will “contribute to the development and communication of a new suite of dietary guidance products that best support public health and is relevant and useful to stakeholders . . .”<sup>37</sup>

The first consultation was a more open-ended process, inviting replies on: (1) why respondents were interested in healthy eating recommendations and how they used the Guide; (2) what type of guidance would they find useful (i.e. would respondents like guidance on the types of food to eat on a daily basis, appropriate portions, meal planning tips, general tips about healthy eating, information about food processing, etc.); (3) what respondents thought about the current food groupings; (4) whether information about reducing sugar consumption was useful to respondents; and (5) how to encourage Canadians to adopt the recommendations that eventually resulted.<sup>38</sup> Based on the first consultation’s findings, the scientific evidence Health Canada assessed, and other coordinated consultations, Health Canada sought in its second consultation reaction to three proposed Guiding Principles and the specific recommendations made under each, as well as reaction to a Considerations section.<sup>39</sup> It is in these Guiding Principles that we see Canada’s shift towards plant-based eating as well as a de-emphasis on dairy.<sup>40</sup> To appreciate this shift, we need to understand the 2007 Guide’s emphasis on animal-based foods, particularly dairy.

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<sup>34</sup> *Id.*

<sup>35</sup> *Id.*

<sup>36</sup> *Id.* at 2. This consultation attracted 19,873 submissions. 14,297 submissions came from individuals identifying as members of the general public with a personal interest in the recommendations; 5,096 came from individuals who identified as professionals in that they use eating recommendations in their work; and 461 came from individuals representing organizations who use healthy eating recommendations and supplied an institutional response. *Id.* at 7; HEALTH CAN., CANADA’S FOOD GUIDE CONSULTATION WHAT WE HEARD REPORT–PHASE 2, at 2 (2018), <https://www.canada.ca/content/dam/hc-sc/documents/services/health/publications/food-nutrition/canada-food-guide-phase2-what-we-heard.pdf> [hereinafter, WHAT WE HEARD REPORT–PHASE 2].

<sup>37</sup> WHAT WE HEARD REPORT–PHASE 1, *supra* note 33, at 4.

<sup>38</sup> *Id.* at 6.

<sup>39</sup> WHAT WE HEARD REPORT–PHASE 2, *supra* note 36, at 62–67.

<sup>40</sup> *Id.* at 62–65.

### C. *The 2007 Guide's Emphasis on Dairy*

In the 2007 Guide's discourse and illustrations, "Meat and Alternatives" and "Milk and Alternatives" formed two of the four depicted food groups in the rainbow image (Figure 3).<sup>41</sup> This arguably sent Canadians the message that 50% of what one eats can be from animal-based diets without any health repercussions. The Director General of the Office of Nutrition Policy and Promotion at Health Canada, however, contends that the shift from the 2007 Guide to what Health Canada has now adopted is not all that dramatic, since eating more of the other food groups and limiting animal-based food has long been promoted.<sup>42</sup> For example, on the cover of the 2007 Guide, the two inner arcs representing the animal-based groups were smaller and, indeed, the arc representation had tried to visually signal that a greater portion of what Canadians consume overall should come from grains, fruits, and vegetables.<sup>43</sup> This message is further apparent on the second page (Figure 4), where the plant-based food groups were listed on the top two rows and the number of recommended servings for these groups exceeded those for "Milk and Alternatives" and "Meat and Alternatives."<sup>44</sup> The fourth page (Figure 6), which contained certain textual directives, instructed Canadians to "[e]at at least one dark green and one orange vegetable each day."<sup>45</sup> The directives for the "Meat and Alternatives" group instructed Canadians to "[h]ave meat alternatives such as beans, lentils and tofu often" (Figure 6).<sup>46</sup> Taking these visual and textual indicators together, the suggestion that the 2007 recommendations already promoted plant-based eating is not without foundation.

Yet, the 2007 Guide also showed an emphasis on milk and meat that the 2019 Guide eliminates.<sup>47</sup> Most obviously, the 2007 Guide counseled Canadians to "[d]rink skim, 1% or 2% milk each day," further stipulating that everyone should "[h]ave 500 mL (2 cups) of milk every day for adequate vitamin D" (Figure 6).<sup>48</sup> It further instructs those who do not consume dairy to "[d]rink fortified soy beverages if you do not drink milk" (Figure 6).<sup>49</sup> While we might

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<sup>41</sup> EATING WELL, *supra* note 3, at 1; *see infra* Figure 3.

<sup>42</sup> Sharon Kirkey, *Dairy Farmers vs. Vegans: Health Canada Prepares to Rewrite the Food Guide*, NAT'L POST (Sept. 21, 2017), <https://nationalpost.com/health/health-canada-prepares-to-rewrite-the-food-guide>.

<sup>43</sup> EATING WELL, *supra* note 3, at 1; *see infra* Figure 3.

<sup>44</sup> EATING WELL, *supra* note 3, at 2; *see infra* Figure 4.

<sup>45</sup> EATING WELL, *supra* note 3, at 4; *see infra* Figure 6.

<sup>46</sup> EATING WELL, *supra* note 3, at 4; *see infra* Figure 6.

<sup>47</sup> EATING WELL, *supra* note 3, at 4; *see infra* Figure 6.

<sup>48</sup> EATING WELL, *supra* note 3, at 4; *see infra* Figure 6.

<sup>49</sup> EATING WELL, *supra* note 3, at 4; *see infra* Figure 6.

interpret this soy substitution as having established an equivalence between the health of fortified soy milk and cow's milk, the six food images selected to visually represent the alternatives to milk in the "Milk and Alternatives" category indicated otherwise: only one, a depiction of a fortified soy beverage carton, was not an iteration of a dairy product (Figure 3 and Figure 5).<sup>50</sup> All of the other so-called alternatives to Milk were all dairy products (i.e. evaporated canned milk, yogurt, kefir, and cheese).<sup>51</sup>

Notably, the 2007 written directives for "Meat and Alternatives" did not instruct Canadians to consume meat daily, as it did for milk, and the 2007 Guide depicted true alternatives to animal meat in the category.<sup>52</sup> Of the seven types of food depicted on the cover of the 2007 Guide (Figure 3), for the "Meat and Alternatives" category, the leading depiction was of canned and dry beans; tofu, nuts, and seeds were also represented in the graphic as meat alternatives.<sup>53</sup> On the third page (Figure 5), where the 2007 Guide gave examples of foods from each category and advised what quantity of that food constitutes one serving, six types of food were depicted in the "Meat and Alternatives" category, four of which were plant-based (cooked legumes, tofu, peanut or nut butters, and shelled nuts and seeds).<sup>54</sup> Cooked fish, shellfish, poultry and lean meat were all shown in one category within the "Meat and Alternatives Category" and eggs were shown in another.<sup>55</sup> When we compare the "Milk and Alternatives" category to the "Meat and Alternatives" category and consider that consumption of animal meat is on the rise in Canada (as elsewhere), but that the consumption of dairy as a whole is on the decline in Canada (in contrast to the global trend),<sup>56</sup> it becomes clearer why the Canadian dairy industry has been particularly alarmed by the new guidelines for Canadians.<sup>57</sup>

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<sup>50</sup> EATING WELL, *supra* note 3, at 1, 3; *see infra* Figures 3, 5.

<sup>51</sup> EATING WELL, *supra* note 3, at 3; *see infra* Figure 5.

<sup>52</sup> EATING WELL, *supra* note 3, at 4; *see infra* Figure 6.

<sup>53</sup> EATING WELL, *supra* note 3, at 1; *see infra* Figure 3.

<sup>54</sup> EATING WELL, *supra* note 3, at 3; *see infra* Figure 5.

<sup>55</sup> EATING WELL, *supra* note 3, at 3; *see infra* Figure 5.

<sup>56</sup> Erik Frenette et al., *Meat, Dairy and Climate Change: Assessing the Long-Term Mitigation Potential of Alternative Agri-Food Consumption Patterns in Canada*, 22 ENVTL. MODELING & ASSESSMENT 1, 1 (2017). The authors note that "similar to the global trend, there is projected increase in annual per capita meat consumption from 49.35 kg per person in 2010 to 52.77 kg in 2020. For dairy products, there is a projected decrease in Canadian consumption from 80.19 kg per capita in 2010 to 77.38 kg per capita in 2020." *Id.*

<sup>57</sup> The resistance also relates to the front-of-package labeling reform that would see many dairy products affixed with a health warning label on the front. For the industry's campaign against this initiative, *see* KEEP CANADIANS HEALTHY, <http://www.keepcanadianshealthy.ca/> (last visited Feb. 20, 2020).

To be sure, the fact that there was a greater emphasis on consuming dairy in the 2007 Guide than consuming meat should not detract us from the fact that one of the four food groups was still firmly designated for meat and the plant-based alternatives that the category also housed, such as tofu and legumes, were discursively subordinated as “Alternatives.”<sup>58</sup> Further, the 2007 Guide advised that Canadians to “[e]at at least two Food Guide Servings of fish each week” (Figure 6).<sup>59</sup> Moreover, the example of a typical meal on the fifth page (Figure 7) is of a meal that consists of cow meat and milk.<sup>60</sup> Despite the 2007 Guide’s emphasis on eating vegetables, fruits, and grains, the message is clear: eating animal meat and drinking animal milk every day are both a part of a healthy diet.

#### *D. Shifting to Plants in 2019*

How, then, does the 2019 Guide depart from this standard? Recall that the document containing the Guiding Principles and Considerations, circulated as part of a second round of consultation to the general public and stakeholders between June 10 and August 14, 2017, asked open-ended and closed-ended questions about clarity, relevance, adequacy of information, and approval of the Guiding Principles and recommendations therein.<sup>61</sup> That second national consultation received over six thousand responses.<sup>62</sup>

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<sup>58</sup> EATING WELL, *supra* note 3, at 3; *see infra* Figure 5.

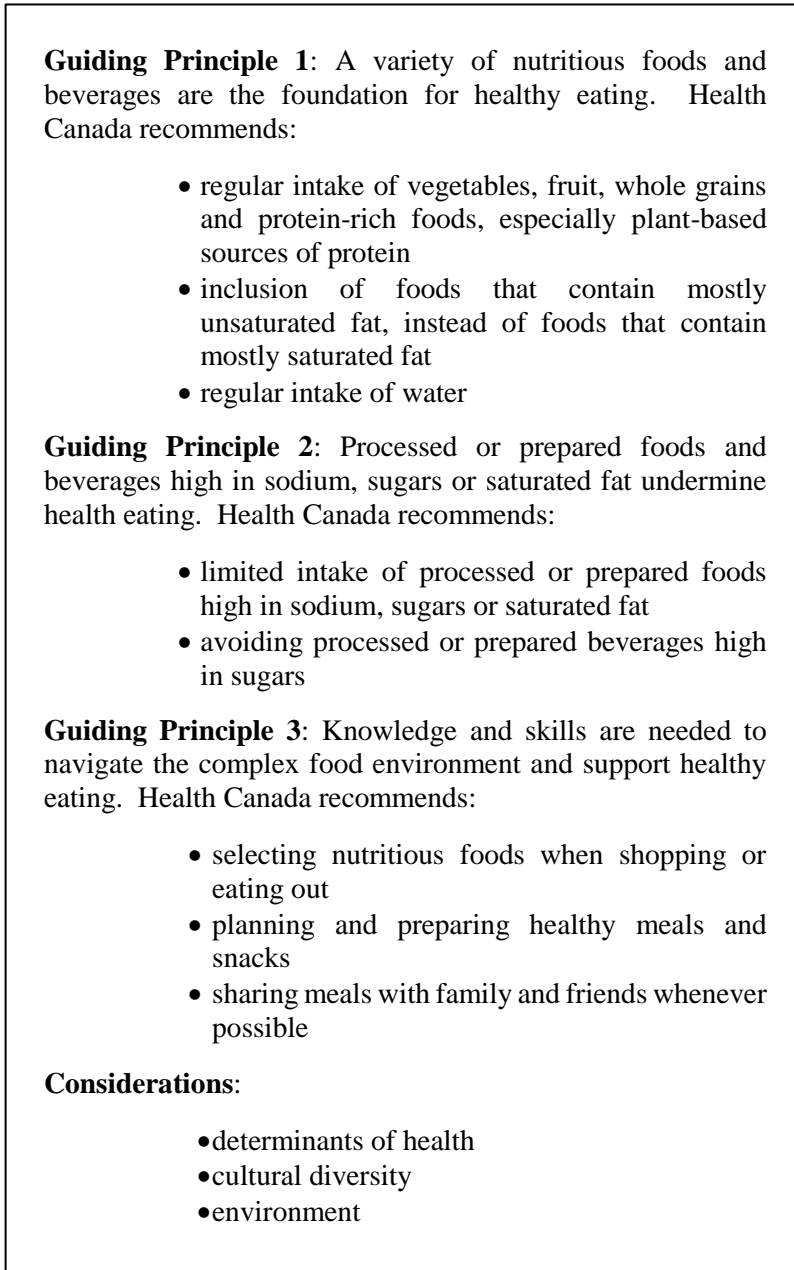
<sup>59</sup> EATING WELL, *supra* note 3, at 4; *see infra* Figure 6.

<sup>60</sup> EATING WELL, *supra* note 3, at 5; *see infra* Figure 7.

<sup>61</sup> WHAT WE HEARD REPORT—PHASE 2, *supra* note 36, at 62–67.

<sup>62</sup> *Id.* at 9.

Figure 1 shows the three proposed Guiding Principles, the specific recommendations pertaining to each principle, and the Considerations that were circulated.



**Figure 1.** Phase 2 Report, page 48.<sup>63</sup>

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<sup>63</sup> *Id.* at 48 fig. 1.

These Guiding Principles and Considerations received majority support from all categories of respondents to the consultation (although industry respondents raised some concerns).<sup>64</sup> Health Canada incorporated slight variations of the above text into its 2019 Guide as three targeted “Guidelines.”<sup>65</sup>

From this listing alone, we get a sense of the significant departure of the 2019 Guide from its 2007 iteration in terms of taking a firmer stance against saturated fat in any type of food; sodium, saturated fats, and sugars in processed or prepared foods; and advertent to the socio-economic and social aspects of cooking and eating. What is also apparent is a clearer emphasis on “plant-based sources of protein” as the “protein-rich foods” that Canadians should be reaching for along with “regular intake of vegetables, fruit [and] whole grains . . .”<sup>66</sup> The explanation section accompanying this recommendation, entitled “What this means for Canadians,” opens by stating that “[t]he majority of Canadians don’t eat enough vegetables, fruits and whole grains. Many drink beverages high in sugars. This means that most Canadians will need to make different choices to meet these recommendations.”<sup>67</sup>

On the topic of plant-based eating specifically, the text states:

What is needed is a shift towards a high proportion of plant-based foods, without necessarily excluding animal foods altogether. Animal foods such as eggs, fish and other seafood, poultry, lean red meats such as game meats, lower fat milk and yogurt, as well as cheeses lower in sodium and fat, are nutritious ‘everyday’ foods . . . . A shift towards more plant-based foods can help Canadians: eat more fibre-rich foods, eat less red meat such as beef, pork, lamb, goat [and] replace foods that contain mostly saturated fat, such as cream, high fat cheeses and butter with foods that contain mostly unsaturated fat, such as nuts, seeds and avocado.<sup>68</sup>

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<sup>64</sup> *Id.* at 5. Of the 6,771 respondents (called “contributors” by Health Canada), 98 identified as representing the food and beverage industry when asked to identify the professional sector they work in. *Id.* at 10.

<sup>65</sup> See Grant & Jenkins, *supra* note 28, at 451–52; CANADA’S DIETARY GUIDELINES, *supra* note 1, at 9, 22, 31.

<sup>66</sup> WHAT WE HEARD REPORT—PHASE 2, *supra* note 36, at 48–49.

<sup>67</sup> *Id.* at 49.

<sup>68</sup> *Id.* at 49–50.

Compared to the 2007 Guide, the term plant-based eating has emerged within the 2019 Guide as a new concept to encourage Canadians to make plant-based foods the norm in their diets by instructing Canadians to eat “a high proportion” of plant-based foods<sup>69</sup> and by associating plant-based foods like “nuts, seeds, and avocado”<sup>70</sup> with the advice to avoid saturated fat. One commentator aptly remarks that this warning about saturated fats “essentially translates to a reduction of animal foods.”<sup>71</sup> The 2019 Guide also de-emphasizes eating several categories of “red meat.”<sup>72</sup> And while the 2019 Guide continues to promote lower fat milk, yogurt, and low-sodium cheese as nutritious foods to eat on a daily basis (see the Food guide snapshot, Figure 2, below), it advises Canadians to have a “lower intake[]” of and replace their use of “cheeses, red meat, butter and hard margarine” because of their saturated fat.<sup>73</sup> Perhaps most critically, however, milk has lost its separate categorical status as a necessary food group.<sup>74</sup> In fact, the revised plate diagram included in the 2019 Guide, the “Food Guide Snapshot” (Figure 2), includes a glass of water with the statement, “[m]ake water your drink of choice.”<sup>75</sup> This can be compared to the 2007 Guide, which depicts a plate of “[v]egetable and beef stir-fry with rice, a glass of milk and an apple for dessert” (See Page 5).<sup>76</sup> There is now nothing in the 2019 Guide that tells Canadians they must consume milk—let alone two servings of milk a day.<sup>77</sup> As one commentator surmises, “[w]hile milk products do have nutritional value, especially for providing calcium and protein, they may not be elevated to ‘must-have’ status with their own daily recommended intake.”<sup>78</sup>

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<sup>69</sup> *Id.* at 49.

<sup>70</sup> *Id.* at 50.

<sup>71</sup> Anna Pippus, *Keep the Animal Agriculture Industry Out of the New Food Guide*, HUFFINGTON POST (Dec. 27, 2017, 9:31 AM), [https://www.huffingtonpost.ca/entry/keep-the-animal-agriculture-industry-out-of-the-new-food-guide\\_ca\\_5cd5247ae4b07bc729752de9](https://www.huffingtonpost.ca/entry/keep-the-animal-agriculture-industry-out-of-the-new-food-guide_ca_5cd5247ae4b07bc729752de9).

<sup>72</sup> WHAT WE HEARD REPORT—PHASE 2, *supra* note 36, at 49–50.

<sup>73</sup> CANADA’S DIETARY GUIDELINES, *supra* note 1, at 24.

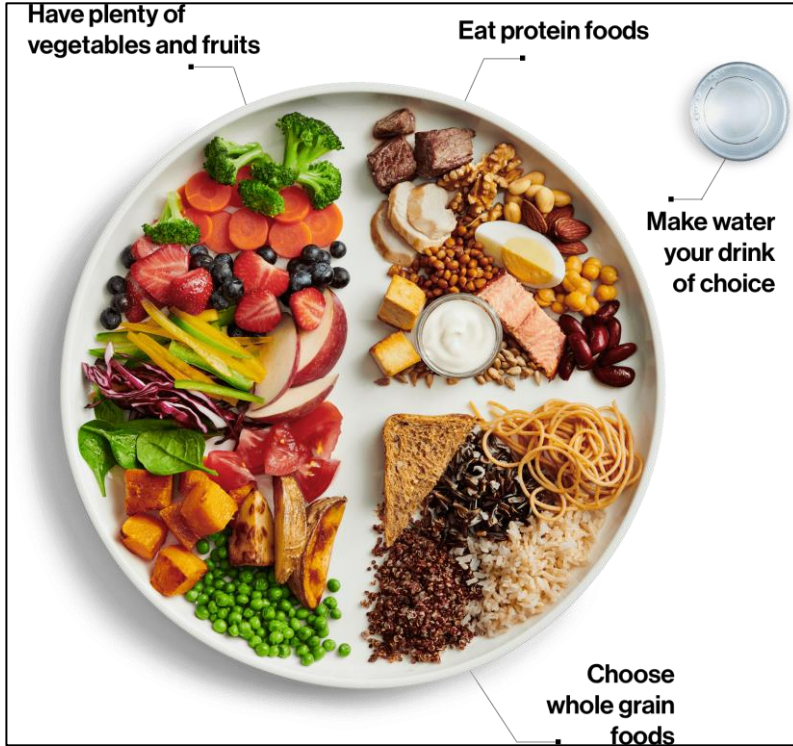
<sup>74</sup> *Id.* at 9–10; WHAT WE HEARD REPORT—PHASE 2, *supra* note 36, at 49–50.

<sup>75</sup> HEALTH CAN., FOOD GUIDE SNAPSHOT 1, <https://food-guide.canada.ca/static/assets/pdf/CFG-snapshot-EN.pdf> (last modified Dec. 17, 2019) [hereinafter FOOD GUIDE SNAPSHOT].

<sup>76</sup> EATING WELL, *supra* note 3, at 5; *see infra* Figure 7.

<sup>77</sup> FOOD GUIDE SNAPSHOT, *supra* note 75.

<sup>78</sup> Macleod, *supra* note 2.



**Figure 2.** Food guide snapshot.<sup>79</sup>

### *E. Residual Shortcomings*

The 2019 Guide is still far from aligning with a critical animal studies-oriented vegan perspective. Animal-based products are still represented as “nutritious everyday foods” and neither vegan nor vegetarian diets are explicitly affirmed.<sup>80</sup> It is also significant that, in the section on “Considerations,” the 2019 Guide draws attention to the “environmental impact” of “[t]he way our food is produced, processed, distributed, and consumed” without implicating the animal-based food industries specifically.<sup>81</sup> The discussion identifies “helping to conserve soil, water and air,” reducing “landfill greenhouse gas emissions,” “help[ing] make better use of natural resources and lower greenhouse gas emissions,” and “[r]aising awareness about the importance of reduced food waste” as examples of the consideration of environmental outcomes and even flags the disproportionately negative impact of animal-based foods in producing these outcomes.<sup>82</sup> But the words here are carefully

<sup>79</sup> FOOD GUIDE SNAPSHOT, *supra* note 75.

<sup>80</sup> CANADA’S DIETARY GUIDELINES, *supra* note 1, at 15, 49–50.

<sup>81</sup> *Id.* at 15.

<sup>82</sup> *Id.*



chosen. The text is careful not to envision a vegan diet when it talks about “patterns of eating higher in plant-based foods and lower in animal-based foods.”<sup>83</sup>

Perhaps most tellingly, the text remains silent on how animals are treated in modern day industrial agriculture. Indeed, the terms “factory farming” or even “industrial agriculture” are never used. As in other policy documents, animal suffering and the possibility that animals exist alongside us as something other than biocommodities available for human use is absented.<sup>84</sup> It could be argued that animal welfare issues lie outside of Health Canada’s remit. Yet, Health Canada did highlight environmental issues even while it acknowledged that “[t]he primary focus of Health Canada’s proposed healthy eating recommendations is to support health” and despite disagreement among consultation respondents—particularly the food and beverage industry—that it should do so.<sup>85</sup>

With the normative presumption of farmed animals as biocommodities firmly entrenched in the Guidelines,<sup>86</sup> the “Recommendations,”<sup>87</sup> and the “Considerations”<sup>88</sup> sections of the 2019 Guide, and the validation of certain animal-based products as nutritious everyday foods, we can hardly call the changes

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<sup>83</sup> *Id.*

<sup>84</sup> Acari, *supra* note 5, at 74 (describing the “linguistic absencing of animals as sentient beings” in industry literature). The Phase 2 Report notes that “a few” respondents wanted to see more mention of “animal cruelty” and “the influence of industry and special interest organizations” in the “Considerations” section. WHAT WE HEARD REPORT—PHASE 2, *supra* note 36, at 34.

<sup>85</sup> Not surprisingly perhaps—given industry involvement and the implication of animal-based diets in environmentally detrimental phenomena—while overall the “Considerations” section received support across all categories of respondents and respondents welcomed the discussion of health in relation to broader issues, the most contested consideration was the environmental consideration. In discussing the type of support the Guiding Principles, Recommendations and Considerations received from each individual professional or organizational sector, the authors of the Phase 2 Report note that “[m]embers of the food and beverage industry were more divided concerning the Guiding Principles and Recommendations proposed by Health Canada. While many agreed with the principles, there was more disagreement among this audience than others. The focus on plant-based protein, limit on saturated fats, limits on processed foods and inclusion of considerations for the environment were the most divided topics . . .” *Id.* at 41. While the 2007 Guide was being drafted, lobbyists also criticized Health Canada’s jurisdictional authority to address environmental matters. Following this, Health Canada removed references to the environment. Hui, *supra* note 2; see WHAT WE HEARD REPORT—PHASE 2, *supra* note 36, at 34.

<sup>86</sup> See CANADA’S DIETARY GUIDELINES, *supra* note 1, at 9, 22–24, 28, 46.

<sup>87</sup> Helena Pedersen, *Education, Animals, and the Commodity Form*, 18 CULTURE & ORG. 415, 424–25 (2012); *Id.* at 49.

<sup>88</sup> *Id.* at 13.

revolutionary or even dramatic. There is, however, a discernible new emphasis on plant-based eating and a de-emphasis on dairy. The 2019 Guide inaugurates a policy that removes dairy from its iconic status, correlating with histories of imperialism and racialized narratives about the purity and goodness of milk,<sup>89</sup> as the ultimate and unquestionably nutritious food for everyone by eliminating “Milk and Alternatives” as a separate category of foods to eat.<sup>90</sup> By doing so, the 2019 Guide intimates that a diet without dairy can be healthy. Milk loses the importance and visibility in the new Guide that it previously held. As noted above, it is no wonder that the dairy industry has lobbied hard against the changes.<sup>91</sup> The industry’s fear may in itself be something that animal advocates who impugn the violence of routine milk industry practices against dairy cows and calves<sup>92</sup> can celebrate. But, it behooves us to consider whether the policy efforts of Health Canada are poised to make any serious dent in the workings of the dairy industry in Canada in terms of reducing demand for dairy products. The next Part situates the policy change emanating from Health Canada against both the larger regulatory landscape supporting the dairy industry and the larger social landscape regarding sustainable food habit transitions to consider the transformative potential of Health Canada’s de-emphasis on dairy.

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<sup>89</sup> See generally Cohen, *supra* note 6, at 268 (discussing the concept of “animal colonialism” in relation to the rise of dairy as a ubiquitous food alongside the spread of European colonialism and colonial ideologies that Europeans were more civilized, healthy, and pure because their diet included milk; Gaard, *supra* note 6, at 607-08 (discussing scholarly accounts contesting the myth that milk is the archetype for what counts as nutritious food and the Eurocentrism, racism, and ethnocentrism of marketing campaigns and government programs promoting milk as a marker of racial superiority and as universally healthy despite widespread lactose “intolerance” in racialized peoples).

<sup>90</sup> See HEALTH CAN., HISTORY OF CANADA’S FOOD GUIDES 11–12 (Jan. 2019); see also Kirkey, *supra* note 2.

<sup>91</sup> See WHAT WE HEARD REPORT—PHASE 2, *supra* note 36, at 5, 19–21, 44.

<sup>92</sup> KATHRYN GILLESPIE, THE COW WITH EAR TAG #1389 57–74, 101–13 (Univ. of Chi. Press 2018) (discussing, among other things, ear tagging, tail docking, mother-calf separation, selling their male calves for veal, placing female calves into the dairy industry, or killing calves shortly after birth, breeding techniques, forced pregnancy starting at around sixteen months and every year thereafter until they are “spent” at a fraction of their natural lives from near-constant pregnancy and milking for nine to ten months of the year, slaughter practices, and overall effects of commodification). See also Gaard, *supra* note, 6 at 603 (discussing the above routine practices as well). For an account of similar practices outside of the United States, see Lynley Tulloch & Paul Judge, *Bringing the Calf Back from the Dead: Video Activism, the Politics of Sight and the New Zealand Dairy Industry*, 9 J. EDUC. & PEDAGOGY, 3, 3–5 (2018).

### III. Major Encumbrances—Government Support and Sustainable Dietary Change

#### A. Active Government Promotion of the Dairy Agricultural Sector in Canada

The federal government has promoted the Canadian dairy industry since the late nineteenth century,<sup>93</sup> proudly stating that “since the appointment of the first Dominion Dairy Commissioner in 1890, the federal government has played an active role in the development and implementation of policies and programs in support of the dairy industry.”<sup>94</sup> This Part begins with a brief overview of the extent of the contemporary Canadian dairy industry and then discusses the various ways in which the federal government strives to secure its continuation, seemingly at almost any cost.

##### i. Extent of Industry

Canada’s dairy industry is an important industry in Canada, and is said to “drive the economy” with nearly \$24 billion in sales by farmers and producers.<sup>95</sup> The image of the idyllic (heteronormative and white) family farm hosting a handful of well-taken care of animals still resonates strongly in industry propaganda,<sup>96</sup> but the numbers tell a different story. As of 2017 there were 10,951 “farms with milk shipments” and 945,000 dairy cows (and 454,300 dairy heifers) in Canada.<sup>97</sup> The provincial breakdown of these numbers is as follows, showing a clear trajectory of farm intensification and herd amplification over past decades:<sup>98</sup>

<sup>93</sup> ERIN SCULLION, CAN. DAIRY COMM’N, *THE CANADIAN DAIRY COMM’N: A 40-YEAR RETROSPECTIVE* 8 (Steve Mason & Janet Shorten, eds. 2006).

<sup>94</sup> CAN. DAIRY COMM’N, *History of the CDC*, <https://www.cdc-ccl.gc.ca/CDC/index-eng.php?id=3793> (last modified May 31, 2016).

<sup>95</sup> AGRIC. & AGRI-FOOD CAN., *Government of Canada Supports a Strong and Competitive Canadian Dairy Sector* (Feb. 17, 2018), [https://canada.ca/en/agriculture-agri-food/news/2018/02/government\\_of\\_canadasupportsstrongandcompetitivecanadiandairyse.html](https://canada.ca/en/agriculture-agri-food/news/2018/02/government_of_canadasupportsstrongandcompetitivecanadiandairyse.html).

<sup>96</sup> Kate Cairns, et al., *The Family Behind the Farm: Race and the Affective Geographies of Manitoba Pork Production*, 47:5 *ANTIPODE* 1184, 1184, 1189–94 (2015).

<sup>97</sup> CAN. DAIRY INFO. CTR., NUMBER OF DAIRY COWS BY PROVINCE, <https://aimis-simia-cdic-ccil.agr.gc.ca/rp/indexeng.cfm?action=pR&r=219&pdctc=> (last modified Feb. 20, 2020) [hereinafter DAIRY COWS BY PROVINCE]; CAN. DAIRY INFO. CTR., NUMBER OF FARMS WITH SHIPMENTS OF MILK, <https://aimis-simia-cdic-ccil.agr.gc.ca/rp/index-eng.cfm?action=pR&r=220&pdctc=> (last modified Feb. 20, 2020).

<sup>98</sup> CAN. DAIRY INFO. CTR., NUMBER OF DAIRY COWS AND HEIFERS (Mar. 2, 2018), [https://dairyinfo.gc.ca/index\\_e.php?s1=dff-fcil&s2=farm-ferme&s3=nb&menupos](https://dairyinfo.gc.ca/index_e.php?s1=dff-fcil&s2=farm-ferme&s3=nb&menupos)

Province	Number of Farms	Number of Dairy Cows	Average Dairy Cows per Farm
British Columbia	400	79,500	199
Alberta	523	79,500	152
Saskatchewan	160	27,600	173
Manitoba	282	41,900	149
Ontario	3,613	309,300	86
Quebec	5,368	346,600	65
New Brunswick	194	19,100	98
Nova Scotia	213	22,500	106
Prince Edward Island	166	13,400	81
Newfoundland	32	5,600	175
Canada	10,951	945,000	86

According to the Canadian Dairy Information Centre, a website run by the federal government in conjunction with industry partners, the (human) “dairy workforce” consists of 22,904 jobs in manufacturing and 18,805 jobs in farming.<sup>99</sup> Cows produced 84.7 million hectoliters in 2016, and the “per capita consumption” of various products was 65.53 liters of fluid milk, 13.38 kilograms of cheese, 10.06 liters of cream, 10.53 liters of yogurt, 4.28 liters of ice cream, and 3.21 kilograms of butter.<sup>100</sup> In terms of “farm cash receipts,” the dairy industry is the second largest earning agricultural sector in Canada (after “red meats”) with revenue of \$6.17 billion generated in 2016.<sup>101</sup>

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=01.01.06. To compare the 2018 figures to past years *see* DAIRY COWS BY PROVINCE, *supra* note 97.

<sup>99</sup> *About Us*, CAN. DAIRY INFO. CTR., [https://www.dairyinfo.gc.ca/index\\_e.php?s1=cdi-ilc](https://www.dairyinfo.gc.ca/index_e.php?s1=cdi-ilc) (last modified August 21, 2017).

<sup>100</sup> *Id.* A non-governmental and private website indicates that the Canadian per capita consumption of fluid milk in 2016 was 71.6 liters, just ahead of the US’s consumption (69.2 liters) and behind that of thirteen other countries, all of them in the Global North. *See Per Capita Consumption of Fluid Milk Worldwide in 2016 by Country (in liters)*, STATISTICA, <https://www.statista.com/statistics/535806/consumption-of-fluid-milk-per-capita-worldwide-country/> (last visited Feb. 22, 2020).

<sup>101</sup> *Id.*

## ii. Supply Management—A Protectionist Approach

Canadian dairy farmers claim they do not take any subsidies from the government.<sup>102</sup> While this is the message promoted by the government<sup>103</sup> and dairy industry, like the image of the family farm, this, too, is an inaccurate representation. The evolution of the dairy industry in Canada resembles the heavily government-mediated growth of the industry in other Global North countries.<sup>104</sup> After World War II, dairy farmers became market-oriented, leaving behind a self-sufficiency ethos.<sup>105</sup> At the same time, there was significant price variation across the industry to the point that neighboring farmers could receive notably divergent prices for the milk they sold.<sup>106</sup> Further, when the United Kingdom (“UK”) joined the European Union (“EU”) in 1973, Canada lost its privileged position in the UK dairy market, which resulted in milk surpluses in the country and concerted government intervention for the industry to survive.<sup>107</sup> There were some efforts among farmers to coordinate

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<sup>102</sup> See, e.g., *Supply Management FAQs*, BC DAIRY ASS’N, <https://bcdairy.ca/dairy-farmers/articles/supply-management-faqs> (last visited Feb. 22, 2020); *Supply Management and Collective Marketing*, PRODUCTEURS DE LAIT DU QUÉ., <http://lait.org/en/the-milk-economy/supply-management-and-collective-marketing> (last visited Feb. 22, 2020); *How Many Subsidies Do Alberta Dairy Farmers Get From the Government?*, ALTA. MILK, <https://albertamilk.com/ask-dairy-farmer/pay-milk-store-usa-quota-system-cost-consumer/> (last visited Feb. 22, 2020); *Benefits of Supply Management*, DAIRY FARMERS OF CAN., <https://dairyfarmersofcanada.ca/en/who-we-are/our-commitments> (last visited Feb. 22, 2020).

<sup>103</sup> Consider this overview provided by the Canadian Dairy Information Centre (“CDIC”), a joint initiative of Agriculture and Agri-Food Canada, the Canadian Dairy Commission and industry: “The Canadian dairy sector operates under a supply management system based on planned domestic production, administered pricing and dairy product import controls. The dairy industry ranks second (based on farm cash receipts) in the Canadian agriculture sector ranking just behind red meats. In addition to being world-renowned for their excellence, the Canadian milk and dairy products are recognized for their variety and high-quality. Enforcement of strict quality standards on dairy farms and in processing plants enhances this international reputation, along with a strong commitment to sound animal welfare practices and environmental sustainability.” *Canada’s Dairy Industry at a Glance*, CANADIAN DAIRY INFO. CTR., <https://www.dairyinfo.gc.ca/eng/about-the-canadian-dairy-information-centre/canada-s-dairy-industry-at-a-glance/?id=1502465180911> (last updated Mar. 2, 2020). Nowhere on this “overview” page or on other subsidiary webpages of the CDIC is the word “subsidy” mentioned. See *id.*

<sup>104</sup> MAURICE DOYON, CIRANO, CANADA’S DAIRY SUPPLY MANAGEMENT: COMPREHENSIVE REVIEW AND OUTLOOK FOR THE FUTURE 13 (2011), <https://www.cirano.qc.ca/pdf/publication/2011DT-01.pdf>; Martha Hall Findlay, *Supply Management: Problems, Politics and Possibilities*, UNIV. OF CALGARY SCH. PUB. POL. SPP RESEARCH PAPERS, June 2012, at 7, <https://journalhosting.ucalgary.ca/index.php/spp/article/view/42391/30286>.

<sup>105</sup> DOYON, *supra* note 104, at 13–14.

<sup>106</sup> *Id.*

<sup>107</sup> *Id.* at 14; Findlay, *supra* note 104, at 19.

their farming, but these efforts were insufficient to secure the Canadian dairy market.<sup>108</sup> Shortly after Canada lost its privileged UK position, the government implemented a national supply management system.<sup>109</sup> Milk was the first commodity of any sort in Canada to operate under supply management, a system that continues today.<sup>110</sup>

Supply management is a system by which farmers purchase or are allocated quota allotments that determine how much product they are allowed to produce and sell.<sup>111</sup> Canada's supply management system relies on two main forms of government intervention: (1) a quota system that controls the quantity of milk offered through pricing and marketing; and (2) high customs tariffs, which are put in place to limit competitive foreign products.<sup>112</sup> The Canadian Dairy Commission ("CDC"), a Crown corporation funded by the federal government as well as industry, administers the supply management system along with provincial milk marketing boards.<sup>113</sup> According to the 2016-2017 Canadian Dairy Commission Annual Report, the CDC received \$3,795,000 from the Government of Canada in 2016.<sup>114</sup> Through chairing the Canadian Milk Supply Management Committee ("CMSMC"),<sup>115</sup> which estimates total

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<sup>108</sup> Findlay, *supra* note 104, at 13–14.

<sup>109</sup> *Id.* at 14.

<sup>110</sup> *Supply Management*, CAN. DAIRY COMM'N, <http://www.cdc-ccl.gc.ca/CDC/index-eng.php?id=3806> (last modified May 30, 2016).

<sup>111</sup> *Id.*

<sup>112</sup> See DOYON, *supra* note 104; Marvin J. Painter, *A Comparison of the Dairy Industries in Canada and New Zealand*, 4:1 J OF INT'L FARM MGMT. 41 (2007); Sean Kilpatrick, *A Guide to Understanding the Dairy Dispute Between the U.S. and Canada*, GLOBE & MAIL (Apr. 24, 2017), <https://www.theglobeandmail.com/report-on-business/a-guide-to-understanding-the-dairy-dispute-between-the-us-and-canada/article34802291/>.

<sup>113</sup> Canadian Dairy Commissions Act, R.S.C. 1985, c C-15. The Canadian Dairy Commission "strives to balance and serve the interest of all dairy stakeholders, producers, processor, further processors, exporters, consumers and the government." *Mandate*, CAN. DAIRY COMM'N (Dec. 4, 2017), <http://www.cdc-ccl.gc.ca/CDC/index-eng.php?id=3787>.

<sup>114</sup> CAN. DAIRY COMM'N, CANADIAN DAIRY COMMISSION ANNUAL REPORT 2016-2017 at 34, [http://publications.gc.ca/collections/collection\\_2018/ccl-cdc/A88-2017-eng.pdf](http://publications.gc.ca/collections/collection_2018/ccl-cdc/A88-2017-eng.pdf); CAN. DAIRY COMM'N, CANADIAN DAIRY COMMISSION ANNUAL REPORT 2015-2016 at 40, [http://publications.gc.ca/collections/collection\\_2017/ccl-cdc/A88-2016-eng.pdf](http://publications.gc.ca/collections/collection_2017/ccl-cdc/A88-2016-eng.pdf). Under the Canadian Dairy Commission Act, the Minister of Finance may grant loans to the Commission out of the Consolidated Revenue Fund; aggregate loans may not exceed \$300,000,000. See Canadian Dairy Commission Act, s 16(1)–(2).

<sup>115</sup> In 1983, the National Milk Marketing Plan ("NMMP") was established to set guidelines for calculating Marketing Share Quota (which is now known as "total quota" and includes quota for fluid milk and quota for industrial milk). *Total Quota*, CAN. DAIRY COMM'N, <http://www.cdc-ccl.gc.ca/CDC/index-eng.php?id=44>

annual domestic demand and devises “the national target for production accordingly,”<sup>116</sup> the CDC provides ongoing support to the Canadian dairy industry while working in close cooperation with national and provincial stakeholders and government.<sup>117</sup> The CMSMC applies parameters set at its formation to establish the provincial shares of the quota, which provincial milk marketing boards then allocate to producers in their province according to provincially-determined policies and pooling agreements.<sup>118</sup> Such supply management marketing boards, thus, not only “control individual producer output, but also entry into the industry and fix prices for buyers.”<sup>119</sup>

The supply management system has attracted heavy criticism.<sup>120</sup> Although it does not operate as a direct producer subsidy, many commentators have labelled it an indirect producer subsidy.<sup>121</sup> Some have lamented the resulting comparably high prices that Canadians pay for milk. For example, Canadians pay

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21 (last modified February 18, 2020). The NMMP emerged from negotiations between provincial milk marketing boards and established the CMSMC as a permanent body, chaired by the CDC. *History of the CDC*, CAN. DAIRY COMM’N, <http://www.cdc-ccl.gc.ca/CDC/index-eng.php?id=3793> (last modified May 31, 2016).

<sup>116</sup> *What is Supply Management*, MY MILK, <https://www.mycanadianmilk.ca/what-is-supply-management> (last visited Feb. 20, 2020).

<sup>117</sup> CAN. DAIRY COMM’N, THE CANADIAN DAIRY COMMISSION, <http://www.cdc-ccl.gc.ca/CDC/index-eng.php?id=3785> (last modified March 7, 2016).

<sup>118</sup> *Canadian Milk Supply Management Committee (CMSMC)*, CAN. DAIRY COMM’N, <http://www.cdc-ccl.gc.ca/CDC/index-eng.php?link=118> (last modified Dec. 4, 2017).

<sup>119</sup> Robert D. Tamilia & Sylvain Charlebois, *The Importance of Marketing Boards in Canada: A Twenty-First Century Perspective*, 109:2 BRITISH FOOD J. 119, 122 (2007).

<sup>120</sup> See Colin A. Carter & Pierre Mérel, *Hidden Costs of Supply Management in a Small Market*, 49 CAN. J. OF ECON. 555, 556 (2016); see also Ryan Cardwell et al., *Milked and Feathered: The Regressive Welfare Effects of Canada’s Supply Management Regime*, 41 CAN. PUB. POL’Y 1, 2 (2015). See generally DOYON, *supra* note 104, at 45 (discussing the various criticisms of the supply management system); see generally Findlay, *supra* note 104 (discussing the supply management system, its history in Canada, and the theories both for and against the system).

<sup>121</sup> Findlay, *supra* note 104, at 12; see Martha Hall Findlay, *Canada’s Supply Management System for Dairy is No Longer Defensible*, GLOBE & MAIL (Aug. 18, 2017), <https://www.theglobeandmail.com/report-on-business/rob-commentary/canadas-supply-management-system-for-dairy-is-no-longer-defensible/article36029788/>; see Al Mussell & Tesfalidet Asfaha, *Canadian Agricultural Policy in International Context*, in ADVANCING A POLICY DIALOGUE, SERIES I: UNDERSTANDING THE STRUCTURE OF CANADIAN FARM INCOMES 44, 45–46 (George Morris Centre 2011) (observing that Canada’s agricultural policies, including supply management policies, produced a producer subsidy equivalent (“PSE”) of “18% of farm cash receipts”).

roughly double what Americans pay for whole milk.<sup>122</sup> As scholars note, “[t]he high dairy prices paid by consumers represent a form of ‘tax the many’ approach. The substantial amount being transferred to milk producers is a form of indirect tax paid by all Canadian dairy consumers.”<sup>123</sup> This indirect subsidy disproportionately impacts those with lower incomes who consume a greater proportion of milk products.<sup>124</sup> And, while the Canadian government and dairy industry have continued to argue that this is not a subsidy, international trade authorities (OECD and WTO) have found otherwise.<sup>125</sup> Despite the domestic and international criticism, federal governments across the political spectrum in Canada have continued to stand by this system and support the dairy industry, including in the recent efforts in August and September 2018 to secure a renewed North American trade deal with the United States (“US”).<sup>126</sup> According to Martha Hall Findlay, “[t]he only reason [supply management] still survives is because the amount of money that goes into the system has paid for years of extensive lobbying efforts, and the lobbying’s presence has managed to conjure virtual unanimity on Parliament Hill about the glories of supply management.”<sup>127</sup> Canada’s supply management

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<sup>122</sup> See Findlay, *supra* note 104, at 9; see DANIELLE GOLDFARB, MAKING MILK: THE PRACTICES, PLAYERS, AND PRESSURES BEHIND DAIRY SUPPLY MANAGEMENT 28 (Craig MacLaine ed. 2009); see Justin Ling, *Cheddargate*, MAISONNEUVE (Sept. 9, 2014), <http://maisonneuve.org/article/2014/09/9/cheddargate/>.

<sup>123</sup> Tamilia & Charlebois, *supra* note 119, at 131.

<sup>124</sup> Aaron Wherry, *Why the Dairy Lobby is So Powerful*, MACLEAN’S (Oct. 5, 2015), <https://www.macleans.ca/politics/ottawa/why-the-dairy-lobby-is-so-powerful/>; JAMES MILWAY ET AL., THE POOR STILL PAY MORE: CHALLENGES LOW INCOME FAMILIES FACE IN CONSUMING A NUTRITIOUS DIET 9–10 (Institute for Competitiveness and Prosperity 2010).

<sup>125</sup> Findlay, *supra* note 104, at 12; see also Mussell & Asfaha, *supra* note 121, at 45–46. “The OECD uses the concept of producer subsidy equivalent to reflect the real support given by governments—whether direct or indirect through regulation (like supply management)” to an industry. Findlay, *supra* note 104, at 12. In the 2006–2008 data collection, the OECD found that Canada’s PSE for the dairy industry was much higher than many other affluent countries and countries with emerging dairy markets. See Mussell & Asfaha, *supra* note 121, at 51 tbl.10-1, 52. Canada’s PSE was 18%. *Id.* at 46. The EU’s PSE was 27% (high, in part, because of its Common Agriculture Policy). *Id.* at 47–48. The US’s PSE was 10%; Australia’s was 6%; New Zealand’s was 1%; China’s was 9%; and Chile’s was 4%. *Id.* at 47–50.

<sup>126</sup> Wherry, *supra* note 124; *Canada Had to Give Up Dairy Access to Get a Deal on NAFTA, Says Negotiator*, CBC NEWS (Oct. 04, 2018, 7:08 PM ET), <https://www.cbc.ca/news/politics/powerandpolitics/usmca-nafta-dairy-supply-management-1.4851411>. Canada yielded 3.59% of the dairy market to the Americans who were adamant in securing some access to the Canadian market. *Id.* The federal government has already promised to compensate farmers for losses. *Id.*

<sup>127</sup> Ling, *supra* note 122. Some politicians have gone against the majority political sentiment and have raised concerns about Canada’s supply management system. Lucas Powers, *Does Supply Management Really Mean Canadians Pay More For Milk?*, CBC NEWS (June 3, 2016, 10:41 AM ET), <http://www.cbc.ca/ne>



system has been contrasted with other countries with less government regulation—most notably, New Zealand.<sup>128</sup> Canada is seen as having one of the most highly regulated dairy sectors in the world, as well as some of the highest import tariffs.<sup>129</sup>

### iii. Other Supports to Industry

Even where the government has opened some dairy-related markets to foreign competition to facilitate otherwise coveted trade agreements, it has poured supplementary funding into the dairy industry to immunize producers from possible adverse effects of global competition.<sup>130</sup> Further, the federal government continues to support the industry with other forms of maintenance funding for equipment and other assets.<sup>131</sup> The government, in concert with

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ws/business/milk-dairy-cost-supply-management-1.3612834.

<sup>128</sup> Painter, *supra* note 112, at 2–3; Findlay, *supra* note 104, at 19; DOYON, *supra* note 104, at 23.

<sup>129</sup> *Milking Subsidies: Canada's Regulated Dairy Sector*, GRO INTELLIGENCE (May 10, 2017), <https://gro-intelligence.com/insights/canada-regulated-dairy-sector>; Tamilia & Charlebois, *supra* note 119, at 120–21. Tamilia and Charlebois note Canada's "almost obscene rates" for import tariffs. *Id.*

<sup>130</sup> With the signing of CETA—the Comprehensive Economic Trade Agreement between Canada and the EU—Canada's dairy industry [specifically the cheese market] will no longer be insulated from foreign products. Sylvain Charlebois, *CETA Set to Dramatically Alter Canada's Dairy Industry*, TROY MEDIA (Apr. 10, 2017), <https://troymedia.com/2017/04/10/ceta-alter-canada-dairy-industry/>. It has been estimated that this will account for approximately 2–3% of the domestic cheese market. *Id.* On August 1<sup>st</sup>, 2017, the federal government launched the Dairy Farm Investment Program (DFIP) to "assist dairy producers [to] adapt to the anticipated impacts of the [CETA]." AGRIC. & AGRI-FOOD CAN., DAIRY FARM INVESTMENT PROGRAM: STEP 1. WHAT THIS PROGRAM OFFERS (Aug. 1, 2017), <http://www.agr.gc.ca/eng/programs-and-services/dairy-farm-investment-program/?id=1491935919994>. In total, the government has invested \$250 million into this program, and, as of February 2018, "over 500 dairy producers had been approved for funding support" for a range of projects from "small investments in cow comfort equipment to large [investments] in automated milking systems." Agric. and Agri-Food Can., *Government of Canada Supports a Strong and Competitive Canadian Dairy Sector*, NEWSWIRE (Feb. 7, 2018), <https://www.newswire.ca/news-releases/government-of-canada-supports-a-strong-and-competitive-canadian-dairy-sector-673163713.html>.

<sup>131</sup> For example, in April 2018, the government announced an "investment of over \$2.2 million under the Growing Forward 2, AgriMarketing Program, to assist the Dairy Farmers of Canada roll out an on-farm customer assurance program and a national traceability system for the dairy sector." AGRIC. AND AGRI-FOOD CAN., GOVERNMENT OF CANADA INVESTS TO STRENGTHEN THE DAIRY INDUSTRY (Apr. 12, 2018), <https://www.canada.ca/en/agriculture-agri-food/news/2018/04/government-of-canada-invests-to-strengthen-the-dairy-industry.html>. Provincially, funding programs vary—they may be absent, sporadically available through special initiatives, or constitute a general fund to which applicants can apply. *See, e.g., Agriculture & Seafood Programs*, B.C. MIN. OF AGRIC., <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs> (last visited Feb. 4, 2020).

industry funds, also invests in research that supports the industry.<sup>132</sup> Through contributions from Agriculture and Agri-Food Canada approximating over \$13 million, the federal government and its CDC have partnered with industry associations including the Dairy Farmers of Canada and The Canadian Dairy Network to form the Dairy Research Cluster.<sup>133</sup> The objective of this research program is to “promote the efficiency and sustainability of Canadian dairy farms, grow markets and supply high quality, safe and nutritious dairy products to Canadians.”<sup>134</sup> And, of course, a major industry support, in terms of costs avoided, is the absence of government regulation of the welfare of the animals exploited; the industry is “governed” through non-enforceable industry codes.<sup>135</sup>

#### iv. Summary

It is clear from the foregoing that different branches of the federal government are at odds with each other as to the value of dairy products for Canadians. While Health Canada has revised the Guide to advise Canadians to reduce dairy consumption for health and environmental reasons,<sup>136</sup> Agriculture and Agri-Food Canada’s main mission is to promote Canada’s agricultural sectors, including its second-ranking industry: dairy.<sup>137</sup> As the overview above indicates, there is a vast integrated federal legislative network that ensures the continuation of an industry that, without active regulation and supply side management, would not be viable.<sup>138</sup> The federal government’s efforts in this regard (to make no mention of industry initiatives) show no signs of abating. Instead, information gained through access to information channels revealed that civil servants

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<sup>132</sup> Roger Collier, *Dairy Research: “Real” Science or Marketing?*, 188 CMAJ 715, 715 (2016).

<sup>133</sup> *Id.*

<sup>134</sup> *Id.* Collier argues that “[i]t is well known . . . that studies with industry funding are more likely to have results favourable to sponsors than those without contributions from the private sector,” noting that, “[t]he correlation appears particularly strong for research with ties to food companies.” *Id.* at 2. Collier also cites Marion Nestle, who argues that the dairy industry actively seeks to fund research projects because “their products are ‘under siege.’” *Id.* at 3.

<sup>135</sup> Andrea Bradley & Rod MacRae, *Legitimacy & Canadian Farm Animal Welfare Standards Development: The Case of the National Farm Animal Care Council*, 24:1 J. AGRIC. ENVTL. ETHICS 19, 23 (2011).

<sup>136</sup> Hui, *supra* note 2.

<sup>137</sup> See *Dairy Direct Payment Program: Step 1. What This Program Offers*, AGRIC. & AGRI-FOOD CAN., <http://www.agr.gc.ca/eng/agricultural-programs-and-services/dairy-direct-payment-program/?id=1566502074838> (last modified Jan. 10, 2020); *Canada’s Dairy Industry At A Glance*, GOV’T OF CAN., <https://www.dairyinfo.gc.ca/eng/about-the-canadian-dairy-information-centre/canada-s-dairy-industry-at-a-glance/?id=1502465180911> (last updated Mar. 2, 2020).

<sup>138</sup> Bradley & MacRae, *supra* note 135, at 32.

from Agriculture and Agri-Food Canada have championed industry interests to place pressure on their Health Canada colleagues to reconsider the proposed changes to the Guide, given their anticipated, deleterious effects on the meat and dairy industries.<sup>139</sup> They called for more “positive or neutral messaging” regarding foods Health Canada intended to instruct Canadians to limit or avoid, challenged the position that animal-based diets are less sustainable, and told their colleagues that “it is important that any messages on environmental impact and sustainability do not undermine social licence/public trust in the food supply.”<sup>140</sup>

Moreover, the Standing Committee on Agriculture and Agri-Food, after hearing from industry stakeholders about their concerns with the proposed changes and other matters, recommended, in order to productively improve “food safety and health,” “that the new food guide be informed by the food policy and include peer-reviewed, scientific evidence and that the Government work with the agriculture and the agri-food sector to ensure alignment and competitiveness for domestic industries.”<sup>141</sup> This same report, generally discussing Canadian food policy and titled *A Food Policy for Canada*, highlighted testimony from witnesses that different government departments were indeed at odds with each other and that this “lack of alignment among government initiatives often imposes new costs and creates uncertainties that limit the agri-food sector’s ability to grow.”<sup>142</sup> In response, the Committee recommended “that the Government establish a national food policy advisory body consisting of the key government departments, the agriculture and agri-food sectors, academia, Indigenous peoples and civil society.”<sup>143</sup>

This internal pressure, as well as Health Canada’s deliberate efforts to distinguish its most recent consultations from previously

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<sup>139</sup> Hui, *supra* note 2; David Charbonneau, *My Beef With Canada’s New Good Guide*, CFJC TODAY (Nov. 16, 2017), <https://cfjctoday.com/column/597452/my-beef-canada-s-new-food-guide>.

<sup>140</sup> Hui, *supra* note 2.

<sup>141</sup> PAT FINNIGAN, REPORT OF THE STANDING COMMITTEE ON AGRICULTURE AND AGRIFOOD, A FOOD POLICY FOR CANADA, HOUSE OF COMMONS CAN., 42nd Parliament, 1st Sess., at 17 (2017), <https://www.ourcommons.ca/Content/Committee/421/AGRI/Reports/RP9324012/agrip10/agrip10-e.pdf> [hereinafter FINNIGAN, A FOOD POLICY FOR CANADA]. A commentary in the *Canadian Medical Association Journal* urged physicians to support Health Canada’s new guidelines and objected to this industry influence. See Grant & Jenkins, *supra* note 28, at 1–2.

<sup>142</sup> FINNIGAN, A FOOD POLICY FOR CANADA, *supra* note 141, at 30.

<sup>143</sup> *Id.* at 31.

industry-influenced versions,<sup>144</sup> is telling of the threatening shift in Health Canada's official discourse regarding the consumption of animal products and dairy that the dairy industry and its advocates perceive. At the same time, the fact that Health Canada invited input from Agriculture and Agri-Food Canada<sup>145</sup>—another department of the *same government* that lobbied behind the scenes and in full public view to reduce the impact on the dairy industry—illuminates the industry's extensive scope of support. This support goes beyond the dairy industry's own impressive, existing public relations campaigns and resources to maintain and grow its revenues.<sup>146</sup> Despite this legal landscape aligned in favor of the dairy industry, Agriculture and Agri-Food Canada, as revealed in its "secret memo" to Health Canada, is clearly of the view that the changes in the 2019 Guide "will have a significant influence on consumer demand for food."<sup>147</sup> Whether or not that is the case, the meat and dairy industry has a formidable propaganda arm to counter the Guide's messages and promote their own interests. It remains to be seen whether consumer demand for animal products will indeed decrease as anticipated.

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<sup>144</sup> As discussed earlier, the animal products lobbies have comprehensively influenced the Guide since its inception. Even for the 2007 update and resulting revised Guide, the then Conservative Harper government collaborated closely with industry stakeholders, defending such involvement as required to create public health change. Kondro, *supra* note 30, at 605; Hui, *supra* note 2. However, this does not imply that the current consultations were sufficiently independent from industry influence.

<sup>145</sup> Hui, *supra* note 2.

<sup>146</sup> In its 2017 budget, the federal government "specifically identified the agriculture industry as a priority for economic growth." *Id.* Further, the dairy industry is actively networked to promote its products in schools. Michele Simon, *Whitewashed: How Industry and Government Promote Dairy Junk Foods*, EAT DRINK POLITICS (2014), <http://www.eatdrinkpolitics.com/wp-content/uploads/SimonWhitewashedDairyReport.pdf>; B.C. DAIRY FOUND., THE ROLE OF GOVERNMENT IN PROMOTING THE SCHOOL MILK PROGRAM IN BRITISH COLUMBIA CANADA, [http://www.fao.org/fileadmin/templates/est/COMM\\_MARKETS\\_MONITORING/Dairy/Documents/The\\_Role\\_of\\_Government\\_in\\_promoting\\_SMPs.pdf](http://www.fao.org/fileadmin/templates/est/COMM_MARKETS_MONITORING/Dairy/Documents/The_Role_of_Government_in_promoting_SMPs.pdf); *Fridges Expand Elementary School Milk Program*, MINISTRY OF AGRIC. & LANDS ET AL. (Aug. 30, 2006), [https://archive.news.gov.bc.ca/releases/news\\_releases\\_2005-2009/2006al0030-001062.htm](https://archive.news.gov.bc.ca/releases/news_releases_2005-2009/2006al0030-001062.htm); MINISTRY OF EDUC. & MINISTRY OF HEALTHY LIVING & SPORT, SCHOOL MEAL AND SCHOOL NUTRITION PROGRAM HANDBOOK, <https://healthyschoolsbc.ca/program/587/school-meal-and-school-nutrition-program-handbook>. The industry also expends its resources to reach a wide variety of other constituencies, such as young athletes, female athletes, family (female) homemakers, teachers, etc. In addition to the main website that the Dairy Farmers of Canada maintains, they maintain seven other websites dedicated to marketing dairy products to these demographic groups. *See, e.g., Health & Wellness*, DAIRY FARMERS CAN., <https://www.dairygoodness.ca/getenough/> (last visited Feb. 23, 2020).

<sup>147</sup> Hui, *supra* note 2.

*B. Animal Consumption and Sustainable Dietary Change*

Government messaging can only go so far. One study indicates that, although Canadians trust their government as a nutritional authority, they have “relatively low levels of use and very low levels of knowledge of the official dietary guidelines in Canada.”<sup>148</sup> A more recent study with a wider sample found that “while most Canadians,” particularly women, “are aware of the Food Guide, and most have basic knowledge of food groups, serving proportions and the importance of fruits and vegetables, far fewer actually use it for healthy eating guidance,” such that Canadians have “high levels of awareness of Canada’s Food Guide, but low levels of adherence.”<sup>149</sup>

However—more than supplementing the gaps in consumer knowledge—the social context around food exerts a huge influence not only on immediate food choices but also on long-lasting dietary change. Numerous studies have shown that eating animal meat is not simply a matter of personal choice; it is also deeply rooted in cultural and social forces and ideologies.<sup>150</sup> The deep-seated sensibility in Western culture of animal-eating as normal and natural forms a general backdrop to the legitimation of animal-eating among consumer preferences today.<sup>151</sup> Part of the cultural legitimacy of animal-eating as natural—despite the now overwhelming evidence of its deleterious effects on animals, the environment, and human health<sup>152</sup>—are the gendered associations that attach to what is natural for men and women to eat.<sup>153</sup> As feminist animal care ethicists have demonstrated through multiple examples, eating animals, particularly certain animals, carries masculinist connotations of strength, virility, and dominance.<sup>154</sup> Men who subscribe to dominant

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<sup>148</sup> Lana Vanderlee et al., *Awareness and Knowledge of Recommendations from Canada’s Food Guide*, CAN. J. DIETETIC PRAC. & RES. 146, 148 (2015). These authors noted a particular knowledge gap among minoritized, Indigenous and lower income respondents to their survey. *Id.*

<sup>149</sup> Slater & Mudryj, *supra* note 11, at 3.

<sup>150</sup> Robert M. Chiles & Amy J. Fitzgerald, *Why is Meat So Important in Western History and Culture? A Genealogical Critique of Biophysical and Political-Economic Explanations*, 35:1 AGRIC. HUM. VALUES 1, 1 (2018).

<sup>151</sup> *Id.* at 3.

<sup>152</sup> *Id.* at 14.

<sup>153</sup> Amy Calvert, *You Are What You (M)eat: Explorations of Meat-Eating, Masculinity and Masquerade*, 16:1 J. INT’L WOMEN’S STUD. 18, 1 (2014) (Social Science Premium Collection).

<sup>154</sup> *Id.*; Steve Loughnan et al., *The Psychology of Eating Animals*, 23:2 CURRENT DIRECTIONS IN PSYCHOL. SCI. 104, 105 (2014). See also Annie Potts & Jovian Parry, *Vegan Sexuality: Challenging Heteronormative Masculinity Through Meat-Free Sex*, 20 FEMINISM & PSYCHOL. 53, 58, 64 (2010) (surveying social media comments

codes of masculinity can then feel a grave identity crisis when asked to give up animal foods or to even consider the ethical issues that attend to eating animals.<sup>155</sup>

More sobering about the prospect for widespread dietary change toward plant-based eating are recent investigations that have extended feminist animal care arguments about the dominance inherent in eating animals in Western culture by investigating the personality traits of those who value meat-eating.<sup>156</sup> These psychological accounts reveal the domination and social inequality beliefs of those who defend meat-eating—particularly those omnivores who eat more “red meat” than others<sup>157</sup>—as well as their general alignment with what the authors discuss as “social dominance orientation” and “right wing authoritarianism.”<sup>158</sup> Such ideologies are not simply background traits for those who we may presume are conservative and enjoy the taste of animal meat.<sup>159</sup> Rather, they can motivate individuals who fall into the above categories to consume animals simply to express contempt for the perceived threats that plant-based diets pose to dominant carnist culture and, at least in the case of those who fell into the category of “social dominance orientation,” to assert superiority.<sup>160</sup> Meat-eaters also resort to human exceptionalist claims and moral distancing of “food animals” from humans by denying animal sentience, cognition, and emotional complexity to resolve their “meat paradox” in claiming to care about animals but still eating them.<sup>161</sup>

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authored by heterosexual, meat-eating men). Such gendered associations also exist outside of European traditions. See Kecia Ali, *Muslims and Meat-Eating*, 43:2 J. RELIGIOUS ETHICS 268, 269 (2015) (arguing that “secular feminist vegetarian insights can help Muslims concerned with gender justice to understand the intertwined nature of meat-eating and female subjection”).

<sup>155</sup> Robert G. Darst & Jane I. Dawson, *Putting Meat on the (Classroom) Table: Problems of Denial and Communication*, in ANIMALS IN ENVIRONMENTAL EDUCATION: INTERDISCIPLINARY APPROACHES TO CURRICULUM AND PEDAGOGY 215, 215–33 (Teresa Lloro-Bidart & Valerie Banschbach eds., 2018).

<sup>156</sup> Christopher Monterio et al., *The Carnism Inventory: Measuring the Ideology of Eating Animals*, 113 APPETITE 51 (2017).

<sup>157</sup> Loughnan et al., *supra* note 154, at 105.

<sup>158</sup> Kristof Dhont & Gordon Hodson, *Why Do Right-Wing Adherents Engage in More Animal Exploitation and Meat Consumption?*, 64 PERSONALITY AND INDIVIDUAL DIFFERENCES 12, 16 (2004); Monteiro et al., *The Carnism Inventory: Measuring the Ideology of Eating Animals*, 113 APPETITE 51, 52, 58 (2017); Gordon Hodson & Megan Earle, *Conservatism Predicts Lapses From Vegetarian/Vegan Diets to Meat Consumption (Through Lower Social Justice Concerns and Social Support)*, 120 APPETITE 75, 76 (2018); Loughnan et al., *supra* note 155, at 105.

<sup>159</sup> Dhont & Hodson, *supra* note 158, at 16.

<sup>160</sup> *Id.*

<sup>161</sup> Loughnan et al., *supra* note 154, at 104–05; Michal Bilewicz et al., *The Humanity of What We Eat: Conceptions of Human Uniqueness Among Vegetarians*

What do these findings mean for the transition to a plant-based diet? First, giving up animal meat for some requires cognitively reconciling perceived threats to masculinity and overall outlooks about domination and authoritarianism. When such individuals do manage to become vegetarian or vegan, they are more likely to revert back to their original diets unless their dietary change was also catalyzed by social justice awareness.<sup>162</sup>

Moreover, even those consumers who do not eat animals to express masculinity, domination, or support for right-wing authoritarianism face an uphill cultural battle in transitioning to plant-based diets.<sup>163</sup> Further, studies indicate that, even after transitioning, family resistance,<sup>164</sup> peer pressure,<sup>165</sup> and continued stigmatization of those who resist dominant meat culture, despite ample scientific evidence in favor of it for health and environmental reasons,<sup>166</sup> imperil long-term dietary change.<sup>167</sup> Markus and Eija Vinnari identify forty-four measures—in addition to national food guide recommendations favoring plant-based eating—that governments, educators, the media, and retailers need to take in order to stimulate long-term value change among the public away from animal products.<sup>168</sup> It is, thus, optimistic to believe that the current uptake in plant-based eating by a small fraction of the public will spread more generally within society without much more widespread institutional supports combatting carnist culture and its underlying ideologies about intra-human relations and human-animal relations.

The studies cited above all focus on the consumption of animal meat rather than cows' milk. The extent to which gender ideologies, dominance and authoritarian outlooks, and family and

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and Omnivores, 41 EUR. J. OF SOC. PSYCHOL. 201, 202–04 (2011). See generally Steve Loughnan et al., *The Role of Meat Consumption in the Denial of Moral Status and Mind to Eat Animals*, 55 APPETITE 156–59 (2010) (providing more information on the “meat paradox”); MELANIE JOY, *WHY WE LOVE DOGS, EAT PIGS, AND WEAR COWS: AN INTRODUCTION TO CARNISM* (Conari Press 2009) (further explaining carnism).

<sup>162</sup> Hodson & Earle, *supra* note 158, at 78.

<sup>163</sup> Markus Vinnari & Eija Vinnari, *A Framework for Sustainability Transition: The Case of Plant-Based Diets*, 27 J. AGRIC. ENVTL. ETHICS 369, 379–83 (2014).

<sup>164</sup> LuAnne K. Roth, “Beef. It’s What’s for Dinner”: *Vegetarians, Meat-Eaters and the Negotiation of Familial Relationships*, 8:2 FOOD, CULTURE & SOC’Y 181, 183 (2005).

<sup>165</sup> Katie MacDonald & Kelly Struthers Montford, *Eating Animals to Build Rapport: Conducting Research as Vegans or Vegetarians*, 4 SOCIETIES 737, 740 (2014).

<sup>166</sup> Potts & Parry, *supra* note 154, at 57–65.

<sup>167</sup> Hodson & Earle, *supra* note 158, at 76.

<sup>168</sup> *Id.*

cultural identity, affect dairy consumption is less clear. Although the adult consumption of fluid milk in Canada and the US is clearly gendered—this time carrying a more feminized connotation through milk’s association with breastfeeding and children—<sup>169</sup> it may be that social forces, while still influential in domesticating those who adopt vegan diets,<sup>170</sup> are not as powerful in impeding transition to dairy-free diets, whether temporary or permanent. Further research on transitioning to veganism (as opposed to vegetarianism) is required. Still, it would be fair to expect some prohibitive effect rather than to assume that the decision to drink milk by adults is unmediated by context.<sup>171</sup>

#### IV. Conclusion

When compared to its previous iterations, Health Canada’s 2019 Guide encourages plant-based eating and demotes animal-based foods as nutritionally important.<sup>172</sup> Most notably, the Guide no longer privileges dairy as a separate food group or instructs Canadians to consume dairy products.<sup>173</sup> This is a welcome change and, indeed, something to celebrate among animal justice advocates and other social actors in favor of plant-based eating. Whether or not the new Guide will actually reduce the consumption of dairy and other animal-based foods, however, is uncertain. The material and

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<sup>169</sup> Phyllis L.F. Rippey & Laurel Falconi, *A Land of Milk and Honey? Breastfeeding and Identity in Lesbian Families*, 13:1 J. OF GLBT FAM. STUDIES 16, 20 (2017).

<sup>170</sup> Richard Twine, *Vegan Killjoys at the Table—Contesting Happiness and Negotiating Relationships with Food Practices*, 4 SOCIETIES 623, 635–37 (2014).

<sup>171</sup> For more on the cultural associations of milk, *see generally*, PETER ATKINS, *LIQUID MATERIALITIES: A HISTORY OF MILK, SCIENCE AND THE LAW* (Ashgate Publishing 2010); E. MALENIE DUPUIS, *NATURE’S PERFECT FOOD: HOW MILK BECAME AMERICA’S DRINK* (New York University Press 2002); ANNE MENDELSON, *THE SURPRISING STORY OF MILK THROUGH THE AGES 7* (Alfred A. Knopf 2008); MAKING MILK: THE PAST, PRESENT AND FUTURE OF OUR PRIMARY FOOD (Mathilde Cohen & Yoriko Otomo eds., 2017); DEBORAH VALENZE, *MILK: A LOCAL AND GLOBAL HISTORY* (Yale University Press 2011). It is also instructive to note that nothing in the new Guide suggests reducing fluid milk consumption in children; to the contrary, the revisions instruct parents not to reduce good fats for children and specifically endorse the provision of cows’ milk to children in its full fat version. *See generally* CANADA’S DIETARY GUIDELINES, *supra* note 1. Fluid milk consumed by children (less than 18 years of age) accounted for approximately 22% of total fluid milk consumption in Canada in 2001. Jeewani Fernando, *Demand for Dairy Milk and Milk Alternatives*, CONSUMER CORNER, Sept. 2016, at 1, <https://open.alberta.ca/dataset/b5d936eb-2127-424e-b1b8-818c486d12aa/resource/6eac6179-13e1-40fa-a766-8803eea95e29/download/2016-09-consumer-corner-issue-38-september-2016.pdf>.

<sup>172</sup> Ann Hui, *Canada’s New Food Guide Shifts Toward Plant-Based Diets at Expense of Meat, Dairy*, GLOBE & MAIL (Jan. 22, 2019), <https://www.theglobeandmail.com/canada/article-new-food-guide-shifts-toward-plant-based-foods/>.

<sup>173</sup> FOOD GUIDE SNAPSHOT, *supra* note 75.



discursive support farmed animal industries receive from other government departments (notably, from Agriculture and Agri-Food Canada) are directed at sustaining the growth and profitability of animal-based agricultural sectors through firmly legally entrenched protectionist measures<sup>174</sup> and are powerful counters to Health Canada's initiative towards promoting healthy eating amongst Canadians. Also enormously influential in motivating dietary change toward plant-based eating is the extent to which Canadians become knowledgeable about the content of the 2019 Guide, reject standard Western domination narratives toward animals, and are able to socially resist the conformity pressures of carnist culture to maintain plant-based commitments for the long-term. The fact that the farmed animal industries are concerned about the revisions is an encouraging sign that Health Canada's messaging is somewhat vegan-friendly. Instituting national dietary recommendations favorable to plant-based eating, however, is but one ingredient in the overall governance measures that must occur for Canada's present animal-based dietary culture to transform.

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<sup>174</sup> FINNIGAN, A FOOD POLICY FOR CANADA, *supra* note 141, at 7.

## Appendix

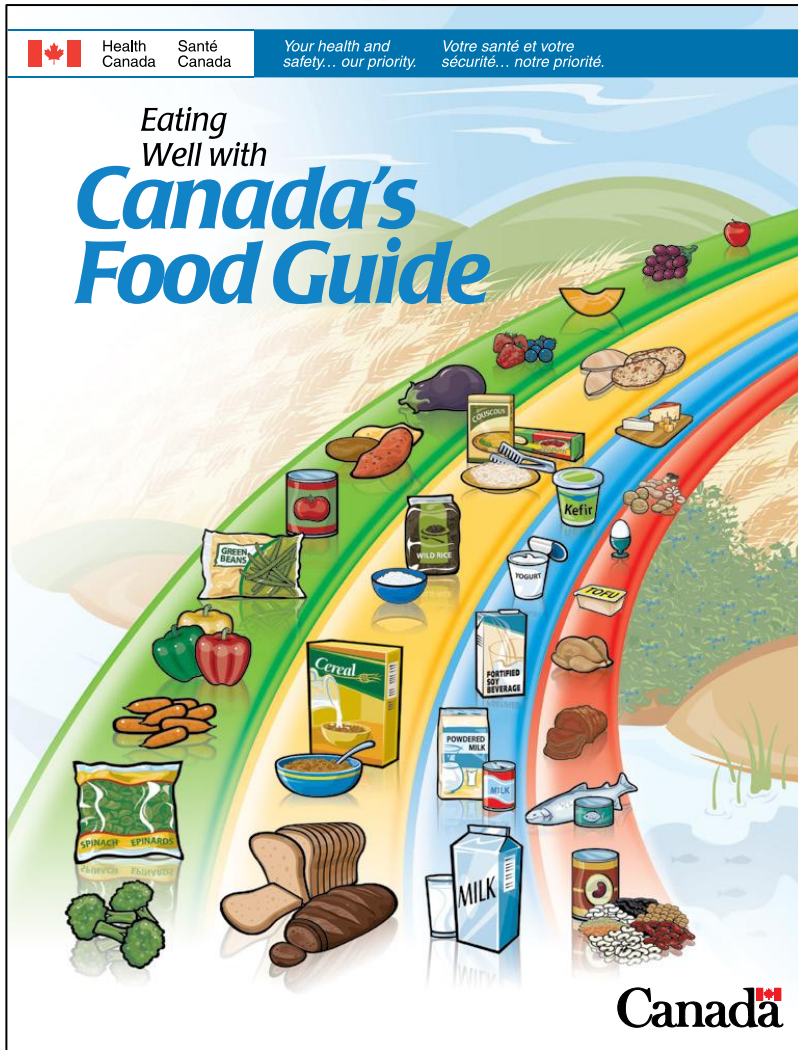


Figure 3. The first page of Eating Well with Canada's Food Guide.<sup>175</sup>

<sup>175</sup> EATING WELL, *supra* note 3, at 1.



**Figure 4.** The second page of Eating Well with Canada's Food Guide.<sup>176</sup>

<sup>176</sup> *Id.* at 2.



Figure 5. The third page of Eating Well with Canada’s Food Guide.<sup>177</sup>

<sup>177</sup> *Id.* at 3.

***Make each Food Guide Serving count...  
wherever you are – at home, at school, at work or when eating out!***

- ▶ **Eat at least one dark green and one orange vegetable each day.**
  - Go for dark green vegetables such as broccoli, romaine lettuce and spinach.
  - Go for orange vegetables such as carrots, sweet potatoes and winter squash.
- ▶ **Choose vegetables and fruit prepared with little or no added fat, sugar or salt.**
  - Enjoy vegetables steamed, baked or stir-fried instead of deep-fried.
- ▶ **Have vegetables and fruit more often than juice.**

- ▶ **Make at least half of your grain products whole grain each day.**
  - Eat a variety of whole grains such as barley, brown rice, oats, quinoa and wild rice.
  - Enjoy whole grain breads, oatmeal or whole wheat pasta.
- ▶ **Choose grain products that are lower in fat, sugar or salt.**
  - Compare the Nutrition Facts table on labels to make wise choices.
  - Enjoy the true taste of grain products. When adding sauces or spreads, use small amounts.

- ▶ **Drink skim, 1%, or 2% milk each day.**
  - Have 500 mL (2 cups) of milk every day for adequate vitamin D.
  - Drink fortified soy beverages if you do not drink milk.
- ▶ **Select lower fat milk alternatives.**
  - Compare the Nutrition Facts table on yogurts or cheeses to make wise choices.

- ▶ **Have meat alternatives such as beans, lentils and tofu often.**
- ▶ **Eat at least two Food Guide Servings of fish each week.\***
  - Choose fish such as char, herring, mackerel, salmon, sardines and trout.
- ▶ **Select lean meat and alternatives prepared with little or no added fat or salt.**
  - Trim the visible fat from meats. Remove the skin on poultry.
  - Use cooking methods such as roasting, baking or poaching that require little or no added fat.
  - If you eat luncheon meats, sausages or prepackaged meats, choose those lower in salt (sodium) and fat.



***Enjoy a variety  
of foods from  
the four  
food groups.***



***Satisfy your  
thirst with water!***

Drink water regularly. It's a calorie-free way to quench your thirst. Drink more water in hot weather or when you are very active.

\* Health Canada provides advice for limiting exposure to mercury from certain types of fish. Refer to [www.healthcanada.gc.ca](http://www.healthcanada.gc.ca) for the latest information.

**Figure 6.** The fourth page of Eating Well with Canada's Food Guide.<sup>178</sup>

<sup>178</sup> *Id.* at 4.


### Advice for different ages and stages...

**Children**

Following *Canada's Food Guide* helps children grow and thrive.

Young children have **small** appetites and need calories for growth and development.

- Serve small nutritious meals and snacks each day.
- Do not restrict nutritious foods because of their fat content. Offer a variety of foods from the four food groups.
- Most of all... be a good role model.



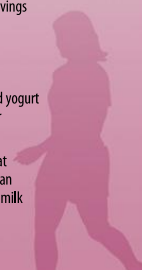
**Women of childbearing age**

All women who could become pregnant and those who are pregnant or breastfeeding need a multivitamin containing **folic acid** every day. Pregnant women need to ensure that their multivitamin also contains **iron**. A health care professional can help you find the multivitamin that's right for you.

Pregnant and breastfeeding women need more calories. Include an extra 2 to 3 Food Guide Servings each day.

**Here are two examples:**


- Have fruit and yogurt for a snack, or
- Have an extra slice of toast at breakfast and an extra glass of milk at supper.



**Men and women over 50**

The need for **vitamin D** increases after the age of 50.

In addition to following *Canada's Food Guide*, everyone over the age of 50 should take a daily vitamin D supplement of 10 µg (400 IU).



### How do I count Food Guide Servings in a meal?

**Here is an example:**

Vegetable and beef stir-fry with rice, a glass of milk and an apple for dessert	
250 mL (1 cup) mixed broccoli, carrot and sweet red pepper	= 2 <b>Vegetables and Fruit</b> Food Guide Servings
75 g (2 1/2 oz.) lean beef	= 1 <b>Meat and Alternatives</b> Food Guide Serving
250 mL (1 cup) brown rice	= 2 <b>Grain Products</b> Food Guide Servings
5 mL (1 tsp) canola oil	= part of your <b>Oils and Fats</b> intake for the day
250 mL (1 cup) 1% milk	= 1 <b>Milk and Alternatives</b> Food Guide Serving
1 apple	= 1 <b>Vegetables and Fruit</b> Food Guide Serving




Figure 7. The fifth page of Eating Well with Canada's Food Guide.<sup>179</sup>

<sup>179</sup> *Id.* at 5.

**Eat well and be active today and every day!**

**The benefits of eating well and being active include:**

- Better overall health.
- Lower risk of disease.
- A healthy body weight.
- Feeling and looking better.
- More energy.
- Stronger muscles and bones.

**Take a step today...**

- ✓ Have breakfast every day. It may help control your hunger later in the day.
- ✓ Walk wherever you can – get off the bus early, use the stairs.
- ✓ Benefit from eating vegetables and fruit at all meals and as snacks.
- ✓ Spend less time being inactive such as watching TV or playing computer games.
- ✓ Request nutrition information about menu items when eating out to help you make healthier choices.
- ✓ Enjoy eating with family and friends!
- ✓ Take time to eat and savour every bite!

**Be active**

To be active every day is a step towards better health and a healthy body weight.

It is recommended that adults accumulate at least 2 ½ hours of moderate to vigorous physical activity each week and that children and youth accumulate at least 60 minutes per day. You don't have to do it all at once. Choose a variety of activities spread throughout the week.

*Start slowly and build up.*

**Eat well**

Another important step towards better health and a healthy body weight is to follow *Canada's Food Guide* by:

- Eating the recommended amount and type of food each day.
- Limiting foods and beverages high in calories, fat, sugar or salt (sodium) such as cakes and pastries, chocolate and candies, cookies and granola bars, doughnuts and muffins, ice cream and frozen desserts, french fries, potato chips, nachos and other salty snacks, alcohol, fruit flavoured drinks, soft drinks, sports and energy drinks, and sweetened hot or cold drinks.

**Read the label**

- Compare the Nutrition Facts table on food labels to choose products that contain less fat, saturated fat, trans fat, sugar and sodium.
- Keep in mind that the calories and nutrients listed are for the amount of food found at the top of the Nutrition Facts table.

**Limit trans fat**

When a Nutrition Facts table is not available, ask for nutrition information to choose foods lower in trans and saturated fats.

**Nutrition Facts**

Per 0 mL (0 g)

Amount	% Daily Value
<b>Calories</b> 0	
<b>Fat</b> 0 g	0 %
Saturated 0 g	0 %
+ Trans 0 g	
<b>Cholesterol</b> 0 mg	
<b>Sodium</b> 0 mg	0 %
<b>Carbohydrate</b> 0 g	0 %
Fibre 0 g	0 %
Sugars 0 g	
<b>Protein</b> 0 g	
Vitamin A 0 %	Vitamin C 0 %
Calcium 0 %	Iron 0 %

*For more information, interactive tools, or additional copies visit Canada's Food Guide on-line at: [www.healthcanada.gc.ca/foodguide](http://www.healthcanada.gc.ca/foodguide)*

*or contact:*  
 Publications Health Canada  
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Figure 8. The sixth page of Eating Well with Canada's Food Guide.<sup>180</sup>

<sup>180</sup> *Id.* at 6.

# Milk and Law in the Anthropocene: Colonialism's Dietary Interventions

Kelly Struthers Montford\*

## Abstract

It is widely accepted that we are living in the Anthropocene: the age in which human activity has fundamentally altered earth systems and processes. Decolonial scholars have argued that colonialism's shaping of the earth's ecologies and severing of Indigenous relations to animals have provided the conditions of possibility for the Anthropocene. With this, colonialism has irreversibly altered diets on a global scale. I argue that dairy in the settler contexts of Canada and the United States remains possible because of colonialism's severing of Indigenous relations of interrelatedness with the more-than-human world. I discuss how colonialism—which has included the institution of dairy—requires and authorizes relations that at their core seek to domesticate those imagined as wild, including humans, animals, and land. With this in mind, I then analyze recent and current dairy lawsuits as well as proposed legislation seeking to maintain legislated definitions of milk as exclusively animal-based. I argue that instances of mobilizing law to secure dairy as exclusively animal-based are attempts to re-secure settler colonial ontologies of life along a “real food” versus “fake food” dichotomy in which plant-based foods are positioned as substitutes for animal products. However, these pro-dairy lawsuits are often unsuccessful. Thus, dairy law is one arena in which settler colonialism's orderings of life and relations are being challenged and re-made. In the context of the Anthropocene, the role of legal ontologies in shaping our consumption habits and relationships with animals remain all the more urgent.

## I. Colonialism and the Anthropocene

Milk has recently received considerable public and legal attention. Scholar, Vasile Stanescu, argues that milk is now being used by the alt-right as code for white supremacy.<sup>1</sup> Milk is also the

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subject of lawsuits and proposed legislation (such as the Dairy Pride Act) that seek to maintain the definition of “milk” as being exclusively animal-based.<sup>2</sup> In Canada and the United States (“US”), dairy is the direct result of colonial projects seeking to “remake” the New World in the image of colonial homelands.<sup>3</sup> Colonists replaced Indigenous understandings and relationships about and between humans, animals, and territory with western European “universal” and “civilized” norms and in doing so, they fundamentally altered the Earth’s processes.<sup>4</sup> Colonialism has irreversibly shaped the Earth:

The arrival of the Europeans in the Caribbean in 1492, and subsequent annexing of the Americas, led to the largest human population replacement in the past 13,000 years, the first global trade networks linking Europe, China, Africa and the Americas, and the resultant mixing of previously separate biotas, known as the Columbian Exchange.<sup>5</sup>

Settlers brought with them farmed animals and plants that changed Indigenous environments and ecological systems—and imposed property-based relationships with the land and animals.<sup>6</sup>

Colonialism has not only caused the genocide of the first peoples of the Americas, but also “a genocide of all manner of kin: animals and plants alike.”<sup>7</sup> For example, while farmed animals were

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participants of the Dairy Tales symposium for their feedback on earlier drafts of this article, as well as Chloë Taylor and Tessa Wotherspoon.

<sup>1</sup> See generally Vasile Stănescu, ‘White Power Milk’: Milk, Dietary Racism, and the ‘Alt-Right’, 7 ANIMAL STUD. J. 102–28 (2018).

<sup>2</sup> Kathleen Justis, *Lactose’s Intolerance: The Role of Manufacturer’s Rights and Commercial Free Speech in Big Dairy’s Fight to Restrict Use of The Term “Milk”*, 84 BROOK. L. REV. 999, 1002–04 (2019).

<sup>3</sup> See Mathilde Cohen, *Animal Colonialism: The Case of Milk*, 111 AJIL UNBOUND 267, 271 (2017); CLAIRE JEAN KIM, DANGEROUS CROSSINGS: RACE, SPECIES, AND NATURE IN A MULTICULTURAL AGE 47 (Cambridge Univ. Press 2015); VIRGINIA DEJOHN ANDERSON, CREATURES OF EMPIRE: HOW DOMESTIC ANIMALS TRANSFORMED EARLY AMERICA 6 (Oxford Univ. Press 2006).

<sup>4</sup> Robin McKie, *How Our Colonial Past Altered the Ecobalance of An Entire Planet*, GUARDIAN (Jun. 10, 2018, 2:00 AM), <https://www.theguardian.com/science/2018/jun/10/colonialism-changed-earth-geology-claim-scientists>.

<sup>5</sup> Simon L. Lewis & Mark A. Maslin, *Defining the Anthropocene*, 519 NATURE 171, 174 (2014).

<sup>6</sup> See, e.g., ANDERSON, *supra* note 3, at 1–12; Lewis & Maslin, *supra* note 5, at 177; Cohen, *supra* note 3, at 268–71.

<sup>7</sup> Heather Davis & Zoe Todd, *On the Importance of a Date, or Decolonizing the Anthropocene*, 16 ACME 761, 771 (2017).

brought to the New World as “creatures of empire,”<sup>8</sup> colonists decimated other native animals (such as the buffalo) in order to starve Indigenous persons—who colonists believed stood in the way of “progress”—and hunted fur-bearing animals for their skins, which were sent back to Europe as raw materials to further consolidate imperial wealth.<sup>9</sup> In addition to animal pelts, colonists also took various humans, live animals, and plant species back to their homelands to own, collect, display, and/or reproduce.<sup>10</sup>

Animal agriculture provided a legal justification for land acquisition, the literal terrain required for colonial state-building. Under English law, individuals could make property claims to land, provided they met the criteria for productive use and/or transformed the land.<sup>11</sup> Having animals graze on land, cultivating the land (through planting of crops and deforestation), and erecting permanent structures, such as homes (in a context in which permanent abodes were considered civilized, and nomadic persons as savages), constituted “productive use,” allowing for private ownership.<sup>12</sup>

Some have argued that the Anthropocene is not merely an apolitical change in the earth’s systems. Instead, it is the ongoing result of a specific organization of nature under capital, namely that capital, empire, and science have been mobilized and designed to extract and harness the unpaid energy of global life, including that done by enslaved, colonized, and racialized humans, women, animals, and the environment.<sup>13</sup> This reorganization of nature then

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<sup>8</sup> See ANDERSON, *supra* note 3, at 1–12 (introducing the concept of “creatures of empire”).

<sup>9</sup> See, e.g., HAROLD A. INNIS, *THE FUR TRADE IN CANADA: AN INTRODUCTION TO CANADIAN ECONOMIC HISTORY* 9–21 (Univ. of Toronto Press 1956); NICOLE SHUKIN, *ANIMAL CAPITAL: RENDERING LIFE IN BIOPOLITICAL TIMES* 13 (Univ. of Minn. Press 2009).

<sup>10</sup> Rebecca Tuvel, “*Veil of Shame*”: *Derrida, Sarah Bartmann and Animality*, 9 J. FOR CRITICAL ANIMAL STUD. 209, 209–11 (2011) (“Sarah Bartmann, famously known as the ‘Hottentot Venus,’ was a South African Khoisan woman who was paraded around nineteenth-century England and France (sometimes in a cage) because of her striking appearance.”). See generally BLANCHARD ET AL., *HUMAN ZOOS: SCIENCE AND SPECTACLE IN THE AGE OF COLONIAL EMPIRES* (Liverpool Univ. Press 2008) (discussing the display of humans).

<sup>11</sup> See, e.g., Allan Greer, *Commons and Enclosures in the Colonization of North America*, 117(2) AM. HIST. REV. 365, 367 (2012); Robert Nichols, *Theft Is Property! The Recursive Logic of Dispossession*, 46 POL. THEORY 3, 5–6, 13 (2018).

<sup>12</sup> Kelly Struthers Montford, *Agricultural Power: Politicized Ontologies of Food, Life, and Law in Settler Colonial Spaces* (Nov. 27, 2017) (unpublished Ph.D. dissertation, University of Alberta, Canada) (on file with author).

<sup>13</sup> See Jason W. Moore, *Introduction*, in *ANTHROPOCENE OR CAPITALCENE?: NATURE, HISTORY, AND THE CRISIS OF CAPITALISM* 1, 1–13 (Jason W. Moore ed., 2016).

required a shift in our relationship to nature such that land is private property, human activity is wage labor, and scientific “progress” is focused on surveying natural resources for extractive purposes.<sup>14</sup> Davis and Todd argue that this “colonial project” has been key in severing the relationship with nature that structured pre-colonial life in the Americas.<sup>15</sup>

Unlike the Cartesianism<sup>16</sup> of the west, which frames humans as uniquely rational and both independent from and superior to nature and the (animalistic) body, many Indigenous societies understand humans not as separate from the land, but as extensions of land itself, with animals and plants being kin rather than the property of humans.<sup>17</sup> As such, while animal agriculture was instituted as a means to materially acquire land, it has additionally caused an ontological change in the relationships structuring life in the New World. Cohen has argued that “the old, colonial animal law was only global for imperialist ends”<sup>18</sup> with “[a]nimal colonialism involving not only the migration of animals, but also the legal status they were accorded in the Old World.”<sup>19</sup> This legal status both presupposes and requires a certain ontology of animality that is constantly remade in sites of animal agriculture. Namely, it requires and affects a de-animalization where animals exist as “deaded life” rather than as subjects with their own desires, kinship structures, and purpose.<sup>20</sup> Viewed as living meat, eggs, or dairy, as deaded life animals are ontologized as mere input-output machines, existing only to produce the commodities that they will produce or become upon their death.<sup>21</sup> Animal agriculture further requires a particular

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<sup>14</sup> *Id.*

<sup>15</sup> See, e.g., Davis & Todd, *supra* note 7, at 767.

<sup>16</sup> Cartesianism continues to shape understandings of the subject (i.e., ‘the human’) and those who are categorized as non-subjects/objects (racialized humans, animals, and nature), based on Descartes’ contention that humans have exclusive purview over rationality whereas animals are more like machines who respond only to stimulus. See, e.g., JACQUES DERRIDA, *THE ANIMAL THAT THEREFORE I AM* (Marie-Louise Mallet ed., David Wills trans., Fordham Univ. Press 2008).

<sup>17</sup> See, e.g., Davis & Todd, *supra* note 7, at 771; Kim TallBear, *Beyond the Life/Not-Life Binary: A Feminist-Indigenous Reading of Cryopreservation, Interspecies Thinking, and The New Materialisms*, in *CRYOPOLITICS* 179 (Joanna Radim & Emmal Kowal eds., 2017); Struthers Montford, *supra* note 12; GLEN SEAN COULTHARD, *RED SKIN, WHITE MASKS: REJECTING THE COLONIAL POLITICS OF RECOGNITION* 61 (Univ. of Minn. Press 2014).

<sup>18</sup> Cohen, *supra* note 3, at 267.

<sup>19</sup> *Id.* at 268.

<sup>20</sup> See James Stănescu, *Beyond Biopolitics: Animal Studies, Factory Farms, and the Advent of Deading Life*, 8(2) *PHAENEX* 135–55 (2013) (framing the concept of “deaded life” in the context of factory farms).

<sup>21</sup> *Id.* at 154–55.

ontology of land where it too is not a subject, but instead, a resource to be directed to benefit human interests.

The denigration of animals and land within this westernized, metaphysical schema was integral to colonialism because it provided both the intellectual terrain and moral justification for the ontological and environmental transformation of the New World. Settler colonialism has attempted to replace what Kim TallBear, building on the work of Vine Deloria Jr., has called an “Indigenous metaphysic: an understanding of the intimate knowing relatedness of all things.”<sup>22</sup> Referring to a phenomenon in terms of metaphysics is not to point to the “existence of absolute foundations,”<sup>23</sup> but rather to the contingency of events that has led the phenomenon in question to be *taken as* the natural result of progress. Put differently, through practice and repetition, historically contingent events—such as animal agriculture being the primary method of food production—are taken to be ontological certainties. Because ontological frames structure how we understand and make sense of our worlds, challenging ontology allows us to question how claims about the immutable nature of a given phenomenon are instead politically contingent and, therefore, could be otherwise.

Claims that humans are superior because they are the only creatures who have language and have transcended their animal natures, and claims that animals and land are merely private property and resources for humans both represent ontological changes that have been written into the territory of colonialism through various practices. Dairy has then been a means by which land was acquired, diets altered, and relationships between mothers and offspring transformed. As Cohen argues, “lactating animals became integral parts of colonial and neocolonial projects as tools of agroexpansionism and human population planning.”<sup>24</sup> The increased availability of animal milk has interrupted mammalian feeding cultures, severing the bonds between dairying animals and their offspring.<sup>25</sup> Under this framework, I argue that animal agriculture—including dairy, the focus of this article—is a colonial method,<sup>26</sup> entangled in whiteness,<sup>27</sup> able-bodiedness, and human superiority.

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<sup>22</sup> TallBear, *supra* note 17, at 191.

<sup>23</sup> Johanna Oksala, *Foucault's Politicization of Ontology*, 43 CONTINENTAL PHIL. REV. 445, 449 (2010).

<sup>24</sup> Cohen, *supra* note 3, at 267.

<sup>25</sup> *Id.*

<sup>26</sup> ANDERSON, *supra* note 3, at 1–107; KIM, *supra* note 3, at 24–60; Cohen, *supra* note 3.

<sup>27</sup> E. MELANIE DUPUIS, *NATURE'S PERFECT FOOD: HOW MILK BECAME AMERICA'S DRINK* 1–124 (NYU Press 2002); Stănescu, *supra* note 1.

Animal agriculture is then both a technology and outcome of settler colonialism's territorial and terraforming drive, which included "the damming of rivers, clear-cutting of forests, and importation of plants and animals [that] remade the worlds of North America into a vision of a displaced Europe, fundamentally altering the climate and ecosystems."<sup>28</sup> Dairy remains one of the most ecologically intensive and environmentally detrimental foods available.<sup>29</sup> It has resulted in the transformation of forests into feed crops and pastures, feed crops that are largely comprised of non-indigenous plants, with water and manure run off from animal farms degrading the environment in an ongoing manner.<sup>30</sup>

Some have argued that colonialism—with its homogenization of the earth's biotas, killing of first peoples, and global trade routes—marks the beginning of the Anthropocene, evident in the stratigraphic record by Old World foods appearing in the New World's sediments and vice versa.<sup>31</sup> Foundational to colonialism has been its effect of "permanently and dramatically altering the diet of almost all of humanity."<sup>32</sup> If it is the case that the Columbian Exchange set in motion the conditions for the Anthropocene, then I suggest that animal agriculture remains a constitutive driver of this epoch.

This article argues that in both Canada and the US, dairy should be understood as part of a broader colonial framework wherein the severing of Indigenous relations to animals has provided the conditions for the possibility of the Anthropocene. Specifically, the propertied relationships to land and animals inherent to animal agriculture have been integral to territorial acquisition and terraformation.<sup>33</sup> First, I discuss how colonialism—and by extension, dairy—requires and authorizes material and ontological relations that have as its goal colonialism's drive to domesticate those imagined as wild, including humans, animals, and land. Second, I explain how dairy was introduced in settler contexts while at the same time being discussed as a universal and "perfect" food. Third, I show that recent lawsuits over the labelling of plant-based

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<sup>28</sup> Davis & Todd, *supra* note 7, at 771.

<sup>29</sup> See Luciana Baroni et al., *Evaluating the Environmental Impact of Various Dietary Patterns Combined With Different Food Production Systems*, 61 EUR. J. CLIN. NUTRITION 279, 283–85 (2007) (noting cheese and milk among foods with the highest environmental impact).

<sup>30</sup> *Id.* at 6–7.

<sup>31</sup> Lewis & Maslin, *supra* note 5, at 174–75; Davis & Todd, *supra* note 7, at 770.

<sup>32</sup> Lewis & Maslin, *supra* note 5, at 175.

<sup>33</sup> See generally ANDERSON, *supra* note 3; KIM, *supra* note 3; Nichols, *supra* note 11.

milks as “milk” are not merely about clarity in labelling. I argue that these instances of mobilizing law to secure dairy as exclusively animal-based are instead attempts to re-secure settler colonial ontologies of life. It is my position that these lawsuits should be read as attempts by private industry to maintain a specific mode of colonial production (animal agriculture and dairying) that requires and produces food ontologies in which “real” food is only ever animal-based. Thus, dairy law is one arena in which settler colonialism’s orderings of life and relations are being challenged and re-made. In the context of the Anthropocene, the role of legal ontologies for shaping our consumption habits and relationships with animals remain all the more urgent.

## II. Indigenous Ontology Meets Property Law: Domesticating Dairy

Crist argues that the Anthropocene, which I take to be inseparable from colonialism, has been an assimilationist project wherein human culture(s) dominate the natural.<sup>34</sup> Crist puts this another way by stating, “[t]akeover (or assimilation) has proceeded by biotic cleansing and impoverishment: using up and poisoning the soil; making beings killable; putting the fear of God into the animals such that they cower or flee in our presence . . . . The impact of assimilation is relentless . . . .”<sup>35</sup> Integral to this assimilationist colonial project has been the enclosure, parceling, and transformation of territory into private property.<sup>36</sup> With this, domesticating drives have targeted land, animals, and their substances, transforming them for human exploitation.<sup>37</sup> Territory has been re-imagined as a passive resource for humans to own rather than a subject in its own right.<sup>38</sup>

Animal agriculture has been one mechanism through which land has been materially and conceptually transformed into a resource requiring ownership, cultivation, and extraction for the benefit of settler individuals and states. Yet, this view of land is neither universal nor inevitable. Indigenous scholar, Glen Coulthard (“Yellowknives Dene”), notes that for his peoples, land is not an

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<sup>34</sup> Eileen C. Crist, *On the Poverty of Our Nomenclature*, in ANTHROPOCENE OR CAPITALOCENE? 14, 28 (Jason W. Moore ed., 2016).

<sup>35</sup> *Id.* at 28–29.

<sup>36</sup> Jason W. Moore, *The Rise of Cheap Nature*, in ANTHROPOCENE OR CAPITALOCENE? 78, 86–87 (Jason W. Moore ed., 2016).

<sup>37</sup> ANDERSON, *supra* note 3, at 43–45, 70–71, 156–57.

<sup>38</sup> See Davis & Todd, *supra* note 7 (discussing how colonialism has affected human perception of land).

entity to be owned, nor is its importance related to its potential as a resource.<sup>39</sup> Instead:

[L]and occupies an ontological framework for understanding *relationships*. . . . In Weledeh dialect of Dogrib . . . “land” (or dè) is translated in relational terms as that which encompasses not only the land (understood here as material), but also people and animals, rocks and trees, lakes and rivers, and so on. Seen in this light, we are as much a part of the land as any other element. Furthermore, within this system of relations human beings are not the only constituent believed to embody spirit or agency.<sup>40</sup>

As such, according to this Indigenous mode of thought, relationships with the more-than-human are premised on interrelatedness: “reciprocity, nonexploitation and respectful coexistence.”<sup>41</sup> Testimony from members of the Blackfoot First Nation to the Royal Commission on Aboriginal Peoples also framed land as a living being that one is in relation with:

The land was considered a mother, a giver of life, and the provider of all things necessary to sustain life. A deep reverence and respect for Mother Earth infused and permeated Indian spirituality, as reflected in the Blackfoot practice of referring to the land, water, plants, animals and their fellow human beings as ‘all my relations.’ Relations meant that all things given life by the Creator—rocks, birds, sun, wind and waters—possessed spirits.<sup>42</sup>

Within these belief systems, land is part of both the spiritual and physical realms. For the Blackfoot people the Creator entrusted them as stewards over their land, responsible for the wellbeing of all their relations.<sup>43</sup> Notions of stewardship and responsibility, therefore, do not inevitably translate into a worldview in which land is owned or seen as a resource to be dominated.<sup>44</sup> Mohawk legal scholar, Patricia Monture-Angus, instead framed this as a duty-based relationship in which one is responsible to someone or something

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<sup>39</sup> COULTHARD, *supra* note 17, at 61.

<sup>40</sup> *Id.* at 60–61.

<sup>41</sup> *Id.* at 12.

<sup>42</sup> ROYAL COMM'N ON ABORIGINAL PEOPLES, VOLUME I: LOOKING FORWARD, LOOKING BACK 64 (1996).

<sup>43</sup> *Id.*

<sup>44</sup> *Id.*

other than oneself—in this case, to territory.<sup>45</sup> This duty-based responsibility is not premised on the control of territory;<sup>46</sup> rather, it is consistent with a metaphysical framework of interrelatedness. Within a frame of anthropocentric capitalism, however, in which humankind is regarded as the central element of existence,<sup>47</sup> nature is viewed as a raw material: “passive and uncultivated—a wilderness to be tamed—while culture is the active set of practices by which humans “dominate” nature.”<sup>48</sup>

Domestication has been used to signify domination in various registers. It seeks to make something or someone intelligible and familiar. It does not appreciate the subject on its own terrain, but rather alters the subject in question to fit the framework of the more dominant party in a given situation. As Jessica Polish notes, Kant argued that women were men’s first domesticated animals.<sup>49</sup> Kant described that women were “a kind of mule, ‘loaded down with his [the man’s] household belongings,’”<sup>50</sup> or, in the context of polygamous marriage, women were more like dogs in a man’s harem, or, to use Kant’s term: “kennel.”<sup>51</sup> According to Kant, domestication provided the conditions necessary for “civilized” intra-human relationships to occur.<sup>52</sup> For him, this civilizing occurred through the institution of monogamous marriage.<sup>53</sup> Andrea Smith argues that “Native nations are seen as sufficiently domesticated to be administered through government policy, rather than seen as a continuing political threat requiring ongoing military intervention.”<sup>54</sup> For Smith, domestication is, therefore, a process by which oppressive power relations are sustained and administered. It also refers to a state where a threat to the dominant social order is neutralized and rendered manageable. Sophia Magnone argues that domestication creates an “anthropocentric hierarchy that cordons off

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<sup>45</sup> PATRICIA MONTURE-ANGUS, *JOURNEYING FORWARD: DREAMING FIRST NATIONS’ INDEPENDENCE* 33 (Fernwood Publ’g 1999); Nichols, *supra* note 11, at 11.

<sup>46</sup> MONTURE-ANGUS, *supra* note 45; Nichols, *supra* note 11, at 13.

<sup>47</sup> Oxford, *Anthropocentric*, LEXICO, <https://www.lexico.com/en/definition/anthropocentric> (last visited Mar. 15, 2020) (defining “anthropocentric” as “[r]egarding humankind as the central or most important element of existence . . .”).

<sup>48</sup> Maneesha Deckha & Erin Pritchard, *Recasting Our Wild Neighbours: Contesting Legal Otherness in Urban Human-Animal Conflicts*, 49 UBC L. REV. 161, 163 (2016).

<sup>49</sup> Jessica Polish, *After Alice After Cats in Derrida’s L’animal que donc je suis*, 7 DERRIDA TODAY 180, 183 (2014).

<sup>50</sup> *Id.*

<sup>51</sup> *Id.*

<sup>52</sup> *See id.*

<sup>53</sup> *See id.*

<sup>54</sup> Andrea Smith, *Not-Seeing: State Surveillance, Settler Colonialism, and Gender Violence*, in *FEMINIST SURVEILLANCE STUDIES* 21, 24 (Rachel E. Dubrofsky & Shoshana Amielle Magnet eds., 2015).



and elevates humanity from the rest of the animal world.”<sup>55</sup> Through tactics of captivity, spatial containment, renaming (both at the taxonomic level and at that of the individual), and subordination, domestication instills an ontological ordering of life in which animality is tamed, exploited, and exterminated per the needs of dominant humans.<sup>56</sup> In this sense, Magnone argues that domestication has made “certain types of animals common in human societies as companions, workers, food, and resources.”<sup>57</sup> While domestication can take multiple forms and be put to work for various political projects, what remains consistent is the attempted taming and controlling of that not under the control of the domesticator.

The substance of dairy itself has been targeted, transformed, and made possible through the domestication of dairy-producing mammals. The ubiquity of milk represents the “triumph over nature” in which humans have used science to alter milk to such a degree that it could be transported long distances without causing human fatalities.<sup>58</sup> Further, humans have domesticated female mammals—primarily cows, goats, and sheep—to select for high milk yields.<sup>59</sup> Domestication is evident not only in species level transformations—in which humans have bred animals based on selected traits that they believe to be valuable and useful, such as docility, rapid weight gain, and high milk production—but in the ongoing control of individual farmed animals, as well.<sup>60</sup> Dairy animals live a life of ubiquitous commodification and reproductive control.<sup>61</sup> Female animals are forcefully inseminated using sperm collected from captive males, and mother-child bonds are disrupted as dairy animals’ offspring are taken away early so that their mother’s milk can be consumed by humans.<sup>62</sup> Domesticating drives continue, as the next generation of males are streamed into veal and other meat industries, while the

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<sup>55</sup> Sophia Booth Magnone, *Finding Fertility in the Anthropocene: Marie Darrieussecq’s “My Mother Told Me Monsters Do Not Exist,”* FERAL FEMINISMS 33, 33 (2016).

<sup>56</sup> *See id.* at 34.

<sup>57</sup> *Id.*

<sup>58</sup> *See* Greta Gaard, *Toward a Feminist Postcolonial Milk Studies*, 65 AM.Q. 595, 596–97 (2013) (providing that before milk—a highly perishable liquid—began to be sterilized and pasteurized, it caused infections as well as epidemic diseases such as scarlet fever, typhoid, and tuberculosis).

<sup>59</sup> *See id.* at 596, 603; G. F. W. Haenlein, *About the Evolution of Goat and Sheep Milk Production*, 68 SMALL RUMINANT RES. 3, 3–6 (2007).

<sup>60</sup> David A. Magee et al., *Interrogation of Modern and Ancient Genomes Reveals the Complex Domestic History of Cattle*, 4(3) ANIMAL FRONTIERS 7, 19 (2014); *see also* Jessica Eisen, *Milked: Nature, Necessity, and American Law*, 34 BERKELEY J. GENDER L. & JUST. 71, 109 (2019) (describing the effects of certain technologies of control on domesticated cattle).

<sup>61</sup> *Id.* at 100.

<sup>62</sup> *Id.* at 106–08.

young females are reproductively exploited to support dairy.<sup>63</sup> Then, when the mother's milk productivity declines, she will be slaughtered for low-grade processed meats or companion animal food.<sup>64</sup> Dairy cows, imagined as domesticated and, thus, transformed, become indexed as passive and unending resources whose only purpose is to sustain humanity. The subjugation of dairy cows is supported by colonial ideas about nature, in which nature is represented as female—a “selfless and self-sacrificing mother”—and this idea is extrapolated onto cows, imagining them as a symbol of “maternal nature: mindless, patient, slow-moving, lactating.”<sup>65</sup>

In Canada, the will to domesticate either Indigenous or foreign animals for dairy reveals an ongoing tendency to imagine animals as natural resources. For example, in a 1919 memorandum from the Minister of the Interior, the Honourable Arthur Meighen, to the Minister of Justice, Charles Joseph Doherty, Meighen suggests that the indigenous muskox be domesticated in Northern Regions for their meat, milk, and wool.<sup>66</sup> Specific to milk, Meighen states that “[a] muskox gives two or three times as much milk as a reindeer. The milk is considered by the white men of our parties to be better than cow's milk in taste. It differs from cow's milk hardly at all except in being richer in cream.”<sup>67</sup> This passage reveals a colonial domesticating desire in which Indigenous animals were a target for cultural and ontological disruption. *Which* animals were domesticated for their milk was mobilized by a belief in the inevitable remaking of the new world according to the inter-species relations and food habits that dominated the old.<sup>68</sup> This transpired within a social context in which milk was thought to be a “perfect food” that was not only nutritionally superior<sup>69</sup> but also led to the racial superiority of white individuals.<sup>70</sup>

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<sup>63</sup> *Id.* at 107.

<sup>64</sup> NAT'L RESEARCH COUNCIL, AIR EMISSIONS FROM ANIMAL FEEDING OPERATIONS: CURRENT KNOWLEDGE, FUTURE NEEDS 35 (2003).

<sup>65</sup> Gaard, *supra* note 58, at 613.

<sup>66</sup> C. GORDON HEWITT, THE CONSERVATION OF THE WILD LIFE OF CANADA 311–13 (N.Y.: C. Scribner 1921).

<sup>67</sup> *Id.* at 313.

<sup>68</sup> See Eisen, *supra* note 60, at 75.

<sup>69</sup> DuPuis, *supra* note 27, at 19.

<sup>70</sup> Iselin Gambert, *Got Mylk? The Disruptive Possibilities of Plant Milk*, 84 BROOK. L. REV. 801, 859 (2019); DuPuis, *supra* note 27, at 117–18.

### A. *Milk's Perfection*

Beginning in the mid-nineteenth century, early nutrition researchers were surprised at milk's content, namely that it "contain[ed], in perfect measure, all the ingredients to sustain life."<sup>71</sup>

In the 1920s, the National Dairy Council of America drew on the statement of renowned nutritionist, E.V. McCollum, to attribute the consumption of dairy products to the cultural, physical, economic, and social superiority of distinctively white populations:

The people who have achieved, who have become large, strong, vigorous people, who have reduced their infant mortality, who have the best trades in the world, who have an appreciation for art, literature and music, who are progressive in science and every activity of the human intellect are the people who have used liberal amounts of milk and its products.<sup>72</sup>

Similarly, Ulysess Hendrick stated that "[o]f all races, the Aryans seem to have been the heaviest drinkers of milk and the greatest users of butter and cheese, a fact that may in part account for the quick and high development of this division of human beings."<sup>73</sup> In Canada, Indigenous children in residential schools and on reserves were used as experimental bodies in which to set consumption norms.<sup>74</sup> With the backing of the government, those running the study deliberately allowed Indigenous children to remain malnourished while at the same time milk was positioned as integral to the health of a child.<sup>75</sup>

At the same time that milk was positioned as a "perfect" food, it was also extremely dangerous, as it caused high rates of infant mortality as well as deaths amongst adults due to its transmission of tuberculosis.<sup>76</sup> The science of milk was then put to work in service of the industry. Within a broader Victorian

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<sup>71</sup> DUPUIS, *supra* note 27, at 19.

<sup>72</sup> *Id.* at 117.

<sup>73</sup> ULYSSES PRENTISS HENDRICK, A HISTORY OF AGRICULTURE IN THE STATE OF NEW YORK 362–63 (N.Y. State Agric. Soc'y 1933).

<sup>74</sup> Ian Mosby, *Administering Colonial Science: Nutrition Research and Human Biomedical Experimentation in Aboriginal Communities and Residential Schools, 1942-1952*, 46 SOC. HIST. 145, 147, 160 (2013).

<sup>75</sup> *Id.* at 161, 171.

<sup>76</sup> See RICHIE NIMMO, MILK, MODERNITY AND THE MAKING OF THE HUMAN: PURIFYING THE SOCIAL 60 (Tony Bennett et al. eds., 2010) (discussing the history of the public perception of milk); DUPUIS, *supra* note 27, at 20–21; see generally PETER J. ATKINS, A HISTORY OF UNCERTAINTY: BOVINE TUBERCULOSIS IN BRITAIN, 1850 TO THE PRESENT (Winchester Univ. Press 2016).

imperative to sanitize society,<sup>77</sup> in which ‘culture’ acts upon ‘nature’ to shore-up the boundaries of each, efforts unfolded to control disease in animal bodies and dairy, to set legal limits on milk’s composition (water to dairy fat ratios, etc.), as well as to pasteurize, refrigerate, and transport milk long distances.<sup>78</sup> The control of disease was central to this vision. As Nimmo writes, “science was to penetrate into the animal nature in order to colonize it for culture and sanitize the process of its externalization for human consumption.”<sup>79</sup> Through these processes, animals as the agents, producers, and consumers of milk are marginalized, and milk is “cleansed of the traces of its human-nonhuman hybridity.”<sup>80</sup> Scientific and legal efforts to intervene upon and control milk can be understood as a further iteration of the colonial project’s severing of relationships between human, animal, and natural life because it effectively removes the animal from the animal product and transforms it for human consumption.

Laws against milk adulteration tied into a broader public health drive to increase milk consumption.<sup>81</sup> The role of public health officials became about ensuring people drank enough milk, rather than about protecting them from contaminated or dangerous foods.<sup>82</sup> These efforts took extra-legal forms, with both the demand and normalization of milk created through a series of propaganda campaigns that linked nutritional discourse, child welfare, and morality.<sup>83</sup> By the mid-twentieth century, milk had assumed an essential role in children’s development, and dairy products became ubiquitous in western Europe, the US, and Canada.<sup>84</sup>

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<sup>77</sup> Nimmo provides information on the sanitizing of the social. See NIMMO, *supra* note 76, at 119. For example, he writes about this ethos that “to govern modern ‘society’ it is necessary to govern its opposite, that is, to define, sanitize, and control its boundaries with ‘nature’; hence the ascendancy of scientific expert knowledge and authority was integral to the realization of humanist modernity.” *Id.*

<sup>78</sup> See generally PETER WILLIAM ATKINS, *LIQUID MATERIALITIES: A HISTORY OF MILK, SCIENCE AND THE LAW* (2010); see also NIMMO, *supra* note 76, at 92–95.

<sup>79</sup> NIMMO, *supra* note 76, at 88.

<sup>80</sup> *Id.* at 133.

<sup>81</sup> DUPUIS, *supra* note 27, at 120; ATKINS, *supra* note 78, pt. IV; *Id.* at 60–72 (outlining the intertwined history of dairy sanitation and marketing); see also Mathilde Cohen, *Of Milk and the Constitution*, 40 HARV. J. L. & GENDER 115, at 144–49 (2017).

<sup>82</sup> Cohen, *supra* note 81.

<sup>83</sup> See generally *id.* at 115–82.

<sup>84</sup> NIMMO, *supra* note 76, at 125–30; DUPUIS, *supra* note 27, at 37; Julie Guard, *The Politics of Milk: Canadian Housewives Organize in the 1930s*, in *EDIBLE HISTORIES, CULTURAL POLITICS* 271–285 (Franca Iacovetta, Valerie J. Korinek, & Marlene Epp eds., 2012).

While dairy remains ubiquitous and western dietary norms have been exported to non-western, “new” markets using strategies of food imperialism,<sup>85</sup> its consumption in the US and Canada is declining. For example, between 1975 and 2017, milk consumption in the US dropped 40%, from 247 pounds to 149 pounds per person, per year.<sup>86</sup> In Canada, dairy consumption declined by 18% between 1995 and 2014.<sup>87</sup> At the same time, plant-based milk sales are increasing, representing a \$1.7 billion industry in the US.<sup>88</sup> In January of 2019, Canada’s revised food guide removed food groups all together, including those of meat and dairy food.<sup>89</sup> Overall, it advises Canadians to consume more plant-based foods, including proteins.<sup>90</sup> It is within this context of declining dairy and increased plant-milk consumption that pro-dairy bills and lawsuits have been introduced.

### III. Securing Mammalian Ontologies of Milk: Agrarian Identities, Animal-Based Economies

Food ontologies of real versus fake are reflected in law and are used to reproduce normative orders of food consumption, as well as the inequitable relationships between humans and animals on which they rely.<sup>91</sup> For example, in 2010, the National Milk Producers Federation (“NMPF”)—whose motto is: “Connecting Cows, Cooperatives, Capitol Hill, and Consumers”—petitioned the US Food and Drug Administration (“FDA”) to enforce existing legal standards of labeling identity.<sup>92</sup> The NMPF asked the FDA to

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<sup>85</sup> Vasile Stănescu, *The Whopper Virgins: Hamburgers, Gender, and Xenophobia in Burger King’s Hamburger Advertising*, in *MEAT CULTURE* 90, 90–108 (Brill 2016); Gaard, *supra* note 58, at 595.

<sup>86</sup> Niall McCarthy, *Milk’s Massive American Decline*, STATISTA (May 13, 2019), <https://www.statista.com/chart/2387/american-milk-consumption-has-plummeted/>.

<sup>87</sup> Eric Atkins, *Milk Sales Continue to Slide as Diets, Society Shift Away from Dairy*, GLOBE & MAIL (Aug. 26, 2015), <https://www.theglobeandmail.com/report-on-business/milk-sales-continue-to-slide-as-diets-society-shift-away-from-dairy/article26117550/>.

<sup>88</sup> McCarthy, *supra* note 86.

<sup>89</sup> Amina Zafar, *New Food Guide Unveiled Without Food Groups or Recommended Servings*, CBC (Jan. 21, 2019, 6:39 PM), <https://www.cbc.ca/news/health/canada-food-guide-unveil-1.4987261>.

<sup>90</sup> *Id.*

<sup>91</sup> Cohen, *supra* note 81.

<sup>92</sup> Letter from James Mulhern, President & CEO, National Milk Producers Federation, to Scott Gottlieb, Commissioner, U.S. Food & Drug Administration (Oct. 26, 2017), [https://www.nmpf.org/wp-content/uploads/files/NMPF%20to%20Gottlieb%20Nutrition%20and%20Label%20Info%2010%2026%202017%20FINAL%20\(r1\).pdf](https://www.nmpf.org/wp-content/uploads/files/NMPF%20to%20Gottlieb%20Nutrition%20and%20Label%20Info%2010%2026%202017%20FINAL%20(r1).pdf) [hereinafter Mulhern 2017 Letter]; Letter from Beth Panko Briczinski, Vice President, National Milk Producers Federation, to Food & Drug Administration (Aug. 29, 2017), <https://www.nmpf.org/wp-content/uploads/files/N>

intervene to prevent non-dairy products from being labeled as milk, ice cream, or cheese, because this constituted illegal misbranding.<sup>93</sup> The NMPF argued that, even if the words “soy” or “almond” precede the word “milk” on the label, the non-dairy product is “misbranded” because it “includes a standardized food name, e.g., ‘milk’, as part of a name for that product, e.g., ‘soymilk.’”<sup>94</sup> They continue to reason that the terminology on the labels of plant-based milks, cheeses, yogurts, and frozen desserts is “confusingly similar”<sup>95</sup> for consumers, who would assume that these were in fact animal-based products.<sup>96</sup>

Importantly, the NMPF mobilized law to maintain animal-based products as the norm from which others presently deviate in terms of composition and nutritional content.<sup>97</sup> The NMPF charged that non-dairy companies are:

[C]apitalizing on the dairy halo of good health by pairing a standardized dairy term—like “milk” or “yogurt”, which consumers expect to contribute specific essential nutrients to the diet—with nutritionally-inferior, non-standardized, formulated plant-based foods is defrauding the consumer by misrepresenting the true nutrient content of these imitation products . . . NMPF again requests the FDA to significantly increase enforcement efforts to prevent the misbranding of certain food items that are imitations of standardized dairy products.<sup>98</sup>

By focusing on questions of substance and nutritional content, the NMPF attempted to deploy the law to maintain a food ontology that is both substance-based and animal-based. This leaves ethical questions as to the relations that make something or someone food ignored and excluded. Following this petition in 2010, class action

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MPF%20Comments%20on%20GFI%20Petition%2008%2029%202017%20FINA L.pdf [hereinafter Briczinski Letter].

<sup>93</sup> Mulhern 2017 Letter, *supra* note 92; Briczinski Letter, *supra* note 92.

<sup>94</sup> Letter from James Mulhern, President & CEO, National Milk Producers Federation, to Department of Health and Human Services, Food & Drug Administration (Feb. 21, 2019), <https://live-nmpf.pantheonsite.io/wp-content/uploads/2019/03/National-Milk-Producers-Federation-Citizen-Petition-and-Attachments.pdf> [hereinafter Mulhern 2019 Letter].

<sup>95</sup> Mulhern 2019 Letter, *supra* note 94.

<sup>96</sup> *Id.*

<sup>97</sup> Letter from Beth Panko Briczinski, Director, National Milk Producers Federation, to Food & Drug Administration (July 28, 2010), <https://www.nmpf.org/wp-content/uploads/file/NMPF-FOP-Comment-072810.pdf>.

<sup>98</sup> *Id.*

lawsuits making similar arguments were levied against plant-based food producers.

In 2013, a proposed class action lawsuit, *Ang v. Whitewave Foods Co.*, was brought against three producers of plant-based milks on the basis that products labeled as “almond milk” and “soymilk” duped consumers into buying these products when they believed that they were buying animal-based products.<sup>99</sup> The plaintiffs’ proposed class action was unsuccessful, with US District Judge, Samuel Conti, stating that it “stretche[d] the bounds of credulity.”<sup>100</sup> Judge Conti further held that no reasonable consumer would mistake the plant-based products in question for dairy-based products because their labeling clearly stated “almond” or “soy.”<sup>101</sup>

A similar case, *Gitson v. Trader Joe’s Co.*, was filed in California in 2013.<sup>102</sup> The plaintiffs proposed a class action on the basis that the defendant’s soymilk label violated existing standards of identity because the product failed to meet the legal definition of “milk.”<sup>103</sup> In December of 2015, US District Judge, Vince Chhabria, dismissed this claim,<sup>104</sup> holding that “soymilk” does not violate the Food, Drug, and Cosmetic Act by purporting to be a food that the FDA has given a “standard identity” to—in this case, milk—because “the standardization of milk simply means that a company cannot *pass off* a product as ‘milk’ if it does not meet the regulatory definition of milk” and here, the company did not, by calling its product “soymilk” attempt to pass off this product as milk.<sup>105</sup> Rather, Chhabria notes that “[t]he reasonable consumer (indeed, even the least sophisticated consumer) does not think soy milk comes from a cow. To the contrary, people drink soy milk in lieu of cow’s milk.”<sup>106</sup> These attempted class action lawsuits provide examples of attempts to mobilize law to both protect the interests of dominant food producers and secure normalized modes of eating.

In a 2017 case heard before the United States District Court for the Central District of California, class action plaintiff, Cynthia Painter, sued almond milk producer, Blue Diamond Growers, on the

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<sup>99</sup> *Ang v. Whitewave Foods Co.*, No. 13-CV-1953, 2013 WL 6492353, at \*1 (N.D. Cal. Dec. 10, 2013).

<sup>100</sup> *Id.* at 4.

<sup>101</sup> *Id.*

<sup>102</sup> *Gitson v. Trader Joe’s Co.*, No. 13-CV-01333-WHO, 2013 WL 5513711, at \*2–3 (N.D. Cal. Oct. 4, 2013).

<sup>103</sup> *Id.* at 2.

<sup>104</sup> *Gitson v. Trader Joe’s Co.*, No. 13-CV-01333-VC, 2015 WL 9121232, at \*2 (N.D. Cal. Dec. 1, 2015).

<sup>105</sup> *Id.* at 1–2.

<sup>106</sup> *Id.* at 1.

basis that its products are mislabeled.<sup>107</sup> The plaintiff argued that rather than using the term “almond milk,” these products should be labeled as “imitation milk,” as they stand in as substitutes for dairy milk, yet they do not have the same nutritional composition.<sup>108</sup> The court did not find in favour of the plaintiff, and, instead, held that a reasonable consumer would not be misled to purchase almond rather than dairy milk by assuming that these were nutritionally equivalent.<sup>109</sup> Upon appeal, the US Court of Appeals for the Ninth Circuit upheld the lower court’s ruling and additionally noted that the legal definition of imitation products centers on the substitution of inferior ingredients in the making of the same product.<sup>110</sup> Specifically, the Court noted that because dairy milk and almond milk are distinct products, each necessarily has a different nutritional profile.<sup>111</sup> It could not, then, be a case of imitation because, as the Appellee’s Answering Brief noted, imitation requires that producers “literally remove and replace the product’s natural or traditional ingredients with cheaper, less nutritious ingredients designed to increase yield or shelf life.”<sup>112</sup> This case serves as an interesting counterpoint to others in that it expressly positions almond milk as a distinct food rather than a substitution or “replacement” dairy product.

Matters of dairy ontology have not only been limited to the courts, as politicians have sought to strengthen the legal ontology of milk as *only* animal-based. Both Congresspersons and Senators have asked the FDA to enforce existing regulations and have proposed companion acts in both the House of Representatives and the Senate that would curtail the “mislabeling” of “imitation” milks in order to protect and defend dairy farmers.<sup>113</sup> On December 16, 2016, Congressman Peter Welch—a Democrat representing Vermont—alongside twenty-four other Congresspersons, wrote to the FDA, urging them to use their legal authority to enforce labeling standards.<sup>114</sup> In his press release on the matter, Welch describes this

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<sup>107</sup> Painter v. Blue Diamond Growers, No. CV 17-02235-SVW-AJW, 2017 WL 4766510, at \*1 (C.D. Cal. May 24, 2017), *aff’d*, 757 F. App’x 517 (9th Cir. 2018).

<sup>108</sup> *Id.*

<sup>109</sup> *Id.* at 2–3.

<sup>110</sup> Painter v. Blue Diamond Growers, 757 F. App’x 517, 519 (9th Cir. 2018).

<sup>111</sup> *Id.*

<sup>112</sup> Appellee’s Answering Brief at 24, Painter v. Blue Diamond Growers, 2017 WL 4766510 (C.D. Cal. 2017) (No. 17-55901).

<sup>113</sup> *Welch Leads Bipartisan Effort to Stop the Illegal Branding of ‘Fake Milk’ as Real Milk*, CONGRESSMAN PETER WELCH (Dec. 16, 2016), <https://welch.house.gov/media-center/press-releases/welch-leads-bipartisan-effort-stop-illegal-branding-fake-milk-real-milk> [hereinafter *Illegal Branding*].

<sup>114</sup> Letter from Peter Welch, Congressman Vt., et al. to Robert M. Califf, Comm’r FDA (Dec. 16, 2016), <https://www.nmpf.org/wp-content/uploads/Welch-Simpson>



as an effort to catalyze the FDA “to investigate and take action against the manufacturers of products they falsely claim to be milk.”<sup>115</sup> Their reasons for writing to the FDA are based on the declining sales of dairy, the increasing sales of plant-based milks, and the commensurate decline in dairy prices.<sup>116</sup> They claim that, “[s]ince 2014, milk prices have plunged 40 percent. During that same time, there has been a surge in the mislabeling of imitation “milk” products, including beverages produced from almond, soy, and rice.”<sup>117</sup>

Welch and others argue that the makers of these plant-based products should not be permitted to market them as “milk”.<sup>118</sup> They base this argument on their claim that, because “real” milk is “produced by the mammary gland,” it contains levels of vitamins, minerals, and protein that plant-based milks are unable to “mimic.”<sup>119</sup> In their letter to the FDA, they assert that while the legal framework to address this problem already exists, the FDA fails to enforce current labeling standards.<sup>120</sup> Following this public statement regarding the FDA’s inaction, Welch and others proposed legislation that would curtail the FDA’s discretion and oblige enforcement on the matter.<sup>121</sup>

On January 31, 2017, Welch and Senator Tammy Baldwin, a Democrat for the State of Wisconsin, introduced companion bills to the House of Representatives and the Senate “to require enforcement against misbranded milk alternatives.”<sup>122</sup> The long title of the Act is the *Defending Against Imitations and Replacements of Yogurt, Milk, and Cheese to Promote Regular Intake of Dairy Everyday Act*, while the short title is the *Dairy Pride Act* (“DPA”).<sup>123</sup> The purpose of the DPA is to prevent manufacturers of plant-based milks from using the word “milk” on the label of their products—a measure they claim will encourage the consumption of animal-based

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%20Letter.pdf [hereinafter Welch Letter].

<sup>115</sup> *Illegal Branding*, *supra* note 113.

<sup>116</sup> Welch Letter, *supra* note 114, at 1.

<sup>117</sup> *Illegal Branding*, *supra* note 113.

<sup>118</sup> *Id.*; see Welch Letter, *supra* note 114.

<sup>119</sup> Welch Letter, *supra* note 114; *Lawmakers Make Push on Milk Labeling*, CONGRESSMAN PETER WELCH (Jan. 31, 2017), <https://welch.house.gov/media-center/press-releases/lawmakers-make-push-milk-labeling> [hereinafter *Push on Milk Labeling*].

<sup>120</sup> Welch Letter, *supra* note 114.

<sup>121</sup> *Push on Milk Labeling*, *supra* note 119.

<sup>122</sup> Dairy Pride Act, H.R. 778, 115<sup>th</sup> Cong. (2017); Dairy Pride Act, S. 130, 115<sup>th</sup> Cong. (2017).

<sup>123</sup> S. 130; H.R. 778.

dairy products.<sup>124</sup> To justify their demand, the lawmakers behind the Act cite to the FDA definitions of “milk,” “cream,” and “dairy.”<sup>125</sup> They also claim that the health of adolescents, adult females, and the entire American population is in jeopardy due to low milk consumption.<sup>126</sup> They further argue that “imitation dairy products” are nutritionally unequal to dairy milk.<sup>127</sup> If passed, the DPA would *require* the FDA to enforce its existing legislation regarding the definition of milk.<sup>128</sup> Under the DPA, the FDA would also be required to issue a national guide for the enforcement of mislabeled products within ninety days, as well as to report to Congress within two years as to their progress on the matter.<sup>129</sup>

The DPA was not passed in 2017, but it was reintroduced on March 14, 2019 by Senators Baldwin and Risch.<sup>130</sup> As before, the bill is meant to prevent “fake” vegetable and nut milks from trading on “dairy’s good name.”<sup>131</sup>

#### IV. Defining Dairy, Erasing Animals

It is my position that the DPA defines “milk” and “dairy” in such a way that dairy cows, goats, and sheep are de-animalized to the extent that their use to this industry is unquestioned and their relationships to other animals and their offspring are erased.

The lawmakers who authored the DPA sought to maintain existing legal definitions of “milk” and “cream” as that resulting from “the complete milking of one or more healthy cows.”<sup>132</sup> Whereas “dairy” products can be from other milk-producing animals and labeled as such provided that they “contain[] as a primary ingredient, or [are] derived from, the lacteal secretion, practically free from colostrum, obtained by the complete milking of one or more hooved mammals.”<sup>133</sup> From these definitions, the inference

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<sup>124</sup> See *Push on Milk Labeling*, *supra* note 119; *Illegal Branding*, *supra* note 113.

<sup>125</sup> S. 130 §§ 2(7), 4(a); H.R. 778 §§ 2(7), 4(a).

<sup>126</sup> S. 130 § 2(3); H.R. 778 § 2(3).

<sup>127</sup> S. 130 § 2(5); H.R. 778 § 2(5).

<sup>128</sup> S. 130 § 4(a); H.R. 778 § 4(a).

<sup>129</sup> S. 130 § 4(b)–(c); H.R. 778 § 4(b)–(c).

<sup>130</sup> Dairy Pride Act, S. 792, 116th Cong. (2019);

Dairy Pride Act, H.R. 1769, 116th Cong. (2019). See generally Beth Newhart, *Senators Reintroduce Dairy Pride Act*, DAIRY REP. (Mar. 19, 2019), <https://www.dairyreporter.com/Article/2019/03/19/Senators-reintroduce-Dairy-Pride-Act#>.

<sup>131</sup> Newhart, *supra* note 130.

<sup>132</sup> S. 792 § 2(7); H.R. 1769 § 2(7).

<sup>133</sup> S. 792 § 4(a); H.R. 1769 § 4(a).

can be made that only animal-based milks can be labeled as “milk,” and the sale of human breast milk is prohibited.

The directionality of milk consumption is also fixed, as per these regulations, farmed animals produce milk to be consumed by humans, and not vice-versa. The commodification of animal milk also ushers our attention away from situations where cross-species feedings occur outside of a consumer market—for instance, when humans breastfeed orphaned animals or, in inter-species kinships, when animals of differing species nurse others. While human’s consumption of milk ought to provide the basis to consider cross-species kinship and to destabilize the assumed fixity of the species-barrier, these possibilities are largely foreclosed by existing legal definitions and standards of food identity. These are legal norms, which I believe both rely on and reinforce the belief that humans are above all others and, as a result, are entitled to the “food” produced by farmed animals.

Additionally, I argue that the legal stipulation that “milk” and “dairy” must be derived from the “complete milking” of the animal in question is another means by which animal relations are decided and denied through law. In the British context, a court in the early twentieth century ruled that, if milk sold on the market was not from the complete milking of a cow *because* the farmer chose to save some for the calf, then this would demonstrate the prioritization of the interests of the calf over that of human infants.<sup>134</sup> Concerns about “complete milking” are also tied to historical tropes about adulteration that date back to the early twentieth century, when it was a common belief that farmers kept the “higher-quality” hind-milk for themselves (or for nursing calves) and sold the lower fat fore-milk to consumers.<sup>135</sup> The first milk (fore-milk) was believed to be thinner and of lower quality, whereas the hind-milk was believed to be superior because of its higher fat concentrations.<sup>136</sup> I suggest that the US stipulation of “complete milking” reflects similar concerns and outcomes. If a cow’s entire milk supply must be directed to the dairy industry to meet the legal threshold for the sale of “milk,” she is precluded from nourishing her calf—who will then be used for dairy or veal depending on their sex.<sup>137</sup>

I argue that the breaking and erasure of cow-calf bonds is foundational to the dairy industry. In order to market milk as a food that is first and foremost for humans, the dairy industry must

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<sup>134</sup> ATKINS, *supra* note 78, at 213.

<sup>135</sup> *Id.*

<sup>136</sup> *Id.*

<sup>137</sup> Gaard, *supra* note 58, at 612.

continually engage in a project of denying a bovine ontology of relational animality. The industry instead asserts a deanimalized ontology of cows as milk-machines who exist solely to nourish humans and to bolster and optimize human populations.<sup>138</sup> Nutritional claims about milk come together with biopolitical concerns about healthy children and healthy future populations in such a way that portrays this food as substance whose benefits outweigh ethical concerns related to its production. In fact, Congresspersons supporting the DPA justify the Act (and, thus, the resulting legal ontology of milk and dairy) based on milk and dairy's supposed nutritional irreplaceability, and the necessity of these substances for American well-being.<sup>139</sup>

### V. The Biopolitics of Milk and Nutritional Sciences

The lawmakers behind the DPA have leveraged broader anxieties about the nutritional state of the American population to justify a bill that explicitly uses law to “promote the regular intake of dairy everyday.”<sup>140</sup>

According to the DPA, the entire American population—in particular, adolescent boys, adolescent girls, and adult women—fail to meet the daily-recommended intake of dairy products as outlined in the American nutritional guidelines.<sup>141</sup> The DPA states that not only do youth fail to consume the recommended 3 cups per day as set out in the guidelines, but that dairy consumption tends to drop off during adulthood such that “more than 80 percent of the entire population of the United States does not meet the daily dairy intake recommendation.”<sup>142</sup>

The authors of the DPA take for granted milk's supposed health benefits and place it in the diet of humans, although various

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<sup>138</sup> Stănescu, *supra* note 20.

<sup>139</sup> See *U.S. Senators Tammy Baldwin and Jim Risch Stand Up for America's Dairy Farmers*, SENATOR TAMMY BALDWIN (Mar. 14, 2019), <https://baldwin.senate.gov/press-releases/dairy-pride-2019>.

<sup>140</sup> Dairy Pride Act, S. 792, 116th Cong. § 1 (2019). As discussed in the introduction, various food commentators and experts warn of an impending American crisis catalyzed by bad food choices. Obesity, diabetes, and heart disease are some of the problems that are supposedly plaguing Americans to the point that the quality and length of individual lives will be diminished, the security of the nation is threatened, proper parenting is impeded, and healthcare costs will be unsustainable. Anna Kirkland, *The Environmental Account of Obesity: A Case for Feminist Skepticism*, 36 SIGNS 463–85 (2011); MICHAEL POLLAN, *FOOD RULES: AN EATER'S MANUAL* (Penguin Books 2009); Talia L. Welsh, *Healthism and the Bodies of Women: Pleasure and Discipline in the War Against Obesity*, 1 J. FEMINIST SCHOLARSHIP 33, 35 (2011).

<sup>141</sup> S. 792 § 2.

<sup>142</sup> *Id.*

studies have contested the necessity of dairy for human health. For example, studies have shown the following: high milk consumption is linked to higher rates of mortality for cohorts of men and of women, and women also experience an increased likelihood of hip fracture;<sup>143</sup> neither a high calcium diet nor one high in milk consumption decreases the risk of hip fractures in women;<sup>144</sup> consumption of milk during childhood is related to an increased risk of colorectal cancer;<sup>145</sup> and diets high in dairy are related to an increased likelihood of mortality for men diagnosed with nonmetastatic prostate cancer.<sup>146</sup>

Yet, the authors of the DPA claim that when consumed in the manner directed by current national nutritional guidelines—guidelines that, in their original form, would not have included dairy<sup>147</sup>—dairy products “contribute about 67 percent of calcium, 64 percent of vitamin D, and 17 percent of magnesium”<sup>148</sup> of an individual’s daily recommended amounts. The nutritional profile of dairy contained in the DPA is essential to these politicians’ ontology of milk, however, it is apparently not the only factor. For example, the Act does not contemplate whether a plant-based product that is nutritionally identical to animal-milk could be considered “milk.”

As mentioned previously, the DPA authors contend that plant-based milks mislead consumers because these products do not have the same volume of vitamins and nutrients per serving as animal milks.<sup>149</sup> Yet, because they are labeled as milk, DPA authors claim that consumers would purchase vegan milks under the assumption that all products labeled as milk are nutritionally equivalent to animal milk.<sup>150</sup> However, the authors do not detail the nutritional differences between milks from cows, goats, or sheep. Here, the authors advance their claim on the basis that animal milks are both the alimentary and nutritional norm from which all other products

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<sup>143</sup> Karl Michaëlsson et al., *Milk Intake and Risk of Mortality and Fractures in Women and Men: Cohort Studies*, 349 *BMJ*, October 27, 2014, at 1, 3–4.

<sup>144</sup> Diane Feskanich et al., *Calcium, Vitamin D, Milk Consumption, and Hip Fractures: A Prospective Study Among Postmenopausal Women*, 77 *AM. J. CLIN. NUTR.* 504, 508 (2003).

<sup>145</sup> Jolieke C. van der Pols et al., *Childhood Dairy Intake and Adult Cancer Risk: 65-y Follow-up of the Boyd Orr Cohort*, 86 *AM. J. CLIN. NUTR.* 1722, 1726 (2007).

<sup>146</sup> Meng Yang et al., *Dietary Patterns After Prostate Cancer Diagnosis in Relation to Disease-Specific and Total Mortality*, 8 *CANCER PREV. RES.* 545, 545–46 (2015).

<sup>147</sup> James Hamblin, *How Agriculture Controls Nutrition Guidelines*, *THE ATLANTIC* (Oct. 8, 2015), <https://www.theatlantic.com/health/archive/2015/10/ag-v-nutrition/409390/>.

<sup>148</sup> Dairy Pride Act, S. 792, 116th Cong. § 2 (2019).

<sup>149</sup> *Id.*

<sup>150</sup> *Id.*

deviate, thereby narrowly delimiting alimentary relationships according to a substance-based ontology<sup>151</sup> in which nutrition and health are the only objectives worthy of consideration.

The nutrition-based concerns of the DPA authors dovetail with a specific vision of national biopolitics<sup>152</sup> in which the national food guide is a tool meant to direct the dietary options provided by state institutions and inform the consumption habits of individuals.<sup>153</sup> By appealing to the current Dietary Guidelines for Americans, the DPA positions human health as the only matter worthy of consideration regarding the definition of food.<sup>154</sup> As per the DPA:

The Dietary Guidelines state that most Americans are not meeting recommended intake for the dairy food group. Consumption of dairy foods provides numerous health benefits, including lowering the risk of diabetes, metabolic syndrome, cardiovascular disease, and obesity. . . . The Dietary Guidelines state that dairy foods are excellent sources of critical nutrients for human health, including vitamin D, calcium, and potassium, all of which are under consumed by people of the United States.<sup>155</sup>

This passage evinces how the DPA uncritically relies on the Dietary Guidelines to bolster their position.

Yet, the DPA's stated aim of promoting the daily consumption of dairy because the Dietary Guidelines recommend these products directly contradicts the original version of the 2015-2020 Dietary Guidelines proposed to Congress in 2015.

The development of the 2015-2020 Dietary Guidelines referenced throughout the DPA provides insight into the contingent and politicized nature of food ontologies. The Dietary Guidelines

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<sup>151</sup> Lisa Heldke, *An Alternative Ontology of Food: Beyond Metaphysics*, 15 *RADICAL PHIL. REV.* 67, 67–88 (2012).

<sup>152</sup> Biopolitics refers to the state's administration of and intervention into its populations at the level of the body. This form of intervention is done in a managerial way to optimize life and social wellbeing, what Foucault calls "making life." Unlike negative forms of power, such as sovereign power, in which the state has the authority to kill, biopolitics still retains this authority, but does so through non-intervention and/or neglect—i.e., "letting die." See MICHEL FOUCAULT, *THE HISTORY OF SEXUALITY* 139 (Vintage Books Edition 1978).

<sup>153</sup> FOOD & DRUG ADMIN., *DIETARY GUIDELINES FOR AMERICANS 2015-2020*, at xi (2015) [hereinafter *DIETARY GUIDELINES FOR AMERICANS*].

<sup>154</sup> S. 792 § 2.

<sup>155</sup> *Id.*

are updated every 5 years.<sup>156</sup> For the 2015 revision, an expert panel of 15 academic researchers was assembled to make recommendations to the US House Committee on Agriculture.<sup>157</sup> After analyzing the findings of over four thousand peer-reviewed studies, the expert panel recommended that issues of environmental sustainability inform the guidelines.<sup>158</sup> The expert panel's acknowledgement of the need for food sustainability arguably shows that human nutrition must also consider the way in which food is produced.<sup>159</sup> Given the resource consumption and emissions entailed in animal agriculture, as well as the health impacts of meat, and the fact that grain used to feed farmed animals for their meat could be directly consumed by humans (thereby alleviating global food shortages), the expert panel said it would be inconsistent to recommend animal-based diets for the nation given the impact for both American and global populations.<sup>160</sup> Moreover, the expert panel stated that, in terms of human health, diets higher in plant-based foods were preferable.<sup>161</sup>

This was the first time that the relationships and effects of food production were acknowledged by an expert panel and brought to the attention of the House Committee on Agriculture overseeing the dietary guidelines.<sup>162</sup> The recommendations were met with fierce resistance, including backlash from the meat industry, which provides considerable financial support for the implementation of the guidelines.<sup>163</sup> Meat industry lobbyists threatened to withdraw their funding for the implementation of the nutrition guidelines if the final version of the guidelines did not recommend eating meat.<sup>164</sup> Congressmen Mike Conaway condemned the expert committee for "exceeding its scope" and Congressman David Scott condemned the

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<sup>156</sup> DIETARY GUIDELINES FOR AMERICANS, *supra* note 153, at 2.

<sup>157</sup> *Id.* at 7.

<sup>158</sup> FOOD & DRUG ADMIN., SCIENTIFIC REPORT OF THE 2015 DIETARY GUIDELINES ADVISORY COMMITTEE: ADVISORY REPORT TO THE SECRETARY OF HEALTH AND HUMAN SERVICES AND SECRETARY OF AGRICULTURE 5 (2015) [hereinafter REPORT OF THE 2015 DIETARY GUIDELINES ADVISORY COMMITTEE]; Hamblin, *supra* note 147.

<sup>159</sup> *Id.*

<sup>160</sup> REPORT OF THE 2015 DIETARY GUIDELINES ADVISORY COMMITTEE, *supra* note 158, at 289.

<sup>161</sup> *Id.* (stating that "[c]onsistent evidence indicates that, in general, a dietary pattern that is higher in plant-based foods, such as vegetables, fruits, whole grains, legumes, nuts, and seeds, and lower in animal-based foods is more health promoting and associated with lesser environmental impact . . .").

<sup>162</sup> Hamblin, *supra* note 147.

<sup>163</sup> *Id.*

<sup>164</sup> *Id.*

committee for failing to recognize that US agriculture is “the single most important industry in the world.”<sup>165</sup>

For their part, pro-dairy politicians stated that the most pressing issues to be addressed by the dietary guidelines were not those of sustainability, but were about guaranteeing “that students have access to appealing and nutritious dairy products.”<sup>166</sup> Republican Congressman, Glenn Thompson of Pennsylvania, effectively foreshadowed the DPA by stating that efforts to facilitate milk consumption are a matter of state policy and asked the committee: “What can we do to remove policies that hinder milk consumption, and to promote policies that could enhance milk consumption?”<sup>167</sup> Because of the economic, cultural, and political position of animal-based industries, neither sustainability nor an overall recommendation for plant-based diets were included in the 2015 guidelines.<sup>168</sup>

The final 2015-2020 guidelines rely on a constrained understanding of nutrition in which nutrition is operationalized as being about the health of the individual eater and the national population.<sup>169</sup> These guidelines reflect an ontology of food in which relations, such as the impact and ethics of food production, are ignored in favor of a substance-based food ontology that supports dominant interests. The politics shaping the final Dietary Guidelines show how state nutrition programs can be used to support and create markets for agricultural industries.

These political and legal efforts to preserve animal-based milk ontologies are unfolding in colonial contexts in which domination has been made possible through the institution of capitalistic relationships. Fundamentally, these lawsuits and the proposed DPA attempt to use law to preserve a specific production process in which the very point of animal labor is to produce surplus that takes the form of milk, eggs, and meat.

As Dinesh Wadiwel has argued, life in general is the target of a capitalism that ensnares nature’s energy—ecological, animal, and that of racialized humans, especially.<sup>170</sup> Inasmuch as the “wage” for humans is kept deliberately low as to prevent workers from

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<sup>165</sup> *Id.*

<sup>166</sup> *Id.*

<sup>167</sup> *Id.*

<sup>168</sup> *Id.*; see generally DIETARY GUIDELINES FOR AMERICANS, *supra* note 153.

<sup>169</sup> DIETARY GUIDELINES FOR AMERICANS, *supra* note 153, at xi.

<sup>170</sup> Moore, *supra* note 36, at 115; Dinesh Wadiwel, *Chicken Harvesting Machine: Animal Labor, Resistance, and the Time of Production*, 117 S. ATL. Q. 527, 535-36 (2018).



purchasing the means of production and then freeing themselves of the captivity of wage labor, the wage then only allows humans the “freedom” to choose the manner in which they spend their wages. For Wadiwel, the grain fed to farmed animals is commensurable to the wage paid to humans in that the end result is ultimately the same: humans purchase subsistence (e.g., food), while animals are directly provided the subsistence to reproduce their labour capacity.<sup>171</sup>

The distinction is that animals in the food industry exist as “hybrid” forms of capital, made up of “*both constant and variable capital*. Food animals are deployed *as both* a raw material that will be ‘finished’ as a product by the production process *and simultaneously* labor that must work on itself through a ‘metabolic’ self-generative production.”<sup>172</sup> It is this specific form of animal-based labor that “real” milk ontologies seek to preserve milk and other dairy products as the result of a specific production process: animals as the property of capitalists who are worked upon by human labors and whom labor upon their own bodies.<sup>173</sup>

I argue that within a context of colonial humanism, it is capitalism’s investment and ordering of the natural that the DPA and “real” milk lawsuits seek to protect. It is my position that these legal battles to re-secure milk ontologies—and, consequently, a specific mode of producing “milk”—are made possible because of prevailing and biased nutritional science, a drive to protect mainstream American identities, and the interests of pro-dairy parties. If “milk” was not largely defined by a particular process (i.e., the complete milking of hooved mammals)<sup>174</sup> and nutritional content, then the terrain on which to argue over its “realness” or “fakeness” would be absent.

#### A. *Law and Nutritional Standards*

The DPA frames milk as a nutritionally superior food product for which an animal-based standard of identity must be maintained.<sup>175</sup> While the DPA’s ontology of food frames dairy products as foods that should be uncritically consumed to benefit the health of the individual, these health claims are steeped in enduring legacies of milk as a perfect and complete food essential to children’s development.<sup>176</sup> Current legal efforts that aim to secure “milk” as being only animal-based by appealing to its nutritional superiority

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<sup>171</sup> Wadiwel, *supra* note 170, at 530.

<sup>172</sup> *Id.* at 535.

<sup>173</sup> *Id.*

<sup>174</sup> Dairy Pride Act, S. 130, 115th Cong. § 4 (2017).

<sup>175</sup> *Id.* at § 2(8).

<sup>176</sup> DuPuis, *supra* note 27, at 74. See generally NIMMO, *supra* note 76.

are consistent with how milk has been used to further racist and biopolitical aims.<sup>177</sup>

It is unclear whether the supporters of the DPA are arguing that the FDA must enforce their regulations on the grounds that plant-based milks are fake *because* they are nutritionally unequal to cow's milk, or whether their fakeness is because plant-based milks are simply not the secretions of a lactating cow. Regardless, both claims defer to the force of law to position animal-based foods as the "real" food, from which imposters must be measured. While Congresspersons base their advocacy on nutritional equivalencies and the legal standard of identity as defined by the federal regulations, the social position of dairy exceeds its nutritional value and its contribution to the economy; it is deeply tied to hetero-normative notions of rural whiteness.<sup>178</sup> It then might be the case that the whiteness of milk (materially and ideologically) is inseparable from its connections to "wholeness," "completeness," and "purity." Extending this, I would argue that according to the dairy industry and its proponents, "real" milk cannot exist in non-white hands or in non-white spaces.<sup>179</sup> Thus, the "traditional family values" associated with the dairy industry and other rural agrarian industries are at stake.<sup>180</sup>

The DPA was introduced by Senator Baldwin from Wisconsin, where dairy farmers brand themselves as "America's Dairyland."<sup>181</sup> At \$45.6 billion USD per year,<sup>182</sup> dairy constituted approximately 43% of the agricultural economy of the state in

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<sup>177</sup> DUPUIS, *supra* note 27, at 90–124; Stănescu, *supra* note 1.

<sup>178</sup> Kelly Struthers Montford, *The "Present Referent": Nonhuman Animal Sacrifice and the Constitution of Dominant Albertan Identity*, 8 PHAENEX 105, 107–10 (2013); DUPUIS, *supra* note 27, at 92–97.

<sup>179</sup> See generally Cohen, *supra* note 81, at 130–31 (discussing the role of US courts and the constitution in milk's whiteness).

<sup>180</sup> See also Gwendolyn Blue, *If It Ain't Alberta, It Ain't Beef: Local Food, Regional Identity, (Inter)National Politics*, 11 FOOD, CULTURE, & SOC'Y 69 (2008) [hereinafter Blue, *If It Ain't Alberta*]; Gwendolyn Blue, *Branding Beef: Marketing, Food Safety, and the Governance of Risk*, 34 CAN. J. COMM. 229, 240–41 (2009); Kelly Struthers Montford, *The "Present Referent": Nonhuman Animal Sacrifice and the Constitution of Dominant Albertan Identity*, 8 PHAENEX 105, 114 (2013).

<sup>181</sup> Dairy Pride Act, S. 130, 115th Cong. (2017) (providing that the DPA was introduced by Senator Baldwin from Wisconsin). See, e.g., Hope Kirwan, *Is Wisconsin Still 'America's Dairyland' Or Does It Need a New Slogan?*, NPR (Nov. 1, 2017), <https://www.npr.org/sections/thesalt/2017/11/01/561427862/is-wisconsin-still-americas-dairyland-or-does-it-need-a-new-slogan>.

<sup>182</sup> DAIRY FARMERS OF WISCONSIN, PROUDLY WISCONSIN DAIRY FACTS (2019), <https://dfwblobstorage.blob.core.windows.net/ewcmediaccontainer/eatwisconsincheese/media/content/statistics/proudly-wisconsin-dairy-facts.pdf>.

2017.<sup>183</sup> The Dairy Farmers of Wisconsin emphasize that their dairy is nutritious and provide a multitude of programs for habituating dairy consumption in the diets of children and youth.<sup>184</sup> A section of their website, “Meet our Farmers” features profiles on Wisconsin dairy families.<sup>185</sup> Features often include videos and family photos of white, able-bodied farmers and their families, the name of their farm, how many milking cows their farm has, the number of generations supported by the farm, how many people they employ, and the (wholesome) values shaping their business.<sup>186</sup> They are often pictured with their heteronormative spouses and children, depicted as brothers, fathers, and/or sons working together.<sup>187</sup> One feature profiles a woman farmer, positioning her business as a feminist achievement.<sup>188</sup>

For his part, Congressman Welch lists “Fighting for Vermont’s Farmers” as one of his key political issues, which features a picture of himself and a young woman inside of a barn with dairy cows.<sup>189</sup> For Welch, agriculture is deeply related to regional identity and economy.<sup>190</sup> In a letter to the Secretary of the US Department of Agriculture, Welch and other congress members state:

As representatives from New England, where family dairy farms are an important piece of our culture, history, and economy . . . New Englanders have been milking cows since the 1600s. . . what our farmers see in action from the USDA is not reflected in your sentiment about the future of small *family* dairy farming.”<sup>191</sup>

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<sup>183</sup> Steven C. Deller, *The Contribution of Agriculture to the Wisconsin Economy: An Update for 2017* 1, UNIV. WIS. MADISON, <https://cced.ces.uwex.edu/files/2019/08/Contribution-of-Ag-to-WI-Econ-4-Update.pdf>.

<sup>184</sup> *Dairy Education*, DAIRY FARMERS OF WIS., <https://www.wisconsinmilk.org/Youth-and-Schools/Dairy-Education> (last visited July 9, 2020).

<sup>185</sup> *Meet Our Farmers*, DAIRY FARMERS OF WIS., <https://www.wisconsinmilk.org/Our-Farms/Our-Farmers> (last visited February 5, 2020).

<sup>186</sup> *Id.*

<sup>187</sup> *Id.*

<sup>188</sup> *Id.*

<sup>189</sup> *Issues*, CONGRESSMAN PETER WELCH, <https://welch.house.gov/issues> (last visited Feb. 28, 2020) (Welch includes a page on his list of issues discussing his support for Vermont dairy farmers).

<sup>190</sup> *Fighting for Vermont’s Farmers*, CONGRESSMAN PETER WELCH, <https://welch.house.gov/issues/fighting-vermont-s-farmers> (last visited Feb. 28, 2020) (captioning a photo on this issue page with the statement: “Peter is working hard to support Vermont’s farmers, especially struggling dairy farmers who are facing unprecedented economic challenges.”)

<sup>191</sup> Letter from Members of Congress to Sonny Perdue, Secretary, U.S. Dep’t of Agric. (Oct. 24, 2019), <https://courtney.house.gov/sites/courtney.house.gov/files/10>

Like dairy lobbyists and advocates before him, Congressman Welch invokes images of farming as a way of life that protects and reproduces “the family.” As such, an economic threat to farming industries is perceived as a cultural threat to traditional family values.<sup>192</sup> This focus shows that the family remains central to biopolitical strategies of alimentary normalization.<sup>193</sup> I contend that it is under the auspices of protecting “the family” (read: white, heterosexual, monogamous, and nuclear) and the values associated with the family farm, that legal efforts to preserve animal-based food ontologies are mobilized and supported. Therefore, legal milk ontologies constitute sites of struggle where “colonial reproductive politics,”<sup>194</sup> nutrition, and the domestication of land, animals, and mammalian milk intersect. Given that dairy has been integral to colonialism’s terraforming drive and requires the severing of relations between humans and nature, the severing of animals from their offspring and milk, and the transformation of dairy animals at the level of species, how we understand “real” milk in the Anthropocene exceeds the chemical composition of dairy and labeling technicalities so often the focus of lawsuits.

## VI. Conclusion

Much like colonial norms, dairy has been trafficked as natural and universal despite being a deliberate aspect of nation-making in settler contexts of Canada and the US. Animal agriculture is a mechanism that has used domesticated animals imported from Europe to transform and lay property claims to Indigenous lands.

It is my position that dairy fundamentally remains a colonial mechanism operating at the nexus of whiteness, able-bodiedness, humanism, and capital—which has at its core, the will to dominate the natural via domestication. It is also my position that domesticated animals in the settler contexts of Canada and the US continue to be ordered through a colonial legal grid that renders them intelligible as exclusively property and almost always as resources. Such colonial ontologies of animality are premised on a tidy species separation between humans and animals, with this translating into humans interpreting nature and animals as in need of human intervention. While the universalism of colonial ontologies is

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.24.2019%20New%20England%20Delegation%20Letter%20to%20Sec%20Perdue.pdf.

<sup>192</sup> See Blue, *If It Ain't Alberta*, *supra* note 180, at 72–75 (discussing the link between food production and local identity).

<sup>193</sup> JOHN COVENEY, *FOOD MORALS, AND MEANING: THE PLEASURE AND ANXIETY OF EATING* 152–53 (Psychology Press 2000).

<sup>194</sup> Cohen, *supra* note 3, at 270.

positioned as the inevitable outcome of historical processes, this should instead be recognized as a deliberate and foundational shift in relations. This supposed universalism continues to be challenged by an Indigenous metaphysics of interrelatedness.

It is my position that the dairy industry is only realizable through the institution of western ontologies of life that attach to and are remade through the institutions of nutritional science, the nation-state, and the family—all of which are undergirded and reconfigured by colonial structures. The contingencies of these ontologies are evident in plant-based milks, which trouble<sup>195</sup> the animal-capital production process that remains extremely profitable. While lawsuits and the DPA are, on their surface, disputes over labeling, I suggest that these are also legal strategies invested in the maintenance of colonial food ontologies and a specific method of milk production: animal-based dairying.

How plant-based milk products and dairy products made using cellular technology rather than animal agriculture will be regulated present opportunities for resisting both food norms and the colonial intervention and control of reproduction. This presents an opportunity for food law to move away from creating and bolstering dairy markets. Legally decentering milk from its position as the “real” standard from which all others deviate would not only entail a financial divestment from dairy industries that have detrimental environmental effects, but it would also challenge the total commodification of animal life, and meaningfully address an industry and its products that are correlated with disproportionate negative health effects for many non-white individuals.<sup>196</sup> Foundationally, divorcing milk from dairy would resist the severing of relationships between humans, animals, and the environment that are foundational and necessary to settler colonialism, racial capitalism, and animal agriculture. Such legal ontologies are all the more pressing in the Anthropocene.

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<sup>195</sup> See generally Iselin Gambert, *Got Mylk?: The Disruptive Possibilities of Plant Milk*, 84 BROOK. L. REV. 801 (2019) (providing a feminist, cultural, and legal analysis of the interruptive potential of non-dairy milks).

<sup>196</sup> Cohen, *supra* note 81, at 179–80.

# **“A Glass of Milk Strengthens a Nation.” Law, Development, and China’s Dairy Tale**

Xiaoqian Hu\*

## **Abstract**

Historically, China was a soybean nation and not a dairy nation. Today, China has become the world’s largest dairy importer and third largest dairy producer, and dairy has surpassed soybeans in both consumption volume and sales revenue. This article investigates the legal, political, and socioeconomic factors that drove this transformation, and building upon fieldwork in two Chinese counties, examines the transformation’s socioeconomic impact on China’s several hundred million farmers and ex-farmers and political impact on the Chinese regime. The article makes two arguments. First, despite changes of times and political regimes, China’s dairy tale is a tale about chasing the dreams of progress, modernization, and national rejuvenation. Second, and more tentatively, China’s recent moves toward hard authoritarianism have global roots and can be interpreted in part as political reactions to the systemic job losses and social dislocation in rural-agricultural China after its embrace of globalization.

## **I. Introduction**

Historically, China was not a dairy nation. The majority-Han Chinese did not drink milk or eat cheese or yogurt.<sup>1</sup> As a matter of fact, studies have found that Chinese people have very high levels

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<sup>1</sup> Françoise Sabban, *The Taste for Milk in Modern China (1865-1937)*, in *FOOD CONSUMPTION IN GLOBAL PERSPECTIVE: ESSAYS IN THE ANTHROPOLOGY OF FOOD IN HONOUR OF JACK GOODY* 184 (Jakob A. Klein & Anne Murcott eds., 2014) (noting both milk’s cultural signification as a “barbarian food” and a lack of ordinary milk consumption in traditional China).

of lactose malabsorption.<sup>2</sup> On the other hand, China has always been a soybean nation. It was the first nation to cultivate soybeans and, to this day, it remains the largest nation of soybean consumption.<sup>3</sup> Soybeans pervade the traditional Han diet—from soy oil, soy sauce, and tofu (a product so closely related to China that even the West calls it by its Chinese name) to bean sprouts, bean paste, and various fermented products.<sup>4</sup> If one had to identify a “milk” in the traditional Chinese diet, it would be *doujiang* (豆浆)—a hot, often sweetened breakfast drink made from soybeans.<sup>5</sup> In the Chinese language, *dou* means beans, and since soybean is *the* bean for the Han Chinese, *dou* implies soybeans.<sup>6</sup> *Jiang* refers to a thick liquid, often from a plant.<sup>7</sup> As China historian Jia-Chen Fu documents, renaming *doujiang* “soymilk” was part of a deliberate nation-building effort by progressive intellectuals, social reformers, emerging entrepreneurs, and government officials of the Republican era (1912-1949).<sup>8</sup>

Today, while China continues to be the world’s largest soybean consumer,<sup>9</sup> it has also become the world’s third largest dairy

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<sup>2</sup> See, e.g., Wang Yongfa et al., *Prevalence of Primary Adult Lactose Malabsorption in Three Populations of Northern China*, 67 HUM. GENETICS 103, 103 (1984).

<sup>3</sup> Leqing Zhiku (乐晴智库) [Leqing Think Tank], *Dounai Hangye: Zhongguo Dounai Xiaoliang Quanqiu Diyi, Shichang Guimo Jin Baiyi* (豆奶行业: 中国豆奶销量全球第一, 市场规模近百亿) [*Soymilk Industry: Chinese Soymilk Sales No. 1 in the World, Market Size Approaches 10 Billion Yuan*], SINA CAIJING TOUTIAO (SINA 财经头条) [SINA FIN. HEADLINES] (July 4, 2017), <https://cj.sina.com.cn/article/detail/5160876646/307624>.

<sup>4</sup> See *Soy Story: The History of the Soybean*, EATING CHINA, <https://www.eatingchina.com/articles/soystory.htm> (last updated Dec. 12, 2019) [hereinafter *Soy Story*]; see also *Soy Products*, EATING CHINA, <https://www.eatingchina.com/articles/soyproducts.htm> (last updated January 13, 2020).

<sup>5</sup> *Doujiang* was likely invented in the early Han Dynasty (202 BC-220 AD), but did not become part of the Chinese diet until mid- to late Qing (1644-1912). JIA-CHEN FU, *THE OTHER MILK: REINVENTING SOY IN REPUBLICAN CHINA* 17 (2018).

<sup>6</sup> See *Soy Story*, *supra* note 4.

<sup>7</sup> *Id.*

<sup>8</sup> See FU, *supra* note 5, at 109–28 (discussing the rebranding of “*doujiang*” into “soymilk”); see also *infra* Part II (providing more information on this piece of history).

<sup>9</sup> FAOSTAT, FOOD & AGRIC. ORG., <http://www.fao.org/faostat/en/?#data> (select the “Crops and livestock products” link under the “Trade” heading; select “Select All” in the countries field; select “Import Quantity” in the elements field; select “Soybeans” in the items field; select the most recent year; click “Show Data”). A caveat is in order. This article cites statistics from numerous sources, including international organizations, government agencies of the United States and China, non-governmental organizations, and researchers. Data collection raises concerns about accuracy and representativeness. Such concerns are particularly acute when the data is collected by governmental agencies in China and no external mechanisms are available to verify their reliability. I plead that readers interpret the data cited in this article as rough (at times very rough) and rebuttable guides to help grasp the

producer,<sup>10</sup> and the world's largest importer of dairy products, dairy cows, and hay and alfalfa.<sup>11</sup> Most significantly, dairy has surpassed soybeans—by large margins—in both consumption volume and sales revenue.<sup>12</sup> The relative decline of soybeans in the contemporary Chinese diet does not mean a decline of soybean use, however. As a matter of fact, soybeans have transformed from a human food to predominantly an input for industrial production of meat, mostly pork—a highly valued, rarely consumed luxury food in traditional China but a dinner table essential in contemporary China.<sup>13</sup>

How did this dietary transformation happen? How does it affect dairy and soybean farmers in China? What are its international ramifications, or is it a result, at least in part, of international forces? What, if any, connection does it have with the worldwide resurgence of globalization discontentment, and of populism and authoritarianism, or with the recent moves toward (or return to) “hard authoritarianism” in China?<sup>14</sup> Last, but not least, how does law feature in this picture?

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macro- and micro-level socioeconomic changes that are taking place in China and that have been observed by researchers and other analysts, myself included.

<sup>10</sup> U.S. DEP'T OF AGRIC., DAIRY: WORLD MARKETS AND TRADE 13 (July 2019), <https://downloads.usda.library.cornell.edu/usda-esmis/files/5t34sj56t/3f462h141/p8419020t/dairy.pdf>.

<sup>11</sup> Zhongguo Naiye Xiehui (中国奶业协会) [China Dairy Association], *Zhongguo de Naiye Baiqi Shu: Zhongguo Naiye Jiben Qingkuang he Fazhan Xian Zhuang* (《中国的奶业》白皮书：中国奶业基本情况和发展现状) [*White Paper on “China’s Dairy Industry”: Basic Situation and Development Status of China’s Dairy Industry*], YANGGUANG XUMU WANG (阳光畜牧网) [SUNSHINE ANIMAL HUSBANDRY NETWORK] (July 13, 2019), <http://www.ygsite.cn/show.asp?id=70950>.

<sup>12</sup> In 2018, Chinese citizens consumed 8.3 kg of soy products and 12.2 kg of dairy on average. See *China Statistical Yearbook 2019: 6-4 Per Capita Consumption of Major Foods Nationwide*, NAT'L BUREAU OF STATISTICS OF CHINA, <http://www.stats.gov.cn/tjsj/ndsj/2019/indexeh.htm> (last visited Apr. 17, 2020). In 2017, the national sales of various soymilk products totaled ¥8.3 billion (\$1.2 billion), while the national sales of various dairy products totaled ¥98 billion (\$14 billion). See Leqing Zhiku, *supra* note 3; Zhongshang Qingbao Wang (中商情报网) [China Business Intelligence Network], *2018 Nian Zhongguo Niunai Shichang Fenxi ji 2019 Nian Yuce* (2018 年中国牛奶市场分析及 2019 年预测) [*2018 Analysis and 2019 Predictions of the Chinese Dairy Market*], SINA CAIJING TOUTIAO (SINA 财经头条) [SINA FIN. HEADLINES] (Dec. 27, 2018), <https://cj.sina.com.cn/articles/view/1245286342/4a398fc600100gxw1>.

<sup>13</sup> See generally Gustavo de L. T. Oliveira & Mindi Schneider, *The Politics of Flexing Soybeans: China, Brazil, and Global Agroindustrial Restructuring*, 43 J. PEASANT STUD. 167 (2016); see James L. Watson, *Meat: A Cultural Biography in (South) China*, in *FOOD CONSUMPTION IN GLOBAL PERSPECTIVE* 25, 25–44 (Jakob A. Klein et al. eds., 2014) (discussing the cultural and spiritual meanings of pork in traditional Chinese society).

<sup>14</sup> China scholars increasingly refer to the recent political changes in China as moves toward or a return to “hard authoritarianism.” In the absence of a clear definition of



This article investigates the legal, political, and socioeconomic factors that drove this transformation. Building upon fieldwork in two Chinese counties, it also examines the transformation's socioeconomic impact on China's several hundred million farmers and ex-farmers and political impact on the Chinese regime.

The article contends that China's dairy (and dietary) tale reveals a lesser-known aspect of China's tale of globalization. While the West views China as the biggest beneficiary of globalization, taking advantage of the West's vast markets to industrialize, globalization also exposed Chinese farmers to systemic income insecurity, job losses, social dislocation, and community disintegration—like farmers in much of the global South and workers in some manufacturing sectors in the global North.<sup>15</sup> As backlashes against the current global economic regime are empowering authoritarian leaders around the world, similar forces may also be at work in China. The economic insecurity and social dislocation experienced by hundreds of millions of rural Chinese may be creating a welcoming environment for a political strongman, a more interventionist industrial policy, and more generally, a turn against (neo)liberalism.<sup>16</sup> Milk helps tell this story.

The rest of this article proceeds to tell the double-sided story of China's embrace of a West-dominated global economic order and the impact of that embrace on China itself—through the lens of milk. Part II narrates the cultivation of a taste for milk and the subsequent social history of milk in twentieth-century China. The social origin

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“hard authoritarianism,” there is a consensus that soft and hard authoritarianism fall on a spectrum, with soft implying less and hard implying more state penetration, coercion, and repression. *See* Joseph Yu-shek Cheng, *Assessing China's Situation and Challenges*, 5 CONTEMP. CHINA POL. ECON. & STRATEGIC REL. 537, 549 (2019); *see generally* CARL MINZNER, *END OF AN ERA: HOW CHINA'S AUTHORITARIANISM REVIVAL IS UNDERMINING ITS RISE* (2018).

<sup>15</sup> *See, e.g.*, ISPI, CHINA: CHAMPION OF (WHICH) GLOBALISATION? (Alessia Amighini ed., 2018), [https://www.ispionline.it/sites/default/files/pubblicazioni/chin\\_achampion\\_web\\_1\\_0.pdf](https://www.ispionline.it/sites/default/files/pubblicazioni/chin_achampion_web_1_0.pdf) [hereinafter CHINA: CHAMPION OF (WHICH) GLOBALISATION?] (providing the view of China as a globalization winner); Branko Milanovic, *Winners of Globalization: The Rich and the Chinese Middle Class. Losers: The American Middle Class*, HUFFINGTON POST (Dec. 6, 2017), [https://www.huffpost.com/entry/winners-of-globalization-\\_b\\_4603454](https://www.huffpost.com/entry/winners-of-globalization-_b_4603454); *see generally* JOSEPH E. STIGLITZ, *GLOBALIZATION AND ITS DISCONTENTS REVISITED: ANTI-GLOBALIZATION IN THE ERA OF TRUMP* (2018) (for information on job losses and displacement in the global South and some manufacturing sectors of the global North); *see generally* WORLD TRADE AND INVESTMENT LAW REIMAGINED: A PROGRESSIVE AGENDA FOR AN INCLUSIVE GLOBALIZATION (Alvaro Santos et al. eds., 2019) [hereinafter WORLD TRADE & INVESTMENT LAW REIMAGINED].

<sup>16</sup> *See infra* Section V.

of milk in China was iconic of the Sino-West relations of the late Qing and Republican periods (1840-1949), in which the West was a cohort of materially superior powers ambitious to turn a declining, inward-looking civilization into a vast market for Western goods.<sup>17</sup> To escape imperialism and semi-colonialism, Chinese elites adopted the Western—particularly the United States (“U.S.”)—notion of cow’s milk as “nature’s perfect food,” hoping that it would strengthen the weak body of the Chinese people and, overtime, the weak *body politic* of the Chinese nation.<sup>18</sup> In the absence of an abundance of cow’s milk, *doujiang*, the native soy drink, was rebranded as “soymilk” and promoted as the Chinese solution to the Chinese problem of “backwardness.”<sup>19</sup> These ideas about milk are still prominent today.<sup>20</sup>

While dairy production and consumption were insignificant during the Mao era (1949-1976), they achieved remarkable growth in the 1980s and 1990s as a result of China’s property reform known as the Household Responsibility System (“HRS”).<sup>21</sup> HRS partially privatized rural landholdings, created one of the most egalitarian distributions of farmland in the world, and provided a source of livelihood for hundreds of millions of rural Chinese.<sup>22</sup> The local histories of milk and soybeans in Mountain County (pseudonym) illustrate the benefits brought by HRS to rural Chinese citizens.<sup>23</sup> The local histories of milk and soybeans in River District (pseudonym), however, reveal that HRS also created dooming structural disadvantages for Chinese farmers, which would surface when their own government turned the country into a vast market for Western goods.<sup>24</sup>

In 2001, China joined the World Trade Organization (“WTO”). Part III describes the complex and conflicting impacts of the international economic regime on China’s dairy and soybean farmers after 2001. On the one hand, the abolition of import licenses

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<sup>17</sup> See *infra* Section II.A.

<sup>18</sup> See generally Andrea S. Wiley, *Milk for “Growth”: Global and Local Meanings of Milk Consumption in China, India, and the United States*, 19 *FOOD AND FOODWAYS* 11, 11–33 (2011); Sabban, *supra* note 1, at 187–94 (explaining the role of milk in the effort to modernize—often understood as Westernize at the time—Chinese society during the late Qing and Republican eras); *infra* Section II.A.

<sup>19</sup> See *infra* Section II.A.

<sup>20</sup> See *infra* Section II.A.

<sup>21</sup> See Justin Yifu Lin, *The Household Responsibility System Reform in China: A Peasant’s Institutional Choice*, 69 *AM. J. AGRIC. ECON.* 410 (1987).

<sup>22</sup> See *infra* Section II.B.

<sup>23</sup> See *infra* Section II.C.i.

<sup>24</sup> See *infra* Section II.C.ii.

and quotas and the drastic reduction in tariffs for dairy and soy imports allowed larger-scale, more mechanized, and often well subsidized foreign farmers to flood the Chinese market with their products.<sup>25</sup> Small Chinese farms created by the early reform-era land regime could not compete.<sup>26</sup> Hundreds of millions of farmers (and their sons and daughters) left home to seek work in cities and industrial towns as economic migrants.<sup>27</sup> On the other hand, the same international economic regime has allowed China to expand its manufacturing and urban economy, absorbing much of the excess labor in agriculture and raising living standards for the vast majority of rural (and certainly, urban) Chinese families.<sup>28</sup>

Part IV analyzes the Chinese state's industrial policy responses to problems created by market liberalization. Facing the pushing and pulling effects of the international economic order as well as China's own demographic shifts and resource constraints, the Chinese state has been aggressively restructuring China's agricultural economy since the mid-2000s through legal and financial means. A core component of the restructuring is, once again, property reform—but this time to scale up and mechanize agricultural production, and in this process, destroy the highly egalitarian, “every rural family is a farm” model created by HRS.<sup>29</sup> The local iterations of the new reform in Mountain County and River District reveal a stark contrast: where there are more trade-inflicted agricultural job losses, there is more drastic, statist, and paternalistic industrial policy to restructure the outcompeted agricultural sector.

Part V situates China's recent political moves toward hard authoritarianism within the global context of increasing discontent

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<sup>25</sup> See *Trade*, U.S. DEP'T OF AGRIC., <https://www.ers.usda.gov/topics/animal-products/dairy/trade/> (last updated Mar. 24, 2020); see also U.S. DEP'T OF AGRIC., EIB-136, CHINA'S GROWING DEMAND FOR AGRICULTURAL IMPORTS (2014). See also George Frisvold, *The U.S. Dairy Industry in the 20<sup>th</sup> and 21<sup>st</sup> Century*, 16 J. FOOD L. & POL'Y (forthcoming Dec. 2020) (examining government support programs for dairy farmers and the dairy industry's transformation from small scale and little mechanization to ever-larger scale and ever-higher mechanization in the past one hundred years in the U.S.).

<sup>26</sup> Lin, *supra* note 21; see *infra* Part III.

<sup>27</sup> See *Migrant Workers and Their Children*, CHINA LAB. BULL. (May 15, 2019), <https://clb.org.hk/content/migrant-workers-and-their-children>; *infra* Part IV.

<sup>28</sup> See generally, Chris King-Chi Chan and Pun Ngai, *The Making of a New Working Class? A Study of Collective Actions of Migrant Workers in South China*, 198 THE CHINA Q. 287 (2009) (rural labor employed in manufacturing); Ngai Pun and Huilin Lu, *Neoliberalism, Urbanism and the Plight of Construction Workers in China*, 1 WORLD REV. OF POL. ECON. 127 (2010) (rural labor employed in urban construction).

<sup>29</sup> See *infra* Section IV.

with globalization. It goes beyond dairy and soybeans and looks at job losses in China's agricultural sector as a whole. A temporal comparison of agricultural jobs between 2001 and 2017 reveals the job loss number to be a staggering 155 million. While this number can be celebrated as a success story of industrialization and urbanization, such celebration hides the enormous hardships of social dislocation, geographical and sectoral transition, and community disintegration suffered by these 155 million workers and their families. In response, another component of the Chinese government's rural restructuring is establishing social programs to mitigate socioeconomic decline of ex-farming communities.<sup>30</sup> Fieldwork in Mountain County and River District reveals that these social protection programs and President Xi Jinping's anti-corruption and anti-poverty campaigns enjoyed strong support among rural residents. Part V opines that the hardships suffered by rural Chinese citizens and the subsequent governmental responses may be creating a populist base receptive to paternalist governance and a political strongman in defiance of Western, particularly American, (neo)liberalism.

## II. The Social Life of Milk in Twentieth-Century China

### A. *Cultivate a Chinese Taste for Milk*

In a now classic book, sociologist E. Melanie Dupuis narrates that the American taste for fresh cow's milk began in the mid-nineteenth century with industrialization and urbanization, and fresh cow's milk was used primarily as a breastmilk substitute for infants and a food supplement for weaned children.<sup>31</sup> If we moved the time period forward by a couple decades, the same could be said about the beginning of a Chinese taste for fresh cow's milk. Historically, cow's milk was not part of the Chinese diet. Despite the Qing rulers' use of milk as an ingredient in royal cuisine or the use for making cookies in some coastal regions, the majority-Han Chinese population considered cow's milk a "barbarian" food.<sup>32</sup> When cow's milk was introduced to China, it was promoted primarily as a nutritious food for infants and children.<sup>33</sup>

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<sup>30</sup> See *infra* Section V.

<sup>31</sup> E. MELANIE DUPUIS, NATURE'S PERFECT FOOD: HOW MILK BECAME AMERICA'S DRINK 50–51 (2002).

<sup>32</sup> Sabban, *supra* note 1, at 183–185; Yang Zhiyong (杨智勇), *Wanqing Shiqi Zhongguo de Niunai Ye yu Niunai Shichang* (晚清时期中国的牛奶业与牛奶市场) [*China's Dairy Industry and Dairy Markets During the Late Qing Period*], 21 J. CENT. SOUTH UNIV. SOC. SCI. 223, 223 (2015).

<sup>33</sup> See *infra* text accompanying notes 51–54.

However, China's post-1840 history also made its dairy tale distinct from that of the U.S. In 1840, Britain invaded China under the pretext of defending British merchants' property rights against the Qing government's confiscation of opium and prohibition of opium trade.<sup>34</sup> When China lost the war, it agreed in the Treaty of Nanjing to open up selected ports to allow foreign goods to be sold in China.<sup>35</sup> Foreign merchants, missionaries, and other actors were allowed to reside in these port cities too, which created a demand for bovine milk on one hand and permitted the transmission of ideas and technologies about milk on the other.<sup>36</sup> Dairy operations were established in or near port cities using low-yield Chinese cattle.<sup>37</sup> As foreigners' demand for milk exceeded the indigenous supply, higher-yield European cows were imported via these trading ports.<sup>38</sup>

European and American missionaries were instrumental to the establishment of a Chinese dairy industry. Missionaries brought European or North American cows to China and hired or taught Chinese workers to milk cows.<sup>39</sup> The first Holstein cows imported from Europe were raised by a Catholic convent in Shanghai, which later facilitated the first inter-breeding between Holstein cows and indigenous cattle.<sup>40</sup>

Although an interest in milk was initially limited to foreigners residing in port cities, this would soon change. The first European milk company, Anglo-Swiss Milk Company, began to sell condensed milk to China via Hong Kong (which had become a British colony after the Opium War) in as early as 1874.<sup>41</sup> Nestlé, the other major European milk player at the time, also sold its milk powder in port cities in China.<sup>42</sup>

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<sup>34</sup> See e.g., JULIA LOVELL, *THE OPIUM WAR: DRUGS, DREAMS, AND THE MAKING OF MODERN CHINA* (2012).

<sup>35</sup> *Id.* at 223–40 (on the history of the signing of the Treaty of Nanjing).

<sup>36</sup> Yang Zhiyong, *supra* note 32, at 223.

<sup>37</sup> *Id.* at 223–24.

<sup>38</sup> *Id.*; Shao Yishu (邵逸舒), *Jiyu Ruye Shiyu de Minguo Shiqi Lanzhou Chengshi Xiandaihua Tezheng* (基于乳业视域的民国时期兰州城市现代化特征) [*Characteristics of the Modernization of Republican-Era Lanzhou City Through the Lens of the Dairy Industry*], 30 J. ZHANGJIAKOU VOC. & TECH. C. 17, 17 (2017).

<sup>39</sup> Yang Zhiyong, *supra* note 32, at 223–45; Geng Lei (耿磊), *Ruye yu Chengshi Jindaihua: Yi Kangzhan Shiqi Xi'an Shi Wei Zhongxin de Kaochai* (乳业与城市近代化: 以抗战时期西安市为中心的考察) [*Dairy Industry and Early Urban Modernization: An Investigation Centered on War-Era Xi'an*], 16 J. SHENYANG U. SOC. SCI. 636, 636 (2014).

<sup>40</sup> Yang Zhiyong, *supra* note 32, at 224.

<sup>41</sup> *Id.* at 225.

<sup>42</sup> *Id.*

In 1906, the Qing government launched an all-out campaign to eliminate the sale, distribution, consumption, and cultivation of opium to fight the nationwide opium addiction.<sup>43</sup> Seizing the political opportunity, Nestlé (which by then had merged with Anglo-Swiss Milk Company) advertised its milk products as a health-restoring food to fight the addiction.<sup>44</sup> Marrying Western science with traditional Chinese medicine and a Western merchandise with Chinese politics, one advertisement read:

Milk produced by our company is made by chemists with innovative and improved methods. . . . Milk is the most vital food for life, regardless of whether you are male or female, old or young. Drinking our milk can smooth the blood and energy flow (*qi*), build the muscles, improve the spirit and essence, and strengthen the body. . . . Today China has decided to ban opium; determined men and women should all abstain [from opium consumption]. But the weak body and exhausted spirit are worrisome. Purchasing and consuming our milk will be greatly beneficial . . .<sup>45</sup>

In the Chinese political history, the Opium War marked the beginning of China's "century of humiliation."<sup>46</sup> It ushered in an era of imperial invasions, payments of war indemnities, extraterritoriality, colonial enclaves, domestic peasant uprisings, government's failed reforms of modernization, and more broadly, an existential crisis for China as a nation.<sup>47</sup> The national plight prompted Chinese intellectuals, social reformers, and government officials to debate how to reform China's political, economic, and cultural systems to escape imperialism and semi-colonialism, and whether China should borrow Western technologies, institutions, and values to achieve these goals.<sup>48</sup>

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<sup>43</sup> Joyce Madancy, *Unearthing Popular Attitudes Toward the Opium Trade and Opium Suppression in Late Qing and Early Republican Fujian*, 27 *MODERN CHINA* 436, 439–40 (2001).

<sup>44</sup> Yang Zhiyong, *supra* note 32, at 225.

<sup>45</sup> *Id.*

<sup>46</sup> Matt Schiavenza, *How Humiliation Drove Modern Chinese History*, *THE ATLANTIC* (Oct. 25, 2013), <https://www.theatlantic.com/china/archive/2013/10/how-humiliation-drove-modern-chinese-history/280878/>.

<sup>47</sup> *See generally*, LOVELL, *supra* note 34.

<sup>48</sup> *See, e.g.*, FRANK DIKÖTTER, *THE DISCOURSE OF RACE IN MODERN CHINA* 127–29 (1992) (providing a succinct description of these debates).

A key topic in these debates was the largely vegetarian Chinese diet, which some Chinese and Western intellectuals blamed as the cause of the “weak” physique of the Chinese people.<sup>49</sup> Again, the similarities between the U.S. and China regarding the sociopolitical signification of milk were noticeable. In the mid-nineteenth century U.S. intellectuals and social reformers claimed that milk could perfect the individual American body and, by aggregation, the American society.<sup>50</sup> In late Qing and Republican China intelligentsia, policymakers, agriculturalists, and urban dairy entrepreneurs glorified milk as the “perfect food” to build a strong Chinese population and, over time, a strong Chinese nation.<sup>51</sup>

Also as in the U.S. decades earlier, children were put at the forefront of societal progress.<sup>52</sup> One social reformer urged:

In a situation in which China represents the “sick man” of Asia, if we want to revitalize the Chinese nation (*fixing zhonghua minzu*) and revive national power (*guoshi*), it is even more imperative that we earnestly work [on the problem of child nutrition], because national rejuvenation (*fixing minzu*) depends on a healthy citizenry, and without healthy children, how can there be a healthy nation?<sup>53</sup>

As “milk became a symbol of Western wealth and power,”<sup>54</sup> Chinese reformers urged urban middle-class women to feed their children fresh cow’s milk or condensed milk and milk powder from America.<sup>55</sup> Just like their American sisters, the urban Chinese “middleclass wife became the ‘republican mother’ responsible for the creation of a moral civil society.”<sup>56</sup> By 1928, cow’s milk had

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<sup>49</sup> Sabban, *supra* note 1, at 187–194.

<sup>50</sup> DUPUIS, *supra* note 31, at 8, 17; Wiley, *supra* note 18, at 16–18.

<sup>51</sup> Sabban, *supra* note 1, at 186–194.

<sup>52</sup> FU, *supra* note 5, at 98.

<sup>53</sup> *Id.* Foreign companies such as Nestlé and Heinz continue to impact food consumption habits and cultural notions about food in China today. See, e.g., Jun Jing, *Introduction: Food, Children, and Social Change in Contemporary China*, in FEEDING CHINA’S LITTLE EMPERORS: FOOD, CHILDREN, AND SOCIAL CHANGE 1, 17–20 (Jun Jing ed., 2000) [hereafter FEEDING CHINA’S LITTLE EMPERORS]; Eriberto P. Lozada, Jr., *Globalized Childhood? Kentucky Fried Chicken in Beijing*, in FEEDING CHINA’S LITTLE EMPERORS, *supra* note 53, at 114–34; Suzanne K. Gottschang, *A Baby-Friendly Hospital and the Science of Infant Feeding*, in FEEDING CHINA’S LITTLE EMPERORS, *supra* note 53, at 160–84.

<sup>54</sup> FU, *supra* note 5, at 89.

<sup>55</sup> Sabban, *supra* note 1, at 186–194.

<sup>56</sup> DUPUIS, *supra* note 31, at 57; FU, *supra* note 5, at 101.

become a popular food among the elites of the Chinese government.<sup>57</sup>

Despite the fervor for milk among intellectuals, policymakers, and urban elites, “the birth of the Chinese interest in milk” was limited to the urban educated middle class.<sup>58</sup> According to a 1936 Chinese article, it was estimated that China then had only ten thousand dairy cows and an annual milk production of under thirty million pounds.<sup>59</sup> As one Chinese milk advocate admitted in 1939, cow’s milk was still “an aristocratic beverage” beyond the reach of ordinary Chinese people.<sup>60</sup>

It was in this context that *doujiang*, a distinctly Chinese drink with similar color and nutritional richness, was given a new cultural and political life, elevated to the status of “milk,” and promoted as the pragmatic Chinese substitute for cow’s milk.<sup>61</sup> To progressive intellectuals and reformers of Republican China, *doujiang* symbolized Chinese frugality, inventiveness, and hope of rejuvenation.<sup>62</sup> *Doujiang* offered “a Chinese path of development.”<sup>63</sup>

In 1949, the Communist Party of China (“CCP”) took power and founded the People’s Republic of China (“PRC”).<sup>64</sup> The Communist government established dairy factories around big cities to provide milk for urban children and elderly residents.<sup>65</sup> The production of cow’s milk more than quadrupled during the Mao era.<sup>66</sup>

After 1978, rapid economic growth led to a rapid rise in personal income.<sup>67</sup> Following its Republican predecessor, the

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<sup>57</sup> Shao Yishu, *supra* note 38, at 17.

<sup>58</sup> Sabban, *supra* note 1, at 186–194.

<sup>59</sup> Geng Lei, *supra* note 39, at 636.

<sup>60</sup> Sabban, *supra* note 1, at 186.

<sup>61</sup> Fu, *supra* note 5, 102–08.

<sup>62</sup> *Id.* at 180.

<sup>63</sup> *Id.* at 90.

<sup>64</sup> *Timeline of China’s Modern History*, CHI. PUB. LIBRARY, <https://www.chipublib.org/timeline-of-chinas-modern-history/> (last updated Apr. 30, 2012).

<sup>65</sup> Changbai Xiu & K.K. Klein, *Melamine in Milk Products in China: Examining the Factors That Led to Deliberate Use of the Contaminant*, 35 FOOD POL. 463, 465 (2010).

<sup>66</sup> Shen Mei (沈美), *Niunai Chanliang bi Jianguo Chiqi Zengzhang 154 Bei, Zhongguo Shixian “Da Fazhan”* (牛奶产量比建国初期增长 154 倍, 中国实现“大发展”) [Cow’s Milk Production 154 Times the Level of the PRC’s Founding, China Realizes “Big Development”], XINHUA WANG (新华网) [XINHUA NET] (July 20, 2019), [http://www.xinhuanet.com/food/2019-07/12/c\\_1124744433.htm](http://www.xinhuanet.com/food/2019-07/12/c_1124744433.htm).

<sup>67</sup> See *GDP Per Capita (Current US\$)—China*, THE WORLD BANK, <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=CN> (last visited July 16, 2020).



Communist government launched various nutrition campaigns promoting cow's milk, deploying the same cultural and political tropes about milk, child development, and national rejuvenation.<sup>68</sup> One slogan epitomizes this blend of "scientific nutritionism" with nationalism: "A glass of cow's milk strengthens a nation" ("一杯牛奶强壮一个民族"). This slogan is repeatedly mentioned in governmental documents, news media, and as the opening sentence of an annual report by the China Dairy Association.<sup>69</sup>

China's emerging dairy companies eagerly embraced these cultural meanings of milk and, like their Republican-era predecessors, tapped into the mothering role of women in dairy advertisements. China's first dairy giant, Wahaha Group, for instance, had a catchy song in their advertisements in the 1990s and 2000s: "Sweet and sour, nutritious and delicious. I drink it every day. How happy I am! Mama, I want to drink Wahaha Fruit Milk."<sup>70</sup>

<sup>68</sup> Fu, *supra* note 5, at 188–89; Wiley, *supra* note 18, at 16–20; Eugenia Y. Lean, *The Modern Elixir: Medicine as a Consumer Item in the Early Twentieth-Century Chinese Press*, 15 *UCLA HIST. J.* 65, 77 (1995). One of these milk promotion campaigns was the "School Milk Program" launched in 2000. It was similar to the school health and "Got Milk" ad campaigns in the twentieth century U.S. The program has evolved over the years. For more detailed information, please visit the program's official website, <https://www.schoolmilk.cn/s/index>.

<sup>69</sup> Guowuyuan (国务院) [State Council], *Guanyu Tuijin Naiye Zhenxing Baozhang Rupin Zhiliang Anquan de Yijian* (关于推进奶业振兴保障乳品质量安全的意见) [*Opinion on Further Revitalizing the Dairy Industry and Guaranteeing the Quality and Safety of Dairy Productions*], ZHONGHUA RENMIN GONGHEGUO ZHONGYANG RENMIN ZHENGFU (中华人民共和国中央人民政府) [THE CENT. PEOPLE'S GOV'T OF THE PEOPLE'S REPUBLIC OF CHINA] (June 3, 2018), [http://www.gov.cn/zhengce/content/2018-06/11/content\\_5297839.htm](http://www.gov.cn/zhengce/content/2018-06/11/content_5297839.htm); Tan Zhongyang (谭中杨), *Yibe Niunai Nengfou Qiangzhuang Yige Minzu—Xuesheng Yinyong Nai Jihua Jieshi Aoyunhui Jiangpai Bang Beihou de Mimi* (一杯牛奶能否强壮一个民族? —“学生饮用奶计划”揭示奥运会奖牌榜背后的秘密) [*Can a Glass of Cow's Milk Strengthen a Nation?—“Student Drinking Milk Plan” Reveals the Secret Behind the Olympic Medal List*], ZHONGGUO JIAOYU XINWEN WANG (中国教育新闻网) [CHINA EDUC. NEWS] (Aug. 28, 2016), [http://www.jyb.cn/china/tyjk/201608/t20160828\\_670343.html](http://www.jyb.cn/china/tyjk/201608/t20160828_670343.html); ZHONGGUO NAI YE XIEHUI (中国奶业协会) [CHINA DAIRY ASS'N], ZHONGGUO NAI YE ZHILIANG BAOGAO (中国奶业质量报告) [CHINESE DAIRY INDUSTRY QUALITY REPORT] (2017).

<sup>70</sup> See Lanting Ke (兰亭客) [Lantinger], *90 Niandai Wahaha Guo Nai de Guanggao* (90年代娃哈哈果奶的广告) [*90's Wahaha Fruit Milk Advertisements*], TENGXUN SHIPIN (腾讯视频) [TENCENT VIDEO] (Mar. 19, 2017), <https://v.qq.com/x/page/f03851i16zz.html> (showing a video of some of these advertisements). For a detailed account of the relationship between Wahaha and the Chinese government and the role the company played in the Chinese government's effort of nation building, see Zhao Yang, *State, Children, and the Wahaha Group of Hangzhou*, in *FEEDING CHINA'S LITTLE EMPERORS*, *supra* note 53, at 185–98. Ironically, the French food company Danone bought a controlling interest in Wahaha in 1997. *Id.* at 197. As this article later illustrates, the fate of Wahaha embodies the bittersweet relationship between building a strong Chinese nation and embracing globalization.

China's per capita dairy consumption more than tripled between 1996 and 2006.<sup>71</sup>

*B. Property Law and China's Small, Egalitarian Farm Structure*

During the majority of the Mao era, land and agricultural production were collectivized. Rural collectives (People's Communes) and state-owned farms owned all rural land, farm animals, and agricultural equipment.<sup>72</sup> Villagers worked for their rural collective earning daily work points, which were then used as a basis for distributing the collective harvests and revenues amongst themselves.<sup>73</sup> Workers of state-owned farms worked for the farms and earned monetary wages.<sup>74</sup> Property relations concerning dairy operations were very similar to those in the Soviet Ukraine; cows were the property of rural collectives or state-owned farms, and cow raising was the responsibility of rural farm workers (particularly women and children).<sup>75</sup> Beginning in 1982, however, the CCP and the Chinese government created what would later be called the Household Responsibility System ("HRS").<sup>76</sup> Under HRS, rural collectives and state-owned farms were required to sell agricultural equipment and farm animals and rent out land plots to individual households;<sup>77</sup> rent was zero for collective land but a positive sum for state land.<sup>78</sup> To avoid frequent redistribution of land, the CCP and the central government fixed rural citizens' rights to use and farm land plots to fifteen years in 1984.<sup>79</sup> However, resistance to long-

<sup>71</sup> Xiangdong Lu & Huilai Zong, *The Problems and Countermeasures After China's Dairy Enters the Adjustment Period*, 7 AG. ECON. PROBLEMS 5 (2008).

<sup>72</sup> HUAIYIN LI, *VILLAGE CHINA UNDER SOCIALISM AND REFORM: A MICRO HISTORY, 1948-2008*, 23-49, 82 (Stanford Univ. Press, 2009); Forrest Zhang, *Reforming China's State-Owned Farms: State Farms in Agrarian Transition*, 2010 4<sup>TH</sup> ASIAN RURAL SOC. ASS'N INT'L CONF., 365, 367-70, [http://ink.library.smu.edu.sg/soss\\_research/1089](http://ink.library.smu.edu.sg/soss_research/1089).

<sup>73</sup> LI, *supra* note 72, at 35-47, 96-97, 100-01, 131-33, 147-48.

<sup>74</sup> Zhang, *supra* note 72, at 370; *see also infra* Section II.C.ii.

<sup>75</sup> Author's archival and fieldwork research, on file with Author; Monica Eppinger, *Herdin History: Legal Change, Norm Formation, and Transformation of the Dairyspheres of Post-Soviet Ukraine*, 16 J. FOOD L. & POL'Y (forthcoming Dec. 2020).

<sup>76</sup> ZHONGGUO GONGCHANDANG (中国共产党) & GUOWUYUAN (国务院) [COMMUNIST PARTY OF CHINA & STATE COUNCIL], *Quanguo Nongcun Gongzuo Huiyi Jiyao* (全国农村工作会议纪要) [Summaries of the National Rural Work Conference] (1982).

<sup>77</sup> *Id.*

<sup>78</sup> *Id.*

<sup>79</sup> ZHONGGUO GONGCHANDANG (中国共产党) & GUOWUYUAN (国务院) [COMMUNIST PARTY OF CHINA & STATE COUNCIL], *DANGQIAN NONGCUN JINGJI ZHENGCE DE RUOGAN WENTI* (当前农村经济政策的若干问题) [SOME PROBLEMS IN CURRENT RURAL ECONOMIC POLICY] (1983).

term private property rights was strong in the initial years of reform, and the fifteen-year policy was not implemented until after 1993, when tenure security became a governance priority.<sup>80</sup>

The implementation of HRS had profound consequences for China's agriculture and rural residents. First, it created one of the most egalitarian distributions of land in the world in the form of private rights to possess, use, and benefit from land.<sup>81</sup> This egalitarianism was further consolidated by frequent village-wide land redistributions to accommodate changes in household demographics or in the total land area as well as by the prohibition of for-profit transfers of landholdings.<sup>82</sup> In the late 1990s and early 2000s, laws were enacted to fix village-wide land redistributions to once every thirty years.<sup>83</sup> While these laws increased the duration and security of rural land tenure, the latter differs from private landownership in two critical respects. Rural households cannot sell or mortgage their land.<sup>84</sup> When the current tenure expires, all rural residents—as members of the village—will be entitled to receive new tenure in the new round of land distribution.<sup>85</sup>

Second, the egalitarian land distribution, the prohibition of land sales, and a high population/land area ratio created a stable agricultural economic structure comprised almost exclusively of small family farms, with an average size of as low as 0.6 acre of land per farmer according to a 2010 FAO estimate.<sup>86</sup> Reflecting this

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<sup>80</sup> ZHONGGUO GONGCHANDANG (中国共产党) & GUOWUYUAN (国务院) [COMMUNIST PARTY OF CHINA & STATE COUNCIL], GUANYU DANGQIAN NONGYE HE NONGCUN JINGJI FAZHAN DE RUOGAN ZHENGCE CUOSHI (关于当前农业和农村经济发展的若干政策措施) [CERTAIN POLICY MEASURES CONCERNING CURRENT AGRICULTURAL AND RURAL ECONOMIC DEVELOPMENT] (1993) [hereinafter 1993 POLICY MEASURES].

<sup>81</sup> PETER HO, INSTITUTIONS IN TRANSITION: LAND OWNERSHIP, PROPERTY RIGHTS, AND SOCIAL CONFLICT IN CHINA 9–10 (2005).

<sup>82</sup> *See id.*

<sup>83</sup> Zhonghua Renmin Gongheguo Nongcun Tudi Chengbao Fa (中华人民共和国农村土地承包法) [Rural Land Contract Law of the People's Republic of China] (promulgated by the Standing Comm. of the Nat'l People's Cong., Aug. 29, 2002, effective Mar. 1, 2003) ST. COUNCIL GAZ., Oct. 10, 2002, at 28, art. 20 [hereinafter Rural Land Contract Law]. Most recently, the CCP and central Chinese government jointly issued a policy document, extending the current rural land tenure by another 30 years. ZHONGGUO GONGCHANDANG (中国共产党) & GUOWUYUAN (国务院) [COMMUNIST PARTY OF CHINA & STATE COUNCIL], GUANYU BAOSHI TUDI CHENGBAO GUANXI WENDING BING CHANGJIU BUBIAN DE YIJIAN (关于保持土地承包关系稳定并长久不变的意见) [THE OPINION ON MAINTAINING THE STABILITY AND LONG-TERM FIXITY OF LAND CONTRACTUAL RELATIONS] (2019).

<sup>84</sup> *Id.*

<sup>85</sup> *Id.*

<sup>86</sup> Lin Wanlong (林万龙), *Nongdi Jingying Guimo: Guoji Jingyan yu Zhongguo de Xianshi Xuanze* (农地经营规模: 国际经验与中国的现实选择) [*Rural Land*

economic structure, China's dairy and soybean farms were small; many of the farmers grew other crops, raised other animals, or engaged in simultaneous non-agricultural work.<sup>87</sup>

China's partial privatization of landholdings was implemented alongside market liberalization reforms. Beginning in November 1993, the Chinese government enacted a series of policy changes, with the goals of (1) opening up agricultural input and output markets and letting the market set the price of goods; (2) transforming state-owned enterprises ("SOEs") into market players with clear property rights and independent management and finances; and (3) allowing for-profit transfers of rural land in the form of subleases.<sup>88</sup> In the same year, China began serious negotiations to join the General Agreement on Tariffs and Trade ("GATT"), the predecessor to the World Trade Organization ("WTO").<sup>89</sup>

The rising demand for agricultural goods drove prices up between 1980 and 1996.<sup>90</sup> The increased price, in a system of private operation of farms, further stimulated the production of cow's milk and soybeans. Between 1991 and 2000, China's cow's milk production nearly doubled, and its soybean production increased more than 60%.<sup>91</sup> By some calculations, at the time China joined the

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*Production Scale: International Experiences and China's Realistic Choice*, 7 NONGYE JINGJI WENTI (农业经济问题) [ISSUES IN AGRIC. ECON.] 33, 37 (2017).

<sup>87</sup> See, e.g., CHINA'S PEASANT AGRICULTURE AND RURAL SOCIETY: CHANGING PARADIGMS OF FARMING 25–44 (Jan Douwe van der Ploeg & Jingzong Ye eds., 2016) [hereinafter CHINA'S PEASANT AGRICULTURE AND RURAL SOCIETY] (providing a rich description and analysis of Chinese farmers' multiple economic activities).

<sup>88</sup> 1993 POLICY MEASURES, *supra* note 80.

<sup>89</sup> Monica Hsiao, *China and the GATT: Two Theories of Political Economy Explaining China's Desire for Membership in the GATT*, 12 PACIFIC BASIN L. J. 431, 431 (1994).

<sup>90</sup> 9-10 *Quanguo Nongchanpin Shougou Jiage Fenlei Zhishu* (9-10 全国农产品收购价格分类指数) [9-10 National Agricultural Product Purchase Price Classification Index], 2001 NIAN ZHONGGUO TONGJI NIANJIAN (2001 年中国统计年鉴) [2001 CHINA STATISTICS YEARBOOK], <http://www.stats.gov.cn/tjsj/ndsj/2001c/i0910c.htm> (last visited July 16, 2020) (cataloging major agricultural product purchasing price indexes from 1978 to 2000).

<sup>91</sup> For dairy statistics, see ZHONGGUO NONGYE NIANJIAN BIANJI WEIYUANHUI (中国农业年鉴编辑委员会) [COMPILATION COMM. OF THE CHINESE AGRIC. YEARBOOK SERIES], NONGYE BU (农业部) [MINISTRY OF AGRIC.], ZHONGGUO NONGYE NIANJIAN (中国农业年鉴) [CHINA AGRICULTURE YEARBOOK] (1991) (providing that in 1991, China produced 5,243,000 tons of milk); see also ZHONGGUO NONGYE NIANJIAN BIANJI WEIYUANHUI (中国农业年鉴编辑委员会) [COMPILATION COMM. OF THE CHINESE AGRIC. YEARBOOK SERIES], NONGYE BU (农业部) [MINISTRY OF AGRIC.], ZHONGGUO NONGYE NIANJIAN (中国农业年鉴) [CHINA AGRICULTURE YEARBOOK] (2001) (providing that in 2000, China produced 9,191,000 tons of milk).

WTO, China had somewhere between thirty-one million and fifty-four million soybean farmers and 1.4 million dairy farmers.<sup>92</sup> There was no or very little mechanization for either dairy or soybean production.<sup>93</sup>

### C. Dairy and Soybeans in Rural Chinese Life

Administratively, China is governed by the central, provincial, prefectural, county, and township governments.<sup>94</sup> The village is not part of government, although its governance is heavily

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For soybean statistics, see *12-17 Zhuyao Nongchanpin Chanliang* (12-17 主要农产品产量) [*12-17 Output of Major Agricultural Products*], 2001 NIAN ZHONGGUO TONGJI NIANJIAN (2001 年中国统计年鉴) [2001 CHINA STATISTICS YEARBOOK], <http://www.stats.gov.cn/tjsj/ndsj/2001c/11217c.htm>.

<sup>92</sup> These numbers are very rough estimates. According to the *China Statistics Yearbook 2002*, in 2001 China's total acreage of crop cultivation was 155,708,000 hectares; the total acreage of soybean cultivation was 13,268,000 hectares, and the total number of people employed in agriculture was 365.13 million. *12-14 Nongzuowu Zong Bozhong Mianji* (12-14 农作物总播种面积) [*12-14 Total Sown Area of Crops*] 2002 NIAN ZHONGGUO TONGJI NIANJIAN (2002 年中国统计年鉴) [2002 CHINA STATISTICS YEARBOOK], <http://www.stats.gov.cn/yearbook2001/indexC.htm>; *5-1 Jiuye Jiben Qingkuang* (5-1 就业基本情况) [*5-1 Basic Employment Situation*], 2002 NIAN ZHONGGUO TONGJI NIANJIAN (2002 年中国统计年鉴) [2002 CHINA STATISTICS YEARBOOK], <http://www.stats.gov.cn/yearbook2001/indexC.htm>. Given China's roughly egalitarian distribution of farmland in 2001, the thirty-one million estimate is calculated by dividing the total soybean acreage by the total crop acreage, multiplied by the total number of people employed in agriculture. The fifty-four million estimate is based on FAO data, which estimates the average land size per farmer in China to be 0.24 hectare. Lin Wanlong, *supra* note 86, at 37. Dividing the total soybean acreage in 2001 from *China Statistics Yearbook 2002* by 0.24 hectare will yield the number fifty-four million. The total dairy farmer estimate is made by dividing the total number of dairy cows (5,662,000) at the end of 2001 by the average size of Chinese dairy farms (3-5 cows) in 2002. 2002 ZHONGGUO NAI YE NIANJIAN (2002 中国奶业年鉴) [2002 CHINA DAIRY INDUSTRY YEARBOOK] tbl. 1-4 (Ministry of Agric. ed., 2002) (end-of-the-year number of dairy cows 1949-2001); 2003 ZHONGGUO NAI YE NIANJIAN (2003 中国奶业年鉴) [2003 CHINA DAIRY INDUSTRY YEARBOOK] 32 (Ministry of Agric. ed., 2003).

<sup>93</sup> A term of art for describing small, non-mechanized dairy farms in China in the 2000s is "backyard dairy farms." The image is a rural family raising cows in their backyard. See e.g. H. Ma et al., *The Evolution of Productivity Performance on China's Dairy Farms in the New Millennium*, 95 J. DAIRY SCI. 7074 (2012). For literature on low levels of mechanization for crop cultivation, see e.g., Xiaobing Wang et al., *Wage Growth, Landholding, and Mechanization in Chinese Agriculture*, 86 WORLD DEV. 30, 32 (2016) (charts illustrating percentages of land plowed, planted, and harvested by machines from 1980 to 2011).

<sup>94</sup> *Administrative Division*, STATE COUNCIL, [http://english.www.gov.cn/archive/china\\_abc/2014/08/27/content\\_281474983873401.htm](http://english.www.gov.cn/archive/china_abc/2014/08/27/content_281474983873401.htm) (last updated Aug. 26, 2014); see also OECD, *EDUCATION IN CHINA: A SNAPSHOT 9* (2016).

influenced by the government.<sup>95</sup> Parts of rural China are State Farms (*guoyou nongchang*, 国有农场).<sup>96</sup> They are governed by the State Farm system comprised of the central, provincial, district, farm, and unit administrations.<sup>97</sup> Mountain County in southern inland China is governed by the regular administrative system.<sup>98</sup> River District in Heilongjiang Province in northeastern China is governed by the State Farm system.<sup>99</sup>

I conducted eleven months of ethnographic work and four months of historical research in Mountain County and River District between 2014 and 2016. Both counties have had a predominantly rural economy and population and are undergoing some industrialization and urbanization. This fieldwork included participant observation, casual conversations, semi-structured and structured interviews, and household surveys. I talked to roughly two hundred interlocutors in Mountain County and three hundred interlocutors in River District. Historical research consisted mostly of reading local chronicles, old newspapers, government documents, family genealogies, and published or unpublished memoirs. Some of these files were kept in local, prefectural, or provincial museums and libraries. Some are book copies or photocopies that my interlocutors kindly gave me. Some have been made accessible online.

i. Mountain County: Peaceful Rural Nostalgia<sup>100</sup>

Mountain County has 400,000 residents, is a land mass slightly smaller than Rhode Island, and has over twenty townships, each of which in turn governs a dozen or two villages. It is a rice-growing region. The mountainous terrain, land scarcity, and long

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<sup>95</sup> Compare STATE COUNCIL, *supra* note 94 (showing that the village is not an officially recognized form of government), with Yi Wu, *Land Rights, Political Differentiation, and China's Changing Land Market: Bounded Collectivism and Contemporary Village Administration*, 14 ASIA PAC. J. 1, 1–4 (2016).

<sup>96</sup> Zhang, *supra* note 72, at 365–67; Philip C.C. Huang & Yuan Gao, *The Dynamics of Capitalization in Chinese Agriculture: Private Firms, the State, or Peasant Households?*, 10 RURAL CHINA 36, 65 (2003).

<sup>97</sup> Author's own archival and fieldwork research, on file with Author.

<sup>98</sup> I deliberately avoid identifying the province in which Mountain County is located because I have done fieldwork relating to villager-conducted illegal real estate development in Mountain County; not identifying the province will better protect the anonymity of my fieldwork interlocutors there. See Xiaoqian Hu, "Put That Bucket Down!": Monday, Politics, and Property Rights in Urbanizing China, 44 VT. L. REV. 243 (2019).

<sup>99</sup> See Zhang, *supra* note 72, at 368;

<sup>100</sup> The statements made in this section rely on the Author's own fieldwork and historical research in Mountain County.

distances to major urban centers precluded the development of a local dairy industry. To the extent that dairy was featured at all in Mountain County in the twentieth century, it was either in the form of milk powder as a nutritional supplement for the children and elderly people of relatively resourceful families or as a valuable social gift for infants and convalescents. Non-fresh cow's milk was introduced to a few restaurants in the county seat in the 1990s as a breakfast drink, along with *doujiang*, and cost twice as much as *doujiang*. Mountain County did not develop a fresh cow's milk market until the mid-2000s, when refrigerated trucks became available, and an extensive network of paved roads was being built.

Contrary to dairy's virtual absence, soybeans were an indispensable part of Mountain County's rural economy and dietary culture. After the implementation of HRS in the early 1980s, each rural family would grow soybeans and raise at least one pig on the farm. Most soybeans were grown on the dividers that separated individual families' rice paddies or embanked hillside rice terraces. Growing soybeans on the long narrow dividers formed a symbiosis with rice cultivation. As the divider was made of dirt, it needed reinforcement to avoid collapsing. Soybean roots provided such reinforcement. Meanwhile, water from the paddies provided irrigation for the beans. Growing soybeans on dividers also allowed families to cultivate other crops on the precious, scarce land; these other crops included wheat, mulberry trees (for raising silkworms), and sorghum (for feeding pigs).

Rural families kept most of their soybeans for self-consumption, and soybeans were consumed chiefly in four ways. First, soybeans were consumed as a fresh vegetable in late spring. The lack of greenhouse vegetable farming and of a sophisticated agricultural market meant that rural families in Mountain County only had preserved vegetables to go with the rice during the long winter and much of the spring. As spring was ending, soybeans would grow plump while still green and tender. Families would stir fry them as a fresh vegetable dish to break the monotonous wintry diet. Second, soybeans were consumed as a protein-rich food for the Spring Festival, which is a three-week-long holiday in Mountain County. In Mountain County in the 1980s and 1990s, the last week of lunar December was the week to prepare for the Spring Festival. Rural families would slaughter a home-raised pig and make large

quantities of tofu from home-grown soybeans.<sup>101</sup> Third, soybeans were processed as foods for daily consumption, particularly during the cold months of the year. These included fermented beans, fermented tofu, or soybean powder.<sup>102</sup> Soybean powder, like milk powder, was sweetened with sugar and consumed with hot water and was a treat for children and the elderly. Fourth, rural families would exchange some of their soybeans for precious cash. Such exchange created a local soybean processing industry in which family-run tofu shops sold tofu to urban as well as rural families, and family-run food stands served hot, fresh soymilk to urban breakfast eaters.

ii. River District: Tumultuous Market Opening<sup>103</sup>

River District has roughly 150,000 residents, is a land mass twice the size of Rhode Island, and has over ten State Farms and over one hundred Units. Land is abundant and located on flat plains or gentle, rolling hills. Plots are large and rectangular and farmed with heavy machines. The soybean is one of the two crops grown in the region (the other being wheat before 2008 and corn after 2008). Unlike in Mountain County, dairy has always been an important part of the local economy since the District's creation in the Mao era.

During the Mao era, residents enjoyed stable wages, free public housing, and other welfare benefits conferred by State Farms. Farm governments also cultivated among residents a collective identity and sense of pride as employees of technologically advanced socialist State Farms.

While rural residents in Mountain County unequivocally welcomed HRS in the 1980s, residents of River District overwhelmingly opposed it. Residents feared that HRS would destroy all the material entitlements, collective identity, and sense of pride that came with the status of a State Farm employee.<sup>104</sup> As one

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<sup>101</sup> Tofu and pork (and fish) are essential dishes on the New Year's Eve dinner or at meals with relatives and friends. See generally Watson, *supra* note 13 (discussing the cultural and ritual importance of pork in rural Chinese life).

<sup>102</sup> *Landoushi* means rotten soybean food. Interestingly, the local dialect for fermented tofu (*douru*) literally means soy milk. *Doumi* means soybean mist or dust, due to its fineness. It is also interesting that the process of making tofu from soymilk is very similar to that of making fresh cheese from milk, and the same can be said for fermented tofu and some fermented cheeses, as well as for *doufuhua* (literally means tofu flower—a silky, semi-curdled product before the curd turns into tofu) and yoghurt.

<sup>103</sup> The statements made in this section rely on the Author's own fieldwork and historical research in River District.

<sup>104</sup> As a matter of fact, HRS was met with huge resistance in Heilongjiang Province, which had a much higher land-to-population ratio and degree of mechanization than



expression captured from the time, “We did decades of hard work, only to be reverted to the pre-liberation era overnight” (“辛辛苦苦几十年，一夜回到解放前”).<sup>105</sup> To induce compliance with HRS, Farm and Unit administrations sold machines and animals, including cows, at highly discounted rates to machine operators, Unit officials, and other residents and encouraged them to rent large areas of land at low rates (families renting large areas of land were locally called “family farms,” 家庭农场). Public housing was also sold to the resident household. To allay some of workers’ fears, Farm and Unit administrations preserved the worker status of the former employees and continued to subsidize their social security payments.

A thorough implementation of HRS did not take hold due to a combination of factors: increasing wealth inequality between a few successful “family farms” and the remaining small farming households; the frustration and fear of a large number of failing “family farms”; and the need for revenue for the administration to provide social services and bail out failing “family farms.” Hence, in the 1990s, there was an institutional reversal in which the vast majority of the land was managed and farmed by teams consisting of Unit officials and machine drivers, while a minority of the land was managed and farmed by a large number of households, each renting a small amount of land (locally called “small households,” “小户”). Despite this partial reversal for grain production, dairy farms, which were small in scale, were never re-collectivized.

Between 1993 and 2001, the opening up of the agricultural input and output markets caused devastating price fluctuations for farmers in River District. Before 1993, grain prices were set by the state and were set low to subsidize China’s urban industrialization.<sup>106</sup> Market opening led to immediate increases in grain prices. Between

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the rest of the country. See JAE HO CHUNG, *CENTRAL CONTROL AND LOCAL DISCRETION IN CHINA: LEADERSHIP AND IMPLEMENTATION DURING POST-MAO DECOLLECTIVIZATION* (Oxford Univ. Press 2000) (providing an in-depth analysis of provincial implementations of HRS).

<sup>105</sup> The pre-liberation era means the years before 1949. The CCP and contemporary Chinese government portray the pre-liberation era as a dark era of feudalism, semi-colonialism, and corrupt state capitalism. See Robert Weatherly & Coirle Magee, *Using the Past to Legitimise the Present: The Portrayal of Good Governance in Chinese History Textbooks*, 47 *J. CURRENT CHINESE AFF.* 41, 42, 62–63 (2018).

<sup>106</sup> Luo Jinqiang (罗进强) & Ren Liming (任立民), *Woguo Liangshi Caizheng Butie de Lishi Yanbian Jiqi Zhongyao Zuoyong* (我国粮食财政补贴的历史演变及其重要作用) [*The Historical Evolution and Importance of China’s Grain Subsidies*], in *ZHONGGUO LIANGSHI GAIGE KAIFANG SANSHI NIAN* (中国粮食改革开放三十年) [THIRTY YEARS OF CHINA’S GRAIN REFORM AND OPENING] 123 (China Grain Econ. Inst. & China Grain Indust. Ass’n eds., 2009).

1993 and 1996, the price of wheat more than doubled, and the price of soybeans increased by two-thirds.<sup>107</sup> Higher prices stimulated grain production nationwide, and prices began to fall. Between 1996 and 2000, the price of wheat decreased by 38%, and the price of soybeans decreased by 26%.<sup>108</sup>

While the fall of wheat prices was caused by increased production vis-à-vis a relatively stable demand, the situation with soybean prices was slightly different, though it led to the same outcome. As personal income rose, meat consumption rose and created a huge demand for soymeal. This should, in a closed economy, increase soybean prices. However, China was negotiating its WTO entry; importing soybeans would not only meet the rapidly increasing demand for soymeal, but it would also show China's willingness to participate in international trade.<sup>109</sup> As a result, total soybean import went from 2.9 million tons in 1995 to 12.8 million tons in 2000.<sup>110</sup> The in-pouring of foreign beans caused prices for domestic beans to stagnate in 1997 and to fall in 1998.<sup>111</sup>

The market opening crushed River District's economy, as half of the district's farmland was used for growing wheat, and the other half was used for growing soybeans. Between 1996 and 1999, the local price of soybeans decreased by 35%, and the local price of wheat decreased by 18%. Interlocutors who were once agricultural team members recounted with anger and anguish the "dark old days" of the late 1990s and early 2000s. "Year after year we were losing money and going deeper in debt."<sup>112</sup> Team members were afraid to farm the land. Some left the teams altogether. The total cultivated area decreased by 7% in 1999 and further decreased by 6% in 2000.

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<sup>107</sup> The numbers are calculated based on purchasing price indexes between 1993 and 1996. 9-10 *Quanguo Nongchanpin Shougou Jiage Fenlei Zhishu* (9-10 全国农产品收购价格分类指数) [9-10 *National Agricultural Product Purchase Price Index*], 2001 NIAN ZHONGGUO TONGJI NIANJIAN (2001 年中国统计年鉴) [2001 CHINA STATISTICS YEARBOOK], <http://www.stats.gov.cn/tjsj/ndsj/2001c/i0910c.htm> [hereinafter *2001 National Agricultural Product Purchase Price Index*].

<sup>108</sup> The numbers are calculated based on purchasing price indexes between 1996 and 2000. *Id.*

<sup>109</sup> Oliveira & Schneider, *supra* note 13, at 177–78 (explaining the connection between soybean imports and rising pork consumption in China).

<sup>110</sup> FAOSTAT, FOOD & AGRIC. ORG., <http://www.fao.org/faostat/en/?#data> (select the "Crops and livestock products" link under the "Trade" heading; select "China" in the countries field; select "Import Quantity" in the elements field; select "Soybeans" in the items field; select "1995" and "2000" in the year field; click "Show Data").

<sup>111</sup> 2001 *National Agricultural Product Purchase Price Index*, *supra* note 107.

<sup>112</sup> Xiaoqian Hu, *Fieldwork Journal* 2015-045 (on file with author).

Agriculture was not the only sector harmed by market opening. Since the late 1980s, River District had been facing an explosion of the labor force, as workers' children, who were born in the 1960s and 1970s (before China's compulsory family planning policy was implemented), reached adulthood. To create employment for these young adults, the District and Farm administrations established factories processing agricultural and husbandry materials. Market opening struck a heavy blow to these factories and their farmer-suppliers. Many of them were closed down or sold off cheaply to private individuals in the late 1990s and early 2000s.

Facing falling wheat and soybean prices, dwindling revenues, and the closing down of state-owned factories, the River District administration (and the Provincial State Farm Administration) looked to dairy and pork—the prices of which were still rising due to rapidly increasing urban consumption—as ways to diversify the local economy. The administration promoted “a courtyard economy” (“庭院经济”) and encouraged each family to raise “two cows and one pig” (“两牛一猪”). To expand the local dairy industry, Farm administrations purchased cows from bigger farms near major cities in northern China and resold them to local dairy farmers on deferred payments. To make sure that dairy farmers were able to sell their milk, Farm administrations also established state-owned dairy processing companies to purchase raw milk. Despite these efforts, the dairy strategy was struggling to succeed. Around 2001, the last and biggest dairy processing company in River District declared bankruptcy, and dairy farmers had to sell milk to individual milk merchants, who then transported the milk to dairy processing companies in big cities hundreds of miles away.

While many factories were closed down or sold off during the market liberalization reform, the District and Provincial administrations restructured, incorporated, and expanded a handful of factories known as “dragon-head enterprises” (“龙头企业,” the same term as is used by the central Chinese state now) to serve as engines of job creation and economic growth. These included, among others, the Heilongjiang Wonderson Dairy Product Co Ltd (完达山).

Despite these efforts, there was massive unemployment in River District. Over 40,000 people—out of a total population of less than 150,000—lost jobs. Some of them, particularly women, exited the work force and became homemakers. Many residents engaged in non-agricultural activities. Many people—especially young

people—left home and worked in Beijing, Tianjin, and Dalian as migrant workers. With a decrease in land rents and a lack of funding from upper governments, the District administration cut spending in the late 1990s. Many offices were combined or terminated, and many employees were laid off or retained on contractual terms. Many teachers, who had been contractual workers rather than state employees, were fired. Unit elementary schools were eliminated, and the students were transferred to the elementary school in the Farm administration seat tens of kilometers away.<sup>113</sup>

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In the Chinese sociopolitical life, milk is a living symbol of the Sino-West encounter, and of all the conflicts, aspirations, ambivalences, and uncertainties that this encounter entails. Prior to the twentieth century, the Chinese government was unwilling to open its market to the West but was forced to do so under gunboat diplomacy. A hundred years later, the Chinese government not only voluntarily opened its market, but also sought to institutionalize the opening through joining the WTO. Once again, milk—and soy—are at the center of China's relationship with the West, and more broadly, China's relationship with globalization. If the history of milk in twentieth-century China was intellectual and political and affected primarily the urban elites, the history of milk in twenty-first-century China is economic and political and affects the entire Chinese society—from villagers to urbanites to the ruling elite.

### III. Market Opening and Trade Shocks

#### A. *China Opens Up Dairy and Soybean Trade*

In December 2001, China joined the WTO.<sup>114</sup> As part of the accession agreement, China drastically weakened protections for domestic dairy and soybean producers. Although a developing country, China agreed to not use the investment subsidy exemption

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<sup>113</sup> With hindsight, the elimination of Unit elementary schools was inevitable, as China's family planning policy was rapidly reducing the student population. Yet, the process was quickened by a lack of government funds. See generally Lu Hongyong, *Rural School Closures Are Leaving Young Children Out in the Cold*, SIXTH TONE (Jan. 27, 2018), <https://www.sixthtone.com/news/1001617/rural-school-closures-are-leaving-young-students-out-in-the-cold#> (describing the vast number of underfunded and slimly populated elementary schools in rural China from the late 1990s to the present).

<sup>114</sup> *China and the WTO*, WORLD TRADE ORG., [https://www.wto.org/english/thewto\\_e/countries\\_e/china\\_e.htm](https://www.wto.org/english/thewto_e/countries_e/china_e.htm) (last visited Mar. 26, 2020).

available to developing economies.<sup>115</sup> Compared with other developing countries, China also agreed to a smaller percentage of domestic support that is exempted from reduction commitment calculations.<sup>116</sup> Given that China had zero subsidies for agriculture prior to joining the WTO, China is not allowed to provide additional direct financial support to its agricultural producers beyond the exempted percentage.<sup>117</sup>

China also reduced entry barriers for foreign agricultural producers. China abolished, among other things: (1) state trading of soybean and dairy imports, (2) soybean and dairy import licenses and quotas, and (3) soybean and dairy export subsidies.<sup>118</sup> In 2002, the average tariff rate for imported soybeans was 2.4%, down from 114% prior to China's WTO accession.<sup>119</sup> In 1998, China's statutory tariff for dairy imports was 46%; the post-accession average was 11%.<sup>120</sup>

Limited ability to subsidize domestic producers, low tariff rates, and the abolition of import licenses and quotas gave foreign dairy and soybean farmers largely unrestricted access to the Chinese market and freedom to compete with Chinese farmers. Had Chinese farmers been able to produce soybeans and dairy at internationally competitive prices, the impact of these concessions would have been

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<sup>115</sup> Working Party on the Accession of China, *Report of the Working Party on the Accession of China*, WTO Doc. WT/ACC/CHN/49, ¶ 235 (Oct. 1, 2001) [hereinafter *Working Party Report*]; see WORLD TRADE ORG., *Agreement on Agriculture*, art. 6, ¶ 2, [https://www.wto.org/english/docs\\_e/legal\\_e/14-ag\\_01\\_e.htm#articleVI](https://www.wto.org/english/docs_e/legal_e/14-ag_01_e.htm#articleVI) (last visited Mar. 26, 2020) [hereinafter *Agreement on Agriculture*].

<sup>116</sup> *Agreement on Agriculture*, *supra* note 115, at art. 6, ¶ 4(a), (b); see also *Working Party Report*, *supra* note 115. This exempted percentage is called the *de minimis* level. All WTO Members are granted a *de minimis* level. *Agreement on Agriculture*, *supra* note 115, at art. 6, ¶ 4(a).

<sup>117</sup> *Working Party Report*, *supra* note 115, at ¶ 235.

<sup>118</sup> *Working Party Report*, *supra* note 115, ¶¶ 104–38; see also U.S. INT'L TRADE COMM'N, CHINA'S AGRICULTURAL TRADE: COMPETITIVE CONDITIONS AND EFFECTS ON U.S. EXPORTS, at 7-6 (2011).

<sup>119</sup> *Tariff Download Facility*, WTO, <http://tariffdata.wto.org/TariffList.aspx> (last visited July 29, 2020) (select "All years, bound tariffs included" in "Filter"; select "China"; select "12 – Oil seeds" in "Products"; select subsection "1201- Soya beans, whether or not broken"; click "Next"). The 2.4% rate was further reduced to a combined tariff rate of 1.5% in 2012 and remains 1.5% to this day. *Id.*

<sup>120</sup> Will Martin et al., *China's Accession to the WTO: Impacts on China*, in EAST ASIA INTEGRATES: A TRADE POLICY AGENDA FOR SHARED GROWTH 35, 42 (Kathie Krumm & Homi Kharas eds., 2004); see also Frank Fuller et al., *China's Accession to the World Trade Organization: What Is at Stake for Agricultural Markets?*, 25 REV. AGRIC. ECON. 399, 405 (2003).

minimal. However, this was *not* the case for soybeans, and after 2008, this was no longer the case for dairy.<sup>121</sup>

### *B. Market Shock for China's Soybean Industry: The 2004 Soybean Crisis*

As income levels rose in China, demand also rose for meat (primarily pork) and dairy.<sup>122</sup> Today, China is the world's largest producer of pork, soymilk, and soy oil; the world's second largest producer of chicken; and, as mentioned earlier, the world's third largest producer of cow's milk.<sup>123</sup> The soybean experienced the most dramatic transformation. For thousands of years it had been one of the five staples in the traditional Chinese diet.<sup>124</sup> Now, it has taken on three concurrent roles in Chinese life: primarily, as an industrial input for mass production of pork; secondarily, as the raw material for making vegetable oil; and, only thirdly, as a food directly consumed by humans.<sup>125</sup> Due to these multiple roles, China's soybean use nearly quadrupled between 2001 and 2017.<sup>126</sup>

Had Chinese soybean farmers been able to compete with foreign producers, the rapid rise in soybean use would have been a boon for Chinese farmers. This, however, was not the case. In 2001, for example, China's average producer's price for soybeans was approximately 1.5 times that of the U.S. and approximately 1.6 times that of Brazil.<sup>127</sup>

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<sup>121</sup> See *infra* text accompanying note 127; see *infra* text accompanying notes 147–52.

<sup>122</sup> See, e.g., Yuna He et al., *Consumption of Meat and Dairy Products in China: A Review*, 75 PROC. OF THE NUTRITION SOC'Y 385 (2016) (providing an overview of China's rising dairy and meat, especially pork, consumption).

<sup>123</sup> Oliveira & Schneider, *supra* note 13, at 178; MINDI SCHNEIDER & SHEFALI SHARMA, INST. FOR AGRIC. & TRADE POLICY, CHINA'S PORK MIRACLE? AGRIBUSINESS AND DEVELOPMENT IN CHINA'S PORK INDUSTRY 7–8 (2014); U.S. DEP'T OF AGRIC., *supra* note 10, at 13.

<sup>124</sup> WILLIAM SHURTLEFF ET AL., HISTORY OF SOYBEANS AND SOYFOODS IN CHINA AND TAIWAN, AND IN CHINESE COOKBOOKS, RESTAURANTS, AND CHINESE WORK WITH SOYFOODS OUTSIDE CHINA (1024 BCE TO 2014): EXTENSIVELY ANNOTATED BIBLIOGRAPHY AND SOURCEBOOK 43–44 (2014).

<sup>125</sup> See, e.g., Oliveira & Schneider, *supra* note 13 (providing an in-depth analysis of the soybean's multiple roles in contemporary China).

<sup>126</sup> *Market Database: Supply and Demand Overview*, AGRIC. MKT. INFO. SYS., <https://app.amis-outlook.org/#/market-database/supply-and-demand-overview> (last visited July 29, 2020) (select "China" in "Country/Region"; select "Soybean" in "Commodity"; click "Download Entire Balance").

<sup>127</sup> FAOSTAT, FOOD & AGRIC. ORG., <http://www.fao.org/faostat/en/#data> (last visited Apr. 14, 2020) (select the "Producer Prices-Annual" link under the "Prices" heading; click "Brazil," "China," and "United States of America" in the countries field; select "Producer Price (USD/tonne)" in the elements field; select "Soybeans" in the items field; select "2001" in the years field; click "Show Data").

For the Chinese soybean industry, the first shock of market opening arrived in 2004.<sup>128</sup> In the years leading up to 2004, the rapid increase in demand for soy oil and the cheap beans from the U.S. had created a rapidly expanding Chinese oil-crushing industry with firms of all sizes.<sup>129</sup> The international soybean chain at the time was such that Chinese soy oil producers would pledge to buy beans from the U.S. during the spring planting season; payments would be made in the summer; and the beans would be shipped to China upon harvest in the fall.<sup>130</sup> When Chinese oil companies were pledging to buy U.S. beans in the spring of 2004, prices in the U.S. reached an all-time high.<sup>131</sup> When it was time to pay, however, prices had nearly halved.<sup>132</sup> Many Chinese companies decided to default.<sup>133</sup> U.S. and transnational traders sought arbitration at the London-based Grain and Free Trade Association, which decided that despite the dramatic price decrease, Chinese buyers should make the payments as agreed upon in the spring.<sup>134</sup>

Soybean prices continued to fall and did not rebound until 2007.<sup>135</sup> The result was massive bankruptcies of Chinese soy oil crushers and refineries and the subsequent takeover by major international agro-companies such as ADM, Bunge, Cargill, Louis Dreyfus, and Wilmar.<sup>136</sup> By 2009, 80% of China's soybean crushing market and 60% of China's soy oil refining market were controlled by foreign firms.<sup>137</sup>

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<sup>128</sup> Oliveira & Schneider, *supra* note 13, at 178.

<sup>129</sup> SOLIDARIDAD, CHINA'S SOY CRUSHING INDUSTRY IMPACTS ON THE GLOBAL SUSTAINABILITY AGENDA 3–6, 10–16, <https://www.solidaridadnetwork.org/sites/solidaridadnetwork.org/files/publications/China%20Soy%20report.pdf> (last visited Apr. 17, 2020).

<sup>130</sup> Oliveira & Schneider, *supra* note 13, at 178.

<sup>131</sup> Yang Mei (杨眉), 2004 Nian Dadou Weiji Shijian de Shimo (2004 年大豆危机事件始末) [*The Soybean Crisis in 2004*], ZHONGGUO JINGJI ZHOUKAN (中国经济周刊) [CHINA ECON. WEEKLY] (Feb. 18, 2008), <http://finance.aweb.com.cn/2008/2/18/2252008021810483390.html>.

<sup>132</sup> *Id.*

<sup>133</sup> *Id.*

<sup>134</sup> Oliveira & Schneider, *supra* note 13, at 178.

<sup>135</sup> According to FAOSTAT, the average producer's price for soybeans in the U.S. was \$270 per ton in 2003, \$211 per ton in 2004, \$208 per ton in 2005, \$236 per ton in 2006, and \$371 per ton in 2007. FAOSTAT, FOOD & AGRIC. ORG., <http://www.fao.org/faostat/en/?#data> (select the "Producer Prices-Annual" link under the "Prices" heading; click "United States of America" in the countries field; select "Producer Price (USD/tonne)" in the elements field; select "Soybeans" in the items field; select "2003," "2004," "2005," "2006," and "2007" in the years field; click "Show Data").

<sup>136</sup> Oliveira & Schneider, *supra* note 13, at 170, 178.

<sup>137</sup> *Id.* at 178; see also ZANG YUNPENG (臧云鹏), ZHONGGUO NONGYE ZHENXIANG: WAZI DAJU RUQIN ZHONGGUO NONGYE (中国农业真相: 外资大举入侵中国农业) [THE TRUTH ABOUT CHINA'S AGRICULTURE: FOREIGN CAPITAL MASSIVELY INVADES

For Chinese soybean farmers, market shock was a slower and longer process of being competed out of production.<sup>138</sup> With no entry barriers, the steep price differences prompted soy processing companies in China—many of which were foreign multinationals as a result of the 2004 soybean crisis—to import beans from the U.S. and Brazil.<sup>139</sup> In 2002, China produced 1.19 times as many soybeans as it imported.<sup>140</sup> In 2016, China imported approximately seven times more soybeans than it produced domestically.<sup>141</sup> Today, two thirds of the world’s soybean exports go to China.<sup>142</sup> Domestically, however, soybean production shrank by approximately 20.4% between 2002 and 2017.<sup>143</sup> One study estimated that, between 2005 and 2010, 30% of soybean farmers from northeastern China (where River District is located) had been pushed out of business and became migrant workers in the city.<sup>144</sup>

Prior to the current U.S.-China trade war, soybeans were “the largest U.S. export of any type to China,” contributing to roughly 10% of all U.S. exports to China.<sup>145</sup> While U.S. farmers

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CHINA’S AGRICULTURE] (Peking Univ. Press 2013) (providing an in-depth analysis of China’s “2004 soybean crisis”).

<sup>138</sup> See *infra* text accompanying notes 139–44; see also *supra* Section II.C.ii. (describing the lives of soybean farmers in River District); see also *infra* Section IV.C. (describing the lives of soybean farmers in River District).

<sup>139</sup> SOLIDARIDAD, *supra* note 129, at 6–8.

<sup>140</sup> FAOSTAT, FOOD & AGRIC. ORG., <http://www.fao.org/faostat/en/?#data> (select the “Crops” link under the “Production” heading; select “China” in the countries field; select “Production” in the elements field; select “Soybeans” in the items field; select “2002” in the year field; click “Show Data”); *Id.* (select the “Crops and livestock products” link under the “Trade” heading; select “China” in the countries field; select “Import Quantity” in the elements field; select “Soybeans” in the items field; select “2002” in the year field; click “Show Data”).

<sup>141</sup> FAOSTAT, FOOD & AGRIC. ORG., <http://www.fao.org/faostat/en/?#data> (select the “Crops” link under the “Production” heading; select “China” in the countries field; select “Production” in the elements field; select “Soybeans” in the items field; select “2016” in the year field; click “Show Data”); *Id.* (select the “Crops and livestock products” link under the “Trade” heading; select “China” in the countries field; select “Import Quantity” in the elements field; select “Soybeans” in the items field; select “2016” in the year field; click “Show Data”).

<sup>142</sup> *Soybeans Accounted for the Majority of U.S. and Brazil Agricultural Exports to China in 2017*, U.S. DEP’T OF AGRIC., <https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=93573> (last updated July 25, 2019).

<sup>143</sup> FAOSTAT, FOOD & AGRIC. ORG., <http://www.fao.org/faostat/en/?#data> (select the “Crops” link under the “Production” heading; select “China” in the countries field; select “Production” in the elements field; select “Soybeans” in the items field; select “2002” and “2017” in the year field; click “Show Data”).

<sup>144</sup> Oliveira & Schneider, *supra* note 13, at 181 (citation omitted).

<sup>145</sup> FRED GALE ET AL., U.S. DEP’T AGRIC., EIB-136, CHINA’S GROWING DEMAND FOR AGRICULTURAL IMPORTS 7 (Feb. 2015), <https://www.ers.usda.gov/webdocs/publications/43939/eib-136.pdf?v=42058>; Justin Choe et al., *U.S. Soybean Exports to China Crushed Amid Rising Trade Tensions*, USITC EXECUTIVE BRIEFINGS ON TRADE, Aug. 2019, at 1–2, [https://www.usitc.gov/publications/332/executive\\_briefings/chinasoy](https://www.usitc.gov/publications/332/executive_briefings/chinasoy)



worry that their “best customer” would turn to Latin America and they would lose 300,000 soybean jobs,<sup>146</sup> the life stories of tens of millions of Chinese soybean farmers have remained hidden and forgotten for the past two decades. This article makes some of their stories visible.

### C. *Market Shock for China’s Dairy Industry: The 2008 Melamine Scandal*

At the time China joined the WTO, the average producer’s price for milk was lower in China than in the U.S. and other developed countries; hence, trade opening had a limited impact in the initial years of the country’s WTO accession.<sup>147</sup> Between 2001 and 2008, China’s cow inventory more than doubled, and its milk production tripled.<sup>148</sup> Still, demand for dairy outpaced production, and dairy imports increased.<sup>149</sup>

China’s dairy industry experienced dramatic market shock in 2008 on three fronts. First, rising income levels—in the context of China’s family planning policy, which limits births—were concomitantly driving up the costs of agricultural labor.<sup>150</sup> Average income in agriculture more than doubled between 2001 and 2008.<sup>151</sup>

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ebot.pdf (data on yearly U.S. soybean exports to China between 2016 and 2018); *Trade in Goods with China*, U.S. CENSUS BUREAU, <https://www.census.gov/foreign-trade/balance/c5700.html#2017> (last visited July 23, 2020) (data on trade with China between 1985 and 2020); see also Hallie Gu & Naveen Thukral, *Soy Source: Brazil’s Share of Soybean Exports to China Hits Record*, REUTERS (Jan. 25, 2008), <https://www.reuters.com/article/us-china-economy-trade-soybeans/soy-source-brazil-share-of-soybean-exports-to-china-hits-record-idUSKBN1FE111>.

<sup>146</sup> Nathaniel Meyersohn, *China Takes Aim at America’s Soybean Farmers*, CNNMONEY (Apr. 5, 2018), <http://money.cnn.com/2018/04/05/news/economy/soybeans-china-trade-us/index.html>.

<sup>147</sup> Fred Gale & Michael Jewison, *China as Dairy Importer: Rising Milk Prices and Production Costs*, 19 INT’L FOOD & AGRIBUSINESS MGMT. REV. 189, 193 (2016).

<sup>148</sup> 2009 ZHONGGUO NAI YE NIANJIAN (2009 中国奶业年鉴) [2009 CHINA DAIRY INDUSTRY YEARBOOK] tbl. 1-10 (Ministry of Agric. ed., 2009) (end-of-the-year dairy cow inventories between 1975 and 2008); *China Statistical Yearbook 2009: 12-19 Output of Livestock Products*, NAT’L BUREAU OF STATISTICS OF CHINA, <http://www.stats.gov.cn/tjsj/ndsj/2009/indexeh.htm> (last visited Apr. 17, 2020) (providing China produced 10,255,000 tons of cow milk in 2001 and 35,558,000 in 2008).

<sup>149</sup> BRAD GEHRKE & LESLEY AHMED, U.S. INT’L TRADE COMM’N, AGRICULTURAL TRADE WITH CHINA: DAIRY IMPORT GIANT (2019).

<sup>150</sup> Xiaobing Wang et al., *Wage Growth, Landholding, and Mechanization in Chinese Agriculture*, 86 WORLD DEV. 30, 30 (2016).

<sup>151</sup> *China Statistical Yearbook 2002: 5-22 Average Wage of Staff and Workers by Sector*, NAT’L BUREAU OF STATISTICS OF CHINA, <http://www.stats.gov.cn/english/statisticaldata/yearlydata/YB2002e/ml/indexE.htm> (last visited Apr. 17, 2020) (providing that in 2001, the average wage of a worker in the “Farming, Forestry Animal Husbandry, and Fishery” sector was 5,741 Yuan); *China Statistical*

This, in conjunction with rising input costs, resulted in small dairy farmers losing competitiveness to farmers in major dairy exporting countries such as the U.S.<sup>152</sup>

Second, in April 2008, China signed a free trade agreement (“FTA”) with New Zealand, the world’s leading dairy exporter.<sup>153</sup> The FTA required China to eliminate tariffs on many dairy imports in 2012 and all dairy (and other) imports from New Zealand in 2019.<sup>154</sup> This FTA ushered in an era of massive dairy imports from New Zealand. Today, New Zealand is China’s second largest dairy exporter, accounting for 21.5% of China’s total dairy imports (the European Union as a block is China’s largest dairy exporter, constituting 48.4% of China’s total dairy imports).<sup>155</sup>

Third, the biggest—and certainly the most widely reported—food safety disaster in contemporary China took place in late 2008, tanking China’s rapidly growing dairy industry.<sup>156</sup> At the time the scandal broke out, China’s inadequate dairy quality inspection system used nitrogen as a proxy for protein and tested milk quality by checking the nitrogen level in the milk.<sup>157</sup> Taking advantage of this rudimentary system, dairy merchants and farmers added water and melamine—a toxic, nitrogen-rich chemical compound—to raw milk to increase volume.<sup>158</sup> Nationally, it was found out that melamine-contaminated milk powder from twenty-two Chinese manufacturers poisoned over 290,000 people (primarily infants), caused tens of thousands of hospitalizations, and at least six

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*Yearbook 2009: 4-26 Average Wage of Staff and Workers by Sector and Region*, NAT’L BUREAU OF STATISTICS OF CHINA, <http://www.stats.gov.cn/tjsj/ndsjsj/2009/ind/exeh.htm> (last visited Apr. 17, 2020) (providing that in 2008, the average wage of a worker in the “Agriculture, Forestry, Animal Husbandry and Fishery” sector was 12,958 Yuan). See also Xiaobing Wang et al., *supra* note 150, at 33 (Figure 2 showing a similar trend of wage growth for on-farm labor in agricultural production in China).

<sup>152</sup> Gale & Jewison, *supra* note 147, at 193.

<sup>153</sup> Free Trade Agreement Between the Government of the People’s Republic of China and the Government of New Zealand, China-N.Z., annex 1, pt. A, Apr. 7, 2008.

<sup>154</sup> *Id.*

<sup>155</sup> These numbers are calculated based on the dairy import data in *2018 Nian 1-12 Yue Zhongguo Ruzhipin Jinchukou Tongji* (2018年1—12月中国乳制品进出口统计) [*China’s Dairy Import and Export Statistics Between January and December of 2018*], AOZHOU CAIJING JIANWEN (澳洲财经见闻) [AUSTRALIAN FIN. NEWS] (Mar. 2, 2019), <https://afindaily.com/36852>.

<sup>156</sup> Xiu & Klein, *supra* note 65, at 464.

<sup>157</sup> *Id.*

<sup>158</sup> *Id.*

infant deaths.<sup>159</sup> Sanlu, China's then largest milk powder processor, declared bankruptcy.<sup>160</sup> Two other dairy giants, Mengniu and Yili, saw their sales drop by 80% in a matter of days, and the two combined saw their 2008 revenue drop by half a billion dollars.<sup>161</sup> Scores of people, including the former CEO of Sanlu and six high-ranking government officials, received criminal punishments ranging from jail terms to the death penalty.<sup>162</sup>

Researchers and the Chinese government attribute this food disaster to the highly fragmented and grossly under-regulated nature of China's milk supply chain.<sup>163</sup> In 2008, 42.9% of China's dairy cows were raised on farms with fewer than ten cows and 64% of China's dairy cows were raised on farms with fewer than twenty cows.<sup>164</sup> 60% of the raw milk supply to Chinese dairy processing companies was collected from individual farms, and 25% of the supply was collected from scattered dairy plots and milk collecting stations.<sup>165</sup> Only 14% of the milking stations had a hygiene license.<sup>166</sup> There were no national quality standards for raw milk or derivative products, and the government had delegated inspection responsibilities to major dairy companies.<sup>167</sup> Hence, in a world with

<sup>159</sup> *Id.*; Andrew Jacobs, *China to Investigate French Company Over Claims of Tainted Formula*, N.Y. TIMES (Feb. 12, 2009), [https://www.nytimes.com/2009/02/13/world/asia/13milk.html?\\_r=1&ref=asia](https://www.nytimes.com/2009/02/13/world/asia/13milk.html?_r=1&ref=asia).

<sup>160</sup> Gao Xingxiang (高兴翔), *Sanlu Wangguo Fenbenqixi, Yijia Pochan Baozhu Quan Hangye* (三鹿王国分崩离析, 一家破产保住全行业) [*Sanlu Kingdom Disintegrates, Bankruptcy of One Preserves an Entire Industry*], SHIDAI ZHOUBAO (时代周报) [THE TIME WEEKLY] (Jan. 1, 2009), <http://news.sohu.com/20090101/n261527058.shtml>.

<sup>161</sup> Xiu & Klein, *supra* note 65, at 464.

<sup>162</sup> See Wu Heng (吴恒), *Sanlu Sanjuqingan Du Naifen Shijian Zeren Ren Jin Hezai?* (三鹿三聚氰胺毒奶粉事件责任人今何在?) [*Where Are the Persons Responsible for the Sanlu Melamine Poison Milk Powder Incident?*], PENGPAI (澎湃) [SURGING] (Aug. 3, 2014), [http://m.thepaper.cn/renmin\\_prom.jsp?contid=1259370&from=renmin](http://m.thepaper.cn/renmin_prom.jsp?contid=1259370&from=renmin) (providing a list of high-profile responsible parties for the melamine scandal).

<sup>163</sup> Guixia Qian et al., *China's Dairy Crisis: Impacts, Causes and Policy Implications for a Sustainable Dairy Industry*, 18 INT'L J. SUSTAINABLE DEV. & WORLD ECOLOGY 434, 438 (2011); Xiu & Klein, *supra* note 65, at 464; Guowuyuan (国务院) [State Council], *Nai Ye Zhengdun He Zhenxing Guihua Gangyao* (奶业整顿和振兴规划纲要) [*Planning Guidelines for the Reorganization and Revitalization of the Dairy Industry*], ZHONGHUA RENMIN GONGHEGUO ZHONGYANG RENMIN ZHENGFU (中华人民共和国中央人民政府) [THE CENT. PEOPLE'S GOV'T OF THE PEOPLE'S REPUBLIC OF CHINA] (Nov. 19, 2008), [http://www.gov.cn/jrzg/2008-11/19/content\\_1154518.htm](http://www.gov.cn/jrzg/2008-11/19/content_1154518.htm).

<sup>164</sup> H. Ma et al., *The Evolution of Productivity Performance on China's Dairy Farms in the New Millennium*, 95 J. DAIRY SCI. 7074, 7076 (2012); 2014 ZHONGGUO NAI YE NIANJIAN (2014 中国奶业年鉴) [2014 CHINA DAIRY INDUSTRY YEARBOOK] 32 (Ministry of Agric. ed., 2014).

<sup>165</sup> Qian et al., *supra* note 163, at 438.

<sup>166</sup> *Id.* at 438, 439.

<sup>167</sup> Xiu & Klein, *supra* note 65, at 467.

no regulations, high fragmentation, rapidly rising demand, unlimited profit seeking, and easy availability of melamine in local stores, adulterating milk with water and melamine became a “latent rule” in China’s burgeoning dairy industry.<sup>168</sup>

True and revelatory as it is, the above analysis misses the influence of trade opening on China’s dairy market structure. As China’s raw milk prices exceeded the prices in the U.S. and New Zealand in 2008, Chinese dairy companies—many of which had major foreign investors—supplemented and even substituted raw domestic milk with cheap imported milk powder to make liquid milk and yogurt.<sup>169</sup> The Chinese state’s failure to enact labeling laws or dairy regulations gave these companies free rein to engage in such activities.<sup>170</sup> Liquid milk aside, China almost doubled its imports of milk powder between 2001 and 2008.<sup>171</sup> The rapid increase of imports limited the room for the expansion of domestically produced milk powder, which in turn limited demand for raw milk.

Foreign competition and investments also led to a steady restructuring of China’s dairy processing industry.<sup>172</sup> Small firms were being pushed out, large firms were becoming even larger, and in 2007, the top four dairy companies produced and sold nearly half of all of the milk products in China.<sup>173</sup>

High concentration of the dairy processing sector combined with high fragmentation of the dairy producing sector resulted in an extremely uneven distribution of bargaining power and, hence, of

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<sup>168</sup> *Id.*; Qian et al., *supra* note 163, at 436.

<sup>169</sup> Wang Yongkang (王永康), *Woguo Yuanliao Nai de Dingjia Ying Naru Shichang Jingji he Fazhi Guanli de Guidao—Dui Dangqian Woguo Yuanliao Nai Shougou Wenti de Yixie Sikao* (我国原料奶的定价应纳入市场经济和法制管理的轨道——对当前我国原料奶收购问题的一些思考) [*The Pricing of Domestic Raw Milk Should Be Incorporated in the Track of the Market Economy and Legal Regulation*], in *DI QI JIE ZHONGGUO NAIYE DAHUI LUNWEN JI* (第七届中国奶业大会论文集) [A COLLECTION OF PAPERS FROM THE SEVENTH CHINA DAIRY CONFERENCE] 31–2 (2016). Between 2002 and June 2008, eight Chinese dairy processing companies had received over 576 million US dollars of capital investment from multinational dairy producers and investment corporations. Qian Guixia (钱贵霞) & Xie Jing (解晶), *Zhongguo Yuanliao Nai Gongqiu Maodun Ji Qi Yingxiang Jiexi* (中国原料奶供求矛盾及其影响解析) [*Analysis on the Contradiction of Supply and Demand of Raw Milk in China and its Influence*], 42 *NEIMENGGU DAXUE XUEBAO* (ZHEXUE SHEHUI KEXUE BAN) (内蒙古大学学报(哲学社会科学版)) [J. INNER MONG. U. (PHIL. & SOC. SCI.)] 58, 62 (2010).

<sup>170</sup> Wang Yongkang, *supra* note 169, at 32.

<sup>171</sup> Qingbin Wang et al., *China’s Dairy Markets: Trends, Disparities, and Implications for Trade*, 2 *CHINA AGRIC. ECON. REV.* 356, 366 (2010).

<sup>172</sup> Xiu & Klein, *supra* note 65, at 465.

<sup>173</sup> *Id.*

profits between dairy farmers and processing companies. While the ratios of investments in dairy production, processing, and retailing sectors were 7.5 to 1.5 to 1 (respectively), the ratios of profits were 1 to 3.5 to 5.5 (respectively).<sup>174</sup> The disproportionate market power allowed major dairy processing companies to suppress the price of raw milk as a way to prolong their competitiveness vis-à-vis imported milk powder.<sup>175</sup> Two scholars observed that on the eve of the 2008 melamine milk scandal:

Economies of scale combined with marketing power in both input and output markets have allowed the major dairy companies to pursue aggressive growth strategies. Their size has given them a level of economic importance such that small dairy farmers, milk collection stations and even governments (particularly provincial and local) have developed a state of dependency on their continued profitability and growth.<sup>176</sup>

The suppressed producers' price, rising costs of inputs, and inherently high risks of dairy production pushed many small dairy farmers out of business.<sup>177</sup> In 2002, 45% of China's dairy cows were raised on farms with fewer than five cows.<sup>178</sup> In 2008, only 32% of China's cows were raised on farms with fewer than five cows.<sup>179</sup> For those who struggled to remain in the dairy production business, melamine became the easiest available means of cost reduction. Melamine was their attempt to modify the existing scheme of profit sharing, even if that attempt would lead to the collapse of China's dairy industry, themselves included.

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For post-WTO China, milk and soybeans embody both the benefits and the costs of globalization. China has become a world leading milk producer, consumer, and importer. Most of the world's soybeans are now produced outside China, and most of the world's soybean exports are for Chinese consumption. As the historically "barbarian" milk becomes more Chinese and the historically "Chinese" soybean becomes more global (more American and Latin

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<sup>174</sup> Qian Guixia & Xie Jing, *supra* note 169, at 63.

<sup>175</sup> *Id.* at 62–64.

<sup>176</sup> Xiu & Klein, *supra* note 65, at 465.

<sup>177</sup> *Id.* at 466.

<sup>178</sup> 2014 CHINA DAIRY INDUSTRY YEARBOOK, *supra* note 164, at 32 tbl. 2-1.

<sup>179</sup> *Id.*

American, to be precise), globalization is also pitting the people who produce or process milk and soybeans against each other. On the one hand, soybean farmers in the U.S. and Brazil and dairy farmers and companies in the U.S., Europe, and New Zealand rejoice in the vast newfound Chinese market and pump up their production. On the other hand, Chinese soybean and dairy farmers and companies agonize over newly arrived foreign competition, scramble to cut costs, or else are pushed out of business.

#### IV. Government Response: State-Led Industrial Policy

##### A. Central State Response: Agricultural Industrialization Through Property Reform

The Chinese government's agricultural reports and policies suggest that it attributes Chinese farmers' lack of competitiveness to the small farm size created by HRS; that the small size prevents the realization of economies of scale and in particular, mechanization.<sup>180</sup> The average farm size in China is 0.52 hectare (or 1.3 acres).<sup>181</sup> The average farm size in the U.S. is about 176 hectares (or 434 acres).<sup>182</sup> Dairy operations have also been small. In 2008, less than one fifth of China's dairy cows were raised on farms with more than 100 head of cattle.<sup>183</sup> The diseconomy of small scale is further exacerbated by the rising cost of labor. Since 2009, the cost of labor has risen exponentially more than the costs of other agricultural inputs in

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<sup>180</sup> See Quanguo Nongye Kechixu Fazhan Guihua (2015-2030 Nian) (全国农业可持续发展规划(2015-2030年)) [National Agricultural Sustainable Development Plan (2015-2030)] (promulgated by the Ministry of Agric. et al., May 20, 2015, effective May 20, 2015) ST. COUNCIL GAZ., Oct. 10, 2015, at 28 [hereinafter National Agricultural Development Plan] (promoting larger-scale operations for all agricultural activities, including crop cultivation, animal husbandry, and fisheries; giving special treatment to operations 10-15 times the size of an average household farm under HRS).

<sup>181</sup> According to Vice Minister of Ministry of Agricultural and Rural Affairs, the average size of family farms in China in 2019 was 7.8 mu, or 0.52 hectare, and 210 million out of the 230 rural families in China were operating a farm smaller than 10 mu (or 0.67 hectare) of land. Yu Wenjing (于文静) and Dong Jun (董峻), *Quanguo 98% Yishang de Nongye Jingying Zhuti Rengshi Xiao Nonghu* (全国98%以上的农业经营主体仍是小农户) [98% of China's Agricultural Operators Are Still Small Rural Families], XINHUA WANG (新华网) [XINHUA NEWS] (Mar. 1, 2019), [http://www.xinhuanet.com/politics/2019-03/01/c\\_1210071071.htm](http://www.xinhuanet.com/politics/2019-03/01/c_1210071071.htm). Given China's highly egalitarian landholding created by HRS, the average size of family farms is the best available approximate for the average farm size in China.

<sup>182</sup> NAT'L AGRIC. STATISTICS SERV., U.S. DEP'T OF AGRIC., VOL. 1, GEOGRAPHIC AREA SERIES, PT. 51, 2012 CENSUS OF AGRICULTURE 92 tbl.65 (2012).

<sup>183</sup> 2014 CHINA DAIRY INDUSTRY YEARBOOK, *supra* note 164, at 32.

China.<sup>184</sup> Table 1 illustrates the competitiveness of U.S. soybeans over Chinese soybeans.<sup>185</sup>

	2010		2015	
	China	US	China	US
<b>Total Production Costs</b>	¥301	¥201	¥488	¥227
<b>Cost of Labor</b>	¥81	¥10	¥156	¥11
<b>Costs of Other Variable Inputs</b>	¥112	¥70	¥146	¥82

**Table 1.** “Average Costs of Producing 100 kg of Soybeans”

It is in this context that the Chinese government views scaling up and mechanization as necessary for Chinese farmers to regain competitiveness.<sup>186</sup> Once again, the Chinese state is relying on property reform to accomplish these goals.

#### i. Property Reform

This new round of property reform consists of three steps. The first step is legalizing and simplifying for-profit agricultural land transfers. Although the CCP lengthened agricultural land tenure to thirty years per redistribution and allowed for-profit land transfers in as early as 1993, that decision was made in a policy document rather than in legislation.<sup>187</sup> In 2002, a year after China’s WTO entry, the National People’s Congress (China’s national legislature) enacted the Rural Land Contract Law to legalize the 1993 policy.<sup>188</sup> Under the law, rural households can assign or sublet their thirty-year agricultural land tenure to other growers, including enterprises, or

<sup>184</sup> See Gale & Jewison, *supra* note 147, at 194 fig. 3.

<sup>185</sup> NAT’L DEV. AND REFORM COMM’N OF CHINA, CHINA YEARBOOK ON COSTS AND PROFITS OF AGRICULTURAL PRODUCTS 27, 626 (2016).

<sup>186</sup> National Agricultural Development Plan, *supra* note 180; see Xinhua She (新华社) [Xinhua News Agency], *Quanguo Nongzuowu Geng Zhong Shou Zonghe Jixiehua lü Chaoguo 67%* (全国农作物耕种收综合机械化率超过 67%) [The Comprehensive Mechanization Rate of Crop Cultivation and Harvesting Nationwide Exceeds 67%], ZHONGHUA RENMIN GONGHEGUO ZHONGYANG RENMIN ZHENGFU (中华人民共和国中央人民政府) [THE CENT. PEOPLE’S GOV’T OF THE PEOPLE’S REPUBLIC OF CHINA] (Jan. 19, 2019), [http://www.gov.cn/guowuyuan/2019-01/19/content\\_5359371.htm](http://www.gov.cn/guowuyuan/2019-01/19/content_5359371.htm).

<sup>187</sup> See Thomas Vendryes, *Land Rights in Rural China Since 1978*, 4 CHINA PERSPECTIVES 87, 89 (2010).

<sup>188</sup> *Id.* at 89–90.

use it as capital to join a corporate grower and become a shareholder.<sup>189</sup>

In China, intellectuals hotly debate rural land reform. Some argue that private and freely alienable property rights can enhance efficiency and encourage investment.<sup>190</sup> Others fear that privatization and alienability (including the ability to serve as security) would lead to rural dispossession and unemployment and threaten social stability.<sup>191</sup> The Chinese state seems to have taken a middle road approach. On the one hand, the 2002 Rural Land Contract Law (and subsequent legislation) lets the market allocate agricultural land on a non-permanent basis.<sup>192</sup> On the other hand, the refusal to recognize private land ownership, sales, and mortgages is designed to prevent systemic landlessness and social dislocation.<sup>193</sup>

The second step of the reform continues to reflect the Chinese state's middle-ground stance. Despite various changes to increase the alienability of rural land tenure, Chinese law forbids household farmers to secure bank loans with their land rights, out of fear that banks will dispossess them of land.<sup>194</sup> On the other hand, the CCP-ruled government now allows agricultural co-ops and other

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<sup>189</sup> See Rural Land Contract Law, *supra* note 83, arts. 10, 32, 36, 42.

<sup>190</sup> See generally WEN GUANZHONG (文贯中), WUMIN WUDI: CHENGSHIHUA, TUDI ZHIDU, YU HUJI ZHIDU DE NEIZAI LUOJI (吾民无地: 城镇化、土地制度和户籍制度的内在逻辑) [WE HAVE NO LAND: THE INTERNAL LOGIC OF URBANIZATION LAND SYSTEM AND HOUSEHOLD REGISTRATION SYSTEM] (2014); see James Wen & Jinwu Xiong, *The Hukou and Land Tenure Systems as Two Middle Income Traps – The Case of Modern China*, 9 FRONTIERS OF ECON. IN CHINA 438, 441 (2014); see generally ZHOU QIREN (周其仁), CHENGXIANG ZHONGGUO: XIUDING BAN (城乡中国: 修订版) [RURAL-URBAN CHINA: REVISED EDITION] (2013); Yu Jianrong (于建嵘) & Chen Zhiwu (陈志武), *Ba Diqian Huangci Nongmin: see generally Yu Jianrong Duihua Chen Zhiwu (把地权还给农民: 于建嵘对话陈志武)* [Return Land Rights to Farmers: Yu Jianrong in Dialog with Chen Zhiwu], 2 DONGNAN XUESHU (东南学术) [SOUTHEAST ACAD. RES.] 12 (2008).

<sup>191</sup> See generally CHINA'S PEASANT AGRICULTURE AND RURAL SOCIETY, *supra* note 87; HO, *supra* note 81, at 11; Tiejun Wen (温铁军), *Woguo Weishenme Buneng Shixing Nongcun Tudi Siyouhua (我国为什么不能实行农村土地私有化)* [Why Can't China Implement Private Landownership], 7 CAIJING JIE (财经界) [MONEY CHINA] 43–46 (2015); see generally XUEFENG HE (贺雪峰), DI QUAN DE LUOJI: ZHONGGUO NONGCUN TUDI ZHIDU QUXIANG HECHU? (地权的逻辑: 中国农村土地制度去向何处) [THE LOGIC OF LAND RIGHTS: WHICH DIRECTION FOR CHINESE RURAL LAND POLICY?] (2013); see generally HUA SHENG (华生), CHENGSHIHUA ZHUANXING HE TUDI XIANJING (城市化转型和土地陷阱) [URBANIZATION TRANSITION AND LAND TRAP] (2013).

<sup>192</sup> See Vendryes, *supra* note 187, at 90.

<sup>193</sup> See Tiejun Wen, *supra* note 191.

<sup>194</sup> Wuquanfa (物权法) [Property Law] (promulgated by Nat'l People's Cong., Mar. 16, 2007, effective Oct. 1, 2007), art. 184 (2).



agricultural companies that sublet land from household farmers to secure bank loans with these commercial subleases.<sup>195</sup>

This arrangement may appear to violate the time-honored property principle, *nemo potest plus juris ad alium transferre quam ipse habet* (“[n]o one can transfer to another a greater right than he himself (actually) has”).<sup>196</sup> The Chinese state explains this anomaly with a three-tier land right structure: ownership (*suoyouquan*, 所有权), the right to contract land (*chengbaoquan*, 承包权), and the right to farm/manage land (*jingyingquan*, 经营权).<sup>197</sup> Ownership belongs to the state or a rural collective as a fundamental principle of socialism.<sup>198</sup> The right to contract land is an inalienable socioeconomic entitlement for members of the collective (or workers of State Farms) and is designed to protect them from permanent land dispossession and community dislocation.<sup>199</sup> The right to farm/manage land is an alienable property right that any agricultural actor can acquire at a price.<sup>200</sup> It is this management right that can be transferred, used as capital for joining a co-op, or used as security for obtaining a loan.<sup>201</sup> It is this right that the Chinese state hopes will transform China’s agriculture from small-scale, non-mechanized household farming to large-scale, mechanized corporate farming.<sup>202</sup>

A third major reconfiguration of property rights is the enactment of the 2006 Law on Specialized Farmers’ Cooperatives, which allows and encourages household farmers to scale up agriculture by using land rights as capital to set up corporate co-

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<sup>195</sup> See *Zhonggong Zhongyang Guanyu Quanmian Shenhua Gaige Ruogan Zhongda Wenti de Jueding* (中共中央关于全面深化改革若干重大问题的决定) [*Decision on Certain Major Issues Concerning the Comprehensive Deepening of Reforms*] (adopted at the Third Plenary Session of the Eighteenth Central Committee of the Communist Party of China on Nov. 12, 2013).

<sup>196</sup> *Nemo Potest Plus Juris Ad Alienum Transferre Quam Ipse Habet*, BLACK’S LAW DICTIONARY (11th ed. 2019). It is called *nemo dat quod non habet* in common law. *Nemo Dat Quod Non Habet*, BLACK’S LAW DICTIONARY (11th ed. 2019).

<sup>197</sup> Xinhua She (新华社) [Xinhua News Agency], *Guanyu Wanshan Nongcun Tudi Suoyouquan Chengbaoquan Jingyingquan Fenzhi Banfa de Yijian* (关于完善农村土地所有权承包权经营权分置办法的意见) [*General Office of the CPC Central Committee About Perfecting the Management Right of Rural Land Ownership Contracting Right: Opinions on the Division Method*], ZHONGHUA RENMIN GONGHEGUO ZHONG YANG RENMIN ZHENG FU (中华人民共和国中央人民政府) [THE CENT. PEOPLE’S GOV’T OF THE PEOPLE’S REPUBLIC OF CHINA] (Oct. 30, 2016), [http://www.gov.cn/gongbao/content/2016/content\\_5133019.htm](http://www.gov.cn/gongbao/content/2016/content_5133019.htm).

<sup>198</sup> *Id.*

<sup>199</sup> *Id.*

<sup>200</sup> *Id.*

<sup>201</sup> *Id.*

<sup>202</sup> *Id.*

ops.<sup>203</sup> The hoped-for advantage of the co-op is that household farmers can reap the benefits of mechanization and economies of scale without being dispossessed.<sup>204</sup> They can leave their land to the co-op, seek a second source of income, and receive annual profits from the co-op.<sup>205</sup>

To complement the property reform, the Chinese government also gives financial support to agricultural producers to help them scale up and mechanize.<sup>206</sup> The Chinese government subsidizes many aspects of agricultural production, including machine purchases, improved seeds, irrigation, plot leveling and combination, price support for selected grains, and special awards for larger-scale farms.<sup>207</sup> A few numbers are illustrative. Since the Chinese government began to subsidize farm equipment purchases in 2004, by the end of 2017 it had increased this subsidy 266-fold, with a total accumulation of ¥187 billion (\$26 billion) over the fourteen years.<sup>208</sup> The Chinese government also vows to transform more than half of the country's protected farmland into large, irrigated plots suitable for machine operation by 2020.<sup>209</sup>

To encourage the scaling up of dairy farms, the Chinese government subsidizes the construction of larger dairy farms, cooperatives, and compounds.<sup>210</sup> Between 2008 and 2016, billions

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<sup>203</sup> See Chen Yuqing, *Issues on Standardization of Farmers' Cooperatives in China*, 9 ASIAN AGRIC. RES. 34, 34 (2017).

<sup>204</sup> *Id.*

<sup>205</sup> See Zhonghua Renmin Gongheguo Nongmin Zhuanye Hezuoshe Fa (中华人民共和国农民专业合作社法) [Law of the People's Republic of China on Farmers' Professional Cooperatives] (promulgated by the Standing Comm. of the Nat'l People's Cong., Oct. 31, 2006, effective July 1, 2007) ST. COUNCIL GAZ., Dec. 20, 2006, at 35, arts. 3–5, 14, 16.

<sup>206</sup> Soumaya Bermouna & Junrong Li, *China's Agricultural Project Finance and Support Policies: The Framework of China's Major Agricultural Subsidies*, 9 EUR. FOOD & FEED L. REV. 171, 173 (2014); see also National Agricultural Development Plan, *supra* note 180.

<sup>207</sup> Bermouna & Li, *supra* note 206, at 173.

<sup>208</sup> Wang Xuqin (王许沁) et al., *Nongji Gouzhi Butie Zhengce: Xiaoguo yu Xiaoli—Jiyu Jili Xiaoying yu Jichu Xiaoying Shijiao* (农机购置补贴政策：效果与效率——基于激励效应与挤出效应视角) [*The Policy of Farm Equipment Purchase Subsidy: Effects and Efficiency—From the Perspectives of the Incentive Effect and the Crowding Out Effect*], ZHONGGUO NONGCUN GUANCHA (中国农村观察) [CHINA RURAL SURV.], no. 2, 2018, at 1, 2.

<sup>209</sup> Yangshi Wang (央视网) [CCTV], *Guotu Ziyuan Bu: Touzi 6000 Yi Yuan Jian Gao Biao zhun Jiben Nongtian* (国土资源部：投资 6000 亿元建高标准基本农田) [*Ministry of Land and Resource: Invest 600 Billion Yuan to Build High-Standard Basic Farmland*], ZHONGHUA RENMIN GONGHEGUO ZIRAN ZIYUAN BU (中华人民共和国自然资源部) [MINISTRY OF NAT. RES. OF THE PEOPLE'S REPUBLIC OF CHINA] (June 26, 2012), [http://vod.mnr.gov.cn/spxw/201206/t20120626\\_1114028.htm](http://vod.mnr.gov.cn/spxw/201206/t20120626_1114028.htm).

<sup>210</sup> 2014 CHINA DAIRY INDUSTRY YEARBOOK, *supra* note 164, at 47.

of Yuan of subsidies were disbursed to thousands of the country's largest dairy farms.<sup>211</sup>

## ii. Results

In 2002, only 20.6% of China's rice and 1.7% of China's corn were harvested by machines.<sup>212</sup> In 2018, over 80% of all major grains and over 67% of all agricultural crops were planted, plowed, and harvested by machines.<sup>213</sup> In 1996, only 2.6% of China's agricultural land changed hands from the original household farm under HRS to another farm.<sup>214</sup> In 2018, 39% of China's agricultural land was transferred by the original household farm to another farming entity.<sup>215</sup> In other words, two fifths of China's family farms have exited agricultural production. The small, non-mechanized, highly egalitarian, "every rural family is a farm" model created by HRS is falling apart.

The changes in China's dairy industry are all the more profound. In 2008, 69% of China's dairy cows were raised on farms with fewer than twenty cows.<sup>216</sup> By the end of 2018, 62% of China's dairy cows were raised on farms with more than one hundred cows.<sup>217</sup>

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<sup>211</sup> 2013 ZHONGGUO NAI YE NIANJIAN (2013 中国奶业年鉴) [2013 CHINA DAIRY INDUSTRY YEARBOOK] 41 (Ministry of Agric. ed., 2013); 2014 CHINA DAIRY INDUSTRY YEARBOOK, *supra* note 164, at 47; CHINA AGRICULTURE YEARBOOK 117 (2016); CHINA AGRICULTURE YEARBOOK 138 (2017) [hereinafter 2017 CHINA AGRICULTURE YEARBOOK].

<sup>212</sup> NAT'L DEV. AND REFORM COMM'N OF CHINA, QUANGUO GAO BIAOZHUN NONGTIAN JIANSHE ZONGTI GUIHUA (全国高标准农田建设总体规划) [NATIONAL COMPREHENSIVE PLAN ON THE CONSTRUCTION OF HIGH STANDARD AGRICULTURAL LAND] 4 (2013).

<sup>213</sup> Xinhua She, *supra* note 186.

<sup>214</sup> *Lanpishu: Quanguo Nongdi Liuzhuan Tisu Jingti "Feilianghua" Jiaju* (蓝皮书: 全国农地流转提速警惕“非粮化”加剧) [Blue Paper: National Agricultural Land Transfers Accelerate, Caution for Exacerbating "Non-Grainification"], *DIYI CAIJING* (第一财经) [FIRST FIN.] (May 9, 2016), <https://www.yicai.com/news/5010852.html>.

<sup>215</sup> *Wanzi Changwen Jiedu Nongcun Tudi Liuzhuan Ruhe Tuidong San Si Xian Chengshi Loushi Fazhan* (万字长文解读农村土地流转如何推动三四线城市楼市发展) [Ten-Thousand-Word-Long Article Explains How Agricultural Land Transfers Propel Real Estate Development in Third-and-Fourth-Tier Cities], *TENGXUN* (腾讯) [TENCENT] (Aug. 11, 2019), <https://new.qq.com/omn/20190811/20190811A038WD00.html>.

<sup>216</sup> 2014 CHINA DAIRY INDUSTRY YEARBOOK, *supra* note 164, at 32.

<sup>217</sup> *Zhongguo Naiye 70 Nian Faxhan Huihuang Chengjiu* (中国奶业 70 年发展辉煌成就) [Major Accomplishments of China's Dairy Industry in 70 Years of Development], ZHONGGUO NAIYE XIEHUI (中国奶业协会) [CHINA DAIRY ASS'N] (June 6, 2019), <http://www.dac.com.cn/read/newztyj-19060620001110210561.jhtm>.

Despite these changes, the trade and market dynamics that characterized the soybean and dairy industries in the 2000s continued. Between 2000 and 2016, China's soybean imports increased by nearly seven-fold.<sup>218</sup> With drastically lowered tariff rates,<sup>219</sup> China's dairy imports increased in weight by thirteen-fold and in value by fifty-fold between 2000 and 2018.<sup>220</sup> According to a 2019 study of global dairy competitiveness, the evaluations for China are negative across the board.<sup>221</sup>

Foreign competition on the one hand and foreign investment on the other continue to push for higher concentrations of ever-larger players in China's dairy processing industry. In 2016 in China, eight out of the nine most popular milk powder products were foreign brands,<sup>222</sup> and five out of the ten largest dairy processing companies were foreign-owned.<sup>223</sup> China's top eight dairy companies process over 70% of the domestically produced raw milk.<sup>224</sup> The disproportionate power continues to allow dairy companies to set their own milk standards, decide the prices at which they purchase milk from farmers, and discriminate against small dairy farmers—just as they did prior to 2008.<sup>225</sup>

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<sup>218</sup> FAOSTAT, FOOD & AGRIC. ORG., <http://www.fao.org/faostat/en/?#data> (select the “Crops and livestock products” link under the “Trade” heading; select “China” in the countries field; select “Import Quantity” in the elements field; select “Soybeans” in the items field; select “2000” and “2016” in the year field; click “Show Data”).

<sup>219</sup> In 2015, for example, China's average applied tariff rate for dairy was less than one eighth Japan's rate and less than one fifth the average world rate. Wang Guang (王广) & Feng Qi (冯启), *Zhongguo Ruye de Xianshi Yali Yu Zhanlue Jiyu* (中国乳业的现实压力与战略机遇) [*Practical Pressures and Strategic Opportunities of the Chinese Dairy Industry*], 4 RUPIN YU RENLEI (乳品与人类) [DAIRY AND HUMANITY] 4, 10 (2017).

<sup>220</sup> Liu Lin (刘琳), *Zhongguo de Naiye* (中国的奶业) [*China's Dairy*], 18 ZHONGGUO XUMUYE (中国畜牧业) [CHINESE ANIMAL HUSBANDRY] 17, 25 (2019).

<sup>221</sup> Jiang Bing et al. (姜冰等), *Shijie Ruye Shengchan ji Maoyi Geju Fenxi—Jianlun Zhongguo Ruye Guoji Jingzhengli* (世界乳业生产及贸易格局分析——兼论中国乳业国际竞争力) [*World Dairy Production and Trade Situation Analysis—Also a Discussion on the International Competitiveness of the Chinese Dairy Industry*], 47 ZHONGGUO RUPIN GONGYE (中国乳品工业) [CHINA DAIRY INDUSTRY] 36, 39–41 (2019).

<sup>222</sup> Wang Guang & Feng Qi, *supra* note 219, at 8.

<sup>223</sup> ZHONGGUO NAIYE XIEHUI (中国奶业协会) [CHINA DAIRY ASS'N], 2014-2015 NIAN RU ZHIPIN HANGYE FAZHAN ZHUANGKUANG YANJIU (2014-2015 年乳制品行业发展状况研究) [2014-2015 DAIRY INDUSTRY DEVELOPMENT STUDY] 10, 12, 16 (2016) [hereinafter 2014-2015 DAIRY INDUSTRY DEVELOPMENT STUDY].

<sup>224</sup> U.S. DEP'T OF AGRIC., CHINA'S DAIRY IMPORTS INCREASE TO MEET GROWING DEMAND, BUT U.S.-ORIGIN PRODUCTS FACE STRONG HEADWINDS 3 (2018), [https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Dairy%20and%20Products%20Annual\\_Beijing\\_China%20-%20Peoples%20Republic%20of\\_10-17-2018.pdf](https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Dairy%20and%20Products%20Annual_Beijing_China%20-%20Peoples%20Republic%20of_10-17-2018.pdf).

<sup>225</sup> Wang Yongkang, *supra* note 169, at 32; Qian et al., *supra* note 163, at 437.

Global competition, high concentration in the processing industry, rising costs of labor and animal feed, and, in recent years, heightened environmental regulations continue to push small dairy farmers out of business and pressure existing farms to relocate, expand, or consolidate.<sup>226</sup> According to the USDA, half of the dairy farms near Beijing, Tianjin, and Shanghai were closed down in 2019.<sup>227</sup>

### *B. Agricultural Industrialization in Mountain County*<sup>228</sup>

Due to land scarcity, isolation from the outside world, and a lack of industry and commerce, Mountain County was historically poor and agrarian. County chronicles record that in 1985, 92% of the local workforce was in agriculture, and more than 60% of rural households lived below the national poverty line. Farming was small-scale, subsistent, and used very little modern technology.

Beginning in the mid-1990s, poverty drove many young men and women to work as migrant workers in factories on the east coast. In the years that followed, the decline of agriculture and the rise of industry, both in Mountain County and in China at large, continued to push rural young people away from the farm. Today, about 50% of the rural labor force works outside of the county. For those who remain in the county, most engage in off-farm work. Full-time farmers are now a small minority. They tend to be older, often in their late fifties, sixties, or early seventies, and they take up the land left by their non-farming family members and relatives.

Not surprisingly, Mountain County's agricultural workforce is increasingly comprised of elderly people. In the eleven villages where I did fieldwork, of a total population of over thirty thousand, there were almost no farmers under the age of forty. Many families had handed the land to older relatives to farm. Some families had deserted the land altogether, often because their land was high up on the hillside and harder to farm with machines. My interlocutors—ranging from farmers to migrant workers, and from village cadres to county officials—all realized that as traditional household farming is unable to sustain basic living, as rural youths aspire to live an urban

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<sup>226</sup> U.S. DEP'T OF AGRIC., *supra* note 224, at 2; U.S. DEP'T OF AGRIC., GAIN REPORT NO. CH19042, HIGHER PROFITS SUPPORT INCREASED FLUID MILK PRODUCTION 1–3 (2019) [hereinafter HIGHER PROFITS SUPPORT INCREASED FLUID MILK PRODUCTION]

<sup>227</sup> HIGHER PROFITS SUPPORT INCREASED FLUID MILK PRODUCTION, *supra* note 226, at 2.

<sup>228</sup> The statements made in this section rely on the Author's own fieldwork and historical research in Mountain County.

life, and as today's farmers are about to become too old to farm, agriculture in Mountain County will soon face an existential crisis. Who will farm the land tomorrow?

Facing this impending crisis, agricultural industrialization came to be viewed by the county government as a potential solution. Starting in the early-2000s, the county government promoted commercial vegetable farming in several highly mountainous townships: disseminating farming knowledge; supplying seeds, chemicals, and basic technology support; and soliciting urban market avenues. Starting around 2010, the government also pushed for "scale farming" ("规模经营") projects in or near flat areas. Officials were appointed to seek agricultural companies and cooperatives to sublet land from local villagers and start a commercial farm. The government hoped that by scaling up, commercializing, and corporatizing agricultural production, profits would rise to a level that would attract some entrepreneurs to invest in farming.

Because of the mountainous terrain, entrepreneurial farms in Mountain County mostly specialized in fruits, teas, tree nuts, mushrooms, vegetables, and organic rice. Mountain County now has a lively industry specializing in high-altitude mountain vegetables, tea, and fungi. Soybean production has been phased out in the county. So have wheat and corn. On the other hand, dairy has entered most rural and urban households in the forms of baby formula, milk powder, ultra-pasteurized milk packages, refrigerated milk, or yogurt.

### *C. Agricultural Industrialization in River District<sup>229</sup>*

Before 2009, land in River District was leased to individual household farmers or farming teams for specific durations; the latter would pay rent to the Farm administration, farm the land, and keep the remaining profits. Between 2009 and 2012, without consulting or compensating the local residents, the District administration terminated or refused to renew leases to individual farmers or farming teams. In their place, the administration established specialized agricultural producers' co-ops to farm the land. Ex-farmers were entitled to buy a small guaranteed number of "land shares" in the co-op at prices set by the Farm administration as well as any remaining shares at the market rate, and they were entitled to receive dividends based on their shares. The co-op was managed by

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<sup>229</sup> The statements made in this section rely on the Author's own fieldwork and historical research in River District.

Unit officials and technicians appointed or recruited by the Farm administration. Unit officials hired individual machine owners and temporary laborers to work the land.

To accompany the vastly larger scale of production, the District administration ordered large agricultural machines from both domestic manufacturers and manufacturers in the U.S. and Europe. These machines were then sold to private individuals with government subsidies.

In the past, most residents lived in single-story brick houses in their Unit near the land. Between 2009 and 2013, almost all rural neighborhoods in the District were demolished, the land was reclaimed for farming, and all of the residents were required to buy and move into newly built apartments in the Farm's urban center. Just as with compulsory cooperatization, the District administration did not consult the local residents. On the one hand, compulsory urbanization pushed ex-farmers physically and psychologically away from the land, thus making it harder for them to resist cooperatization. On the other hand, it created more convenient living spaces and urban job opportunities for ex-farmers, making it easier for them to adjust to non-farming life.

Compulsory cooperatization and urbanization changed the lives of River District residents in fundamental ways. It forced the overwhelming majority of farmers off of the land and into the city. It eliminated their rural, semi-subsistent way of life and subjected them to an urban, exclusively market-based way of living. Residents who were able to find jobs welcomed or accepted the changes. Those who could not find reliable jobs resented higher costs of living, heightened wealth inequality, and uncertainties of life revolving around the market. For the few of those who strongly resisted the changes and who were brave enough to stage a petition or protest in Beijing during major national political events, the District administration required each State Farm to send officials to Beijing to catch them at train stations and long-distance bus stations and send them back. These officials used a variety of methods—from calculated negotiation and compromise, to threats of violence, detention, and criminal punishment, to actual violence, detention, and court-sentenced punishment.

Alongside these changes was a big push to expand the local dairy industry. Although the 2008 melamine scandal devastated China's dairy giants, it also catapulted two dairy processing companies in Heilongjiang—Wonderson and Feihe—from being

obscure local players to being national champions.<sup>230</sup> When government inspections did not find melamine in their products, panicked consumers switched from national brands to them.<sup>231</sup> Seizing this opportunity, the Heilongjiang provincial government sought to turn the province into a leading dairy producer and processor.<sup>232</sup> The rest of this section explains how this development strategy was implemented in River District.

### i. Forced Concentration and Scaling Up

In the past, dairy farmers in River District kept cows in a shed in their yard. The cows grazed on state-owned land during the summer and were fed corn and soybean stalks collected from farmers' own fields during colder seasons. Milking was done either at a milking station miles away or manually by the farmers themselves, and the milk was sold to a middleman at the milking station or in a market center.

Following the central government's policy, the District administration constructed dairy compounds equipped with mechanized milking stations, running water, and staff members to organize feed provision and manage veterinary affairs. Both carrots and sticks were used to push farmers to move their cows to the compounds. Farmers could use the sheds for free. Milking was done by machines right in the compound, and Wonderson's milk truck would come every day to buy the milk. If the purchasing price fell

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<sup>230</sup> Lousie Moon, *Foreign Brands Still Dominate as Parents Do Not Trust China's Home-grown Baby Milk Formula Makers 12 Years on From Melamine Milk Scandal*, SOUTH CHINA MORNING POST (Feb. 22, 2020), <https://www.scmp.com/business/companies/article/3051808/foreign-brands-still-dominate-parents-do-not-trust-chinas-home>.

<sup>231</sup> Wang Chunyu (王春雨), "Wan Da Shan" Ying You Er Peifang Naifen Wei Jian Chu Sanjuqingan ("完达山"婴幼儿配方奶粉未检出三聚氰胺) [*Melamine Not Found in "Wandashan" Baby Formula*], FAZHI RIBAO (法制日报) [LEGAL DAILY], (Sept. 26, 2008), <http://health.sohu.com/20080926/n259756850.shtml>; Zhongguo Jingying Wang (中国经营网) [China Business Network], *Sanjuqingan 10 Nian Naiye Xipai He Jiannan de Xinxin Chongjian* (三聚氰胺 10 年奶业洗牌和艰难的信心重建) [*10 Years After Melamine Dairy Industry Reshuffled and Confidence Reconstruction Difficult*], XINGLANG CAIJING (新浪财经) [SINA FIN.] (May 20, 2018), <http://finance.sina.com.cn/china/gncj/2018-05-20/doc-ihaturft0803202.shtml>.

<sup>232</sup> See *Heilongjiang Sheng Renmin Zhengfu Guanyu Jiakuai Xiandai Xumu Chanye Fazhan de Yijian* (黑龙江省人民政府关于加快现代畜牧业发展的意见) [*Opinions of the People's Government of Heilongjiang Province on Accelerating the Development of Modern Livestock Industry*], HEILONGJIANG SHENG RENMIN ZHENGFU (黑龙江省人民政府) [HEILONGJIANG PROVINCE PEOPLE'S GOVERNMENT] (Oct. 21, 2015), <http://www.hlj.gov.cn/wjfg/system/2015/10/21/010745457.shtml> (providing the provincial government's dairy strategy in Heilongjiang Provincial People's Government).



below a certain level, farmers would also receive a small subsidy from the administration. In addition, farmers could get easy access to veterinary services and free immunizations for their cows. On the other hand, the District administration prohibited free grazing (purportedly to protect wetlands and mitigate soil erosion) and made it virtually impossible for farmers who refused to move their cows to a compound to sell their milk.<sup>233</sup> By April 2015, 90% of the cows in River District had been moved to these compounds.

Dairy farmers had mixed feelings about joining the compounds. Farmers, most of whom were in their late forties or fifties, welcomed the 50% reduction of labor in cow raising and the disappearance of filth and stench from their own yards. They also welcomed the easy access to medicine and veterinary services. However, they had mixed views about disease outbreaks and drug use. Some farmers complained that concentrated raising facilitated the spread of viruses and illnesses, and, as a result, more drugs had to be used on the cows. This not only increased the costs of production but also gave Wonderson an excuse to reject their milk. On the other hand, some farmers pointed out that before compound raising, irresponsible farmers would secretly give excessive doses of drugs to the cows, causing companies to reject an entire truckload of milk and leaving other farmers unpaid. Concentrated raising prevented such pernicious practices, as drugs were now administered by the compound staff.

The biggest complaint, however, was the exponentially higher cost of feed. The compound management constantly pressured farmers to adopt a total mixed ration (“TMR”) feed plan, alleging that it could maximize milk production.<sup>234</sup> Yet, adopting a TMR plan would mean that farmers had to buy feed from other sources, such as alfalfa from the U.S. or cornmeal from Kuwait. Since such large purchases were made by State Farms, many farmers suspected that State Farms had “jacked up the prices” of imported feed and “taken all the profits” from dairy farming.

#### ii. Establish Corporate Dairy Farms

A precondition for Wonderson to build a dairy processing plant in River District was a reliable, easily adjustable raw milk

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<sup>233</sup> See *infra* Section IV.C.iv.

<sup>234</sup> TMR is the acronym for “total mixed ration.” It is the most common method in the U.S. for feeding cows that cannot freely graze on pasturelands. David J. Schingoethe, *A 100-Year Review: Total Mixed Ration Feeding of Dairy Cows*, 100 J. DAIRY SCI. 10143, 10143 (2017).

supply. However, River District's remote location makes it an unattractive place for private investors. Realizing this difficulty, the District chief—an ambitious politician known for his “dictatorial” manner of governance (and later for convicted corruption)—forced Farm administrations to establish corporate dairy farms and required all Farm employees to invest in these companies as shareholders.

The particular way in which these corporate farms were established determined their ownership and governance structures. The farms were managed by people who had been officials of the State Farm system and who, if circumstances required or permitted, could return to the administration as officials again. In that regard, these farms were de-facto state-run enterprises. However, the shareholders were not the state but State Farm employees. Hence, in terms of property rights, these farms were privately owned companies.

Visually, corporate dairy farms looked impressive. They had large, new buildings, highly mechanized operations, and professional management. However, both the shareholders and the management personnel I talked to expressed concerns about the farms' economic viability. Shareholders complained about a classic principal-agent problem. The managers were experts in dairying, but they owned no shares in the company and had weak financial incentives to run the farms efficiently. The shareholders had a direct financial stake in the company, but they knew nothing about dairying and, as a result, could not exert real supervision over the managers.

Managers blamed the lack of profitability on the FTAs that China signed with dairy-exporting countries and on China's WTO trade concessions. Given that River District is far away from cities with vibrant economies, milk produced in River District was used predominantly to produce milk powder—a product facing the toughest competition from foreign producers due to its easy transportability and long shelf life.<sup>235</sup> Technicians of corporate dairy farms complained that the administration invested too little in technology. Farms lacked expertise in maintaining mechanized milking stations, young corn fermentation, and manure treatment.

Many practices were inhumane to the cows. Many sheds lacked dry beds for the cows to rest or sleep on. The shed floors were bare concrete with no soft padding and were wet from the water hose

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<sup>235</sup> According to the Chinese government's statistics, the average price of raw milk in 2015 in major exporting countries was 60% that in China. 2014-2015 DAIRY INDUSTRY DEVELOPMENT STUDY, *supra* note 223, at 12.

(for getting rid of urine and mature). During the long winter months, cows were not allowed to go outside. Staff members told me that when they opened the gates in the morning, the stench was so overpowering that it made them sick.

iii. Subsidize Breed Improvement, Dairy Insurance, and Feed Crop Production

In the wake of the Sino-New Zealand FTA, the District administration ventured to New Zealand and bought nearly twenty thousand high-productivity calves.<sup>236</sup> The calves were then sold at a subsidized rate, mostly to members of newly established dairy corporations (on one State Farm, the subsidy rate was 67%). New Zealand cows aside, the District administration also subsidized purchases of domestically-produced Holstein cows (on one State Farm, the subsidy rate was 50%). These subsidies seemed to have ended by the time I began fieldwork in River District in May 2015 and were replaced with guaranteed bank loans. Dairy farmers were also guaranteed a certain acreage of land for growing young corn and alfalfa.

The project of increasing the size and quality of cow stock in River District was far from smooth. Initially, New Zealand cows were placed in the same sheds as local cows. The mixing of the breeds led to an outbreak of brucellosis—a highly contagious bacterial infection—among New Zealand cows. Hundreds of cows had to be slaughtered and buried deep underground. Insurance covered part of the losses; the rest was borne by dairy farmers and shareholders of corporate farms. I was also told anecdotally that not all cows infected with brucellosis were slaughtered and that in some cases, dairy farmers sold them to slaughterhouses to be finally sold as cheap beef to unknowing consumers. After the epidemic ended, dairy farms separated New Zealand cows from local cows. By the time I arrived in River District in 2015, all New Zealand cows were raised on corporate dairy farms in enclosed sheds and fenced-in, open-air grounds.

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<sup>236</sup> I was told by a District official anecdotally that Chinese buyers (both state and private) had exhausted the local calf supply and their partners could deliver only ten thousand calves after the signing of the contract.

iv. Induce Wonderson to Build a Plant by Granting It Subsidy and Monopsony to Buy Local Milk

The District administration negotiated a development agreement with the Wonderson Group. Wonderson would build a baby formula manufacturing plant in River District that, according to the District administration, would “provide jobs for 10,000 dairy farmers, diversify the local economy, and be a major taxpayer to the District.” The Provincial and District administrations would subsidize part of the construction. To guarantee a steady supply of safe milk for the plant, the District administration also granted Wonderson a monopsony to purchase local milk.

The plant was built in 2013, but it did not open until late 2015 due to fierce competition and weak sales nationally. In the interim, Wonderson purchased milk from River District to be processed by its plants in other parts of Heilongjiang.

The magnitude of Wonderson’s market power was astonishing. To reduce transportation costs, Wonderson decided to send milk trucks only to stations with a specific minimum production volume. The District administration capitulated and closed down nearly half of its newly constructed compounds, forcing farmers to move to larger compounds.

As a monopsony, Wonderson could reject or suppress the price of a particular truckload of milk based on “excessive levels of antibiotics or other drugs.” Talking with managers from large corporate dairy farms and a medium-sized, privately-owned-and-run dairy processing company, I learned that there would almost always be some level of antibiotics in a truckload of raw milk. Given that the test was conducted by Wonderson, it had the power to decide whether to reject a truckload of milk or lower the price. In the context of national competition and local monopsony, raw milk prices plummeted from ¥5-6/kg in 2013 to ¥3/kg in 2015.

v. Push Out Small Dairy Farmers

Whether by design or by disaster, River District’s dairy strategy—in the global and national market contexts—pushed out River District’s small dairy farmers. The displacement took ten years and multiple steps to complete.

The first wave of exits took place when farmers were pressured to enter the newly constructed dairy compounds. Rural

neighborhoods in River District were tens of kilometers apart from each other. The District administration did not build compounds in neighborhoods with a small cow stock. Farmers from these neighborhoods had to move their cows to neighborhoods that had a compound. The move was impractical for many and inconvenient for most dairy farmers. Many of them were not full-time dairy farmers. Instead, the husband and wife team raised cows *and* grew soybeans and corn; the wife did most of the cow rearing, and the husband did most of the crop cultivation. Moving to a cow compound in another neighborhood would mean husband-wife separation and an inability to help each other with housework or with dairy or crop production during busy times of the day or year. Facing these difficulties, some farmers sold their cows and exited dairy production. The same happened again when Wonderson refused to collect milk from small compounds, and the administration had to shut them down.

A significant number of farmers exited dairy production between 2013 and 2015, before Wonderson opened its processing plant in River District. The rising costs of feed, the declining prices of raw milk, Wonderson's monopsony, and the uncertainty as to when Wonderson would open its plant in River District pressured dairy farmers to mitigate losses. Some farmers reduced the number of lactating cows or the food supply for non-lactating cows (which, needlessly to say, was an inhumane practice). Some sold part of their stock to other farmers or to slaughterhouses. Some switched to calf breeding. When farmers could no longer hold out, they sold all of their stock and exited dairy production.

Contrary to local expectations, Wonderson's opening of the dairy processing plant provided little relief to small dairy farmers in River District. In a conversation with a key interlocutor in 2019, I learned that Wonderson could not compete with other infant formula brands on the national market, and due to poor sales,<sup>237</sup> the plant in River District only accepted the "best" milk—milk produced by New Zealand cows owned by large-scale corporate farms.

Recalling the "10,000 dairy jobs" promised by Wonderson and the River District administration, I asked my interlocutor what had happened to farmers who were raising cows in the compounds. He replied that most of them had sold their cows, left home, and were

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<sup>237</sup> For example, in 2016 Wyeth sold three times and Danone sold four times as much baby formula as Wonderson by revenue in China. Wang Guang & Feng Qi, *supra* note 219, at 8.

working in big cities as migrant workers, and that others had switched to raising beef cattle or hogs. “No one raises [dairy cows] any more. It’s all mechanized (没人养了, 全是机械化),” he remarked.<sup>238</sup>

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From a strictly legal perspective, the fate of dairy and soybean farmers in post-WTO China is a combined result of international economic law and domestic property law. China joined the WTO in pursuit of economic betterment. However, the international economic regime also exposed Chinese farmers to unmitigated competition from larger-scale, well subsidized, and predominantly Western producers. China’s HRS, which had created and benefited hundreds of millions of independent farmers decades earlier, also created dooming structural disadvantages for these very same farmers: the diseconomy of small scale and no access to land-based financing. Just as it redesigned the Maoist property system to increase farm productivity in the early reform era, the Chinese state is redesigning HRS to increase farm productivity in the age of global competition. This time, however, the goal is to get big again, by eliminating (rather than creating) hundreds of millions of small farmers.

As Chinese property law evolves, the backbone agricultural producer shifts from a public farming bureaucracy (the Mao era), to a private farming family (1980-), and now increasingly to a corporate farming enterprise. It would be a mistake to think that the transition from the farming family to the farming enterprise naturally flows from a change in property law. The Chinese government is adopting an active, paternalistic, and at times outright coercive industrial policy to facilitate this transition. To the extent the fieldwork is illustrative, the local iterations of this policy in Mountain County and River District reveal a clear if blunt contrast: Where there are more trade-inflicted agricultural job losses, there is more drastic, statist, and paternalistic industrial policy.

## **V. The Social Costs of Globalization and the Hardening of Chinese Authoritarianism**

The current international economic system was created at a time of high optimism about market-centered economic development. The beliefs of the day were that competition can make

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<sup>238</sup> Xiaoqian Hu, Fieldwork Journal 2019-005 (on file with author).

the economic pie bigger,<sup>239</sup> trade-inflicted job losses are “transitional,”<sup>240</sup> and “the poor *as a class* will improve” from the cheaper goods and new jobs brought by free (or freer) trade.<sup>241</sup> Meanwhile, critics have argued that this system traps workers and developing countries in “a race to the bottom”;<sup>242</sup> brews discontents across the globe;<sup>243</sup> benefits corporate elites at the expense of the working and middle classes;<sup>244</sup> and, in Western liberal democracies, violates the government-citizen compact that increased trade opening should be accompanied with increased social protection of domestic constituencies from trade-inflicted disruptions.<sup>245</sup> Since 2016, scholars have revealed how flawed political representation and uneven distribution of costs and benefits under the current economic system have contributed to the global rise of authoritarianism, protectionism, and populism.<sup>246</sup>

China is experiencing a rise in authoritarianism too, despite being an authoritarian regime at the outset of the change. Since taking office in 2012, Xi Jinping has radically expanded his power as General Secretary of the CCP and has tightened the CCP’s grip on the country’s political, economic, and cultural institutions.<sup>247</sup> More

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<sup>239</sup> Geoffrey J. Bannister & Kamau Thugge, *International Trade and Poverty Alleviation* (Int’l Monetary Fund, Working Paper 01/54, 2001); DEEPAK LAL, *REVIVING THE INVISIBLE HAND: THE CASE FOR CLASSICAL LIBERALISM IN THE TWENTY-FIRST CENTURY* 84, 86 (Princeton Univ. Press 2006).

<sup>240</sup> LAL, *supra* note 239, at 86.

<sup>241</sup> LOREN E. LOMASKY & FERNANDO R. TESÓN, *JUSTICE AT A DISTANCE: EXTENDING FREEDOM GLOBALLY* 158 (Cambridge Univ. Press 2015).

<sup>242</sup> JOSEPH STIGLITZ, *GLOBALIZATION AND ITS DISCONTENT* 158 (W.W. Norton & Co. Inc. 2002); RAPHAEL KAPLINSKY, *GLOBALIZATION, POVERTY AND INEQUALITY: BETWEEN A ROCK AND A HARD PLACE* 55–85 (Polity 2005).

<sup>243</sup> STIGLITZ, *supra* note 242, at 248.

<sup>244</sup> ALICE AMSDEN, *ESCAPE FROM EMPIRE: THE DEVELOPING WORLD’S JOURNEY THROUGH HEAVEN AND HELL* 50 (MIT Press 2007); STIGLITZ, *supra* note 242, at 84.

<sup>245</sup> John Gerard Ruggie, *International Regimes, Transactions, and Change: Embedded Liberalism in the Postwar Economic Order*, 36 INT’L ORG. 379 (1982); John Gerard Ruggie, *Trade, Protectionism and the Future of Welfare Capitalism*, 48 J. INT’L AFF. 4–11 (1994).

<sup>246</sup> *See generally* PAUL J.J. WELFENS, *THE GLOBAL TRUMP: STRUCTURAL US POPULISM AND ECONOMIC CONFLICTS WITH EUROPE AND ASIA* (Palgrave Macmillan 2019); *see generally* WORLD TRADE & INVESTMENT LAW REIMAGINED, *supra* note 15; DANI RODRIK, *STRAIGHT TALK ON TRADE: IDEAS FOR A SANE WORLD ECONOMY* 1–8 (Princeton Univ. Press 2018); STIGLITZ, *supra* note 15, at xvii–xxxiii; LOKA ASHWOOD, *FOR-PROFIT DEMOCRACY: WHY THE GOVERNMENT IS LOSING THE TRUST OF RURAL AMERICA* 18–25, 33–36 (Yale Univ. Press 2018); ROBERT WUTHNOW, *THE LEFT BEHIND: DECLINE AND RAGE IN RURAL AMERICA* 95–115, 140–158 (Princeton Univ. Press 2018); Duncan Kennedy, *A Left of Liberal Interpretation of Trump’s “Big” Win, Part One: Neoliberalism*, 1 NEV. L. J. FORUM 98, 103–07 (2017).

<sup>247</sup> *See generally* MINZNER, *supra* note 14 (tightening political, economic, and religious control); Carl Minzner, *Intelligentsia in the Crosshairs: Xi Jinping’s Ideological Rectification of Higher Education in China*, CHINA LEADERSHIP

specifically, Xi launched an anti-corruption campaign, which allegedly had investigated 2.7 million officials and punished 1.5 million by late 2018.<sup>248</sup> Xi expanded state control and regulation over market activities and heightened government support of SOEs and other Chinese enterprises in an effort to promote “national champions” (globally competitive Chinese firms).<sup>249</sup> In 2018, the National People’s Congress amended the Constitution to enshrine “Xi Jinping thought” (*Xi Jinping sixiang*, “习近平思想”), further solidify the Party’s leadership, abolish presidential and vice presidential term limits, and create the National Supervision Commission as the sixth branch of government.<sup>250</sup> Analyses outside China have largely interpreted these events as political and legal moves by an authoritarian party-state to control increasingly uncontrollable factionalism and diverse social problems.<sup>251</sup>

When globalization is discussed, China is portrayed as a big winner from the current international economic system and as using its economic prowess to assert stronger global influence.<sup>252</sup> While globalization has indeed brought enormous benefits to the Chinese

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MONITOR (Dec. 1, 2019), <https://www.prcleader.org/carl-minzner> (tightening intellectual and educational control); see also Austin Ramzy, *President Xi Jinping’s Rise in China, as Covered by The Times*, THE N.Y. TIMES (Feb. 26, 2018), <https://www.nytimes.com/2018/02/26/world/asia/xi-jinping-career-highlights.html> (providing a comprehensive summary).

<sup>248</sup> Gerry Shih, *In China, Investigations and Purges Become the New Normal*, THE WASHINGTON POST (Oct. 22, 2018), [https://www.washingtonpost.com/world/asia\\_pacific/in-china-investigations-and-purges-become-the-new-normal/2018/10/21/077fa736-d39c-11e8-a275-81c671a50422\\_story.html](https://www.washingtonpost.com/world/asia_pacific/in-china-investigations-and-purges-become-the-new-normal/2018/10/21/077fa736-d39c-11e8-a275-81c671a50422_story.html). Western observers interpret Xi’s anti-corruption campaign as at least in part Xi’s pretext to purge his political enemies. See, e.g., *id.*; *Charting China’s ‘Great Purge’ Under Xi*, BBC NEWS (Oct. 23, 2017), <https://www.bbc.com/news/world-asia-china-41670162>. Pretext or not, the anti-corruption campaign did lead to the further concentration of power in Xi’s hands.

<sup>249</sup> RAN LI & KEE CHEOK CHEONG, *CHINA’S STATE ENTERPRISES: CHANGING ROLE IN A RAPIDLY TRANSFORMING ECONOMY* 1–5, 52–57 (Palgrave Macmillan 2019); ELIZABETH C. ECONOMY, *THE THIRD REVOLUTION: XI JINPING AND THE NEW CHINESE STATE* 4–5 (Oxford Univ. Press 2018); Mark Wu, *The ‘China, Inc.’ Challenge to Global Trade Governance*, 57 HARV. INT’L L. J. 261, 281–82 (2016).

<sup>250</sup> XIANFA arts.36–37, 41–50, 123–27 (2018).

<sup>251</sup> Compare MINZNER, *supra* note 14, at 8, 36, 86 (describing the CCP as a frozen regime undergoing internal decay), with Taisu Zhang & Tom Ginsburg, *China’s Turn Toward Law*, 59 VA. J. INT’L L. 279, 281–82 (2019) (describing the CCP as actively using law to enhance its governance effectiveness), and Donald Clarke, *China’s Legal Non-Construction Project*, paper presented at China’s Legal Construction Program at 40 years: Towards an Autonomous Legal System?, Michigan Law School, (Oct. 11–13, 2019) (on file with author) (interpreting China’s institutional changes in the past forty years as consistent and reflective of a belief in order maintenance institutions rather than in liberal notions of rights and the law).

<sup>252</sup> CHINA: CHAMPION OF (WHICH) GLOBALISATION?, *supra* note 15, at 13; Milanovic, *supra* note 15.



population as a whole, it has also caused agricultural job losses and systemic social dislocation in rural China. The magnitude of the social costs of globalization connects China's recent political changes with the recent political changes around the world, and compels us to scrutinize China's changes in a global light.

#### A. *The Social Costs of Globalization*

Milk and soybeans are microcosms of China's agriculture. At the time that China joined the WTO, Long Yongtu—the official who led China's accession negotiations—admitted that “agriculture would be the most vulnerable and therefore the most exposed to massive import competition”; and that “more than 9 million to 20 million farmers would lose their jobs.”<sup>253</sup> Hindsight suggests that Long's estimate was overly optimistic. In 2001, 364 million Chinese people worked in agriculture.<sup>254</sup> In 2017, only 209 million worked in agriculture—a decrease of 155 million jobs.<sup>255</sup> The Chinese government interprets these numbers as success stories of industrialization and urbanization.<sup>256</sup> Yet, such interpretation glosses over the hardships of the dislocation and adjustment of those undergoing the “transition.”<sup>257</sup>

Between 2001 and 2015, the share of agricultural exports in China's total exports declined by nearly 50%, while the share of

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<sup>253</sup> Long Yongtu, *China: The Implications and Key Lessons Learned Through WTO Accession*, in EAST ASIAN VISIONS: PERSPECTIVES ON ECONOMIC DEVELOPMENT 178, 183–84 (Indermit Gill et al. eds., 2002).

<sup>254</sup> *China Statistical Yearbook 2018: 4-2 Number of Employed Persons at Year-End by Three Strata of Industry*, NAT'L BUREAU OF STATISTICS OF CHINA, <http://www.stats.gov.cn/tjsj/nds/2018/indexeh.htm> (last visited Apr. 17, 2020).

<sup>255</sup> *Id.*

<sup>256</sup> See e.g., 2018 *Nian Guomin Jingji he Shehui Fazhan Tongji Gongbao* (2018 年国民经济和社会发展统计公报) [2018 Annual Public Report on China's Economic and Social Development Statistics], ZHONGGUO GUOJIA TONGJI JU (中国国家统计局) [NAT'L BUREAU OF STATISTICS OF CHINA] (Feb. 28, 2019), [http://www.stats.gov.cn/tjsj/zaxfb/201902/t20190228\\_1651265.html](http://www.stats.gov.cn/tjsj/zaxfb/201902/t20190228_1651265.html).

<sup>257</sup> Literature on hardships of migrant workers and their families and on community disintegration in rural China abounds. See, e.g., ARIANNE M. GAETANO, *OUT TO WORK: MIGRATION, GENDER, AND THE CHANGING LIVES OF RURAL WOMEN IN CONTEMPORARY CHINA* 3–6 (Univ. of Haw. Press 2015); Hongsong Liang et al., *Liushou Women's Happiness and Its Influencing Factors in Rural China*, 117 SOC. INDICATORS RES. 907, 914–15 (2014); Yuying Tong et al., *The Association Between Parental Migration and Childhood Illness in Rural China*, 31 EUROPEAN J. POPULATION 561, 562 (2015); Ye Jingzhong, *Left-Behind Children: The Social Practice of China's Economic Boom*, 38 J. PEASANT STUD. 613, 613 (2011); Ye Jingzhong & Pan Lu, *Differentiated Childhoods: Impacts of Rural Labor Migration on Left-Behind Children in China*, 38 J. PEASANT STUD. 355, 355 (2011); DOROTHY J. SOLINGER, *CONTESTING CITIZENSHIP IN URBAN CHINA: PEASANT MIGRANTS, THE STATE, AND THE LOGIC OF THE MARKET* 1–4 (Univ. of Ca. Press 1999).

agricultural imports increased by over 50%.<sup>258</sup> During the same period, China's agricultural trade balance changed from a small surplus of \$1.7 billion to a large deficit of \$52.6 billion.<sup>259</sup> Today, despite the U.S.-China trade war, for every dollar China gains from agricultural exports, it loses 1.7 dollars from agricultural imports.<sup>260</sup>

The soybean and dairy sectors epitomize trade-inflicted market competition, job losses, and social disruptions in rural China. Despite a surge (and, in the case of soybeans, a dramatic surge) in demand, domestic production of both products decreased.<sup>261</sup> Small Chinese farmers lost the competition to larger foreign producers and were forced to exit from production.<sup>262</sup> The Chinese state's strategy of scaling up, mechanizing, and corporatizing the agricultural sector accelerates the process of dislocation and displacement.<sup>263</sup> If China had between thirty-one million and fifty-four million soybean farmers, market forces and government policy have pushed the vast majority of them off of the land and into the cities. If the estimate is correct that for every ten thousand tons of milk powder imported, thirty-four thousand Chinese dairy jobs are displaced, then in 2018, China's imports of milk powder alone had a replacement effect of 3.8 million dairy jobs.<sup>264</sup>

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<sup>258</sup> Lenka Fojtikova, *China's Trade Competitiveness in the Area of Agricultural Products After the Implementation of the World Trade Organization Commitments*, 64 AGRIC. ECON-CZECH 379, 384 (2018).

<sup>259</sup> *Id.* at 383.

<sup>260</sup> See 2018 Nian Woguo Nongchanpin Jinchukou Qingkuang (2018 年我国农产品进出口情况) [Information Regarding China's Agricultural Imports and Exports for the Year 2018], ZHONGHUA RENMIN GONGHEGUO NONGYE NONGCUN BU (中华人民共和国农业农村部) [MINISTRY OF AGRIC. AND RURAL AFFAIRS OF THE PEOPLE'S REPUBLIC OF CHINA] (Feb. 2, 2019), [http://www.moa.gov.cn/ztzl/nybrl/rlxx/201902/t20190201\\_6171079.htm](http://www.moa.gov.cn/ztzl/nybrl/rlxx/201902/t20190201_6171079.htm).

<sup>261</sup> Hallie Gu & Shivani Singh, *China's December Soybean Imports Surge On Year as Cargoes Clear Customs*, REUTERS (Jan. 13, 2020), <https://www.reuters.com/article/us-china-economy-trade-soybeans/chinas-december-soybean-imports-surge-on-year-as-cargoes-clear-customs-idUSKBN1ZD0C2>.

<sup>262</sup> See *supra* Section III. See also John Vidal, *Corporate Stranglehold of Farmland a Risk to World Food Security, Study Says*, GUARDIAN (May 28, 2014), <https://www.theguardian.com/environment/2014/may/28/farmland-food-security-small-farmers>.

<sup>263</sup> See *supra* Section IV.C. See also Qian Forrest Zhang, *Class Differentiation in Rural China: Dynamics of Accumulation, Commodification, and State Intervention*, 15 AGRARIAN CHANGE 338, 339 (2015).

<sup>264</sup> Wang Yuting (王玉庭) & Du Xinwei (杜欣蔚), *Ruzhipin Jinkou Dui Zhongguo Naiye de Yingxiang ji Fazhan Silu* (乳制品进口对中国奶业的影响及发展思路) [The Impact of Dairy Imports on China's Dairy and Thoughts on Pathways for Development], 11 NONGYE ZHANWANG (农业展望) [AGRIC. OUTLOOK] 96, 99 (2018) (citation omitted); Aozhou Caijing Jianwen (澳洲财经见闻) [Australian Finance News], 2018 Nian Zhongguo Jinkou Ganru Zhipin Baochi Zengzhang (2018 年中国进口干乳制品保持增长) [China's Imports of Dry Dairy Products Maintained Growth in 2018], ZHONGHUA RENMIN GONGHEGUO SHANGWU BU (中华人民共和国

Mountain County and River District illustrate these profound socioeconomic changes. Mountain County has switched from a predominantly agricultural economy to a labor exporter for Chinese cities. River District has seen its agriculture completely scaled up and the overwhelming majority of the labor force pushed out of agriculture, and it, too, has become a labor exporter for Chinese cities.

The rural-to-urban migration has been interpreted in China as a successful implementation of a Lewisian model of development (transferring excess rural labor to urban industries to achieve economic takeoff).<sup>265</sup> However, not all ex-farmers are able to transition from farming to an urban or industrial job. Many ex-farmers in River District cannot find jobs in the city due to older age, poor health, lack of education, or care responsibilities at home. Their lives are precarious and heavily depend on access to poverty relief, free or subsidized healthcare, and educational support for their children. Given China's size, nationally, the population of farmers who cannot make this transition can be large.

### *B. The Hardening of Chinese Authoritarianism*

While doing fieldwork, I observed a counterintuitive phenomenon in both Mountain County and River District. The central Chinese government enjoyed higher and more unequivocal approval among the less well-off residents than among the more resourceful and politically more connected residents. The former group expressed stronger support for Xi's anti-corruption and anti-poverty campaigns, and for the government's construction of rural infrastructure and establishment of rural social programs. The latter group—despite being the bigger beneficiary of China's economic growth—was much more skeptical, and cynical, of these government initiatives. They were much more likely to view these initiatives as bureaucratic squandering of public resources, or as breeding grounds for corruption and favoritism (even if they were beneficiaries of corruption and favoritism in these and other contexts). On average, the former group consisted of the vast majority of farmers and ex-farmers, while the latter group was made up of the emerging urban middle class and the lucky few ex-farmers who managed to become non-farming entrepreneurs.

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国商务部) [MINISTRY OF COMMERCE OF THE PEOPLE'S REPUBLIC OF CHINA] (Mar. 6, 2019), <http://www.mofcom.gov.cn/article/i/jyj1/1/201903/20190302840591.shtml>.

<sup>265</sup> JUSTIN YIFU LIN, DEMYSTIFYING THE CHINESE ECONOMY 166–68 (2012); see, e.g., W.A. LEWIS, ECONOMIC DEVELOPMENT WITH UNLIMITED SUPPLIES OF LABOUR (1954).

I interpret the former group's higher respect for Xi Jinping's government to three potential factors. First, a more pro-rural governance policy.<sup>266</sup> Prior to the mid-2000s the Chinese government had been extracting wealth and resources from rural areas to fund urban industrialization; starting from the mid-2000s, the policy has been that "industry recompenses agriculture, cities support villages."<sup>267</sup> The shift is reflected in the Chinese government's abolition of agricultural taxes,<sup>268</sup> construction of rural

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<sup>266</sup> Readers may ask: Why would an authoritarian government care about the hardships of people who are economically precarious and politically unrepresented and unorganized? A few factors may shed some light on this question. First, even an authoritarian government has to address acute social problems as problems of governance. See *TO GOVERN CHINA: EVOLVING PRACTICES OF POWER 1–3* (Vivienne Shue & Patricia M. Thornton eds., 2017) (providing a recent, excellent collection of studies analyzing China's governance challenges and practices). Second, greater power comes with greater responsibility and citizen expectations. Failing to address acute social problems might provide a fertile ground for political dissents to mobilize discontented rural citizens and eventually overthrow the CCP, which was exactly how the CCP—an informal group of thirteen men in 1921—managed to overthrow the Nationalist government in a matter of twenty-eight years. Even if the CCP had the wherewithal to suppress all insurgencies, it might be cheaper, and certainly would make the CCP look more benevolent, to address social problems in the first place. Third, the CCP's goal of national rejuvenation rises and falls on the fate of the rural population. Failure to address rural suffering undermines the CCP's stated goal as well as its governing competence in the eyes of the urban middle class, who have family ties with rural China. Lastly, there is a body of scholarship that affirms and seeks to explain the existence of, and the CCP's support for, *some* form of government accountability or responsiveness in China. Elizabeth J. Perry, *Chinese Conceptions of "Rights": From Mencius to Mao – and Now*, 6 *PERSP. POL.* 37, 37–38 (2008) (traditional Chinese moral and political economy); Elizabeth J. Perry, *The Populist Dream of Chinese Democracy*, 74 *J. ASIAN STUD.* 903, 904 (2015) (populist Party and public conceptions of "Chinese democracy"); LILY L. TSAI, *ACCOUNTABILITY WITHOUT DEMOCRACY: SOLIDARY GROUPS AND PUBLIC GOODS PROVISION IN RURAL CHINA* 288–89 (Cambridge Univ. Press 2007) (socially embedded, local mechanisms of accountability); Alex L. Wang, *The Search for Sustainable Legitimacy: Environmental Law and Bureaucracy in China*, 37 *HARV. ENVTL. L. REV.* 365, 382–85 (2013) (institutionalized, administrative structures); CHRISTOPHER HEURLIN, *RESPONSIVE AUTHORITARIANISM IN CHINA: LAND, PROTESTS, AND POLICY MAKING* 56–57, 61, 78–83 (Cambridge Univ. Press 2016) (society-propelled legal changes).

<sup>267</sup> Han Jun (韩俊), *Gongye Fanbu Nongye Chengshi Zhichi Nongcun—Ruhe Zai Xin Xingshi Xia Geng Duo Di Zhichi Nongye He Nongcun Fazhan* (工业反哺农业, 城市支持农村—如何在新形势下更多地支持农业和农村发展) [*Industry Feeds Agriculture Cities Support Rural Areas—How to Support Agricultural and Rural Development More in the New Situation*], RENMIN WANG (人民网) [PEOPLE'S DAILY] (Nov. 18, 2005), <http://finance.people.com.cn/GB/1037/3867779.html>. See also the increase in China's annual budget for agricultural and rural affairs from 2001 to 2016, 2017 *CHINA AGRICULTURE YEARBOOK*, *supra* note 211, at 137; *CHINA AGRICULTURE YEARBOOK* 100 (2002).

<sup>268</sup> Quanguo Renmin Daibiao Dahui Changwu Weiyuanhui Guanyu Feizhi Zhonghua Renmin Gongheguo Nongyeshui Tiaoli de Jueding (全国人民代表大会常务委员会关于废止《中华人民共和国农业税条例》的决定) [Decision of the Standing Committee of the National People's Congress on the Abolition of the Agricultural Tax Regulations of the People's Republic of China] (promulgated by

and agricultural infrastructure,<sup>269</sup> subsidization of agriculture,<sup>270</sup> and establishment of a rudimentary rural social protection system.<sup>271</sup> All of these rural economic and social programs are concrete measures to implement Xi's anti-poverty campaign, which targets rural and impoverished areas in central and western China and vows to eradicate poverty in China by 2020.<sup>272</sup>

Second, a potential, and certainly implicit, alliance between Xi Jinping and a rural base that is victimized or marginalized by the prevailing legal-economic order and that desires “a national hero” to fight the rich and the corrupt, provide for the poor, and “right the wrongs” of global capitalism.<sup>273</sup> This alliance does not require a systematic discourse against globalization within the rural base. The hardships the base has suffered may make it receptive to—and even positively demand—state protection, paternalism, and redistribution of wealth from the elites to the masses. Nor does this alliance require everyone to believe that the leader is faithfully delivering protection, paternalism, and wealth redistribution. As long as enough people in the base believe or are induced to believe that some degree of protection, paternalism, and wealth redistribution is being delivered, the alliance may be sustained. In Mountain County and River District, a significant number of residents could point to the tangible

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the Standing Comm. of the Nat'l People's Cong., Dec. 29, 2005, effective Jan. 1, 2006) ST. COUNCIL GAZ., Feb. 28, 2006, at 6.

<sup>269</sup> See e.g., *Guojia Nongye Zonghe Kaifa Bangongshi 2014 Nian Gongzuo Zongjie* (国家农业综合开发办公室 2014 年工作总结) [*Work Summary of National Agricultural Comprehensive Development Office in 2014*], ZHONGHUA RENMIN GONGHEGUO CAIZHENG BU (中华人民共和国财政部) [MINISTRY OF FIN. OF THE PEOPLE'S REPUBLIC OF CHINA], [http://xm.mof.gov.cn/mofhome/guojianongcunzonghekaifa/zhengwuxinxi/gongzuodongtai/201503/t20150317\\_1203249.html](http://xm.mof.gov.cn/mofhome/guojianongcunzonghekaifa/zhengwuxinxi/gongzuodongtai/201503/t20150317_1203249.html) (last visited Apr. 12, 2020).

<sup>270</sup> See *supra* text accompanying notes 206–11.

<sup>271</sup> LING ZHU, *FOOD SECURITY AND SOCIAL PROTECTION FOR THE RURAL POOR IN CHINA* 19–21 (Routledge 2017) (poverty relief, food assistance, reemployment initiatives, old age security for landless farmers, pension program for rural migrant workers); ARMIN MÜLLER, *CHINA'S NEW PUBLIC HEALTH INSURANCE: CHALLENGES TO HEALTH REFORMS AND THE NEW RURAL CO-OPERATIVE MEDICAL SYSTEM* 2–4 (Routledge 2017) (rural healthcare).

<sup>272</sup> *Juesheng Guantou, Kan Xi Jinping Zhe Yinian Fupin Gongjian Lu* (决胜关头, 看习近平这一年扶贫攻坚路) [*At the Juncture of Victory, Look at Xi Jinping's Arduous Path of Fighting Poverty This Year*], YANGSHI (央视) [CCTV] (Oct. 17, 2019), <http://m.news.cctv.com/2019/10/17/ARTIZHE57BNZTsyEo8pIVE5N191017.shtml>.

<sup>273</sup> Cf. SIMEON DJANKOV, PETERSON INST. INT'L ECON., *RUSSIA'S ECONOMY UNDER PUTIN: FROM CRONY CAPITALISM TO STATE CAPITALISM* 2–3 (2015) (explaining that the shock therapy and rapid privatization under the Washington Consensus led to crony capitalism and a weakened and impoverished Russian state; discontented and disillusioned public demanded a strong leader to check crony capitalism, regain economic stability, rebuild state capacity, and provide social welfare).

benefits they had received from the government and conclude that Xi Jinping was “a good leader.”

Third, a paternalistic agricultural policy to address job losses, social dislocation, and rural decline. The state’s role in Mountain County’s agricultural economy is an example of a milder, more benign version of state paternalism. The state’s role in River District’s agricultural economy is an example of a stronger and more dictatorial version of state paternalism, indistinguishable from state coercion. Yet, even in River District, the magnitude of trade-inflicted harm, the provision of a basic income through cooperatization, and the establishment by the State Farm system of an elemental safety net allowed the local government to coerce an entire population without causing a popular uprising.

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In the West, Xi’s anti-corruption campaign and promotion of national champions have attracted much attention (and suspicion and criticism). Yet, his anti-poverty campaign and paternalist approach to rural and agricultural development remain largely unknown. The fieldwork in Mountain County and River District is a deep probe on an extremely limited scale of the relationship between the Chinese state and rural Chinese citizens. To the extent it can shed light on state-citizen relations in rural China, it may be the potential connection between the costs of globalization and a turn away from neoliberalism as embodied in the international economic order. The job losses and social dislocation in some parts of rural China may be creating a welcoming environment for state protection and paternalism and for a political strongman in defiance of Western, particularly American, neoliberalism.<sup>274</sup>

## VI. Conclusion

DuPuis exclaims that “milk is an embodiment of the politics of American identity over the last 150 years.”<sup>275</sup> The same can be said about the significance of milk in the collective Chinese imagination. The American identity is shaped by America’s self-image “as a leading voice against authoritarianism.”<sup>276</sup> Similarly, the core of the modern Chinese identity is shaped by its understanding

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<sup>274</sup> David Singh Grewal & Jedediah Purdy, *Introduction: Law and Neoliberalism*, 77 L. CONTEMP. PROB. 1 (2014) (explaining the hegemony of neoliberalism in contemporary Western democracies, particularly the U.S.).

<sup>275</sup> DUPUIS, *supra* note 31, at 8.

<sup>276</sup> Mark Jia, *Illiberal Law in American Courts*, U. PENN. L. REV. 1, 47 (forthcoming 2020), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3426223](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3426223).

of the West during the two Sino-West encounters, one in the late Qing and Republican periods, and one in the reform era.

Milk is a product of the first Sino-West encounter. The subsequent social history of milk in China is a live drama of all the conflicts, aspirations, ambivalences, and uncertainties that the Sino-West encounters entail. Unfortunately, in neither encounter did the West present itself in the best light. The first encounter left the Chinese with a bitter collective memory of imperialism and colonialism. The second encounter, which is still ongoing today, may be making an impression on a significant portion of the Chinese public—and I truly hope I am wrong—that Western liberalism is essentially anti-collective, anti-state, and anti-redistributive market fundamentalism.<sup>277</sup>

China has embraced milk. The world has embraced soy. In the age of post-neoliberalism (if there will be one), milk and soy will continue to embody the complexity of national identities, the inter-connectedness between nations and peoples, and all the benefits and costs, and promises and disappointments that may come with that inter-connectedness.

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<sup>277</sup> How the Chinese public perceives the West is a combined result of Western actions and Chinese interpretations, heavily filtered and shaped by the Chinese government under the leadership of the CCP. Despite the heavy influence of the CCP, the West, through its policies, actions, and repertoire, is an active shaper of its image in China. Grewal & Purdy, *supra* note 274, at 6–7 (explaining neoliberalism’s argumentative repertoire and hegemonic power in the West); Amy Kapczynski, *Intellectual Property’s Leviathan*, 77 L. CONTEMP. PROB. 131 (2014) (exposing the pervasiveness of a negative neoliberal conception of the state in the field of intellectual property law); John Williamson, *The Washington Consensus as Policy Prescription for Development*, lecture delivered at the World Bank (Jan. 13, 2004), <https://www.piie.com/publications/papers/williamson0204.pdf> (explaining the policy prescriptions that make up the Washington Consensus, the quintessence of neoliberalism in international development circles).

## **Milk and the Motherland? Colonial Legacies of Taste and the Law in the Anglophone Caribbean**

Merisa S. Thompson\*

### **Abstract**

This paper tells a story of the relationship between colonialism and capitalism through the lens of “milk” and “the law” in the Caribbean. Despite high levels of lactose intolerance amongst its population, milk is a regular part of many Caribbean diets and features prominently in its foodscapes. This represents a distinctive colonial inheritance that is the result of centuries of ongoing colonial violence and displacement. Taking a feminist and intersectional approach, the paper draws on analysis of key pieces of colonial legislation at significant historical junctures and secondary literature to do three things. Firstly, it examines how law aided the colonisation of peoples, lands and nature in the Caribbean, and how the introduction of draught animals and livestock played a key role in this story. Secondly, it shows how the colonial desire for tastes from the “motherland” resulted in the importation and consumption of bovine milk where there had previously been none, but also how this story of straight colonial imposition is complicated by the arrival of indentured Indian labourers after emancipation who brought with them their own dairy cultures of production and consumption. Thirdly, it examines how the colonial administration, at different points in time, used the law to manage and control the conditions of both human and bovine milk production, and demonstrates the ways in which this is linked to the commercialisation of bovine milk for human consumption. Ultimately, the paper shows how animals, peoples and nature were manipulated for colonial and capitalist ends and how laws relating to animals and milk produced change at specific historical junctures in tandem with shifts in colonial and post-colonial relations and new constellations of gender, race, class and animality.

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## I. Introduction

This paper tells a story of the relationship between colonialism and capitalism through the lens of “milk” and “the law” in the Caribbean. Despite appearing to be a mundane, everyday commodity that we generally take for granted, milk, and the development of laws governing it, can actually tell us a huge amount about the evolution of colonialism and capitalism. In many ways the story is one of ongoing violence and displacement. However, in the Caribbean it is not always one of straight colonial imposition as it is also a tale complicated by hybridity and the mixing of cultures. The discussion focuses on the twin-island state of Trinidad and Tobago, but also draws on examples from across the Anglophone Caribbean. Trinidad and Tobago is a particularly interesting case study: despite high levels of lactose intolerance amongst its population, cow’s milk, and to a much lesser extent that of goats and water buffalo, and the dairy produce that derives from it, feature prominently in its modern foodscape and diet. In 2013, the average annual per capita consumption of milk by Trinbagonians was 103kg, which, although lower than North America (248kg) and Europe (215kg) is above the global average of 90kg, and also at the upper end of Anglophone Caribbean consumption, which ranges from 80kg (Belize) to 124kg (Antigua and Barbuda).<sup>1</sup> Bovine milk, however, is not indigenous to the region. Cattle and the taste for milk were rather imported via various waves of colonization by the Spanish, Dutch, French and British. The production and consumption of cow’s milk, therefore, represents a distinctive colonial inheritance. Moreover, the imposition of cattle and milk on colonized landscapes played a central role in the colonial project itself. As Cohen argues, “lactating animals” were “integral parts of colonial and neo-colonial projects” both as apparatuses of “agro-expansionism” and tools of “human population planning.”<sup>2</sup>

Trinidad and Tobago is also interesting because of the diversity of cultures and cosmologies that make-up the islands’ population. Prior to colonisation, the indigenous inhabitants had no connection to cattle, milk or the idea of animals as property. These ideologies were instead imposed by European colonisers. In the colonial period, the territories swapped hands several times between the Spanish, Dutch, French and British, with Trinidad finally ceded

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<sup>1</sup> FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, FOOD SUPPLY–LIVESTOCK AND PIMARY EQUIVALENT, <http://www.fao.org/faostat/en/#data/CL> (last visited Apr. 7, 2020).

<sup>2</sup> Mathilde Cohen, *Animal Colonialism: The Case of Milk*, 111 AJIL UNBOUND 267, 267–271 (2017).

to Britain in 1802 and Tobago in 1814. In 1889, Trinidad and Tobago were unified and eventually gained independence from Britain in 1962. As a nation, the country is particularly unique in terms of ethnic diversity. With a population of around 1.3 million, it is thought that only around 12,000 indigenous people of Amerindian descent remain on the islands. Its two largest ethnic groups descend from 44,002 enslaved Africans who were forcibly taken to the islands before emancipation and 144,000 Indian indentured labourers who arrived after the abolition of slavery, each comprising roughly 35 percent of the contemporary population.<sup>3</sup> Of the remaining third, approximately 15 percent identify as “mixed,” 8 percent as “doula,”<sup>4</sup> and the remaining 8 percent is composed of a mix of European, Chinese, indigenous Amerindian, Syrian, Lebanese, Portuguese and undeclared.<sup>5</sup> The complexity of cultural difference, and diverse ontologies of animals, nature and milk on these islands therefore makes them worth studying because it illuminates the ways in which certain ideologies and knowledge systems come to take precedence over others.

Colonial conquest and settlement displaced indigenous peoples, nature and plants alike, as the “civilising mission” of colonisers strove to improve distant lands by carving them up into plantations and importing cattle and peoples to enable this process. This paper explores how cattle and milk—or as Cohen calls it “the white revolution”—came to play a crucial role in this story.<sup>6</sup> It examines how law creates and regulates the boundaries of political, economic and social life. By tracing the history of milk and the law in the Caribbean we can see how cattle and the substance of milk itself—both animal and human—and discourses surrounding it have been transformed and manipulated over time to suit the changing needs of capital and the state. The first part of this paper outlines the importance of a feminist political economy and intersectional approach,<sup>7</sup> which is sensitive to the project of interspecies intersectionality and the importance of the human/animal divide to

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<sup>3</sup> CENTRAL STATISTICAL OFFICE (CSO), TRINIDAD AND TOBAGO 2011 POPULATION AND HOUSING CENSUS DEMOGRAPHIC REPORT 2 (2011).

<sup>4</sup> ‘Doula’ is a term used locally to denote a person of mixed Afro-Trinidadian and Indo-Trinidadian origin. *DICTIONARY OF THE ENGLISH/CREOLE OF TRINIDAD & TOBAGO* 311 (Lise Winer ed., McGill-Queen University Press 2008).

<sup>5</sup> CSO, *supra* note 3, at 15.

<sup>6</sup> Cohen, *supra* note 2, at 270.

<sup>7</sup> M.S. Thompson, *Cultivating ‘New’ Gendered Food Producers: Intersections of Power and Identity in the Postcolonial Nation of Trinidad*, *REV. OF INT’L POL. ECON.* (2019).

the question of milk.<sup>8</sup> The second section introduces the process by which law aided the colonization of peoples and lands in the Caribbean. This lays the foundation for the next section which explores the centrality of animals to this process. It shows how livestock was first brought to the Caribbean, not with the intention of providing milk for its inhabitants, but instead as part of the colonial project of improvement of landscapes and peoples and to hasten the development of the plantation economy the sole goal of which was to grow cash crops for profit. The fourth section examines the impact of the colonial inheritance of the taste and desire for bovine milk. The final two sections analyse the increasing desire of the colonial administration to control both human and animal milk production respectively and the ways in which this links into the increasing commercialization of bovine milk for human consumption. Ultimately, the paper shows how animals, nature and peoples were manipulated for imperialist ends and how laws relating to animals and milk produced change at specific historical junctures in tandem with shifts in colonial and post-colonial relations and new constellations of gender, race, class and animality.

## **II. Intersectional and Interspecies Analyses: Centering Difference to Colonial Power**

In order to understand the dynamics of colonial power in the area of milk, we must not only advance a critical feminist analysis of the gendered nature of processes of ‘milk colonialism’, but also one that pays attention to animals and interspecies intersections too. This paper draws on a methodology and epistemology of a feminist situated approach of exploring what is happening in the world. It draws on analysis of secondary literature, historical texts, laws and legal documents relating to the governance of land, peoples, animals and food and on ethnographic notes gathered from spending extensive periods in the field in Trinidad and Tobago. The result is a mapping of the changing landscape of milk and the relationship between colonialism, capitalism and law. The analysis predominantly draws on a feminist political economy and intersectional approach.<sup>9</sup> A feminist analysis is central to understanding how law shapes milk – both animal and human. Feminist studies have shed important light on the distinctiveness of non-human labour in dairy, in that it relies on both productive *and*

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<sup>8</sup> Cohen, *supra* note 2, at 271; See generally Maneesha Deckha, *Intersectionality and Posthumanist Visions of Equality*, 23 WIS. J.L. GENDER & SOC. 249–68 (2008).

<sup>9</sup> Thompson, *supra* note 7.

reproductive labour.<sup>10</sup> They have also shown that the reproduction of life and the submission of the reproductive cycle of female mammals are explicitly central to the enterprise of dairy which has been conceptualised variously as “gendered commodification” and “sexualised violence.”<sup>11</sup> This is important, not only because the logic of the dairy system is fundamentally organised around reproduction, but it means that milk is fundamentally a feminist issue. A feminist political economy lens is useful because it understands social difference to be “integral to the functioning of political-economic systems and knowledge production processes” and “foregrounds the ways in which capitalism is reproduced through logics and practices that create and marshal difference into its categories of value.”<sup>12</sup> Therefore, an analysis of the changing dynamics of dairy and milk would be incomplete without attention to the gendered, raced and class ideologies that underpin these processes and practices.

However, we can only truly shed full light on this by going *beyond* what, despite its radicalism, is still a human-centric analysis towards a post-human, interspecies analysis. Or, rather, we should try to fruitfully combine the two: in recent years, feminist animal studies scholars have argued that we need to take into account an interspecies understanding *of* intersectionality.<sup>13</sup> Deckha, for example, argues that “our identities and experiences are not just gendered or racialized, but are also determined by our species status and the fact that we are culturally marked as human.”<sup>14</sup> In the case of milk specifically, Cohen argues that this “is a quintessentially intersectional issue, cutting across the human/animal divide.”<sup>15</sup> Crucially, our “experiences of gender, race, sexuality, ability etc., are often based on and take shape through speciesist ideas of humanness vis-à-vis animality.”<sup>16</sup> “Species as a site of exploitation” is therefore an important locus for feminist analysis.<sup>17</sup> Deckha further explores

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<sup>10</sup> See DONNA J. HARAWAY, *WHEN SPECIES MEET* 53 (Minneapolis: Univ. of Minn. Press 2008); See *generally* KENDRA COULTER, *ANIMALS, WORK AND THE PROMISE OF INTER-SPECIES SOLIDARITY* (London: Palgrave MacMillan 2017); Maan Barua, *Animating Capital: Work, Commodities, Circulation*, 43 *PROGRESS IN HUMAN GEOGRAPHY* 4, 650 (2019).

<sup>11</sup> Kathryn Gillespie, *Sexualised Violence and the Gendered Commodification of the Animal Body in Pacific Northwest US Dairy Production*, 21 *GENDER PLACE & CULTURE: J. OF FEMINIST GEOGRAPHY* 1321, 1321–37 (2014).

<sup>12</sup> Marion Werner et al., *Feminist political economy in geography: why now, what is different, and what for?*, 79 *GEOFORUM* 1–4, 2 (2017).

<sup>13</sup> Deckha, *supra* note 8; Alice J. Hovorka, *Women/Chickens vs. Men/Cattle: Insights on Gender Species Intersectionality*, 43 *GEOFORUM* 875–884 (2012).

<sup>14</sup> Deckha, *supra* note 8, at 249.

<sup>15</sup> Cohen, *supra* note 2, at 271.

<sup>16</sup> Deckha, *supra* note 8, at 249.

<sup>17</sup> Deckha, *supra* note 8, at 250.

how multiple institutionalised dimensions of intersectionality such as (but not limited to) racism, sexism, homophobia and ageism “stems from the residue of imperial discourses” and, in particular, “social Darwinist views about the value of different cultures, faces, and human beings.”<sup>18</sup> Drawing on the work of Raymond Corbey, she argues that Darwin’s theories of human continuity with animals (apes specifically) essentially challenged the fictive human-animal divide in Western thought causing human anxiety over species boundaries, which manifested itself in deepening attempts to reify hierarchies between what was perceived to be civilised and what was perceived to be bestial and primitive. Colonial discourses, in this sense, were deeply immersed in hierarchies of gender, race and animality.<sup>19</sup> As Elder, Wolch and Emel show, animal practices and bodies were used to both construct and reinforce imperial notions of cultural and racial difference and hierarchy, and to devalue groups such as subaltern peoples and women.<sup>20</sup>

A feminist political economy analysis that accounts for intersectional and interspecies dimensions, therefore, requires a framework for analysis that takes into account the ways in which both different animals and humans are materially and ideologically constructed and positioned in specific cultural and historical contexts, and how the intersectional dimensions of their positioning interact with broader structures of social, economic and political power. Integral to what Quijano calls the “coloniality of power” is “the codification of the differences between conquerors and conquered in the idea of ‘race’”—and to which we might add animality—and “the constitution of a new structure of control of labor and its resources and products.”<sup>21</sup> In the remainder of the paper, then, we consequently examine both hierarchies of domination—human *and* animal—and the restructuring and control of milk production and milk via the law in order to show how both intersectional and interspecies difference played a powerful role in the colonial project.

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<sup>18</sup> *Id.* at 250.

<sup>19</sup> Deckha, *supra* note 8, at 250; *See generally* RAYMOND CORBEY, *THE METAPHYSICS OF APES: NEGOTIATING THE ANIMAL-HUMAN BOUNDARY* (2005).

<sup>20</sup> *See generally* Glen Elder, Jennifer Wolch & Jody Emel, *Race, Place, and the Bounds of Humanity* 1, 6 *SOC'Y & ANIMALS* 183–202 (1998).

<sup>21</sup> Anibal Quijano, *Coloniality of Power, Eurocentrism, and Latin America*, 1 *NEPLANTLA: VIEWS FROM SOUTH* 3, 533, 533–34 (2000).

### III. Colonisation of Peoples and Land Via the Law

The islands of the Caribbean were first settled by Amerindian groups originating from South and Central America over 5000 years ago. The earliest to be settled is thought to have been Trinidad (known to the Amerindians as *Caeri* or *Iëre*) around 5000 BC, which at the time was still part of the mainland.<sup>22</sup> The two main groups that migrated to Trinidad, from the Orinoco River area in South America, were the Arawaks (Taino) and the Caribs (Kalinago), whilst Tobago (known as *Urupaina* and *Aloubaéra* by the Amerindians) was settled by the Caribs and the Galibi.<sup>23</sup> In these Pre-Colombian times, there was much movement and exchange in terms of peoples, plants, knowledge, spiritual ideologies and even animals (such as guinea pigs, agouti, opossum, armadillos, peccaries and dogs) across the islands of the Antilles.<sup>24</sup> Amerindian groups sourced their food from a combination of cultivated plants, sea and land foraging, including the consumption of small animals. When Columbus arrived in Trinidad, approximately 40,000 Amerindians resided there. His arrival, and that of the Europeans that followed, displaced these indigenous “first peoples.” Yet colonial violence did not only displace and decimate peoples—the usual focus of analysis—but nature, plants and animals too.

Many things subsequently changed. Columbus renamed each island: in the presence of their indigenous inhabitants, “with appropriate words and ceremony,” proclaimed the “discovered” islands the “lawful property of the Catholic sovereigns of Spain,” essentially “claiming each island” for the “Spanish Crown.”<sup>25</sup> European colonisation largely sought to displace indigenous peoples—rather than subjugating and coexisting with them as often happened elsewhere—to entirely replace one culture with another, and to “exercise self-determining rights over the same territory and resources.”<sup>26</sup> By determining indigenous peoples as barbaric and in

<sup>22</sup> Laurence, K.M., *Notes of Iere, The Amerindian Name For Trinidad*, 13 CARIBBEAN Q. 45, 45–51 (1967).

<sup>23</sup> Arie Boomert, *Names for Tobago*, 87 J. DE LA SOCIÉTÉ DES AMÉRICANISTES 339–349 (2001). First it is recorded that the Cariban-speaking Kalina Indians, called it Urupaina (a Kalina word meaning large snail). *Id.* at 343. Secondly, Kalingo (Island Caribs) called the island Aloubaéra (thought to be named after a giant bejewelled snake that was part of their mythology). *Id.* at 344.

<sup>24</sup> See generally Scott M. Fitzpatrick, *The Pre-Columbian Caribbean: Colonization, Population Dispersal, and Island Adaptations*, 1 PALEOAMERICA 305–331 (2015).

<sup>25</sup> Robert A. Williams, *Columbus’s Legacy: Law as an Instrument of Racial Discrimination Against Indigenous Peoples’ Rights of Self-Determination*, 8 ARIZ. J. INT’L & COMP. L. 51, 63–64 (1991).

<sup>26</sup> *Id.* at 54.

need of civilising, the “European-derived law of colonization” was “inescapably and irredeemably racist in its discriminatory application” to “indigenous peoples and their tribal systems of self-government.”<sup>27</sup> European colonization and exploitation, therefore, “entailed a form of racial discrimination denying equal rights of self-determination to those different peoples colonized by the colonizer.”<sup>28</sup> Moreover, law “served as an instrument of racial discrimination against Indigenous Peoples’ human rights of self-determination” in terms of their ability to control their own destiny and the formation of systems of government to support this goal.<sup>29</sup>

The islands of Trinidad and Tobago each have distinctive histories. In the early colonial period, Trinidad was conquered by the Spanish, largely settled by the French, and eventually became a British territory, while Tobago changed hands multiple times between the French, Spanish, Dutch and British, each leaving their own cultural and legal imprint upon the islands. The Spanish were the first to forcibly acquire Trinidad, and for most of this period, it was they who ruled the island and who practically eradicated Trinidad’s first peoples. The Spanish did little with Trinidad at the outset. Population levels remained low, and only started to increase with the issue of a *Cédula de Población* by the King of Spain in 1783—an official order for the formation of a system of colonisation and trade—which encouraged mass immigration of French islanders and their slaves in order to facilitate “development.” According to Campbell, the Cedula was “the most important document governing the distribution of land between 1783 and 1797” which was “designed both to organise trade as to encourage colonization.”<sup>30</sup> The focus was to establish new settlers as farmers, and to help them to develop livestock industries by subsidising the price of livestock shipped from Spain.<sup>31</sup> By 1797, the population had increased to 17,718 which included 2,151 Europeans, 4,476 “free blacks and people of colour”; 10,009 enslaved people and 1,082 Amerindians.<sup>32</sup> As part of this drive, non-indigenous mammals, such as cattle, were also introduced to the islands. Interestingly, the Cedula entitled “free black and free coloured settlers” to “half the entitlement of land given to whites.”<sup>33</sup> Therefore, whilst they were still discriminated against

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<sup>27</sup> *Id.* at 52.

<sup>28</sup> *Id.* at 54.

<sup>29</sup> *Id.* at 51.

<sup>30</sup> Carl Campbell, *The Rise of a Free Coloured Plantocracy in Trinidad 1783-1813*, BOLETÍN DE ESTUDIOS LATINOAMERICANOS Y DEL CARIBE 33–53, 34 (1980).

<sup>31</sup> *Id.* at 36.

<sup>32</sup> BRIDGET BRERETON, *A HISTORY OF MODERN TRINIDAD 1783-1962*, at 16 (Heinemann Educ. Books Ltd. 1981).

<sup>33</sup> Campbell, *supra* note 30, at 36.

in relation to whites, they were also elevated above the status of the unfree black population. In this case, the broader imperial project and economic interests, therefore, trumped racist ideology. This was challenged, however, when the British conquered Trinidad in 1797 and attempted to re-implement anti-coloured rule and the granting of land to free people of colour largely ceased.

The arrival of the British brought a more sustained engagement with the slave trade. Between 1797 and 1806 the number of enslaved people double from 10,009 to 20,761.<sup>34</sup> Enslaved Africans came from a variety of ethnic and tribal groups hailing from West and Central Africa (mostly within 200 miles of the coast). The 1813 Census of Trinidad included slaves from Senegambia, Upper Guinea, Windward Coast, Gold Coast, Bight of Benin, Bight of Biafra and West Central Africa.<sup>35</sup> The Atlantic slave trade, however, ceased under the Slave Trade Act 1807 passed by the British Parliament. This caused a marked decline in the number of African-born slaves.<sup>36</sup> Slavery itself, however, remained legal in British colonies until it was abolished under the Slavery Abolition Act in 1833 (taking effect in 1834). Abolition left Trinidad with a “labour problem,” so in 1844 the British government facilitated the immigration of indentured labourers from India. From 1845 to 1917, 143,989 Indians migrated to Trinidad.<sup>37</sup> They mostly came from Uttar Pradesh and Bihar in the North East of India, with a lesser number also coming from Bengal and further south. Most came from the agricultural and labouring classes, and around 85 percent were thought to have been Hindu and nearly 15 percent Muslim.<sup>38</sup> These labourers were required to work under the indentureship system for a total of 10 years in order to qualify for a free return to India, however, on completion of their contract, around 90 percent ultimately decided to remain in Trinidad.<sup>39</sup> The colonisation of Trinidad and Tobago, therefore, involved a huge on-going displacement and supplantation of peoples, animals, nature and law.

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<sup>34</sup> Campbell, *supra* note 30, at 49.

<sup>35</sup> B. W. HIGMAN, *SLAVE POPULATIONS OF THE BRITISH CARIBBEAN, 1807-1834* 127 (1995).

<sup>36</sup> Barry Higman, *Population and Labor in the British Caribbean in the Early Nineteenth Century*, in *LONG-TERM FACTORS IN AMERICAN ECONOMIC GROWTH 605–640* (Stanley L. Engerman & Gallman, Robert E. eds., 1986).

<sup>37</sup> Sherry-Ann Singh, *The Experience of Indian Indenture in Trinidad: Arrival and Settlement*, *CARIBBEAN ATLAS*, <http://www.caribbean-atlas.com/en/themes/waves-of-colonization-and-control-in-the-caribbean/waves-of-colonization/the-experience-of-indian-indenture-in-trinidad-arrival-and-settlement.html> (last visited Apr. 7, 2020).

<sup>38</sup> *Id.*

<sup>39</sup> *Id.*



It also introduced a complex new range of cultural and social dynamics to the islands.

#### IV. Animals and the Law: The Importance of Cattle to the Colonial Project

So, how did these colonial-legal and cultural shifts shape animal relations, and the arrival of cattle and milk, on the islands? As DeJohn Anderson argues, “All Europeans, not just the English, enlisted livestock as partners in colonization” and this began as early as Christopher Columbus’s second voyage in 1493 when he “first transported horses, cattle, swine, sheep, and goats to Caribbean islands.”<sup>40</sup> Therefore, “[w]herever Spanish conquistadores went thereafter, European domestic animals followed.”<sup>41</sup> European colonialism therefore saw the spread of dairying and livestock farming globally, but also “the accompanying migration of ideas concerning the legal status of animals.”<sup>42</sup> As Cohen suggests, the focus of this old global colonial animal law was “imperialist ends” rather than “the well-being of animals, colonized people, and ecosystems.”<sup>43</sup>

One of the ways that Europeans professed their right to conquest and settlement was through the proliferation of the idea that unruly lands needed to be modernised and tamed through agricultural practices. As such, colonists saw indigenous landscapes as “untamed wilderness” that need to be “civilised through agriculture.”<sup>44</sup> This required the importation of animals, equipment and labour in order to transform the land into a productive resource. As Struthers Montford argues, the process of “domestication” itself, acts as a tool for domination seeking “to make something or someone intelligible and familiar” and altering “the subject in question to fit the framework of the more dominant party in a given situation.”<sup>45</sup> Of critical importance to colonists was the legitimation of their legal claim to the territory, something which the furnishing of lands with livestock populations assisted.<sup>46</sup> Lands were perceived by colonists as undeveloped and in need of improvement, and this provided a discursive rationale by which the process could be legitimated.

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<sup>40</sup> VIRGINIA DEJOHN ANDERSON, CREATURES OF EMPIRE: HOW DOMESTIC ANIMALS TRANSFORMED EARLY AMERICA 97 (2006).

<sup>41</sup> *Id.* at 98.

<sup>42</sup> Cohen, *supra* note 2, at 267.

<sup>43</sup> *Id.*

<sup>44</sup> ANDERSON, *supra* note 40.

<sup>45</sup> Kelly Struthers Montford, *Milk in the Anthropocene: Colonialism’s Dietary Interventions*, 16 J. FOOD L. & POL’Y 55 (2020).

<sup>46</sup> ANDERSON, *supra* note 40.

Cattle was part of this vision both practically in terms of the production of meat and milk but also ideologically as a symbol of what constitutes a civilised life. For English colonists, the furnishing of landscapes with livestock was a critical part of building the ‘New World empire.’ Central to this process was, as DeJohn Anderson notes, the Roman legal concept of *res nullius*, which held that “‘empty things,’ including land, remained common property until they were put to use. With use came rights: by investing labor in the land, a person could stake a claim to private ownership.”<sup>47</sup> Therefore, farming “because it required the investment of labor and capital, clearly established legitimate claims.”<sup>48</sup> In this sense, “England’s empire would be an agricultural one.”<sup>49</sup> In the United States, for example, “[b]y erecting buildings and marking boundaries, [colonists] performed the duties they thought necessary to establish legal claims to empty territory.”<sup>50</sup> Fences erected to contain domestic animals also “established farmers’ property rights” of which animals were “private property themselves.”<sup>51</sup>

In Trinidad, the *Cedula de Poblacion 1783* governed the distribution of land. It declared that “[a]ll foreigners, natives of nations and states . . . who would wish to establish themselves, or are already settled” must “profess the Roman Catholic religion.”<sup>52</sup> Foreigners who meet this requirement may then be entitled to claim lands as follows: “To each white person, either sex, shall be granted four fanegas and two sevenths of land” and “half the above quantity for every negro of mulatto slave that such white person or persons shall import with them.”<sup>53</sup> Whilst “free negroes and mulattoes . . . shall have half the quantity of land granted to the whites, and if they bring with them slaves, being their own property, the quantity of land granted to them shall be increased in proportion to the number of said slaves.”<sup>54</sup> Furthermore, after five years, “foreign settlers” shall “have all the rights and privileges of naturalization granted to them.”<sup>55</sup> The distribution of land was therefore designated only for “foreigners” or “natives of nations and states,” thereby excluding indigenous peoples

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<sup>47</sup> *Id.* at 79.

<sup>48</sup> *Id.* at 76.

<sup>49</sup> *Id.* at 79.

<sup>50</sup> *Id.* at 81.

<sup>51</sup> *Id.* at 83.

<sup>52</sup> Gerard A. Besson, *The Royal Cedula of 1783*, THE CARIBBEAN HISTORY ARCHIVES (Dec. 20, 2007, 2:18 PM), <http://caribbeanhistoryarchives.blogspot.nl/2007/12/royal-cedula-of-1783.html>.

<sup>53</sup> *Id.*

<sup>54</sup> *Id.*

<sup>55</sup> *Id.*

and slaves who were not deemed to meet this classification. Distribution was also graded by race.

Along with ontologies of the law, private property, ownership and rights, colonists also brought new understandings of relations between humans, animals and nature. For example, in North America, Native Americans had a very different understanding of relations with animals to colonists: whereas colonists saw them as property, indigenous peoples saw their relationship as more mutual with no word existing in the Indian language to separate “animals” from people.<sup>56</sup> Whereas according to Cohen, in both civil and common colonial law “animals were the personal property or chattel of their human owners and could not possess rights. They were a means to human ends.”<sup>57</sup> In the Caribbean, both domestic animals and slaves were seen as property by colonists. As Morgan argues, “slaves and livestock were inextricably linked in eighteenth-century British West Indies.”<sup>58</sup> With the value of land so low in the Caribbean in comparison to England, they were both considered to be highly valuable “assets” and “estate inventories consistently listed, first, the value of slaves and, second, that of livestock.”<sup>59</sup> John Pinney, a Nevis planter, stated that “slaves and stock . . . are the sinews of a plantation.”<sup>60</sup> An attorney further noted that “a Caribbean estate . . . was hardly worth the name unless ‘animated’” and that “[t]he primary sources of animation were human and animal labor.”<sup>61</sup> Enslaved peoples and animals were therefore codified together as property, assets and as necessary for commercial success. According to Morgan, Jamaica was “known more for its livestock than its slaves” in the seventeenth century and as one planter observed in 1671 there were “many ways to improvement . . . but a small stock of cattle is no bad beginning.”<sup>62</sup> This is reflective of Murray Li’s “will to improve” which refers to both colonial and modern ideologies of development that seek to improve upon landscapes and livelihoods in quest for progress.<sup>63</sup>

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<sup>56</sup> ANDERSON, *supra* note 40.

<sup>57</sup> Cohen, *supra* note 2 at 268; Cohen here draws on the work of: FRANCIONE, GARY L., *ANIMALS, PROPERTY AND THE LAW* (1995).

<sup>58</sup> Philip D. Morgan, *Slaves and Livestock in Eighteenth-Century Jamaica: Vineyard Pen, 1750-1751*, 52 *WILLIAM AND MARY Q.* 47, 47-76, (1995).

<sup>59</sup> *Id.* at 47.

<sup>60</sup> *Id.* at 47.

<sup>61</sup> *Id.* at 47. Original quotes from Douglas Hall, “Slaves and Slavery in the British West Indies,” *Social and Economic Studies*, XI (1962), 305-06.

<sup>62</sup> *Id.* at 47.

<sup>63</sup> See generally TANIA MURRAY LI, *THE WILL TO IMPROVE: GOVERNMENTALITY, DEVELOPMENT, AND THE PRACTICE OF POLITICS* (2007).

### V. The Taste and Desire for Milk

Since those early colonial times, cattle have played a critical role in the development of the plantation economy in which everything is centred around the production of cash crops—such as sugar, cocoa and tobacco—for profit.<sup>64</sup> Yet the importance of cattle has often been overlooked due to a preoccupation with plants, both by colonisers and the academy.<sup>65</sup> The Spanish first brought cattle to the Caribbean for use on agricultural lands and plantations: they were heavily relied upon throughout the colonial period for ploughing and fertilising the fields, for transport and haulage, and to a lesser extent for their meat and milk. However, despite their presence in Trinidad at the end of the eighteenth century, most were draught animals rather than livestock.<sup>66</sup> Local food production, remained a subsidiary activity, and animal husbandry and milk production happened on the side-lines of estate production. Therefore, meat was in short supply and had to be imported.<sup>67</sup> This is partly because the population of both islands was relatively low, but also because of the planter mentality of focusing on agriculture for export and profit.

As Eric Williams, Trinidad's first post-independence Prime Minister (but also a celebrated historian) put it: "his [massa's] economic programme was to grow sugar and nothing but sugar."<sup>68</sup> Therefore, staple foods such as wheat, cheese and butter were imported, as were slave rations which were mostly salted beef, pork and fish. It is thought that few slaves, not even those higher in the slave hierarchy, consumed any dairy produce or milk. In the early 1700s, the main source of beef and butter in the West Indies was Ireland.<sup>69</sup> Irish imports of cheese and butter items found a "ready market" in the West Indies planter who "retained the diet of the

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<sup>64</sup> For a discussion of the plantation economy and Caribbean development theory, see Matthew Louis Bishop & Thompson, Merisa S., *The IPE of Caribbean Development*, in THE ROUTLEDGE HANDBOOK OF IPE (Ernesto Vivares ed., forthcoming).

<sup>65</sup> Rita Pemberton, *Animal Disease and Veterinary Administration in Trinidad and Tobago, 1879-1962*, in HEALING THE HERDS: DISEASE, LIVESTOCK ECONOMIES, AND THE GLOBALIZATION OF VETERINARY MEDICINE 163, 163–179 (Karen Brown & Daniel Gilfoyle eds., 2010).

<sup>66</sup> JOHN A. MEREDITH, THE PLANTATION SLAVES OF TRINIDAD, 1783-1816: A MATHEMATICAL AND DEMOGRAPHIC ENQUIRY 16 (1988).

<sup>67</sup> *Id.* at 16.

<sup>68</sup> Eric Williams, *Massa Day Done (Public Lecture at Woodford Square, 22 March 1961)*, 20 CALLALOO, 726, 725-730 (1997).

<sup>69</sup> RAYMOND GILLESPIE, SEVENTEENTH-CENTURY IRELAND (2006).

mother country.”<sup>70</sup> This reliance on the importation of various types of animal protein continued throughout this period and to this day. The desire for milk, therefore, was linked to colonial tastes from “home” and also colonial trading policies and routes. Moreover, due to the peculiarities of the plantation system’s focus on producing crops for profit and export, the taste and desire was for foods imported from the metropole—including dairy produce—which were regarded as higher in class and status, and also more modern (which could be read as less dirty and backward).

By the 1790s, around a thousand cattle grazed on the savannahs of Trinidad, yet a beef industry never successfully flourished and its price remained high.<sup>71</sup> This is most likely due to both the prevalence of cheap imported beef and other meats, and also the fact that imported meat cattle do not fatten very well in the tropics. After Trinidad was ceded to the British by the Spanish Governor in 1797, it was largely governed from the metropole for the subsequent 83 years. Therefore, metropolitan officials were strongly influenced by changes at home. It was during this time that the colonial government gradually paid more attention to the diet and health of its slave populations (due to a combination of rising abolitionist movement, amelioration and economic interests). Between 1802 and 1831, the local Governor who ruled Trinidad had no law-making powers. However, in 1832, a Crown Colony Government was appointed by Britain—which shifted a significant amount of legislative power from Britain to local administrator—dramatically changing the shape of colonial rule by increasing the interest of colony government representatives in the administration of domestic affairs, including the production and distribution of food.<sup>72</sup> These represent the early seeds of an interest in a local livestock industry to produce meat and milk.

With the arrival of indentured Indian labourers in the 1840s came new methods of animal husbandry and new cultural codes in terms of the significance of cows and milk. Not only did Indians bring new skills, they also brought distinctive cultural and religious practices around food. India has a long history of dairying, with

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<sup>70</sup> Thomas Bartlett, “*This Famous Island Set in a Virginian Sea*”: Ireland in the British Empire 1690-1801, in *THE OXFORD HISTORY OF THE BRITISH EMPIRE: VOLUME II: THE EIGHTEENTH CENTURY* 253, 256 (P. J. Marshall ed., 1998).

<sup>71</sup> MEREDITH, *supra* note 66, at 17.

<sup>72</sup> See GORDON K. LEWIS, *THE GROWTH OF THE MODERN WEST INDIES* (2004).

cows being central to the lives of early pastoralists.<sup>73</sup> Therefore, for the new arrivals, “animal husbandry, particularly cattle . . . had been a matter of course in their homeland” and “continued in Trinidad.”<sup>74</sup> Cows are venerated in the Hindu religion, with milk playing an important role in both diet and religious ceremonies in the form of Ghee, a clarified butter made from milk. The cow is seen to be “the mother of all civilisation, its milk nurturing the population.”<sup>75</sup> The bovine-goddess Kamadhenu—who is depicted as a white cow with a female head and breasts—is seen to be “the mother of cows,” therefore, all cows are in fact seen to be the embodiment of her, and hence sacred. This meant that significance and prevalence of dairying increased with the new arrivals. As Williams later proclaimed in 1961, Indian contract workers were central to the increased production of milk and meat (and also rice) in Trinidadian society.<sup>76</sup>

For much of the colonial period, domestic milk production remained largely at the subsistence level, with both small farmers and large estates mostly producing meat and milk for the consumption of their families and workers.<sup>77</sup> Whilst herds of cows and Zebus (a humped species of cattle from Africa or South Asia) were often found on larger estates, small farmers and peasants would often keep a range of pigs, sheep, goats and cattle tethered at the roadside. In 1906, water buffalo were introduced (primarily to replace the tuberculosis-prone Zebus). They were, as Pemberton suggests, “highly valued as draft animals, for the high butter content of their milk, and for their tender meat.”<sup>78</sup> However, despite these qualities, water buffalo were never ascribed the same meaning or interests as cows (perhaps because they were less venerated by both the Indian population and by the British colonial administration). Indigenous breeds (albeit from other colonised lands) much like indigenous peoples were therefore deemed inferior. The taste and reverence for milk in Trinidad and Tobago, therefore, came both from European colonists and indentured Indian contractors.

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<sup>73</sup> Andrea S. Wiley, *Milk for “Growth”: Global and Local Meanings of Milk Consumption in China, India, and the United States*, 19 *FOOD & FOODWAYS* 20, 11–33 (2011).

<sup>74</sup> Angelo Bissessarsingh, *The Milk Sellers of Port-of-Spain*, *THE TRINIDAD GUARDIAN NEWSPAPER* (May 21, 2016), <http://www.guardian.co.tt/lifestyle/2016-05-22/milk-sellers-port-spain>.

<sup>75</sup> Wiley, *supra* note 73, at 20.

<sup>76</sup> Williams, *supra* note 68, at 726.

<sup>77</sup> It is also worth noting that there were no commercial dairy processing operations in Trinidad until the emergence of Ramsaran Dairy and Nestle in the mid-1900s.

<sup>78</sup> Pemberton, *supra* note 65, at 167.

## VI. Amelioration, Population Growth, and Breastfeeding

In the early days of slavery, male slaves were preferred by colonists to female slaves, and before abolition the replacement of slaves rather than their reproduction was the favoured method of supplying the workforce. However, with emancipation looming towards the end of the eighteenth century, planters and colonists became interested in maintaining the health of those that they already owned. They also became increasingly concerned with the fertility of female slaves, pregnancy, childbirth and breastfeeding practices. For example, in 1798 the Slavery Amelioration Act was passed in the British Leeward Islands (which consisted of Antigua, Barbuda, the British Virgin Islands, Montserrat, Saint Kitts, Nevis, Anguilla and Dominica). The Act is often perceived as a statute that was primarily concerned with improving slave conditions. However, it also anticipated emancipation, which did indeed transpire in 1834. Aside from new rules that served to punish slave owners for the cruel treatment of slaves and those which prescribed that each slave was entitled to a certain amount of food rations, clothing and shelter, most likely in anticipation of the end of the slave trade, the Act also contained laws that focused on marriage, monogamy, childbirth and childcare.<sup>79</sup>

For example, Act No. 36 XXII decrees that on the 1<sup>st</sup> of January every year, every “Owner and Director of any Slave” shall “assemble together the Slaves under his Direction, and inquire which of them have a Husband or Wife” and if “of more than one Husband or Wife” shall compel them “to elect some one Slave only as his or her Husband or Wife” and “at the same time extolling the good Behaviour of those who have been faithful to their Engagements, and reprobating the Misconduct of those who have acted to the contrary.”<sup>80</sup> The Act also introduced payments to “any Female Slave who shall have a Child while she preserves her Fidelity to such Engagement . . . six Weeks after the Birth of such Child . . . four Dollars, and the same Sum with one Dollar more for every other Child she shall bear and have under the same Circumstances.”<sup>81</sup> Via the law, colonists consequently began to intervene in conjugal relations, the birth of children and motherhood. Mothers of six children and pregnant slaves were also only to do “light Work,” and

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<sup>79</sup> See SAMUEL BAGSTER, *THE LAWS OF THE ISLAND OF ANTIGUA CONSISTING OF THE ACTS OF THE LEEWARD ISLANDS 1690-1798, AND THE ACTS OF ANTIGUA 1668-1804* (1805).

<sup>80</sup> *Id.* at 31.

<sup>81</sup> *Id.*

those that were pregnant were also not to be punished other than by confinement.<sup>82</sup> Planters were also to pay a levy of “ten Shillings” for every Male imported “where the Number of Female Slaves in any of the Leeward Islands in which a Cargo of Slaves shall be imported, shall not exceed the Number of Males,” thereby placing a premium on enslaved females (who were able to produce children) and essentially a taxation on enslaved males (who could not).<sup>83</sup>

As Paton argues: “Before abolitionism, slaveholders showed little interest in women as mothers.”<sup>84</sup> They were willing “to pay more for men than for women, despite the fact that any children born to enslaved women would also be the slaveowners' property and would thus increase their wealth,” which suggests “that they preferred to buy new enslaved people from Africa rather than bear the costs of raising children.”<sup>85</sup> But with the prospect of abolition, slave imports increased and “slaveowners became increasingly concerned to extract as much labour from the enslaved people over whom they claimed ownership, while that ownership was still legally recognized.”<sup>86</sup> They also became more concerned about slave fertility in terms of population growth. Both of these concerns led to planters attempting to reduce breast-feeding times from what was normally around two to three years in West Africa to European and North American norms of one year.<sup>87</sup> This is because breastfeeding was both seen to impact fertility but also to prevent slave owners from extracting “the maximum amount of labour from a nursing mother.”<sup>88</sup> Yet, as Bush notes, this endeavour was not necessarily successful. For example, “Jamaican planters sought to place infants in ‘weaning houses’ out of the direct care of their mothers,” however, in practice female “slaves resisted enforced separation from their kin” and sought to prevent “the erosion of traditional African-derived practices of childrearing which were part of their cultural heritage.”<sup>89</sup> These examples illustrate the impact of how imperial economic logic attempted to reshape social and cultural norms around childrearing, maternity and breastfeeding in the service of efficiency and profit, but also how these attempts were often met with resistance.

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<sup>82</sup> *Id.* at 32, 36.

<sup>83</sup> *Id.* at 36.

<sup>84</sup> Diana Paton, *Enslaved Women and Slavery Before and After 1807*, HISTORY IN FOCUS 1–8, para. 6 (2012).

<sup>85</sup> *Id.* at para. 6.

<sup>86</sup> *Id.* at para. 12.

<sup>87</sup> See Rhoda E. Reddock, *Women and Slavery in the Caribbean: A Feminist Perspective*, 12 LATIN AMERICAN PERSP. 63–80 (1985); see also Paton, *supra* note 84.

<sup>88</sup> BARBARA BUSH, *SLAVE WOMEN IN CARIBBEAN SOCIETY, 1650-1838* 110 (1990).

<sup>89</sup> *Id.* at 110.



Nonetheless, as Cohen argues, lactating animals and colonialism did have a “disruptive effect on breastfeeding cultures.”<sup>90</sup> Cohen calls this process “animal colonialism” and for her it has two key aspects: “milk colonialism” and “breast-feeding colonialism.”<sup>91</sup> By the early twentieth century, she finds that “lactating animals were conscripted in a colonial reproductive politics aimed at reforming maternity” and that “improving or modernizing maternity meant replacing the human breast by cow’s milk.”<sup>92</sup> Colonialism therefore designated indigenous peoples, animals and native mothers as “inadequate” and in need of modernisation. In the imperialist project, “[I]ndigenous cows were disparaged as producing milk of inferior quality and in insufficient quantities” and “native women were accused of lacking maternal instinct and breastfeeding too long, yet producing mediocre milk.”<sup>93</sup> What eventually resulted was that the milk of cows was often, therefore, suggested as a superior alternative to black women’s milk. Cohen further argues that:

[T]he desire for a larger indigenous labor force and army underlied the declared public health goal of fighting “depopulation” and “improving” population health. Population growth was seen as a form of power and child rearing became a national duty. In this highly racialized populationist project, milk turned into a central nationalist and imperialist tool.<sup>94</sup>

This can be attested to by the establishment of national dairy industries, particularly in the larger nations, such as Trinidad and Tobago, Jamaica and Barbados which became central to discourses of creating modern, strong and successful nations.

## **VII. Controlling Production and Increasing Commercialisation**

This project is complicated in the Trinidad story by the presence of ex-Indian indentured labourers who brought their own culture around cow’s milk to the islands. As Indian men and women began to withdraw from estate labour in the late nineteenth and early twentieth century, a genuine Indian peasantry emerged that engaged

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<sup>90</sup> Cohen, *supra* note 2, at 267.

<sup>91</sup> *Id.* at 268.

<sup>92</sup> *Id.* at 270.

<sup>93</sup> *Id.* at 270.

<sup>94</sup> *Id.* at 270.

in new forms of economic activity. One that was most commonly carried out by them, and women in particular, was the production and sale of milk. The 1891 Population Census records that 40 out of the 68 Indian milk sellers—known as “coolie milk sellers”—were women.<sup>95</sup> This provided an important and alternative means of independent economic income for such women. Personal narratives collected by Hussain evoke the daily routines of female milk farmers at that time (which are not that dissimilar from those of today):

We use to get up four o'clock in the mornin' and first thing we make some coffee . . . and then we go and milk the cow. Then we had to carry the milk - 7 o'clock was the latest we had to go and carry the milk to the Junction. When we come back then we eating breakfast . . . I had to cut grass . . . We use to have to go in the river for water . . . carry the cow and them in the river . . . Then we have to clean out the cow-pen. And in the evening we had to milk them again (Mrs W., personal interview, Rio Claro, Trinidad, 14 February 1997).<sup>96</sup>

Milk, therefore, was both a colonial project, but also one that Indian migrants brought with them, in particular Indian women. In the Caribbean—as in Latin America more broadly—women have traditionally played a key role in livestock production, with men focusing on the handling of larger animals, and women on milking, dairying, caring, and especially handling smaller animals such as chickens, pigs, sheep and goat.<sup>97</sup> A study of livestock in Tobago found that gender-specific duties for men included the “more laborious tasks such as land preparation for planting forage, grass cutting and construction of fens” whilst women played a key role in “record keeping, feeding of animals, cleaning of pens, care of sick and young animals.”<sup>98</sup> Up until the 1940s, female vendors carrying large milk pans on their heads could still be seen in Port of Spain.

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<sup>95</sup> Shaheeda Hussain, *Market and Field: The Workplace of the Indian Women in Trinidad, 1900-1940*, in *INDIAN DIASPORA IN THE CARIBBEAN: HISTORY, CULTURE, AND IDENTITY* 155, 156–57 (Rattan Lal Hangloo ed., 2012).

<sup>96</sup> *Id.* at 157.

<sup>97</sup> See FABIOLA CAMPILLO & MARIA ANGÉLICA FAUNÉ, *GENDER, WOMEN AND DEVELOPMENT: A FRAMEWORK FOR IICA'S ACTION IN LATIN AMERICA AND THE CARIBBEAN* (1993); see also FAO, *THE STATE OF FOOD AND AGRICULTURE 2010-2011: WOMEN IN AGRICULTURE - CLOSING THE GENDER GAP FOR DEVELOPMENT* (2011).

<sup>98</sup> IICA, *TRINIDAD AND TOBAGO: AN AGRICULTURAL SECTOR STUDY OF TOBAGO*, CEPPI, 46 (1994).

However, over the course of the 19<sup>th</sup> and early 20<sup>th</sup> centuries, in Britain, despite its mythical status as “the perfect food,” “milk had become an object of suspicion” in terms of the ease to which it could be manipulated and subjected to adulteration.<sup>99</sup> One of the big “problems” in Trinidad at this time was seen to be the adulteration of milk, as some vendors would add water to make it go further. Laws regarding testing were first put in place via the *Food and Drugs Ordinance*, 1895, which set out that “No person shall mix, colour, stain, or powder . . . any article of food with any ingredient or material so as to render the article injurious to health with intent that the same be sold in that state.”<sup>100</sup> Such a crime was punishable, “[i]n cases of Milk adulteration by added water forfeit and pay for every one per cent. Of added water of penalty of not less than Two Shillings for first offences, and not less than Four Shillings for second and subsequent offences.”<sup>101</sup> Fears about the health risks that this potentially unclean and contaminated water posed to consumers, therefore, facilitated the increased policing and regulation of the sale of milk. New ideas around public health and hygiene also increasingly brought the sale of milk under the purview of the law, which in turn, most likely had a detrimental impact on the livelihoods of Indian and female sellers, and preferences for commercially processed milk products took hold. It was in this time of increased domestic governance that the colonial administration also became more interested in the diversification of the agricultural economy and bringing local food production under its control with meat and dairy proving to be a particular focal point for these initiatives. One early scheme to intervene in the domestic production and supply of milk involved the establishment of the first Government Stock Farm in 1879, which aimed primarily to improve breeding stock, lower the price of milk and to increase its sanitary quality.<sup>102</sup> These changes were very much in line with those in Britain, where the commodification of “drinking milk” from 1850 saw a concern for sanitisation become the main emphasis between 1850 and 1950.

At the same time of government drives to curb adulteration and improve the sanitary quality of milk, in 1914, Nestlé set up a trading agency in Port of Spain “to distribute Nestlé-manufactured

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<sup>99</sup> PETER WILLIAM ATKINS, *LIQUID MATERIALITIES: A HISTORY OF MILK, SCIENCE AND THE LAW* xv (2010).

<sup>100</sup> No.32 TRINIDAD AND TOBAGO, *THE FOOD AND DRUGS ORDINANCE* 5–6 (1895), [laws.gov.tt/ttdll-web/revision/download/66655?type=amendment](http://laws.gov.tt/ttdll-web/revision/download/66655?type=amendment) (last visited Apr. 23, 2017).

<sup>101</sup> *Id.* at 8.

<sup>102</sup> Harry Metivier, *Trinidad and Tobago*, in *A HISTORY OF THE OVERSEAS VETERINARY SERVICES*, PART TWO 327–337 (Geoffrey Philip West ed., 1973).

products” such as sweetened condensed milk and chocolates, for which there was already a “growing demand.”<sup>103</sup> As in Asia, with the advent of pasteurisation and tinned condensed milk, its aggressive marketing techniques, and new ideas about hygiene, the arrival can be correlated with the decline of traditional modes of dairying and milk selling in Trinidad.<sup>104</sup> It also signals the introduction of new ways of valuing and ascribing meanings to milk. Nestlé’s marketing and advertising campaigns strongly focused on the nutritional and health benefits of consuming cow’s milk, as consumed through its own products. In particular, it aggressively “marketed motherhood” by targeting women as mothers.<sup>105</sup> The company’s adverts persistently depicted mothers and babies’ in nursing scenarios and positioned “Nestlé’s Milk Food for Infants” as “the only perfect supplement and substitute for mother’s milk” and frequently advertised it as sanctioned and recommended by “the Highest Medical Authorities in England” thereby mobilising discourses of science and expertise, over traditional and maternal knowledge.<sup>106</sup> Capitalising on concerns about adulteration and impure milk, one British advert depicts Henri Nestlé himself pointing and wagging his finger at a mother, informing her of “just two words—Nestlé’s Milk for yourself and Baby” and warning her not to “experiment with ‘foods’ of unknown composition” and proclaimed that “Milk is Nature’s food for infants.”<sup>107</sup>

### VIII. Conclusion

Colonial law facilitated the displacing of indigenous peoples, nature and animals in the Caribbean by encouraging settlement by foreign peoples, distributing lands to them, and the extending use rights on this basis. The importation of livestock caused only to further this exploitative aim, by encouraging the building of fences and demarcation, and introducing new ontologies of animals as property. In Trinidad and Tobago, the *Cedula of*

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<sup>103</sup> *Nestlé in Anglo-Dutch Caribbean*, NESTLÉ TT (2016), <https://www.nestle.tt/aboutus/history> (last visited Apr. 7, 2016).

<sup>104</sup> Natasha Pairaudeau, *Coming with the Milk: Indian Migrant Dairymen in Colonial Southeast Asia* (2015).

<sup>105</sup> Erich de Wald, *Marketing Motherhood: Advertising and Consuming Condensed Milk in the Late-Colonial Dutch East Indies and French Indochina* (2015).

<sup>106</sup> 1885 Advert for Nestlé’s Baby Milk, THE WORLD HISTORY ARCHIVE, <https://www.alamy.com/19th-century-advert-for-nestls-baby-milk-1885-image235029494.html> (last visited Apr. 7, 2020).

<sup>107</sup> 1890s Nestlé Magazine Advert, THE ADVERTISING ARCHIVES, [https://www.advertisingarchives.co.uk/en/asset/show\\_zoom\\_popup.html?asset=38162&location=grid&asset\\_list=38162,23810,23779&basket\\_item\\_id=undefined](https://www.advertisingarchives.co.uk/en/asset/show_zoom_popup.html?asset=38162&location=grid&asset_list=38162,23810,23779&basket_item_id=undefined) (last visited Apr. 7, 2020).

*Poblacion* provides one of the first key legal documents to propagate this imposition. And from this influx of peoples and animals, the plantation economy begins to emerge, along with the imported European ideologies around milk and dairy consumption. With the impending abolition of slavery, via the *Slavery Amelioration Act*, we see increasing colonial and planter interest in intervening in fertility via governance of conjugal relations and attempted interventions in breastfeeding practices of female slaves, and through promulgation of the idea of cow's milk as superior to milk of dominated populations. We therefore see how changing codifications of gender, sexuality and race intersect with these new constellations of colonial violence throughout the Caribbean. In Trinidad and Tobago specifically, the arrival of indentured Indian labourers complicates this straight story of colonial imposition, as they arrived with their own cultures of bovine husbandry, veneration of and taste for bovine milk as part of the Hindu religion, and where producing and selling milk was a common occupation for Indian women in particular. Therefore, the arrival of the Indians can be seen to strengthen milk culture but at the same time increased sanitation laws caused to demote peasant production in favour of modernisation. The commercialisation of milk and rising concerns about sanitation, therefore, can be seen to slowly erode these milk traditions. Yet, colonial legacies of milk production and consumption remain. Both the milk of humans and milk from animals is increasingly manipulated for economic means, with the latter increasingly coming under the purview of the law. The confluence of many factors is the commercialisation of milk and the commercialisation of cow's milk for babies.

Many tensions exist between the production and consumption of milk in Trinidad, where dairying is a colonial construction made out of the vagaries of empire and structured by divisions of gender, race, class and nation, and increasingly shaped by imperial constructions of taste, purity, motherhood, nutrition and development. British colonialism brought with it the idea that milk constituted a part of healthy diets and healthy workforces, and as discourses about the importance of milk have increased, milk as an object has become increasingly commoditised and globalised. The freedom of milk sellers to sell their milk door to door or in town centres was chipped away at by the introduction of sanitary and health legislation, which enables the state and processors to accumulate greater space for control and regulation. Milk and dairy therefore went from being typified by local, homemade products to global and manufactured ones. With the reality of high production costs, and the implementation of free trade policies, local producers have struggled

to keep up with rising costs and cheap imports have flooded the market. The tension between “cheap” and “local” food is therefore exacerbated.<sup>108</sup> Ideas about what constitutes health and wellbeing have become increasingly globalised and corporatized, intensified by a merging of development agendas and those of global food corporations that promote themselves as providing “health” and “wellness” through fortified processed foods.

More importantly perhaps, this story shows how animals, nature and peoples were manipulated for imperialist ends. And reveals of complex nature of the coloniality of power whereby “race”—but also animality—is “the key element of the social classification of colonized and colonizers.”<sup>109</sup> Systems of hierarchies are infused with racialised, classed, gendered, sexualised and ethnic categorisations, and systems of knowledge and culture came together to ascribe different species, groups and societies different value. Therefore, in this context, even feminist intersectional analysis increasingly needs to go beyond humans to take non-human populations seriously. The law is a key tool for enabling these processes ultimately to the benefit of capitalist development and the disenfranchisement of indigenous peoples. Bringing a feminist, intersectional and interspecies lens to this process illuminates the complex ways in the law produced, reproduced and bolstered systems of hierarchy and control of peoples, animals and labour. It also shows that in the case of milk this story is complicated by history of Indian indentureship and also the resistance of female slaves to the changing of breastfeeding practices.

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<sup>108</sup> Thompson, *supra* note 7; Merisa S. Thompson, *Still Searching for (Food) Sovereignty: Why are Radical Discourses Only Partially Mobilised in the Independent Anglo-Caribbean?*, 101 GEOFORUM 90–99 (2019).

<sup>109</sup> Aníbal Quijano, *Coloniality and Modernity/Rationality*, 21 CULTURAL STUD. 168, 171 (2007).