

# Discovery, The Student Journal of Dale Bumpers College of Agricultural, Food and Life Sciences

---

Volume 8

Article 2

---

Fall 2007

## Contents

Discovery Editors

Follow this and additional works at: <https://scholarworks.uark.edu/discoverymag>



Part of the [Agribusiness Commons](#), [Agricultural Economics Commons](#), [Agricultural Education Commons](#), [Agronomy and Crop Sciences Commons](#), [Animal Sciences Commons](#), [Botany Commons](#), [Communication Commons](#), [Entomology Commons](#), [Environmental Studies Commons](#), [Family and Consumer Sciences Commons](#), [Food Science Commons](#), [Horticulture Commons](#), and the [Nutrition Commons](#)

---

### Recommended Citation

Editors, D. (2007). Contents. *Discovery, The Student Journal of Dale Bumpers College of Agricultural, Food and Life Sciences*, 8(1), 1-1. Retrieved from <https://scholarworks.uark.edu/discoverymag/vol8/iss1/2>

This Front Matter is brought to you for free and open access by ScholarWorks@UARK. It has been accepted for inclusion in *Discovery, The Student Journal of Dale Bumpers College of Agricultural, Food and Life Sciences* by an authorized editor of ScholarWorks@UARK. For more information, please contact [scholar@uark.edu](mailto:scholar@uark.edu), [uarepos@uark.edu](mailto:uarepos@uark.edu).

# DISCOVERY

The Student Journal of the Dale Bumpers College of Agricultural, Food and Life Sciences  
Vol. 8, Fall 2007

Teddy Morelock  
Faculty Editor

Camilla Crone  
Managing Editor

Duane C. Wolf  
Director,  
College Honors Program

#### Honors Committee

Gisela Erf  
Frank Farmer  
Navam Hettiarachchy  
Donald M. Johnson  
Donn T. Johnson  
Jennie Popp  
Curt Rom  
Charles Rosenkrans  
Craig Rothrock  
Kathleen R. Smith  
Susan Takigiku

Ex officio: Associate Dean Donna Graham  
Ex officio: Dean Gregory Weidemann

Gregory J. Weidemann  
Dean, Dale Bumpers College of  
Agricultural, Food and Life Sciences

Donna L. Graham  
Associate Dean for Academic Programs,  
Dale Bumpers College of Agricultural,  
Food and Life Sciences

Richard Roeder  
Associate Director/Associate Dean for  
Research, University of Arkansas  
Division of Agriculture  
Arkansas Agricultural Experiment Station

## Contents

### Undergraduate Research Articles

- Controlling *Listeria monocytogenes* on ready-to-eat poultry products using carboxymethyl-cellulose film coatings containing green tea extract (GTE) combined with nisin and malic acid  
*Brittany Adams, N.S. Hettiarachchy, and M.G. Johnson* .....3
- The roles, needs, and challenges of Arkansas women in agriculture  
*Carmen C. Albright and Jennie S. Popp* .....11
- Gender and other social effects in people's perceptions of domesticated animals  
*Clayton W. Bell and A. Hayden Brown* .....19
- Design of a bioreactor to study the role of red blood cells in the transport of nitric oxide in the microcirculation  
*Nupura Bhise and Mahendra Kavdia* .....29
- Arkansas producers' attitudes toward the 2002 Farm Bill and preferences for the 2007 Farm Bill  
*Misti Clark and Eric Wailes* .....41
- Mycorrhizal infection rates in RoundupReady® row crops in response to glyphosate and phosphorus applications  
*Aaron L. Daigh, Mary C. Savin, and Larry C. Purcell* .....50
- PTO performance and NO<sub>x</sub> emissions with D2, B20, and B100 fuels in a John Deere 3203 compact tractor  
*Matthew K. Hardin, Tonya Brown, Melanie R. Roller, Donald Johnson, and George Wardlow* .....56
- Evaluation of three tractor-guidance methods for parallel swathing at two field speeds  
*Garris Hudson, Robby Shofner, George W. Wardlow, and Donald M. Johnson* .....61
- A computational model for analysis of uncoupled NO synthase on nitric oxide and superoxide interaction in microcirculation  
*William J. Richardson and Mahendra Kavdia* .....67
- Comparison of instrumental methods for measuring seed hardness of food-grade soybean  
*Mioko Tamura, Bo Zhang, Joyce Berger-Doyle, and Pengyin Chen* .....77

Instructions for Authors .....85