

1970

Land Use in Northwestern Arkansas: A Case Study

Joe E. Yates

University of Central Arkansas

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Recommended Citation

Yates, Joe E. (1970) "Land Use in Northwestern Arkansas: A Case Study," *Journal of the Arkansas Academy of Science*: Vol. 24, Article 17.

Available at: <https://scholarworks.uark.edu/jaas/vol24/iss1/17>

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Spermolepis echinata (Nutt.) Heller — Pope County
(Tucker 7106)

**TAXA HAVING PRIMARY DISTRIBUTION
IN MISSISSIPPI RIVER VALLEY**

Cynoscadium digitatum DC. — Pope County (Tucker
8039)

Hydrolea uniflora Raf. — Pope County (3621)

**TAXA HAVING PRIMARY DISTRIBUTION
IN OZARK HIGHLANDS REGION**

Carya texana Buckl. — Pope County (Flanagin s.n.)

Castanea ozarkensis Ashe — Pope County (Tucker 4182)

Phlox pilosa var. *ozarkana* Wherry — Pope County
(Moore 54-100)

Penstemon arkansanus Pennell — Pope County (Wilson
s.n.)

Ruellia pedunculata Torr. — Pope County (Tucker 7996)

Galium arkansanum Gray — Pope County (Williamson
s.n.)

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Land Use In Northwestern Arkansas: A Case Study

Joe E. Yates, State College of Arkansas
Conway, Arkansas 72032

The area of study is a civil township in Benton County in northwestern Arkansas. The topographical features range from a flat prairie surface in the southern portion of the township to a rugged, stream dissected surface in the northern portion. The total acreage of the area is 7,851.6 acres. The physical elements of the region will allow the growing of most mid-latitude crops but only a few are found in the area. Therefore, the author turned to the cultural factors to determine the use of land, while keeping in mind that physical controls would exert some influence. In an attempt to get an insight into the cultural involvement, the population was divided into groups based on whether they were full-time farmers, part-time farmers, non-farming families, or absentee owners of farms. A questionnaire was used and all affected people were interviewed.

The major categories used are cropland, pasture land, abandoned agricultural land, farmsteads, forest land, and public and semi-public land.¹

A total of 536 acres, 6.8 per cent of the township,

(1) Data was collected during the week of March 24, 1969.

is used for crops. There are four commercially grown crops in the area. Green beans utilize 276 acres, wheat 143 acres, soybeans 67 acres, and corn 50 acres.

Green beans are raised as a cash crop, and all are sold to Allen's Canning Company in Siloam Springs, Arkansas. One farmer who resides in the township raises 80 acres of green beans in addition to producing beef cattle and poultry. The remaining 196 acres are grown by two absentee owners who reside close to the township. Both of these farmers engage in beef production as well as green beans. They raise no other crops. All beans are grown in the southern portion of the township where the soil has developed under prairie vegetation. This soil is productive farming land when properly drained and limed.

All three farmers who grow green beans moved into the area from another state and brought capital with them. This cultural influx has had an impact on cash crop production in these prairie areas. Several years ago much of the prairie area was in apple orchards but because of disease, insects, and the ease of pasturing cattle, the orchards were allowed to die and were never replanted. The native people regarded the land as too

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wet for crops other than orchards, and the land was devoted to pasture until people moved in and placed a portion of it into the production of green beans.

Wheat is grown on five farms and comprises a total of 143 acres. The prairie area accounts for 121 acres of wheat while 22 acres are grown on a flat ridge top in the northern portion of the township. Wheat production represents a minor use of land within the area, and this may result from government interference as well as a shortage of good wheat land. The majority of those farmers who raise wheat moved into the area from western Oklahoma or Kansas, and some of the production may be a holdover from earlier farming types. Acreages are about evenly divided between part-time and full-time farmers.

Soybeans take up 67 acres. One part-time farmer grows 25 acres to supplement off-farm income. One full-time farmer raises the other 42 acres. This is also produced as a cash crop.

Corn is grown by two full-time farmers. A total of 50 acres is produced. Thirty acres will be used for feeding cattle and the remaining 20 acres will be sold as a cash crop. The small amount of corn raised appears to be the result of a normally low yield and the time necessary to cultivate and harvest the crop. A number of years ago there was a considerable amount of corn produced in the area, but the farmers quit raising it when other types of land use became more profitable and less time consuming.

Pasture for grazing animals is the major land use within the township. Many areas that were formerly in orchards or were forested have been placed into this category. Most people, when interviewed, stated that beef cattle production offered the highest return on their investment when they considered the amount of work and the size of the farm.

There are 3,880.5 acres of both wooded and open pasture land. Tame grasses, mainly fescue, are found on 3,023 acres while native grasses are found on 857.5 acres. Full-time farmers and part-time farmers have about the same amount of pasture land. Several of the full-time farmers engage in poultry raising and have neither the time nor the desire to enlarge their pasture acreage while others who do desire to expand are restricted by the refusal of people to sell their land.

The only factors that limit a greater use of land for pasture are the degree of slope and the need for other uses. Pasture land is found throughout the township and does not appear to be selected on the basis of soils. The soils have an influence on the quality of pasture but not on the extent.

There have been 225 acres cleared in the past five years. All of the cleared land has been placed in pasture land.

Cattle represent one of the major farm activities of the township. There is a total of 1,941 head of cattle.

Of this number, 1,721 are beef cattle and 220 are dairy cattle. Part-time farmers have a greater number of beef cattle than do full-time farmers, but the difference in the number of cattle is made up by dairy herds of the full-time farmers. There are over twice as many dairy cattle used for Grade C production as there are for Grade A.

There are a total of 48 head of horses in the area. All are kept for recreational purposes and do not adhere to any physical or cultural pattern.

There are 62 goats kept by two persons. Both people are non-natives, one from Mexico and the other from Arizona. One is a part-time farmer and has 60 head which are used solely as brush goats. The other two are kept by a full-time farmer for milking purposes. All goats are found in the rugged terrain of the northern portion of the township.

There is one part-time farmer in the township who has 108 sheep. They are found in the rugged area of the northern portion. This farmer has just recently moved into the area and brought the sheep with him.

Poultry is one of the major farm activities of the region. Poultry utilizes a small amount of land but represents a large portion of the economy. The area has poultry houses with a total capacity of 430,000. Broilers number 390,500, layers number 25,500, and turkeys number 10,000. Approximately 38 per cent of the poultry is produced by the part-time farmers, the rest by the full-time farmers. Only five of the seventeen people who produce poultry are natives of Arkansas. Native farmers are reluctant or unable to invest a large amount of capital into what they consider a speculative venture. Those non-native farmers who engage in poultry raising either had capital when they entered the area or were not afraid to borrow it.

Abandoned agricultural land constitutes 5.5 per cent of the total area or 431 acres. For land to be placed in this category it could not have been cropped or pastured within the past five years. There was no land abandoned by part-time or full-time farmers. Absentee owners accounted for most of the land and have two reasons for abandonment:

1. They were raised in the area, and when they left, they did not want to rent or sell their land, mainly for sentimental reasons; or
2. They were from another state and had bought the land as an investment or to hold for future use.

The non-farming owners abandoned 74 acres of land. Their reason was that they were retired and did not want to rent or sell their land. Some of this land is on productive soils, so abandonment appears to be caused by cultural factors rather than physical factors.

Farmsteads occupy 195.5 acres of land. Their average size varies from 3.8 acres to 1.1 acres for full-time farmers and non-farmers, respectively. The size of the

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farmstead depends on the use of the farm and is not affected by physical factors. The selection of farmstead locations at one time was influenced by physical factors such as springs, creeks, or proximity to firewood, but modern technology has altered this pattern. The present location of farmsteads tend to be along well travelled roads and highways as a general rule, but some are found on the creeks where people have located for aesthetic reasons or privacy.

There are 2,629 acres or 33.4 per cent of the total land area in forest. Most of this is located in the northern portion of the township where the terrain is rugged. There are no mature, pure stands of timber in the area. Most of it is in early successional stages held there by periodic forest fires. Some farmers cut firewood and two full-time farmers cut lumber for personal use. Generally speaking there is little lumbering activity carried on. Large parts of this area belong to absentee owners. In most instances they are native to the area but have sought employment elsewhere and simply refuse to sell the land.

TABLE 1
LAND USE BY MAJOR CATEGORIES

	Acres	Percentage of Total Land
Government Programs	41.0	0.5
Crops	536.0	6.8
Forest	2,629.0	33.4
Farmsteads	195.5	2.5
Pasture	3,880.5	49.5
Abandoned Agricultural Land	431.0	5.5
Highways and Roads	132.1	1.7
Church	.5	0.01
Cemetery	6.0	0.09
Total	7,851.6	100.00

There are some small areas of forest located in the flatter region on productive soils, but they are usually found alongside natural drainage ditches. The clearing of this land could cause greater erosion, and most farmers are reluctant to change the current condition.

Public and semi-public owned land use is relatively insignificant. This land use totals 138.6 acres or 1.8 per cent of the total land area. There are three sub-types found in the area: highways and roads, a cemetery, and a church. Highways and roads use up the larger portion of this land.

In summary one should note that approximately one-third of the area is in forest that is virtually waste land. Public and semi-public uses constitute another 1.8 per cent. Together they total slightly over thirty-five per cent. This leaves 5,084 acres of land open to uses for economic activity although all of it is not utilized.

The land use of the township is what one would expect to find in any area of similar topography in northwestern Arkansas. The prominence of the poultry industry coupled with the absence of a large local market and shortage of farm labor have helped to determine land use. A few years ago one would have found most families engaged in small field farming of cash crops. The advent of the poultry industry attracted processing plants which provided off-farm employment and many persons who at one time made a living on the farm became wage earners. This occurrence along with other plants moving into the area has permitted a change in land use. The result is a less intensive type of use and a general improvement of land through an increase in land care. Many part-time farmers use their farm income on fertilizers, fences, and farmstead buildings. The author believes that the current uses of land in the township represent the most practical and economic uses at this time.

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