

GIBSON COUNTY, TENNESSEE, MOVING FROM AGRICULTURAL DIVERSIFICATION TO SPECIALIZATION

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INTRODUCTION

Gibson County, Tennessee, is a rural farming county in the northwestern part of the State. It covers an area of 607 square miles, placing it 12th in size among Tennessee counties (Fig. 1).

The location of the county in Tennessee is not as significant as its location in the southeastern United

States. that the relative importance of truck farming in this area is likely to increase [1].

Today, the Gibson County farmer is facing a problem. He must invest a vast sum of capital which is required in a diversified farm economy or specialize with perhaps four or five crops. Thus, the purpose of this paper is to investigate what is perhaps a recent

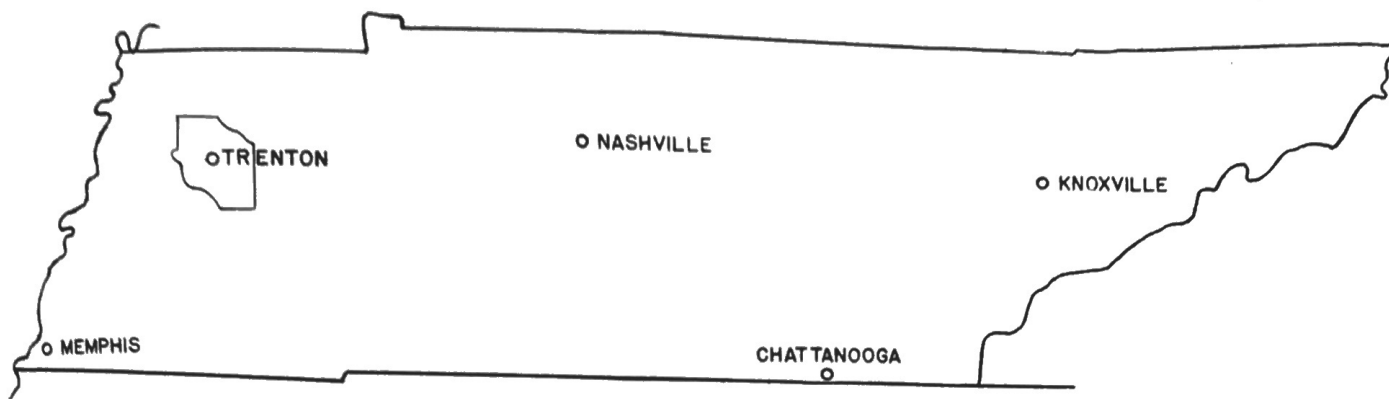


Fig. 1. Location of Gibson County in Tennessee.

States. It lies midway between the Gulf of Mexico and the Great Lakes. In fact, Medina (Fig.2), located on the edge of the south side of the county, is exactly the mid point between these two water bodies, and is almost an equal distance from the Atlantic Ocean. More than half of the nation's population lives within 1,000 miles of the county. Therefore, goods and especially agricultural products are within easy reach of many of the nation's major markets.

After the Civil War, Gibson County began to diversify its agricultural activities. By the time of World War II, the county was well into the intensification of its agriculture. Immediately after the war, truck farming had become established as a major part of the agricultural land use.

The following paragraph describes the situation as it was at the time of the writing.

Truck farming has been carried on in Gibson County for approximately three-quarters of a century, and appears to have become established as a definite part of the agricultural program. The increased emphasis on diversification of crops, the reduction in cotton land by the Federal Government, the establishment of a Soil Conservation District by local farmers in 1940, the movement of more and more people from rural areas to urban centers, the presence of a class of farmers, skilled in the process of producing and marketing perishable products, the growing interest on the part of the public in the Strawberry Festival, the results of an enlarged publicity program, the establishment of local quick-freeze plants for preserving strawberries, and the general improvements in refrigeration and transportation facilities all indicate

trend in diversified farming areas. The trend is a backward one from diversification to specialization, and Gibson County is leading or perhaps will lead the nation.

There are advantages as well as disadvantages to

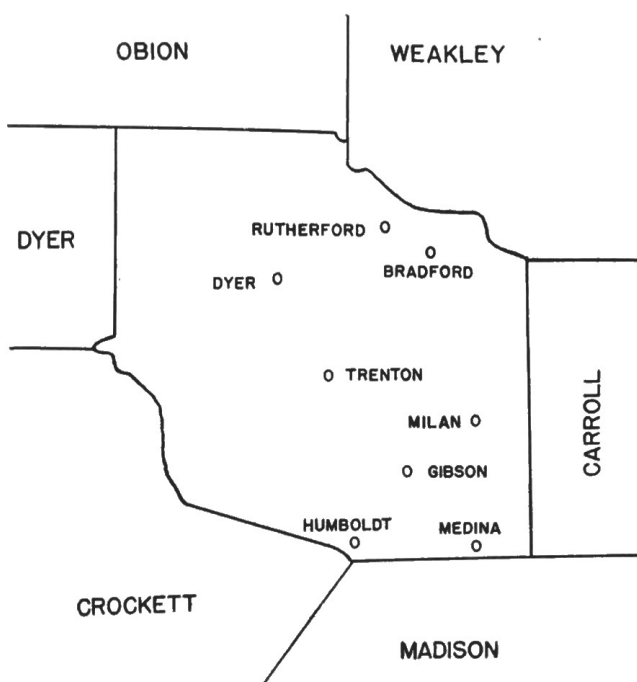


Fig. 2. Gibson County, Tennessee

either agricultural diversification or specialization. Because Gibson County has long been characterized as a diversified farm county, it might be well to relate the tremendous progress made by the individual county farmers. The following table indicates a part of the program.

Table 1
A few Gibson County farm facts.

	1939	1959
Average farm income.....	\$522,000	\$4,661,000
Number of tractors in county.....	505	3,533
County farm income.....	\$3 million	\$22 million
Average dollar yield per acre.....	\$ 43.00	\$ 155.00

There is a total of 388,480 acres in Gibson County with 368,464 acres in farms. The average-size farm has grown from 61.1 acres in 1950 to 86.7 acres in 1959. Farms in the northern section of the county tend to be larger and more specialized than those in the southern and central parts. The farms in the southern and central sections are smaller because of the vast amount of vegetable production as opposed to the lesser amount produced on the farms in the northern part. In the southern section, between Medina and Milan, the topography is hilly. Otherwise, this section is composed of a sandy loam soil that is very favorable for fruit and vegetable production.

Diversified Farm Crops

Cotton. Gibson County, located on the northern margin of the Southern Cotton Belt, usually ranks first or second in Tennessee in production of cotton, which is the most widely distributed and greatest money crop within the county. In recent years, cotton has lost some acreage to soybeans, whereas land formerly devoted to truck crops is now producing cotton. This does not reflect a decline in cotton acreage but rather a shift in land use. The decline of almost 20,000 acres between 1949 and 1959 is a result of necessity, due to quotas. The 1962 statistics, latest available, reveal that 49,900 acres of cotton yielded 49,000 bales of cotton, an average of 523 pounds per acre.

Because of the availability of raw materials, Trenton, the county seat, has two industries devoted to the production of cotton products. The Trenton Cotton Mill produces meat sacks for use throughout the nation, and the Trenton Cotton Oil Mill produces oil from seed. During the 10-month working season, 95 tons of seed are used every 24 hours with 50 tons of meal being produced.

Soybeans. In 1949, a total of 7,741 acres was devoted to soybeans. Ten years later Gibson County farmers were harvesting 31,088 acres of soybeans. Presently, soybeans are harvested from 65,000 acres of Gibson County soil. Therefore, it is evident that soybeans have become an important money crop to the farmers of the county.

Why have soybeans become an important crop in Gibson County? First, soybeans are preferred to cotton by many farmers because less labor is involved. Second, small land holders can lease land and produce beans with no additional labor. Buying stations for beans are found in all towns in the county. In some towns soybeans may be sold to the cotton gins. Most of the remaining beans are shipped by rail to Cargill, Inc. or to Dixie Seed Corporation in Memphis, Tennessee.

Corn. Corn is a standard crop on most farms in Gibson County. In 1959, the farmers of the county harvested 1,578,722 bushels of corn from 47,757 acres. This placed the county first in the State in total corn acreage and third in total bushels harvested.

The last heads of cabbage are cut about June 20. Therefore, in the past, many farmers immediately replanted the cabbage land in corn. However, because of fewer acres devoted to cabbage today, this practice is declining. Nevertheless, this example of multiple cropping is further evidence of the county's diversified and intensified agriculture.

Sweet Potatoes. The county is the leading sweet potato producer in the State. However, this crop is rapidly losing importance. Unlike cotton acreage, potato acreage is decreasing by choice of the farmers. In 1939, more than 32,000 bushels of potatoes were produced. By 1959, this number had dropped to 12,800. Today, potatoes, like many other truck crops, are being replaced by livestock or by crops requiring less labor.

The towns of Gibson and Medina have been shipping points for potatoes since 1916 when the first shipments were made. The towns of Trenton and Dyer have potato drying houses, but they have been converted to other uses. The one in Dyer, for example, is now used as a storage warehouse for soybeans.

Strawberries. Since 1880, when the first shipment was made, strawberries have been an important cash crop. Each May, buyers from northern markets converge on the towns of Humboldt and Gibson to buy quality berries. In fact, most of the quality berries are sold fresh to these buyers or shipped fresh to northern markets. Lower grade berries are sold to one of the four processing plants in the county. In Humboldt, there are three freezing plants and one plant devoted to the manufacture of fruit juices.

Within the last 10 years, many acres of strawberries have been replaced with soybeans. This is due largely to a shortage of hand labor. Strawberries require year round attention and as farms have grown larger the farmer finds less and less time to devote to berry production. Therefore, the annual Strawberry Festival, held in May at Humboldt, may become an activity in name only.

Cabbage. Cabbage is grown mainly around the town of Gibson and shipped from that point. There are no facilities for processing cabbage in the county. There-

fore, most of the cabbage is shipped by rail to eastern and northern markets. The first shipment was made in 1905. By 1945, many acres were devoted to the crop. The large production in 1946, in a measure, may have been caused by a hope that the 1945 high price of \$3.40 per cwt. would continue. However, the 1946 price was only 58 cents per 100 pounds.

The market price has not regained the 1945 value. Therefore, the acres devoted to cabbage had declined to 483 acres in 1962, with the largest single producer being the County Penal Farm.

Tomatoes. Gibson County ranks second, behind Rhea County in Eastern Tennessee, in tomato production. Like cabbage, tomato production also has declined in recent years. The latest statistics show a 1,784 acreage loss between 1944 and 1959. The canning and freezing plants in Humboldt purchase most of the tomatoes. The remainder is shipped to northern markets or sold locally.

Other Crops. In addition to the previously mentioned crops, Gibson County farmers are engaged also in the production of okra, squash, snap beans, sweet pepper, and watermelon. From the standpoint of small grain, wheat and oats occupy several acres.

Table 2 summarizes the number of acres devoted to selected crops for the years 1944, 1949, 1954, and 1959.

Table 2
Selected crop acreage for Gibson County
in selected years.

	1944	1949	1954	1959
Cotton.....	43,720	61,456	49,926	42,605
Corn.....	68,627	59,866	63,781	47,757
Cabbage.....	1,761	1,860	817	483
Tomato.....	2,177	1,654	690	393
Sweet potato.....	3,143	1,343	698	1,046
Strawberries.....	a	1,092	538	532
Cow peas.....	2,151	1,159	1,865	694
Soybeans.....	5,310	7,741	16,149	31,088
Wheat.....	792	1,086	1,750	2,226
Oats.....	1,570	1,092	5,371	1,982

a Data not available.

SPECIALIZATION

A New Trend. Fifteen years ago, in addition to dairy and beef cattle, it was not uncommon for one farmer

to have 15 sources of income. Gibson County portrayed a high degree of agricultural diversification. In fact, the county rated No. 1 in the nation for diversification. In more recent years, the county has been moving back to specialization.

There are many reasons for this reverse trend. However, most Gibson farmers agree that economics is the basic reason. Even owners of large farms cannot afford to support large, diversified farm operations. Production costs for the farmer have risen 54 percent since 1950 in increased machinery costs, farm labor costs, taxes and interest. Too much capital outlay is required for equipment. It is not uncommon for a diversified farmer to have \$100,000 invested in equipment alone. This includes weed control equipment, and it is difficult to control many crops. Even though many recent advancements have been made in truck farming mechanization, many specific functions of production still require hand labor. If labor is available, the diversified farmer cannot economically train a number of employees in various operations, whereas, if specialized, the employees can be trained to do a few certain jobs. Also, with specialization, during planting and harvesting, there is less crop competition for labor.

In addition to equipment and labor costs, the diversified farming picture is further complicated by adverse weather, disease, and insect problems. These are indeed problems when 15 different operations are going simultaneously.

In the wake of these reasons, the decrease in various crop acreages, previously discussed, becomes more easily justified.

The Model Gibson County Farmer of the Future. It is the opinion of this writer that, in the future, Gibson County farms will become more and more specialized. The model specialized farmer will have cotton and soybeans as main cash crops, a feeder crop for livestock, and cabbage, tomato, and strawberry plants for shipment to other areas. All in all, the specialized farmer of the future will have no more than four or five crops. Granted, in relation to the American Corn Belt, this may appear to be diversified farming. However, to the Gibson County farmer, this is specialization.

LITERATURE CITED

[1] R. W. Johnson. 1941. Truck farming in the northern part of the cotton belt—Gibson County, Tennessee. *Ann. Tenn. Acad. Sci.* 16:289.

NEWS OF TENNESSEE SCIENCE (Continued from Page 103)

plants; David Snyder, assistant professor of biology, will investigate reptiles and amphibians; Alfred Chisch, the naturalist, will study the mosses and liverworts; and the Eichens and ferns will be investigated by Dr. Phillips.

The Atomic Energy Commission has awarded the University of Tennessee some \$85,000 for research in four different study areas, including psychology, nuclear engineering, biochemistry and physics. A renewal
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