

THE APPLE INDUSTRY OF CALHOUN COUNTY, ILLINOIS.*

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Calhoun County, by its position between the Illinois and Mississippi rivers, by its leadership in the State in the production of apples, and by its transportation problems, presents an interesting geographic study. In 1890 it was surpassed by twenty-five Illinois counties in the quantity of apples sold. Today it produces about one-half the commercial apple crop of the State. It is said that more apples are produced here than in any other equal area in the world. The importance of this industry in this small area becomes more evident when compared with the peach crop. In 1924, a good peach year, the commercial apple crop of Calhoun County was one and one-half times the commercial peach crop of the State, or more than a half million bushels, and when the young orchards now planted reach bearing age, the production for the county will probably reach one million bushels in a good crop year. This was the only county in Illinois in which the value of **fruits and nuts** exceeded the value of cereals in 1919.

In importance of cultivated crops the rank of Calhoun County in the State is reversed. In 1924 it occupied a position fifth from the bottom in the list of 102 counties in total value of the leading eleven crops, and received from them less than one-tenth as much as the same crops contributed to LaSalle County, first in the State in this respect. In value per acre only three small counties in the extreme southern part of the State had a lower return from the same source.

The reason for this one-sided development of Calhoun County is chiefly that of rough topography. The major part of the county is a much dissected ridge, sloping steeply to the Illinois River on the east in the northern and central part and to the Mississippi on the west in the central and southern part. A small triangular area of bottom land bordering the Mississippi in the northern part of the county offers land suitable for the production of corn and other cultivated crops. This lowland narrows southward and disappears north of Hamburg, where the

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bluff road borders the Mississippi River. The only areas available for cultivation in this section are small strips near the river, or very small patches in the bottoms of the smaller stream valleys. Another small area in the southern part of the county near the Illinois River is suitable for general farming. The remainder of the land is so rough and the slopes so steep that cultivation is not practicable. This condition explains the fact that Calhoun County stands last among Illinois counties in per cent of farm land improved, having only 55 per cent somewhat more than half in 1920, as compared with 64.5 in Alexander, the next county, and 85.4, (more than four-fifths), the average for the State.

However, the rough topography, which reduces the importance of general agriculture and hampers the live stock industry through the lack of grain for feed, is especially favorable to the apple industry, as it permits free air and soil drainage. The orchards occupy the ridge tops, for the most part, though some of the younger orchards have been planted on lower ground. Ridge orchards are less subject to frost, and the color of the fruit on higher land, where the foliage is less dense, is better. The higher humidity in the lowland orchards causes the fruit to suffer from sooty blotch, the prevention of which requires an extra spraying. The steep intermediate slopes are left unused. The nature of the exposure is also important. Southward facing slopes, if gentle, are used with profit, but if steep the soil dries out too rapidly and the trees die.

The climate is generally favorable. Rainfall is adequate, (about 37 inches), and frosts relatively infrequent. A cold rainy spell in blooming time, which interferes with pollination, occurs about once in eight to ten years, and frosts injure the fruit about three out of ten years. Orchards near the river within reach of water influence are less affected, and sometimes bear when trees elsewhere do not.

The soil is weathered limestone, and loess, which covers much of the county, in places to a thickness of 80 feet. It is a sandy clay, which retains moisture better than other soils and does not bake.

With fairly favorable conditions of climate and soil, apples pay better on this rough land than any other crop. This is the best section in the country for the Willow Twig, one of the most profitable varieties of apple grown in Illinois, and one which has been known to net \$900 per acre.

Marketing is handicapped by poor transportation facilities. The small population has been unable to make expensive road improvements, and State aid has been tardy. The county owns but one short stretch of about ten miles of concrete road from Kampsville to Hardin, opened to traffic in October, 1927. In the limestone region the roads are rough and stony, and the "red clay hills" of the loess areas become slippery and dangerous after rains. Few of the numerous small streams are bridged, though they respond quickly in volume to sudden showers. Traveling in Calhoun County, therefore, is at times a precarious adventure.

No bridge crosses either the Illinois or Mississippi rivers from Calhoun County, therefore all the apples shipped must be moved by water, except those from the orchards in the extreme northern part, some of which are hauled from eight to twelve miles to Pleasant Hill or other points on the railroad in Pike County. The nearest railroad is the extension made by the Chicago and Alton in 1925 to the Illinois River opposite Hardin. Apples shipped from this point are ferried across the river in trucks or taken across in barges to the railroad, which reaches the waterside. Improvement of roads in the vicinity has led to increase in use of motor trucks, and apples have been carried from the southern orchards to the St. Louis market in this way. The remainder of the crop is hauled by wagon or truck to one of the river landings, and moved by barge or boat to St. Louis or Peoria, or to one of the railroad points on the river from which the apples can be taken by rail to St. Louis or Chicago.¹ Rail connection with Chicago is especially desirable, as prices are higher in that market than in St. Louis, where competition with apples from the Ozarks must be met. Rail transportation has the advantage of refrigerator cars needed by the early crop, which constitutes about one-fourth of the total, it eliminates bruising of the apples incidental to rough handling on cobble stone landings, and costs no more than boat and wharfage charges.² Rail transportation also multiplies the number of markets available.

The future of the apple industry in Calhoun County seems assured. Profits from this source are greater on one acre of this rough land than from ten acres of other crops. There has been a steady increase both in amount of production and in number of

¹In 1926 more than 100,000 barrels were shipped from the landing at Hamburg.

²Hardin to St. Louis rates, 36 cents per barrel by ferry and rail, 45 cents by all water route. Hardin to Chicago by ferry and rail, 39 cents.

trees, while the older apple raising counties in the State have suffered a decline. In number of trees Calhoun County had in 1924 more than three times as many as Pike County, its closest rival in production. The greatest handicap has been poor means of transportation, but a change is taking place in this respect. The county has its first stretch of hard road completed, and hard road connections are being made in neighboring counties. The advantage of the recent railroad extension to East Hardin is being felt, and negotiations are under way for the building of a railroad from Grafton to Quincy, traversing the county lengthwise. Recently a charter was granted to a company for the construction of a toll bridge over the Illinois River near Deer Plain, and prospects seem bright for an appropriation of \$400,000 at the next General Assembly for the construction of a bridge over the Illinois at Hardin. With the increase in prosperity which these changes are bound to bring, there will be more money in the county for minor local improvements.

Another need is a system of more careful grading, which growth of the industry demands. Heretofore each individual apple grower has set the standard for his product with the result that there is no uniformity in quality and the county has the reputation of shipping poorly graded fruit. Recently, however, attempts have been made to set a national standard. With these changes, which are already inaugurated or in sight, the "Kingdom of Calhoun" will come into its own with apples as its major asset.