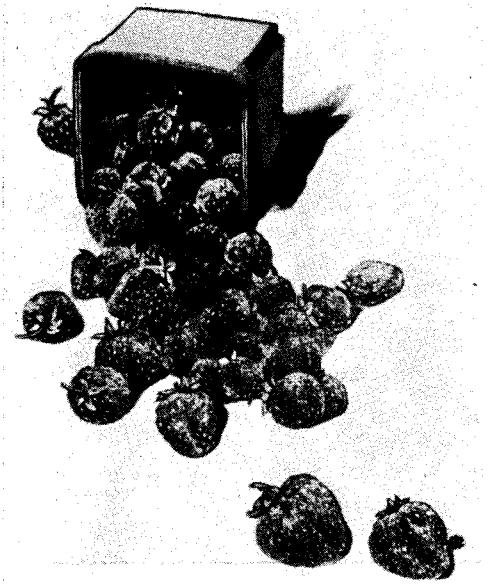

Strawberry Culture in Southwest Missouri

BY G. K. RENNER*

Near the turn of the century entrepeneurs were promoting the Southwest Missouri Ozarks as a fruit growing region. Land values were low in the sparsely settled hill areas and the Federal Land Office at Springfield still had 540,000 acres of virgin government land to dispose of in 1893; and 400,000 acres remained unsold even as late as 1900.[1] Aside from government land, railroad tracts and ordinary farms were available at five to fifty dollars an acre depending on location, improvements, fertility and other factors.[2]

Cheap land prices encouraged the purchase of small forty- to eighty-acre tracts by people who, although they had little money,

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1 The land could be obtained for homesteading at an entry fee of $16 or 160 acres could be bought for $1.25 an acre cash. *Twenty-Sixth Annual Report of the Missouri State Board of Agriculture for the Year 1893* (Jefferson City, 1894), 79, 85; also *Thirty-Second Annual Report, 1900* (Jefferson City, 1900), 440-441.

2 G. G. James letter in *35th Annual Report of the State Horticultural Society of the State of Missouri 1892* (Jefferson City, 1893), 163-164. James states that in 1887 he purchased 40 acres of unimproved land, 1½ miles from the railway depot, for $250 and plenty more was still available.

highly valued their independence. The small acreages of this marginal land were not productive enough for profitable general-crop, commercial agriculture. Many of these small farmers found themselves reduced to a semi-subsistence status, growing perhaps a little corn or raising a few head of livestock to provide an income for essentials, but mostly they struggled to produce foodstuffs for their own table and the necessities of life. With corn and wheat yielding only about ten dollars an acre gross income, their economic margin was extremely limited.[3]

What the area needed was a crop that could take advantage of its most plentiful resource, cheap labor, and utilize small acreages of the hill land for the rougher parts would never be suitable for anything except timber. To many who studied the problem, fruit growing seemed the answer. In a region adapted to the cultivation of many different fruits, the strawberry best filled the need for a cash crop. It was commonly conceded that strawberries brought a greater cash return than anything else which could be grown on the hill land.

The strawberry will grow nearly anywhere in Missouri, but in the 1890s it began to take on the proportions of a staple crop in Southwest Missouri. Near the western edge of the Ozark mountain area, where ranges of hills are interspersed with strips of prairies and river and creek valleys, commercial farming was already well advanced on the flatlands and a sizeable industry had built up in lead and zinc mining. This section had tended to fill up with people somewhat faster than other Ozark areas and to develop good market connections with a network of railroads. Nevertheless, the small farmer living on his forty or eighty acres of upland, could come little nearer to making a living with the traditional crops than those who lived in the more remote hills; but with access to railroads he had the means to rise above the semi-subsistence level of his existence.

The region extending roughly from Van Buren, Arkansas, northward to Springfield and Joplin, Missouri, came to be known as the "Ozark Berry Belt", but the heaviest concentration of berry growing in Missouri was in the five extreme southwest counties of

[3] The average yield of corn in Missouri for 1896-1915 was 27.5 bushels per acre and it sold at an average price of 45c thus returning $12.38 per acre. The average wheat yield for the same period was 13.1 bushels per acre at an average of 80c for a return of $10.48 per acre. Since these figures are statewide averages, it can be assumed the yield on Ozark uplands was significantly less. Yield figures are based on U. S. Department of Agriculture averages, *Monthly Bulletin of the Missouri State Board of Agriculture,* XV (December, 1917), 33-34.

McDonald, Newton, Jasper, Lawrence and Barry.[4] There, on an acreage that seldom went beyond 15,000, more than one-half of Missouri's strawberries were produced during the greatest era of commercial production for national markets between 1900-1950.

It was commonly conceded that strawberries brought a greater cash return than anything else that could be grown on the hill land. Agricultural census figures show that the five Southwest Missouri counties produced on the average seventy-six crates per acre for 1899 and sixty-seven crates in 1909.[5] Strawberries averaged about $1.20 per crate in the late 1890s and, with better market connections and a general advance in prices, they averaged approximately $2.00 in 1909.[6] Thus a gross return of seventy-five to one hundred and fifty dollars per acre during this period was common, and two hundred to three hundred dollars per acre could be realized under favorable conditions.[7]

Of equal significance to the high monetary return was the minimum of cash outlay required for growing strawberries. Land was cheap if purchased and it could also be rented for three to seven dollars per acre.[8] Sometimes unimproved land could be leased for nothing, the owner being willing to give the use of the land for two or three years in return for getting it cleared. It was not unusual for a farmer to be able to pay for a small farm with the gross receipts from one strawberry crop if he had an exceptionally good year.[9] A reporter for the *St. Louis Republic,* who visited the Neosho strawberry fields during the 1915 season, reported that ". . . every other man you meet will tell you that he built his

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4 Neosho *Miner and Mechanic,* June 11, 1915, reprinted from St. Louis *Republic.*

5 *Census Reports: Agriculture,* U. S. Department of the Interior, U. S. Census Office, Vol. VI, pt. 2, *Crops and Irrigation* (Washington, D. C., 1902), 730-732; *Thirteenth Census of the U. S.: Agriculture 1909 and 1910,* U. S. Department of Commerce and Labor, Bureau of the Census, VI, *Reports by States, Alabama-Montana* (Washington, D. C., 1913), 928-938.

6 The average price for the season of 1896 at Sarcoxie, then the leading center, was $1.20. See H. B. Boyd, "Chronological Narrative of the Strawberry Industry at Sarcoxie, Missouri," *29th Annual Report, Mo. St. Bd. of Agric., 1896* (Jefferson City, 1897), 101. In 1909 strawberries brought $2.00 to $2.25 per crate. See *First Annual Report of the Missouri State Board of Horticulture, 1907* (Jefferson City, 1908), 28. The five-county area realized about $2.20 a crate in 1910. See *Fourth Annual Report, Mo. St. Bd. of Hort., 1910* (Jefferson City, n.d.), 294.

7 The stories of exceptionally profitable berry patches are legend and some were no doubt exaggerated. There were reports of more than $500 gross per acre being received in a few choice fields. See G. E. Dorrence, "How to Secure a Big Yield of Strawberries," *Fourth Annual Report, Mo. St. Bd. of Hort., 1910,* 46-47; and Neosho *Miner and Mechanic,* June 9, 1922.

8 Boyd, "Chronological Narrative," 96.

9 Neosho *Miner and Mechanic,* May 21, 1915.

Picking Strawberries

home, bought his land or got his start in some other way from growing berries"[10]

J. F. McNallie of Sarcoxie, one of the few large growers, computed that the cost of bringing an acre of strawberries into production was:

Rent	$ 5.00
Plowing	2.50
5,000 plants	15.00
Setting plants	5.00
Cultivating 15 times	7.50
Hoeing 3 or 4 times	10.00
Mulching	5.00
	$50.00[11]

[10] *Ibid.*, June 11, 1915.

[11] J. F. McNallie, "Strawberries," *Third Annual Report, Mo. St. Bd. of Hort.* (Jefferson City, 1909), 286.

This figure seems to have been representative of the five-county area for a number of years. However accurate it may have been for the large grower who had to hire labor, it bore little meaning for the average grower whose operation was small enough for him and his family to do all the work except picking the berries. In such instances, the farmer considered only his out-of-the-pocket costs which were usually little more than the outlay for plants. He already had his farm, equipment and horses, and his labor had value only to the extent that he could profitably employ it in some alternative endeavor. In the simple arithmetic of a farmer living on the subsistence level, the cost of bringing an acre of strawberries into production was largely a lot of hard work.[12] One farmer made this succinct comment on what was needed to grow berries:

> A double shovel plow with bull tongue points, a common goose-neck hoe, five inches wide; a potato scratcher, lots of elbow grease and a belligerent feeling that will not let you and weeds live in the same field.[13]

However, there were expenses that even the family grower could not avoid, mainly the picking and crating of berries. In 1909 these items cost about fifty cents per crate based on a picking price of one and one-half cents per quart.[14] This picking price seems to have been common throughout the five-county area for many years but rose to three cents during World War I and dropped back again to two cents during the depression.[15] Pickers were paid by a ticket system rather than by cash and crates were purchased from the local association and charged against the berries sold. Thus a grower could go through the picking season with a minimum out-

12 Studies in Arkansas indicated that it took sixteen man days and nine horse days to bring an acre of strawberries to the production stage, but if the operation entailed the clearing of new ground it could run into considerably more labor. A. D. McNair, "Labor Requirements of Arkansas Crops," *Bulletin No. 1181,* U. S. Department of Agriculture (Washington, D. C., March 15, 1924), 61.

13 A. N. Banks, "Proper Culture of Strawberries," *First Annual Report, Mo. St. Bd. of Hort., 1907,* 280.

14 The crate cost breaks down as follows: 14c for unassembled crate and picking costs of 1½c x 24 quarts for a total of 36c. McNallie, "Strawberries," 285-290.

15 Boyd, "Chronological Narrative," 99; W. L. Howard, "Strawberry Growing," *Thirty-Sixth Annual Report, Mo. St. Bd. of Agric., 1903* (Jefferson City, 1904), 270; Neosho *Miner and Mechanic,* May 17, 1918, & April 22, 1921.

lay of cash, and even that might be obtained through a short-term bank loan.[16]

A certain amount of labor was required in packing and grading the berries; perhaps four employees for every twenty pickers. In addition it required about one "field boss" for the same number of pickers.[17] The berries had to be transported to a shipping point immediately after the day's picking was over. Before the motor truck came into use this meant a tedious journey by wagon in the evening hours. A canvass-covered, spring wagon and smooth roads were essential if the berries were hauled even a few miles.[18] This problem of wagon haulage limited the efficient growing of strawberries to within a radius of about fifteen miles of the railroad depots.

The ordinary family could perform these auxiliary operations of supervising, grading, packing and transporting the berries, plus the year-long labor of bringing a new field into production, only if the acreage was small. This tended to keep the average planting per grower at less than three acres.[19] A large-scale commercial grower

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16 Picking was usually done in a four- or six-quart tray. When the tray was turned in at the packing shed a metal or cardboard ticket was issued and these could later be transferred for one crate (24-quart) tickets. Cash settlement was usually made at the end of the week, but the picker might use some of them to purchase vegetables, eggs, milk or other foodstuffs from the grower; or, in some instance, local businessmen would redeem them for merchandise. George W. Williams, "Berry-Growing," *31st Annual Report, Mo. St. Bd. of Agric. 1899* (Jefferson City, 1899), 104; Howard, "Strawberry Growing," 270.

17 John Ledl, "Inspection of Strawberries," *Fourth Annual Report, Mo. St. Bd. of Hort., 1910,* 60; D. McNallie, "Talk on Managing Pickers," *Forty-Third Annual Report of the State Horticultural Society of Missouri, 1900* (Jefferson City, 1901), 35.

18 Boyd, "Chronological Narrative," 100; Howard, "Strawberry Growing," 269-270.

19 A Missouri State Board of Horticulture orchard census for 1910 shows that in Newton County 187 out of the county's 270 growers had 3 acres or less. Only 52 growers out of 1,763 in the entire state had 10 acres or more and 10 of these were exactly 10 acres. Forty-four of the 52 farms were in the five-county area, but 974 of the 763 growers and 3,278 of the 4,515 acres of the state were in this area. The largest single strawberry farm was Robert McReynolds' 37 acres at Pierce City. This census also shows the average strawberry operation in the five-county area to be 3.4 acres. Federal census figures for 1929 show this figure had dropped to 2.8 acres and the 1939 census shows a further drop to 2.1 acres. Thus the pattern of berry growing on small family farms seems to have become more characteristic with the passing of the years. No data is available for comparison, but the best evidence is that there was a considerable turnover in strawberry growers. It was a business that was easy to get in and out of, so operators went into it expecting to make some quick money and then dropped out when the price looked less favorable or when they had enough money to provide capital for going into some other enterprise. "The Orchard Census," *Fifth Annual Report, Mo. St. Bd. of Hort., 1911* (Jefferson City, n.d.), 44-85; *Fifteenth Census of the U. S.: 1930; Agriculture,* U. S. Department of Commerce, Bureau of the Census, Vol. II, pt. 1, *The Northern States* (Washington, D. C., 1932), 1043-1051; *Sixteenth Census of the U. S.: 1940; Agriculture,* I, First and Second Series, *State Reports,* pt. 2, *Statistics for Counties* (Washington, D. C., 1942), 358-366.

with ten or more acres of berries found his risks compounded over those of the small family grower. Even though his land might also be cheap, he had to hire labor to clear his fields and plant and cultivate the berries. Thus he built up a considerable capital investment. If a drought, hail or other bad weather injured the crop or if prices dropped catastrophically he stood to lose on his actual cash outlay, or if he had a good crop but found that he could not get enough pickers (usually a more severe problem with a large operation) he might lose a substantial part of his berries. The family operation stood to suffer almost minimal cash losses, for strawberries seldom were a complete failure, and, faced with a natural catastrophe or low prices, the family could do the picking itself and thus recover something for the work they had invested in the berries.

Cheap land and plentiful labor were undoubtedly assets that helped project Southwest Missouri into a leading strawberry producing region, but they alone do not account for the region's rapid rise into a producing area of national prominence. Only the development of a highly sophisticated marketing arrangement made this possible.

The strawberry had long been an important truck gardening product around the cities. Inexpensive to grow, it was a kind of universal crop like the basic garden vegetables. As the first fruit of spring, the consumer had a special fondness for it, but demand was highly elastic, varying sharply with the price. As cities grew, the demand for low-cost berries could only be met by railroad transit from beyond the radius of the truck gardener's wagon.

Railroad shipments of strawberries in the Midwest began in an effort to tap the growing Chicago market. The first shipments, apparently about 1861, were made in big cottonwood boxes. Later, growers learned to ship in crates of small boxes which eliminated crushing.[20] Shipments from Southwest Missouri started with the completion of the Frisco (St. Louis and San Francisco) and Kansas City Southern railroads which gave access to the Kansas City and St. Louis markets.[21] St. Louis, however, was not a very lucrative

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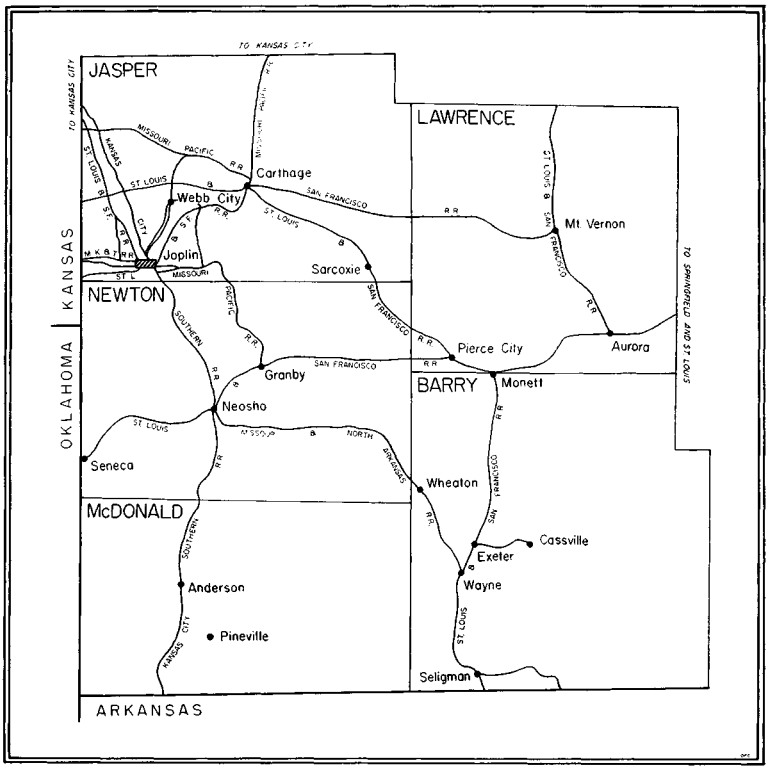
20 "Proceedings of the Missouri State Horticultural Society at Their Fourth Annual Meeting, 1863," in F. A. Sampson, ed., *History and Publications of the Missouri State Horticulture Society* (Jefferson City, 1891), Vol. I-VII, 36; B. F. Smith, "History of Strawberry Growing in the West and South," *Proceedings of the Missouri State Horticultural Society, Twenty-Second Annual Meeting, 1880* (no publisher, n.d.), Vol. XIV-XXII, 227-231.

21 "Marketing Strawberries," *Seventh Annual Report, Mo. St. Bd. of Hort., 1913* (Jefferson City, n.d.), 541.



Railroad Map of Five-County Area

market, because growers developed a heavy local production in St. Louis and Jefferson counties. These early shipments were by express and much of the profit was taken up by heavy shipping charges, but it was the only means by which berries could be shipped in less than carload lots or with the fast service that was necessary.

Expensive express shipments meant that strawberry producers could never enjoy more than a limited luxury market in the big cities. Only those who were favorably situated on the railroad and who took the initiative to develop their own market contacts would ever benefit from it. To a region like Southwest Missouri, one hundred and fifty miles from the nearest big market at Kansas City, three hundred miles from St. Louis, and many more miles from other large cities, only the refrigerator car could bring growers within the reach of a mass market. Because refrigerator cars could keep the perishable strawberry fresh up to four days on the road, it

was possible to route them by ordinary low-cost freight up to one thousand miles and by express they could reach the distant market of the eastern seaboard and even Canada.[22] Fortunately the refrigerator car had been perfected by the 1880s when Southwest Missouri's railroad connections were being completed and an interest in fruit culture was developing.

A basic problem facing shippers was that refrigerator car service was available only on a carload lot basis. The small, independent berry grower who had dominated the business with his shipments of a few crates at a time could not avail himself of this service. However, many small producers around a rail center could jointly fill a refrigerator car or more with each day's production, but this required organization. The logical answer to the problem was cooperative shipping associations. Since farmers found it difficult to coordinate their own activities, the initial thrust for creating these new associations had to come from outside sources. Both the railroads and the local chapters of the Missouri State Horticulture Society seem to have provided this service.

J. M. Rice of Sarcoxie, a local newspaper editor, impressed with experiments in transporting fresh fruit by refrigerator cars in California and Florida, determined to organize area farmers for a similar experiment with strawberries.[23] About 1888 he formed a society that shipped approximately thirty-nine cars from Sarcoxie and some nearby towns. They paid an exorbitant icing charge of six thousand dollars on the cars and apparently there was a great deal of dissatisfaction with the scant returns which the farmers received. Rice then became an agent for the American Refrigerator Transportation Company, interested in promoting the use of its cars for fruit hauling. The company offered more attractive rates and a partial guarantee of the value of the fruit in case of spoilage enroute. Apparently this did happen on some cars and it led one exasperated farmer to remark: "I would as soon take my chances by freighting through on the overland route by ox teams to Denver."[24] In the first two years

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22 *A Billion Berries* (St. Joseph, n.d.), 6.

23 The growth of strawberries on a commercial scale in Southwest Missouri apparently originated at Sarcoxie in 1883 when the newspaperman, J. P. Wild, talked John Carnahan into setting out a field of several acres. W. R. Martin, Jr., "The Missouri State Horticulture Society, 1884-1908," *Proceedings of the Mo. St. Hort. Soc., December 1, 1932-November 30, 1934* (Columbia, 1934), 56.

24 The quote is from J. H. Logan, "Another Year's Work," *34th Annual Report, St. Hort. Soc., of Mo., 1891* (Jefferson City, 1892), 195; Also in this volume, J. M. Rice, "Refrigerator Cars," 190-193; J. H. Logan, "Berry-Growing in South Missouri," *Thirty-Third Annual Report, St. Hort. Soc. of Mo., 1890* (Jefferson City, 1891), 295-296; and in this volume, the Z. T. Russell letter, 349-350.

the situation appears to have been fluid with several farmers abandoning the attempt to ship by refrigerator car. Associations were in a constant state of reorganization. Finally, in 1891, the Sarcoxie Horticultural Association emerged as the first successful shipping organization. Managed by men who understood how to load refrigerator cars and, more importantly, how to handle contacts with distant markets for prompt sale of berries at fair prices, they moved rapidly into an era of large-scale production and national marketing that far overshadowed any other efforts at cooperative selling by Missouri growers. In 1891, fourteen carloads were shipped with good results. In 1892 bad weather cut the output to only nine cars but from then on, with new farmers joining, shipments rose rapidly; 57,230 crates (approximately 110 cars) were shipped in 1896.[25]

Within a few years time, shipping associations were organized throughout the five-county area and beyond. The nucleus in most cases seems to have been the local chapters of the Missouri State Horticulture Society. Founded for the purpose of promoting fruit growing in the state, the society, in this period, was very active in setting up local chapters and disseminating information on growing strawberries and organizing shipping associations. Railroad refrigerator car promoters found the local chapters a natural point of contact.

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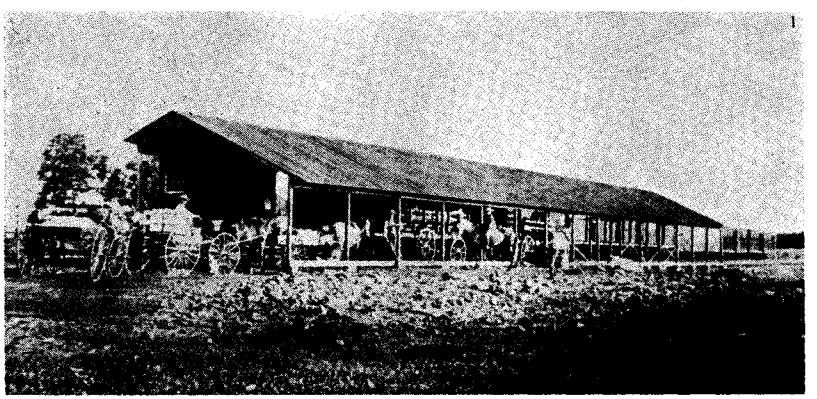
25 W. T. Burkholder letter of Feb. 2, 1893, in *35th Annual Report, St. Hort. Soc., of Mo., 1892,* 148; "Shipments of Agriculture Products By Counties," *29th Annual Report, Mo. St. Bd. of Agric., 1896,* 456.

Marionville Strawberry Growers' Shipping Association Shipping Shed

Mo. State Fruit Exp. Station, Bulletin No. 7, June, 1903



By the early 1900s there were many local associations. They had been successful in providing the means for many small shippers to fill a refrigerator car and send it to distant markets. Also they proved useful in purchasing crates and other supplies for the growers. By purchasing in large quantities they could effect considerable savings for their members.[26] However, their success in obtaining good selling prices was less spectacular. They found that their contact with the market centers was tenuous and commission merchants often sold the berries at what seemed unfair prices. Also, as the associations grew in number and production, they found themselves competing with one another. When word was received that a certain wholesale house needed a car of berries, two or three associations might respond, with the result that the market was oversupplied and they had to accept ruinous prices or sometimes even lose the berries through spoilage. Obviously more shipper coordination and more control over the marketing in distant cities were needed, but the individual associations lacked the leverage to solve these problems. They could only be handled through some kind of master coordinating association.

As early as 1897, the Southwest Fruit Growers' Cooperative Union was organized at Monett, but the most important of these unions of locals was the Ozark Fruit Growers' Association (O. F. G. A.) founded in 1903. Originally it brought about thirty locals of Southwest Missouri and Northwest Arkansas under one management for the purpose of controlling shipments. Undoubtedly it helped the growers secure a better price for their berries—maybe by as much as twenty-five percent in the first few years of its operation.[27] Although most association members agreed on the need for coordination, they differed on market approach. The O. F. G. A. group believed that shipments to distant points should be made "on track"—that is, the berries would be sent to the big market centers unsold. They reasoned that if berries were consigned in advance to distant commission houses, they would be at the mercy of merchants with no particular incentive to get the best price for their clients. If the berries were unsold, the association could bargain

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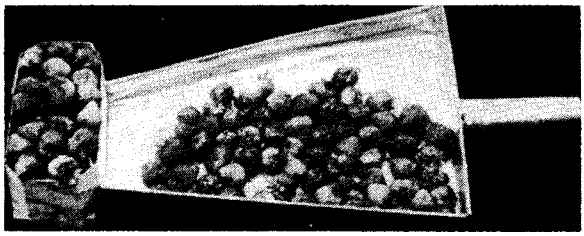
26 *38th Annual Report, St. Hort. Soc. of Mo., 1895* (Jefferson City, 1896), 216; G. A. Atwood, "Co-operation," *ibid.*, 252.

27 G. T. Tippin, "Successful Co-Operation," *Forty-First Annual Report, St. Hort. Soc., of Mo., 1898* (Jefferson City, 1898), 48-52; W. H. Chandler, "Co-operation Among Fruit Growers," *Fourth Annual Report, Mo. St. Bd. of Hort., 1910,* 293-294; Martin, "Mo. St. Hort. Society, 1884-1908," 56; and *Ozark Fruit Growers' Association, Reports of Strawberry Shipments for 1905-1906* (no publisher).



Pan Used for Culling Strawberries

for the best price and, if necessary, move the car to another city. This worked well for the O. F. G. A. because the association was large enough to maintain representatives at each of the major market centers who could receive the cars and negotiate for their sale.[28] Other associations centering around Neosho—which for many years was the largest of all shipping points—held to the view that best results could be obtained by making arrangements with reliable, honest commission houses in the big cities who appreciated the considerable business the association could bring them.[29]

These different marketing approaches became obsolete about the time of World War I when buyers began to come into the area. This development was facilitated by the sheer growth of the business, the inauguration of a United States Department of Agriculture market news service and the establishment of federal-state inspection which fixed standardized market grades. At first buyers congregated at Monett, headquarters of the O. F. G. A., where auctions were held. This was an impartial way to allot the berries among the competing buyers, and since the O. F. G. A. was the dominant shipping association, the auctions established prices for the district. Beginning in 1923, some auctions were held at Neosho, but by 1929 the O. F. G. A. and its rival, the Missouri Fruit Exchange, had become the principal marketing agencies for nearly all the locals. They

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28 The Missouri associations looked to the West Coast fruit co-operatives as their models and hoped to make the brand "Ozark" as well known as "Sunkist" was in citrus fruits, though such an elaborate dream was never realized. Louis Erb, "Some Facts About Ben Davis," *First Annual Report, Mo. St. Bd. of Hort., 1907,* 179; John Bland, "A Discussion of the Status of Fruit Growing in Missouri As Indicated by Facts Gathered in The Orchard Census," *Seventh Annual Report, Mo. St. Bd. of Hort., 1913,* 608-609; for the O.F.G.A. viewpoint on shipping see, "Marketing the Strawberry," *Fortieth Annual Report, St. Hort. Soc. of Mo., 1897* (Jefferson City, 1898), 55-56; George Hatzfeld, "Over-production of Strawberries," *Fourth Annual Report, Mo. St. Bd. of Hort., 1910,* 40-43.

29 For the "Neosho" view see G. T. Tippin, "Successful Co-operation," 52; I. J. Hartman, "Art of Growing Strawberries," *First Annual Report, Mo. St. Bd. of Hort., 1907,* 117.

concentrated the auctioning at Monett and showed considerable cooperation in shipping and setting prices.[30]

Numerous local associations served the different shipping points, and in some of the larger areas there were more than one, depending on affiliation with the O. F. G. A. or its rivals, personal differences over managers, inspection and other items. Until 1922, Neosho had three shipping associations, one of which was the local affiliate of the O. F. G. A.[31] All the associations seem to have had a similar organization. The manager was busy the year round buying crates and supplies in the off season and handling other fruit when it ripened. He was paid two percent of the gross receipts for his services and another two percent was deducted to pay for inspection, loading and incidentals.[32]

A problem that plagued the associations for many years was the matter of grading berries. All associations inspected every crate as it was unloaded from the growers' wagon at the shipping depot. A cooperative marketing system tended to penalize the conscientous grower who closely supervised his picking and packing and who sold berries only from one- or two-year-old fields that were fertile and well cultivated. To protect these quality growers a careful system of grading was instituted so that the market value of fine, well colored, large berries would not be pulled down by inferior fruit and the reputation of the growing area would not be undermined.[33] In the early years the picker graded the berries, but as the industry grew and reliable pickers became harder to obtain, the growers were compelled to use full-time graders who sorted the berries box by box.[34] After federal-state inspection went into effect in 1918,

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[30] O. W. Schleussner and J. C. Gilbert, "Marketing and Distribution of Strawberries in 1915," *Bulletin No. 477,* U. S. Department of Agriculture (Washton, D. C., April 2, 1917), 1, 8; Neosho *Miner and Mechanic,* June 11, 1915, June 1, 1923, & May 31, 1929; R. R. Pailthorp, "Apple Grades," *Proceedings, Mo. St. Hort. Soc., December 1, 1930-November 30, 1932* (Columbia, 1932), 97-98.

[31] These associations were the Neosho Fruit Growers and Shippers Assn., the Southwest Mo. Fruit Growers Assn. and the Farmers and Fruit Growers' Exchange (O.F.G.A.). Neosho *Miner and Mechanic,* May 23, 1913 & May 26, 1922.

[32] *Ibid.,* June 11, 1915.

[33] *Ibid.;* E. Leithold, "Drawbacks of Co-operation," *Fortieth Annual Report, St. Hort. Soc. of Mo., 1897,* 227; Chandler, "Co-operation Among Fruit Growers," 294-295.

[34] The technique of grading appears to have been adopted first by growers of the Pierce City Association. The procedure was to pour the quart berries into a flat, shallow tin scoop so they could be spread out and examined. After picking out the inferior berries, the remainder was poured back into the box. Ledl, "Inspection of Strawberries," 56-58; Howard, "Strawberry Growing," 270; Williams, "Berry-Growing," 104.

and an impartial, standard, U. S. No. 1 grade was set up, the associations were partially relieved of the pressure to discipline their own members.[35]

Another problem faced by all associations was that of high freight rates. Their complaints were especially strong up to 1907. They claimed that rates on Missouri fruit shipments were three times as high as those in Illinois and that the Illinois Central Railroad gave better service with special fruit trains to Chicago.[36] Also fruit growers said freight rates on livestock in Missouri were only one-fourth of those on fruit because the railways knew livestock could be driven on hoof to a rival line if the rates were not reasonable. As one farmer sardonically put the problem, "What we want is to produce some varieties of peaches, apples and strawberries with legs; that would soon solve the transportation problem."[37] The State Horticulture Society acted as a coordinator for a protest movement. By applying pressure through lobbying the state legislature, hearings before the State Board of Railway Commissioners and the Federal Interstate Commerce Commission, shipping rates were apparently reduced twenty-five to forty percent; after 1908 the matter ceased to be a major source of complaint.[38]

Too much can easily be made of the differences among the shipping associations. What conflicts they had were mainly over matters of procedure and personality, not of purpose. There seems to have been a substantial amount of cooperation among them. Everything considered, their product was better graded, better packed and better merchandised than that of other Missouri fruit growers. Very likely they brought cooperative marketing techniques to a higher state of development than have any other producers in this state.[39] Of course, with the many small producers and the highly perishable nature of their product, they had a compelling reason to develop such organization. This, more than anything else, explains why they were able to cooperate so successfully.[40]

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35 Pailthorp, "Apple Grades," 97-98.

36 *First Annual Report, Mo. St. Bd. of Hort., 1907,* 32.

37 J. G. Kinder, "The Future of Horticulture in Missouri," *Fortieth Annual Report, St. Hort. Soc. of Mo., 1897,* 205-206.

38 *First Annual Report, Mo. St. Bd. of Hort., 1907,* 32-33; *Second Annual Report, Mo. St. Bd. of Hort., 1908-1909* (Jefferson City, n.d.), 8; George T. Tippin, "How To Reach The Unsupplied Markets," *ibid.,* 39.

39 "Orchard Census," 69; "Strawberries," *Horticulture News,* III (October 20, 1943), 12.

40 The national market connections they developed had some limitations. Because of Eastern competition, their main market was mostly to the North and Northwest: Kansas City, Topeka, Sioux City, Omaha, Denver, Minneapolis

Picking is one of the most persistent problems in growing strawberries. The berries ripen over a period of about two or three weeks, so the season is very short and the work is hard. Since the berry vine clings to the ground, picking is all stoop labor and requires some conditioning of the muscles. The berry is small, often semi-concealed by the leaves of the vine, and must be pinched off with about one-half inch of the stem remaining if it is to be sold commercially. Thus a worker must have considerable dexterity with his fingers in order to be very productive. Add to this the rocky soil of the Ozark berry fields which made walking and stooping even more difficult, the ticks and the hot sun of a humid day late in May and one has the picture of a very exhausting type of menial labor.[41]

No exact figures on the earnings of pickers can be given; much depended on the condition of the patch. If it was a new field, well maintained and free of grass and weeds, with a heavy crop of big

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and St. Paul. When Eastern production was low or very early in the season, they found markets to the east and from time to time they shipped to all the big Eastern cities as well as Canada. Schleussner and Gilbert, "Marketing and Distribution of Strawberries," 20.

41 The Neosho *Miner and Mechanic* relates the story of a strike at a berry field near Seneca. It seems the main grievances were the 1½c per quart picking rate and the "savage atrocity of the sand ticks." On the second day the strike was broken when strikers—mostly boys and girls—tried to bar new pickers from entering the fields and were arrested. In typical turn-of-the-century bombast, the *Miner and Mechanic* editorialized: "We call on Superintendent Bailey to exhaust all his resources before yielding to this fiendish attempt to cripple the great promotive industries on the Southwest." Neosho *Miner and Mechanic,* June 2, 1900.

berries, the picker might well pick three times as much as he could on a poor field. Also conditions would vary from day to day; a cool and cloudy day would mean fewer ripe berries to pick. When the picking price was one and one-half to two cents a quart, probably the average picker earned one to two dollars a day though fast pickers often earned three dollars a day and there are reports of eight dollars and nine dollars a day in earnings, especially after the rate went to three cents per quart.[42]

Most pickers could be drawn from the local population if the acreage was small, and close to the bigger towns a considerable labor force could commute to and from town each day. At the big fields more distant from town, a tent and wagon camp usually formed for the short period the season lasted. Some of the pickers were professionals who started with the season on the Gulf Coast and followed it northward to northern Missouri and then turned to the western wheat fields to round out their summer of migratory work. The St. Louis *Republic* reporter has left us with this vivid description of their wagon trains:

> They came from anywhere and everywhere. The roads around Neosho were dotted with their slow-moving caravans. Old wagons tied up with baling wire and hickory bark, covered with time-stained canvass and drawn by a horse and a mule or a couple of old plug horses made up most of the equipment. A frying pan and a coffee pot were all the cooking utensils in evidence.[43]

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42 With the 3c rate a picker picked 183 quarts in six hours—equivalent to $9.30 for a ten-hour day, but this was an exceptional patch. Neosho *Miner and Mechanic*, June 9, 1922, June 11, 1915, & May 12, 1916.

43 *Ibid.*, June 11, 1915.

They called themselves "strawberry gaumers" because their hands, arms and clothing became "gaumed" with the stain of the red berries.

Most of the camp pickers, however, came from towns of the surrounding area. They were vacationing families for the most part and they, too, came in covered wagons or pitched their tents. Intent on making a little money and having a respite from the city if not from their labors, they let the small children run half-wild around the camp while the mother, father and older children picked berries.[44]

There was no general agreement on what sort of person consituted the ideal picker. Some thought the professional, migratory worker was best and some thought young teen-age boys and girls were best because they took more pride in their work. Some praised women and girls because they were "more honest, obedient and often more industrious than men." Others preferred men to women because they would "do more work, cause less trouble in camp, pick the berries cleaner and with less trash in the boxes and complain less." Regardless of merit, women and teenagers of both sexes probably made up the bulk of the pickers.[45]

As the volume of strawberry production grew in the five-county area, attracting workers for the short period of seasonal work became more and more of a problem. A large labor force was required; most authorities conceded that it took five to ten pickers per acre.[46] In many years of heavy production from 1900 to 1930, the five-county area had 4,000 to 5,000 acres in production, thus, by a conservative estimate, 25,000 pickers were needed. Such heavy shipping centers as Neosho and Sarcoxie might require working forces of more than 5,000 in years when the acreage was high. It was difficult for local associations to recruit such an army of pickers and sometimes it could not be done.

The success of the area in strawberry production was due in no small measure to the fact that it could draw on a considerable local reservoir of labor. Joplin and Springfield, towns of substantial size in the immediate vicinity, each had a population of more than 30,000. Joplin, the center of a rich mining area, was surrounded by

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[44] *Ibid.*

[45] *Ibid.*; Howard, "Strawberry Growing," 270; Williams, "Berry-Growing," 104.

[46] Boyd, "Chronological Narrative," 99; J. H. Christian, "The Strawberry, as Grown Commercially in the West," *Second Annual Report, Mo. St. Bd. of Hort., 1908-1909,* 229.

a ring of small towns, some of which were in Kansas and Oklahoma. Jasper County, in which Joplin is located, had more people in 1900 than in the latest (1960) census. In 1900 the county had one of the densest rural populations in the state, exceeded only by St. Louis County.[47] This concentration of population plus the decline of the mining industry in Jasper and Newton counties after World War I, if not before, meant there was a sizeable local reservoir of surplus labor.

There can be little doubt that the labor supply placed an upper limit on the strawberry producing potential of Southwest Missouri. Even from the earliest year when production was unusually heavy in a given year, picker shortages were felt.[48] The first really severe shortage appears to have come with the exceptionally heavy crop of 1916.[49] World War I undoubtedly would have produced a labor shortage if acreage had not been sharply cut back after overproduction in 1916 and if bad weather had not further reduced the crop in the critical year of 1918. The 1920s were years of generally heavy production, and in exceptional years like 1922 picker shortages again appeared. As production dropped during the depression years of the 1930s, labor was not a problem, but from 1941 on labor problems became chronic. The area was losing population and the people who remained found more rewarding occupations. After

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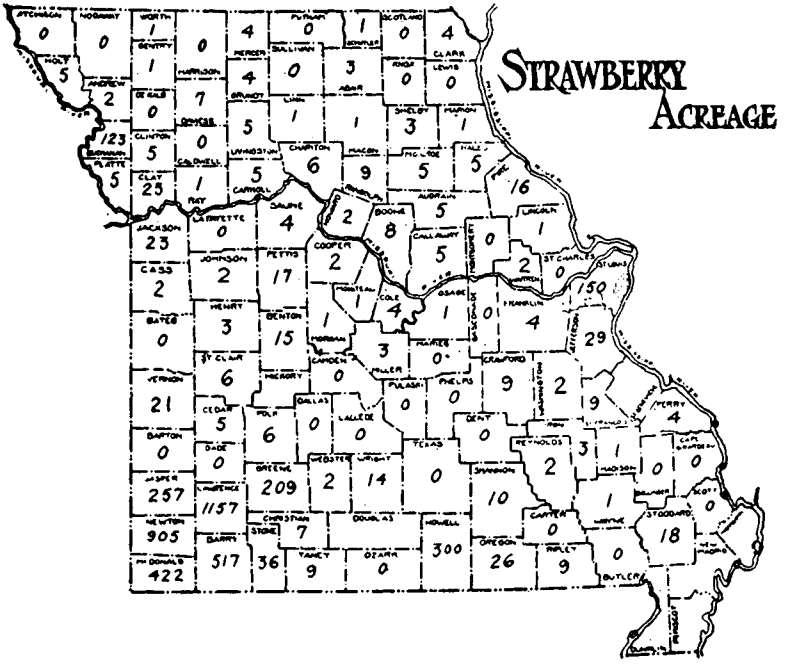
[47] *Thirteenth Census of the U. S.,* II, *Population 1910, Report by States, Alabama-Montana,* U. S. Department of Commerce, Bureau of the Census (Washington, D. C., 1913), 1,065, 1,077. See p. 1,069 for the density of Jasper County's population.

	1900	*1910*		*1900*	*1910*	**1960*
Joplin	26,023	32,073	Jasper			
Springfield	23,267	35,201	County	84,018	89,673	78,863

**The World Almanac:* 1962 (New York, 1962), 288.

[48] G. A. Atwood, "Strawberries: The Demand; The Supply," *Forty-Second Annual Report, St. Hort. Soc. of Mo., 1899* (Jefferson City, 1900), 39. Mr. Atwood notes that Sarcoxie, with 1,500 acres of berries had difficulty drawing the 10,000 pickers needed. W. L. Howard, "Fertilizing the Soil for Strawberries," *First Annual Report, Mo. St. Bd. of Hort., 1907,* 266. In commenting on the bumper crop of 1904, Howard noted the difficulty in securing sufficient pickers, and he showed remarkable foresight in pointing out that the two greatest drawbacks to expanding production in Southwest Missouri would be a labor shortage and soil exhaustion. Thus at this early date, he pinpointed the two factors that would eventually doom the region as a major strawberry producing region. In a way the two factors are interrelated. The picker can always earn much more in a heavily producing field of fine, large berries. He can even pick at a lower rate per quart and still make more money. Yet the owner of the field grown on depleted soil cannot afford to pay more to have his small, scattered, inferior berries picked.

[49] The Neosho *Miner and Mechanic* estimated that as much as one-third of the crop (50 carloads) around Neosho may have been lost. See the May 12 & 19, 1916, issues.



Mo. State Bd. of Horticulture, 1913

World War II an attempt was made to revive the industry, but an inability to get pickers, even when the price of picking rose as high as six cents a quart, quickly throttled the attempt. Some effort was made to import Mexican labor, but apparently it met with little success.[50] The once sizeable industry was reduced to a minor one, catering mostly to local needs, with many of the patches being picked by the people who bought the berries.

Another factor in the success and decline of Southwest Missouri as a strawberry growing area was the nature of its upland soils. The strawberry is not a critical plant as to types of soil, but for high yield it requires a soil well-drained and fairly rich in nitrogen, potash and organic matter. Many veteran strawberry growers felt that the virgin timberland of the Ozarks was an almost ideal soil. The well-drained, gentle slopes, once cleared of timber and loosened up with a shovel plow or a spring tooth cultivator, revealed a thin, grayish top soil formed by countless years accumulation of

50 *Ibid.*, May 24 & 31, 1918, June 9, 1922, May 15 & 29, 1942, June 8, 1951, May 9, 1952, and May 10, 1957, for account of Mexican labor.

decayed and burned leaves. At first, quite rich in nitrogen and potash and very mellow with organic matter, the land was easily cultivated. Weeds, grass, grubs and other insect pests were minor problems, and a little shallow cultivation, some hoeing and the usual training of runners sufficed to bring a splendid berry field into production unless drought or heavy freezes intervened.[51] The Aroma, the main variety of strawberry grown in this area from approximately 1900-1940, seemed to have a natural affinity for such soil. It produced a firm, well-colored berry of exceptionally fine flavor.[52]

However, it was a rocky soil and after being cultivated a few

51 Howard, "Fertilizing Strawberries," 267-268.

52 The Aroma was a late maturing berry which made it ideal for Southwest Missouri since it matured right after the Arkansas crop. An important factor in its demise seems to have been that it was not good for freezing; however, as a fresh fruit, the Aroma from a virgin Ozark field must have been an exceptionally flavorful berry. Even allowing for the superlatives of enthusiastic promoters, it must still have been one of the genuinely preferred berries on the national market. Martin, "Mo. St. Hort. Society, 1884, 1908," 56; *Agricultural Experiment Station, Circular 311,* University of Missouri, College of Agriculture (January, 1947), 3.

STRAWBERRY PRODUCTION IN MISSOURI

Year	Acreage	Production crates of 24 quarts	Average Price Per Crate	Missouri's Rank Among the States Acreage	Production	% of National Market
1899	7,498	542,436	—	8	8	5.1
1909	9,048	632,126	—	3	5	5.8
1919	8,645	535,909	—	2	2	7.3
1925	13,000	962,500	4.56	—	—	—
1927	27,340	1,086,750	3.60	—	—	—
1929	25,789	1,150,564	—	2	1	8.3
1935	6,600	310,000	2.75	8	18	2.7
1940	14,200	426,000	3.00	4	17	2.5
1945	3,200	144,000	9.25	7	12	2.6
1950	5,300	371,000	6.60	8	9	3.3
1955	900	45,000	9.60	20	22	0.4
1960	2,700	157,500	7.38	10	12	1.2
*	18,120	795,000	2.95	2	4	6.6
**	10,360	417,000	2.80	5	12	3.7

*—1928-32 average

**—1929-38 average

Compiled from U. S. Department of Commerce, Bureau of the Census, *Agricultural Census* for 1899, 1909, 1919, 1929; Missouri State Board of Agriculture *Bulletin No. 2,* April-June 1926, XXIV, 2; *Bulletin No. 4,* October-December 1927, XXV, 3; and U. S. Department of Agriculture, *Agriculture Statistics,* 1936-1941-46-51-56-61.

times, the rocks were pulled to the surface and from a distance the green, matted row of berries appeared to be growing in a rock pile. Growers called this a "rock mulch" and experts pointed out that it actually was an aid in that it prevented the soil from drying out and kept the roots cool. Also it helped to keep the berries clean when they were ripening. Most of the berries in the Ozarks were grown on this type of soil, which, it was claimed, was more suited to berry culture than the black soils of the prairies and valley.[53]

The main shortcoming of this thin upland soil lay in the fact that its fertility was easily exhausted. It was not a matter of the soil being exhausted by constant cropping with strawberries because the plants are only good for two or three years, then it is necessary to plow them up thus breaking the cycle for at least a year. If the field was continuously cropped, regardless of what was grown, its shallow fertility declined and it was subject to the ravages of erosion. Strawberries grown on this older land resulted in a smaller crop and inferior berries. The response of most growers was to move on to more new land, until with heavy production, the best land was soon used up. This problem, recognized by experts as early as 1904,[54] was partially offset by pushing into new areas opened up by the Missouri and North Arkansas Railroad and by going farther and farther afield from the shipping points—a move that was greatly facilitated by the development of the motor truck. However, the heavy production of the 1920s exhausted even these reserves and by the 1930s strawberry production in Southwest Missouri was in a decline. Many veteran growers felt there was no real substitute for new ground, that fertilizers and other soil building techniques never produced satisfactory results.[55] Experts disagreed. Investigations at the Arkansas state experiment station proved that the land could be built up in minerals and organic matter through fertilizers and cover crops and would produce just as well as the best newly cleared land.[56] This missed the point; growers were at least being practical in assuming that only new land was suitable for strawberry production. Reclamation was a tedious and costly process that could subject the land to even more erosion if it involved cultivation. Many felt turning the land into pasture was the most sensible alternative, and "cows rather than

53 Neosho *Miner and Mechanic*, June 11, 1915.
54 Howard, "Fertilizing Strawberries," 266-268.
55 "Strawberries," *Horticulture News*, III (October 20, 1943), 12.
56 A. E. Murneek, "Cultural Practices for Strawberries," *Horticulture News*, VI (May, 1946), n.p.

Strawberry Production in the Five-County Area of BARRY, JASPER, LAWRENCE, McDONALD AND NEWTON COUNTIES

Year	5-County Acres	State Acres	5-County Production (crates)	State Production (crates)	5-County Number of Growers	State Total of Growers
1899	2,455	7,498	186,953	542,436	—	—
1909	4,964	9,048	330,459	632,126	—	—
1913	3,278	4,513	—	—	974	1,753
1919	4,306	8,645	309,276	535,909	—	—
1929	15,642	25,789	667,586	1,150,564	5,598	37,558
1939	2,655	4,761	107,179	216,451	1,284	7,282

Compiled from U. S. Department of Commerce, Bureau of the Census, *Agricultural Censuses* for 1899, 1909, 1919, 1929, 1939; and Missouri State Board of Agriculture, *Forty-Sixth Annual Report, 1913*.

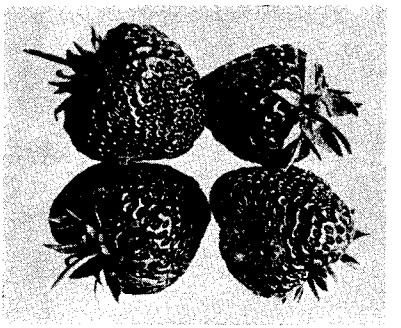
plows" proved the best long-range solution to the problem of these exhausted Ozark lands.[57]

With its many disadvantages, the wonder is not that Southwest Missouri declined as an important strawberry producing region, but that it ever became one in the first place. It was a part of that broad geographical belt, consisting mostly of southern mountain areas, that filled a niche in the seasonal strawberry market between the early maturing Gulf Coast berries and the later northern ones. The area includes such heavy producing states as North Carolina, Virginia, Tennessee, Kentucky and Arkansas. With the Arkansas Ozarks, of which it was a natural part, Southwest Missouri lay at the extreme western end of this berry belt and far from the large eastern market centers, yet closest to California which would in time prove the most formidable competitor of all. It was bold entrepreneurship in forming marketing cooperatives that enabled Southwest Missouri to seize a share of this market, but it was held because of good railroad connections and more basically because they enjoyed special advantages in the choice, but limited, strawberry lands and a surplus labor force. When these special advantages began to fade, when the virgin timberlands were depleted and the surplus population began to move away, their finely organized marketing system could not save the industry.

57 E. A. Logan, "Missouri Described by Districts," *Bulletin No. 1*, Board of Agriculture, XXVI (January-March, 1928), 20. Average production figures per acre reflect the drop in fertility. The statewide average taken from agricultural censuses for 1899, 1909 and 1919 show 68.3 crates per acres. Department of Agriculture figures for 1929-38 show an average of 40.2 crates per acre. See the accompanying "Strawberry Production" table.

There was no sudden collapse. It was a transitory process in which farmers turned to better opportunities, usually in dairying or beef cattle production. The many little forty-and eighty-acre farms were combined into larger units. Actually the strawberry industry facilitated this consolidation by increasing the incomes of these small farmers. Some used their increased earnings as an opportunity to "pull up stakes" and seek a better life in something else, others used it to buy more land and thus transform their farming operations. For all it enlarged their horizons even if they spent the money on consumer goods. It broke their bondage to a subsistence type of life and gave them more incentive to progress.

Few really lamented the decline of the industry, it was so gradual, but the veteran growers could look back on it with genuine nostalgia. It did have a certain drama to it, because so much frenzied activity was concentrated in the two- or three-week picking season. There were the memories of the multitudes of pickers and the drama of camp life with primitive living conditions; and there were the shipping depots with the long lines of wagons waiting far into the night to unload, the air pungent with the aroma of ripe berries. Then there were the bonanza years of World War I when if a person was fortunate enough to have a big patch of fine berries, he could make a real stake and might even realize enough to buy himself a good farm. By the 1960s such days were only memories.



Only a Mouthful

Jefferson City *Peoples Tribune,* October 26, 1870.

Perkins will get tight occasionally, much to the astonishment of himself and friends. "For years," says he, "it was unaccountable to me, for I never did drink but a mouthful or two; and the cause never did strike me until I measured my mouth and found that it held a pint."