## SECTION F, GEOGRAPHY

## The Peach Industry of the McGee-Stratford Area of East-Central Oklahoma: A Geographic Interpretation

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Peaches are an ancient Old World fruit which have become widely distributed in the New World since their introduction in the sixteenth century. In the United States the state of Oklahoma is not noted as a major producer of the fruit; however, peaches are important to the state in spite of their limited acreage and significance for internal markets. The fact that crop output is small dictates that the existing Oklahoma orchards assume importance simply because no large production centers exist.

In east-central Oklahoma, near the town of Stratford and the former site of McGee, a major fruit-producing region has developed. Peaches have been grown in the McGee-Stratford area since 1907 with emphasis being on the production of a fresh fruit commodity. Success has marked the historical development of the area except for a major setback during the 1930 era when drought and peach borers devastated the orchards and economic depression destroyed the fruit market. The problems of the times were overcome however so that since the mid-1940's peaches have shown a definite expansion in land use in the area. Orchard growth has been consistent as the growers have adapted modern agricultural techniques for pest control and developed irrigation as a measure of drought insurance.

The McGee-Stratford peach orchards produce 95% of all peaches grown in Garvin and McClain counties and maintain a 9% contribution to total state peach output. The peach-producing region, although small in areal extent, has thus become a major fruit center for Oklahoma.

The distribution of peach production in the local area is very striking. There are 15,390 fruit trees which are all located within an area about six miles long from north to south and five miles wide from east to west. The orchard concentration lies generally between Oklahoma State Highway 59 on the north and Oklahoma State Highway 19 on the south. U.S. Highway 177 passes north-south through the center of the production area (Fig. 1).

Two fruit growers, F. E. Rigsby and Lawrence Baker, dominate the regional peach production and currently account for 68% of all fruit produced. All other orchardists contribute 32% to the total peach output.

The general environmental characteristics of the area are well adapted to the production of tree fruit crops. The climatic, topographic, and pedologic characteristics all lend themselves to human utilization of the land for fruit production.

The climate is not so severe that winter temperatures will normally kill the peach fruit buds or harm tree growth. The temperatures during the spring blossom period are well within the limits of plant tolerances during the fruit development stage with only rare freeze danger being encountered.

Moisture availability is a major determinant of production. Difficulty may be encountered during drought periods since most growers rely on precipitation for crop requirements. The development of irrigation tech-

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Fig. 1. Peach Production, McGee-Stratford Area, Oklahoma T. 4N, R. 3E - T. 5N, R. 3E

niques appears to be presently entering the peach production picture so that even water problems may be completely resolved.

Topography throughout the area is satisfactory for utilization as an orchard 'environment. The region has a mean elevation of 1,100 ft and a local relief of 100 ft with land-form utilization for orchard sites being well adapted to the regional climatic characteristics. Local relief is satisfactory for air drainage during cold weather thereby giving a measure of freeze protection to orchards located on the high interfluves.

The soils of the region are well suited to peach land use and provide the most logical explanation for present human utilization. The parent materials underlying the interfluves utilized for orchard sites are all Gerty sands. The unconsolidated alluvial deposits provide the basis for soils upon which local peach growth is best. Only one peach orchard is not situated on Gerty sand materials and this location has proved to be unsatisfactory for peach development. The Gerty soils are sandy and welldrained, exhibiting excellent physical characteristics for peach growth. Chemically the soils lack nitrogen, potash, potassium and phosphorus but these elements are easily provided through fertilizing (Fig. 2).

The only major problems posed for the peach industry of the McGee-Stratford area are abnormal weather conditions and insect pests. The appearance of atmospheric storms during spring brings the possibility of hail damage, high winds, and heavy thundershowers. This combination may produce widespread orchard damage through limb breakage and loss of fruit during the critical growing period.

Insects, peach borers in particular, cause severe damage to trees and other insect pests render fruit commercially unattractive. Growers have adopted widespread use of poisons to check insect activity and insure fruit harvests.

The fruit produced in the McGee-Stratford region is marketed exclusively as a fresh commodity with no sale of products in the processed form. Public demand for an eating peach and the lack of commercial canneries in the area have thus caused local growers to emphasize development of highly colored and well-flavored freestone varieties. The planting of various peach types with different ripening dates has enabled producers to maintain fruit availability throughout the four-month harvest season from June to September.

The bulk of all peaches grown are actually sold in the orchards themselves. Buyers may purchase fruit directly from the growers with no middle-man costs. Fruit producers rely on roadside signs, newspaper advertising and satisfied customers to attract their trade.

In addition to orchard-sold fruit, buyers may purchase produce from any one of fourteen roadside fruit stands adjacent to U.S. Highway 177 that bisects the fruit production area. In some instances the fruit stands are owned by peach growers but many fruit stand owners buy fruit from the major orchardists.

Truckers and grocery store chains also purchase large quantities of fruit to be entered in intrastate commerce. McGee-Stratford peaches have become a familar sight on the produce racks of food markets throughout Oklahoma.

In the McGee-Stratford region there are extensive land tracts which are within the general distribution pattern of the Gerty sands which are not utilized for peach production. The sandy soils are used for the growth of many varieties of fruit and vegetable crops. The local environment is particularly adapted climatically and edaphically for the production of peanuts, melons, plums, apples, and other vegetables and fruit produce.

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Fig. 2. Peach-Soil Relation, McGee-Stratford Area, Oklahoma T. 4N, R. 3E - T. 5N, R. 3E

Fruits and vegetables are grown in the same general area as that typically utilized for peach orchards.

The development of a peach economy by a particular grower simply reflects the preference by that landowner for the specific crop. Peach land use reflects a combination of physical conditioners or limitations and human peculiarities with regard to crop preference and development. Nature to some extent dictates and limits the land use potentials but man is the ultimate determiner of utilization of the environment.

The recent 1964 planting of additional new peach orchards points up a stabilization and continued growth of the local peach economy. The producers' faith in the future fruit market has provided the essential impetus for orchard expansion.

The production of peaches, like all forms of economic activity, depends upon market demand. The continued importance of the McGee-Stratford area thus hinges upon man's peculiarities of taste and adaptation of nature's realm to satisfy human appetites. The McGee-Stratford region functions effectively as a supplier of quality fresh fruit produced for a consumer market. The adaptation of the particular local economy simply reflects the interaction of physical elements, cultural factors, and the blending of the sum into a type of geographic region.

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