

SUMMARY

This paper briefly describes the necessary data and a method for obtaining this information to make short-run forecasts of celery yields. It is recognized that, in several cases, insufficient

data were collected to derive coefficients or relationships to the degree of accuracy that is desired. However, such information is of value and the results obtained were encouraging enough to indicate that a program of objective yield forecasting can be done successfully.

A BRIEF HISTORY OF THE COMMERCIAL VEGETABLE INDUSTRY

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The growing of vegetables in Florida predates the existence of Florida as a state or even the arrival of the white man. However, the production of vegetables during the late fall, winter and early spring for sale in northern markets followed closely or simultaneously with the development of transportation serving Florida and prospective markets. Previous to 1880, there were no railroads from Florida to northern areas, although there were 518 miles of railroad in Florida. Even then some vegetables were hauled by rail (specifically on the Fernandina and Cedar Keys Railroad) to ports where they were loaded on boats for shipment to Philadelphia, New York or other eastern seaports. During the following ten years (1880-1890) more than 2000 miles of railroad were built in Florida, and these lines were connected by standard-gauge tracks to rail lines serving markets in the north and east. Vegetable growing expanded rapidly during this period. The appearance of the refrigerator car during the latter half of this period permitted the shipment of crops that previously could not be shipped. Even though natural ice for use in these cars had to be shipped from northern areas for use in them. The first reported use of a refrigerator car in Florida was the shipment of a carload of strawberries from Lawtey, Florida (Bradford County) in 1889.

The Florida Department of Agriculture in 1890 gave the first indication of the size of the vegetable industry in the State. This census reports 26,502 acres of vegetables were harvested in Florida. This same report indicates beans, cabbage, cucumbers, eggplant, potatoes, peas, sweet potatoes, squash, strawberries, tomatoes and

watermelons as the important crops produced with more than one-half of the total acreage being sweet potatoes. Alachua County was the most important producing area in the State, being top producer in beans, cabbage, cucumbers and squash; second in peas, Irish potatoes, strawberries and tomatoes; third in production of sweet potatoes. No counties south of Brevard, Manatee or DeSoto were reported as growing vegetables for sale.

During the 90's railroads continued to expand in Florida, the number of refrigerator cars increased rapidly; the use of artificial ice began to replace "natural" ice. But perhaps of equal importance was the disastrous injury to the citrus industry by cold. Many citrus growers, by necessity, turned to vegetable growing as a source of income. By 1899 the acreage harvested increased to 54,620, and 10 years later in 1910, reached 89,447 acres, and by 1920, 105,045 acres. By 1910, Lee, Palm Beach and Dade were important as producers of vegetable crops. Dade was first in the production of peppers and squash; Palm Beach was second in peppers and third in production of squash, while Lee was second in squash and third in onion production. It is interesting to observe that this early beginning of the vegetable industry is so closely related to the beginning of the Florida State Horticultural Society.

In 1899 fifty-five percent of the vegetables were produced in the north and north-central counties, forty percent in the central and 5 percent in southern counties. By 1919 the percent in northern areas of the State had dropped to 35, the central part had increased to 54 and the southern part produced the remaining 14 percent. In 1929, 22 percent of the production was in southern Florida. During the next ten years this increased to 45 percent and it has remained near this level. Thus it would appear that the northern and central areas lost production to the southern parts of the State. The acreage in both northern and central areas is greater now

than in 1920. The increase in South Florida is primarily the result of a greatly expanded industry.

While improvements in railroads, highways, refrigerator cars, trucks and artificial ice made possible the harvesting and sale of vegetables grown in the State, production costs were high and the yield of quality products was low. Perhaps this is one time when demand was ahead of production.

During the 1920's members of the Florida Agricultural Experiment Station staff reported on a number of experimental studies that had far reaching effects on the industry. Skinner, U.S. D.A., and Ruprecht, Florida Agricultural Experiment Stations, showed that the application of Manganese Sulphate on the Marl soils of Dade County resulted in phenomenal increases in yields of tomatoes. Previously, tomatoes were grown in the Marl but only after applying a handful of composted manure to each hill of plants and even then yields were relatively low. The use of Manganese was quickly adopted by the growers along with the variety Marglobe developed by Dr. Pritchard of the U.S.D.A. as resistant to nailhead rust. This use of Manganese was the first recorded use of a minor element in commercial agriculture in the United States. Dr. Skinner reporting to the Florida State Horticultural Society in 1929, stated it was the first such use in the world. Closely following the work in Dade County was that of Allison and Bryan showing the remarkable response of crops grown in Peat soil of the Everglades to Copper and Manganese.

These two research findings, together with the completion of large scale drainage projects opened the door to rapid expansion of vegetable production in the Everglades and in south Dade County. Probably of equal or greater importance, Florida growers recognized the importance of research to the development of the industry. Growers initiated and insisted on the development of adequate research facilities to assist in the solution of their many problems. During the period 1920-1950 the personnel and facilities of the Experiment Stations grew rapidly until it is now an outstanding research center.

It would be impossible to report the worthy accomplishments that have occurred during this period in the development of the industry. Varieties changed several times, new ones often having resistance to previously severe diseases but always of good or superior quality and high yielding. Fertilizer practices were revolutionized.

Disease and insect control became increasingly effective allowing for the production of crops once considered impossible (sweet corn), and crops produced relatively free of insect and disease injury. Nematodes, long recognized as important pests of Florida crops, could be controlled by means other than finding new crop land.

Improvements in production practices opened new areas to production and protected older areas. They resulted in the production, at times, of supplies in excess of what the market could absorb at profitable prices to producers. Producers first met this challenge by searching for ways and means to lower production cost and to make the product even more appealing to the consumer. Washing and precooling of celery became standard practices in the twenties when it was demonstrated that this resulted in better quality celery reaching the market. In the thirties washing even was extended to potatoes. Growers continue to search for means or methods of anticipating market demands and effective ways to meet them.

The last fifteen years have been characterized by larger acreages of specific crops being produced by growers. This trend is probably due to the increased use of large and expensive specialized machines for production and harvesting. This probably is the reason for the reduction of farms producing vegetables. In 1954, there were 420 farms harvesting 91,852 acres of vegetables in Palm Beach and Broward Counties. By 1959, the number of vegetable farms in these counties had decreased to 215 harvesting 97,430 acres.

The growth and development of the vegetable industry in Florida has been continuous through two severe national depressions and two world wars. Last year more than 335,000 acres of vegetables with an F.O.B. value of more than 225 million dollars was produced. This acreage included many widely different varieties of more than 30 kinds of vegetables. There is every indication that this industry will continue to grow and continue to contribute significantly to the economy of the State.

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