The supply effect of the quantity of celery shipped from Sunday through Thursday has been incorporated into the unsold celery on Friday morning. The effect of this variable on the price of celery is that of a position or market tone variable. A 10 per cent increase in shipment with no change in carry-over indicates a strengthening market and the effect is positive. If, on the other hand, the increase in shipments is added to unsold celery on Friday morning, the price is reduced as a result of the difference in signs and absolute size of the coefficients.

The estimate of the coefficient for the variable on expected shipment of Florida celery during the next week was nonsignificant in each of the equations estimated. It is not known whether or not a more accurate supply estimate would have given a significant coefficient. However, neither of the present models can handle a supply change of the range which occurred during the weeks of November 23 and December 14, 1962. The interaction of the variables and the regulations resulting in an orderly flow of celery to market means that, under normal fluctuations (gradual changes) in supply, the present equations do an excellent job.

The availability of a more exact estimate of supply would permit the development of a function which the Exchange could use in determining the quantity of celery which would return the greatest amount of money to producers on a weekly basis. Stout and Hancock (2) indicate that, given adequate resources, more exact weekly estimates of the quantity available for future harvest are possible.

**Summary**

Is it possible to predict the price of Florida celery for the following week? We think it can be done by the use of a very simple function containing only four independent variables. They are: (1) the California f.o.b. price of celery on Thursday; (2) the unsold Friday celery on Friday plus the expected harvest of Florida celery on Friday and Saturday; (3) the quantity of Florida celery shipped from Sunday through Thursday; and (4) the f.o.b. Belle Glade price on Friday morning. The stability of the coefficients and closeness of the actual and predicted prices during the 1962-63 season look good. While empirical testing needs to be carried out over a much longer period of time, the economic soundness of the model gives one a relatively high degree of confidence in its validity. While this is a tool which, if used, could be very valuable to the industry, we do not feel that it is a finished product which can wholly replace experience and judgment in administratively setting the price of Florida celery.

**LITERATURE CITED**


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**CARROT PLANTING DATE TRIALS IN CENTRAL FLORIDA**

R. B. Forbes and W. T. Scudder

Experiments to determine the most favorable planting period for carrots in the Sanford area were initiated at the Central Florida Experiment Station's Sanford farm in 1958-59. This first year an observational trial was conducted. Replicated experiments were conducted in 1960-61 and 1961-62.

At the beginning of these experiments, carrots were new as a commercial crop in this part of the state and much remained to be learned of their cultural requirements. Most of the farm land in the Sanford area is tiled Leon fine sand or related soil types. The fields have been planted intensively to vegetables, principally celery and cabbage, for periods up to 50 or 60 years.

**Procedure**

Individual plots consisted of 2 rows, 15 feet long, for each variety. The rows were 12 inches apart, and the plants were thinned to a spacing of 2 to 3 inches within the row. The land was fumigated for nematode control prior to planting. All plots were given uniform fertilization and other maintenance, including overhead irrigation when needed.

Varieties used in 1958-59 were Red Core Chantenay, Danvers, Nantes, and Imperator. In
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1960-61, Red Core Chantenay, Tendersweet, Imperator, and Goldpak were planted. In the 1961-62 trial only Chantenay and Imperator were planted, these being representative of a large processing type and a fresh market type respectively.

RESULTS AND DISCUSSION

In the 1958-59 trial, yields were highest in the earliest (November) planting and decreased progressively thereafter. Generally, the heavy, thick-bodied carrots, such as Chantenay, out-yielded the slender, fresh market types. The same was true in a duplicate planting on Everglades mucky peat at the Station's Zellwood farm.


In both years the Chantenay consistently out-yielded the slender, fresh-market types. The yield differences were very highly significant (beyond the 0.001 level).

The date of planting had a very highly significant influence on yields of all varieties in both seasons. Early plantings proved best except for the September plantings in the 1961-62 trial. In this case, a severe outbreak of blight (Alternaria sp.) occurred and plants were partially defoliated before a spray program was begun. During previous trials little blight was encountered; hence no preventive spray program was employed until the disease appeared.

The decreasing yields in later plantings are thought to be the result of two factors: (a) adverse weather (cold, dry, windy) at the start which was responsible for poor stands; and (b) hot weather during late spring as carrots were maturing. Barnes (1), Magruder, et al (2), and Thompson and Kelly (3) all indicate that high temperatures tend to reduce the size of carrot roots. Magruder, et al (2) state that the optimum temperature is probably between 65 and 70 degrees. Of course, temperatures ran considerably above this range at Sanford during May and June as the late plantings were maturing (the last 2 plantings were harvested in June both years). Also, during warm moist periods, soft rot of carrots still in the ground reduced yields.

SUMMARY AND CONCLUSIONS

Carrot plantings were made at intervals from September to February. Best yields with all varieties occurred consistently in the mid-fall (October or early November) plantings. Later plantings yielded progressively less. Production from September plantings was reduced by blight. Of the varieties used, the large diameter canning-type carrots, such as Chantenay, consistently out-yielded the long fresh-market types.

LITERATURE CITED