Newsletter No. 26

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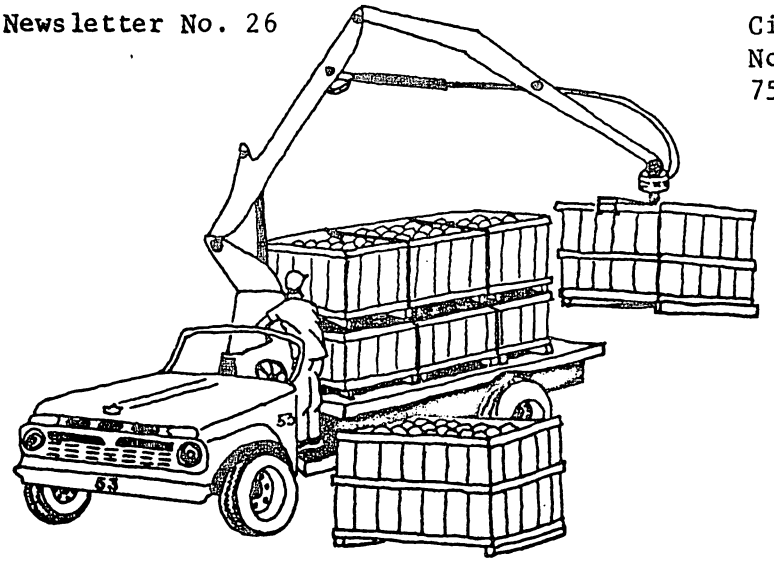
Citrus Station Mimeo Report CES 70-13
November 18, 1969
750-WFW-Lake Alfred, Florida 33850



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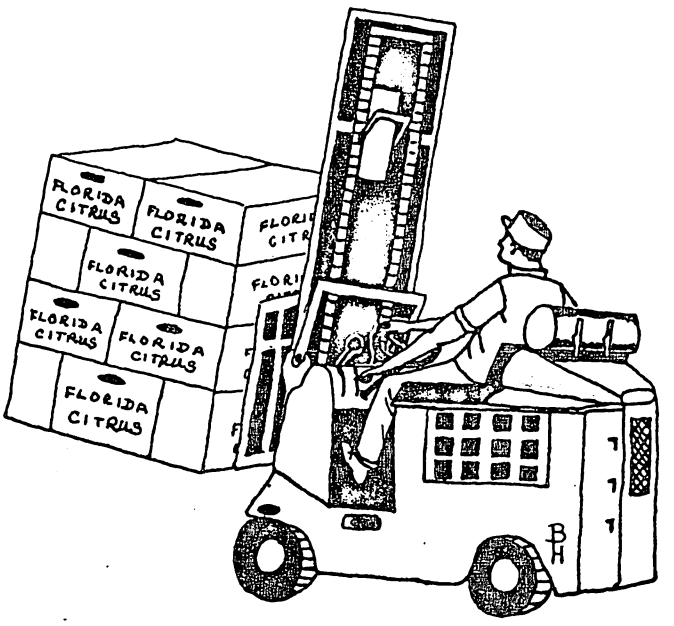
Packinghouse Newsletter

UNIVERSITY OF FLORIDA INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES

and

STATE OF FLORIDA, DEPARTMENT OF CITRUS



*Complimentary to members of the Florida Fresh Citrus Shippers Association. Others wishing to receive this newsletter may send a dozen stamped, preaddressed envelopes to the above address.

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Harvesting and Handling Section

P A C K I N G H O U S E N E W S L E T T E R

STEM-END RIND BREAKDOWN

Stem-end rind breakdown is a common peel injury of oranges at this season of the year. Drying conditions--in the grove, during degreening, or after degreening and before packing--cause stem-end rind breakdown. Avoid unnecessary delay from the time of picking to delivery to the packinghouse. Humidity in the degreening rooms should be maintained with no more than a 2 to 3 degree spread between the dry- and wet-bulb thermometers. After degreening, oranges should be packed as soon as possible. Proper handling will also reduce decay.

Stem-end rind breakdown is more likely to appear on small sizes and thin-skinned oranges. Stem-end rind breakdown can be reduced or eliminated by keeping the harvesting-waxing interval to a minimum and not allowing the fruit to stand under conditions of low humidity. More information may be obtained from Circular 286, "Practical Measures for Control of Rind Breakdown of Oranges," which is available at the Citrus Experiment Station.

A. McCornack
Department of Citrus
Citrus Experiment Station

THIS IS A BAD YEAR FOR STEM-END ROT

In Newsletter No. 25, we mentioned that all symptoms indicated that this would be a bad degreening season; and any delays or errors in degreening would greatly stimulate stem-end rot. We were remiss in burying this important item well down on page 3. It has turned out to be all too true and has definitely had an effect on the market.

Fall stem-end rot is caused by Diplodia natalensis which is also one of the organisms causing foot-rot, twig die-back, and similar problems in the grove. It thrives in wet weather as the spores are water-born. In a season such as this, we can expect the buttons of virtually every fruit to be infected with this fungus. If it enters the fruit, the result is stem-end rot.

Fall stem-end rot has the unfortunate characteristic that its growth and development is very much accelerated by degreening temperatures and high ethylene concentrations.

Until we get clearance for preharvest fungicides, our only effective recommendations are to get the fruit through the degreening room as fast as possible and to keep degreening conditions as nearly optimum as possible. Anything that slows up degreening will greatly stimulate stem-end rot. High ethylene concentrations and also dry degreening room conditions (which cause minute cracks under the button, allowing fungus to enter) cause increases in stem-end rot.

When crops are very green, we advise test picking a few boxes of inside fruit to see if they will degreen before picking the whole crop. In the degreening room, keep ethylene concentrations low. Every packinghouse should have an ethylene

analyzer which is very cheap insurance against decay claims. Ethylene at 1 to 5 ppm will do a good degreening job without too much stimulation of stem-end rot. There should be definite air movement in all parts of the room, slight continuous ventilation; temperatures should not exceed 85° F, and humidity should be over 90% R.H., but not up to precipitation point.

Above all, do everything you can to shorten the time between the tree and the fungicide applicator.

W. Grierson, Professor
Horticulturist
Citrus Experiment Station

NEW PACKINGHOUSE IN ARIZONA

Attention is drawn to the article in the California Citrograph, Vol. 54, No. 12, page 492, October, 1969, entitled: "DVR: Colossus at Tacna." We who advise on new developments always wish that sometime we could start with a completely blank sheet of paper. This has been done by a very large investment corporation, Train, Cabot Associates, in their enormous Desert Valencia Ranch planting on Yuma Mesa in Arizona. This is a huge investment by hard-headed financiers who planned it with the best advice they could get; and the result is a "people-oriented" set-up designed, as a first item of priority, to give year around employment to their workers. The packinghouse will work on the "inventory-to-inventory system." That is to say an inventory of harvested fruit and an inventory of packed fruit with a packing process running at maximum efficiency regardless of individual orders.

We were among the many people consulted in the planning of this huge venture; but these decisions were probably not due to our advice, but because they made sense to a group of hard-headed financiers.

For those who do not have access to the California Citrograph, we would be happy to send them a Xerox copy. The article is well worth reading for many reasons, if only to see what our competition is doing.

W. Grierson, Professor
Horticulturist
Citrus Experiment Station

DR. GRIERSON RECEIVES AWARD

The Florida State Horticultural Society's Presidential Gold Medal Award has been presented to Dr. Bill Grierson, Head, Harvesting and Handling Section, Citrus Experiment Station. This award is presented each year at the FSHS annual meeting in Miami Beach to the Society member contributing most to the State's horticultural industry through papers presented during the past 5 years.

Congratulations Bill!

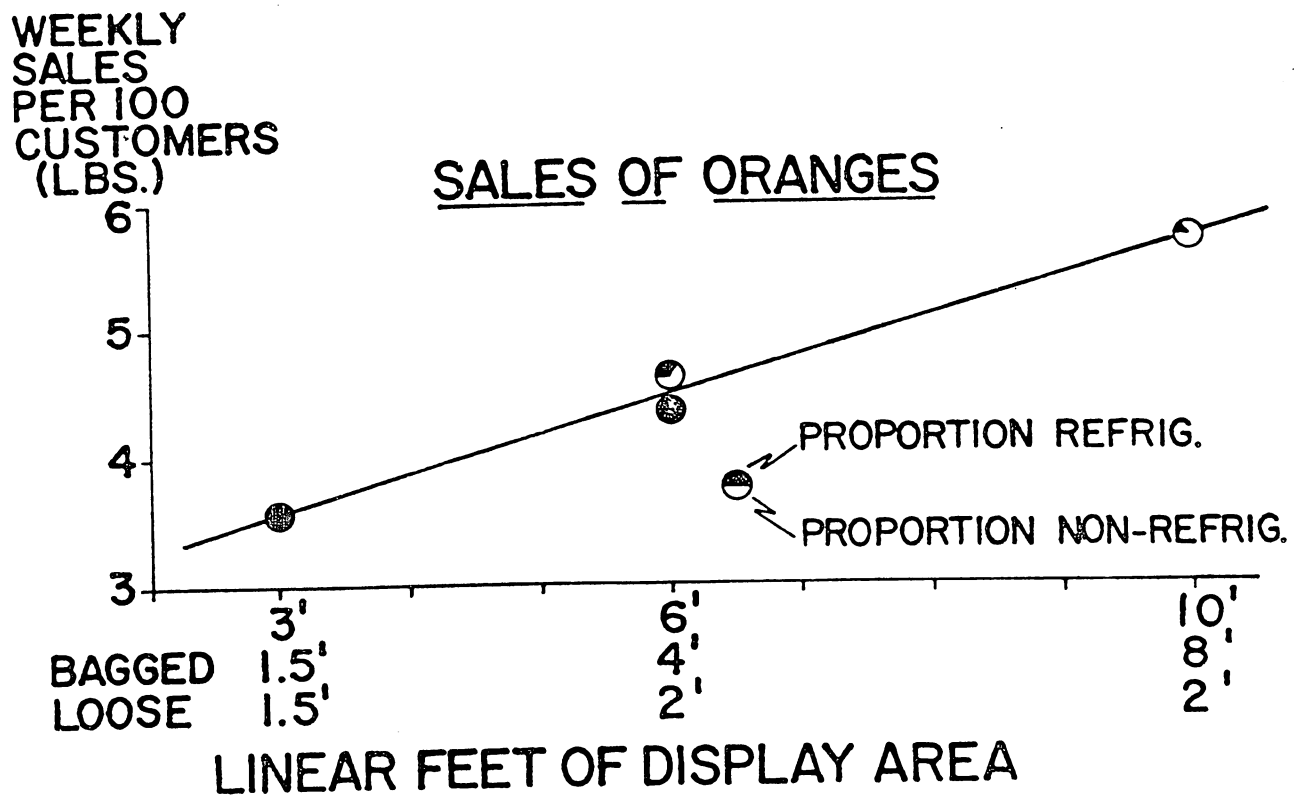
SUMMARY OF SIZE OF DISPLAY STUDY

The size of the fresh orange display has a greater affect on orange sales than whether the display is refrigerated. The FCC's Economic Research Department recently tested four displays of varying sizes and levels of refrigeration. The sales results are summarized in the figure below. A summary of the results is as follows:

1. There was not a significant difference in sales between the two six-foot displays even though one was 100 percent refrigerated and the other had only 33 percent refrigeration.
2. There was a significant decrease in sales when the three-foot display of 100 percent refrigeration was substituted for the six-foot display of 33 percent refrigeration.
3. There was a significant increase in sales when the ten-foot display of 20 percent refrigeration was substituted for the six-foot display of 33 percent refrigeration.

The above results suggest that, unless the supermarket chain will substitute an equal amount of refrigerated display area for the non-refrigerated space, the industry should not go to all-refrigerated displays. Refrigerated produce counter space is limited in the typical supermarket; whereas, non-refrigerated aisle table display space is not as limited. Consequently, the industry would likely have greater success in obtaining additional non-refrigerated space. As indicated by this study, such an increase in display area would increase sales.

For a copy of the complete study, please contact the Economic Research Department, Florida Citrus Commission, University of Florida, Gainesville, Florida, 32601.



Dr. W. Bernard Lester, Director
Economic Research Department
University of Florida

AVAILABLE PUBLICATIONS

Available from the Harvesting and Handling Section, Citrus Experiment Station.

"Practical Measures for Control of Rind Breakdown of Oranges," May, 1965. Circular 286. A. A. McCornack and W. Grierson.

Xerox copy of "DVR: Colossus at Tacna," California Citrograph, Vol. 54, No. 12, p. 492. October, 1969.

Available from Economic Research Department, State of Florida, Department of Citrus, University of Florida, Gainesville, Florida 32601.

"Size of Display Study," Dr. W. Bernard Lester.