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Citrus Station Mimeo Report CES 68-13
November 14, 1967

UNIVERSITY OF FLORIDA INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES

and

FLORIDA CITRUS COMMISSION

No. 11

November 14, 1967

P A C K I N G H O U S E

N E W S L E T T E R

Harvesting and Handling Section
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(Complimentary to members of the Florida Fresh Citrus Shippers Association.
Others wishing to receive this newsletter, send a dozen stamped preaddressed
envelopes to the above address).

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

PEEL INJURY OF ORANGES

This year, Stem-End Rind Breakdown and other similar peel injuries are the worst we have seen in many years. Rind injuries have been common all over the state and have caused considerable losses. In almost every case, it has been reported to us as being some form of chemical injury. The problem usually starts in the grove, although it is not observed there. Stem-End Rind Breakdown is particularly serious in dry, windy weather. If you think you have a chemical burn, check the fruit. If there is a clear ring of 1/8 of an inch or more of healthy tissue around the stem and the trouble is very largely concentrated on the stem-ends and in the small sizes, then you do not have a chemical injury, but some form of physiological rind breakdown.

Instructions on how to deal with peel injuries to minimize losses are given in the 4-page Agricultural Extension Service Circular No. 286, dated May 1965, "Practical Measures for Control of Rind Breakdown of Oranges," by A. A. McCornack and W. Grierson. Extra copies are available from the Citrus Experiment Station or from the Mailing Room, Agricultural Experiment Stations, University of Florida, Gainesville, 32601.

Recommendations can be summarized very briefly as follows: 1) avoid drying conditions between picking and dumping; 2) keep the time between picking and dumping as short as possible; 3) run degreening rooms at as high a humidity as possible without getting the fruit wet (approximately 85°F. dry bulb, 83°F. wet bulb). If necessary, use live steam to raise the wet bulb reading to within 2° of the dry bulb reading, even if the dry bulb goes above 85°F. Be sure to apply a good wax coat and ship or refrigerate the packed fruit promptly.

ZEBRA SKIN INJURY OF TANGERINES

We have had a few reports of Zebra Skin injury of tangerines and expect to hear many more if the current drought is broken by a heavy rain. "Droughty" tangerines that receive either a heavy rain or an irrigation are susceptible to 100% loss from Zebra Skin if picked 2 to 4 days after the rain or irrigation. The susceptibility thereafter declines slowly. For further details see: Extension Circular 285, dated May 1965, "Tangerine Handling" by W. Grierson, A. A. McCornack, and F. W. Hayward. Copies are available from the Citrus Experiment Station or from the Mailing Room in Gainesville.

CHILLING INJURY OF GRAPEFRUIT

Grapefruit, particularly early grapefruit, are sensitive to chilling injury at holding temperatures below 55° F. Late grapefruit may chill at temperatures below 50° F. The symptom is an ugly and extensive pitting-type, peel injury. Attention is drawn to a USDA publication, "Factors Affecting the Quality of Grapefruit Exported from Florida," Market Research Report No. 739, dated March 1966, available from the senior author, Dr. W. G. Chace at the USDA Horticultural Station, 2120 Camden Road, Orlando, 32803.

EUROPEAN FOOD AND DRUG REGULATIONS

The attention of shippers interested in the export market is drawn to the recent changes in the West German Food and Drug Regulations. The West German rules are used very generally throughout Western Europe. The best account that we have received to date has come to us via Dr. R. F. Matthews in the Department of Food Science at Gainesville. A portion of his letter is quoted below. In reading this letter, note the following points: phenylphenates, orthophenylphenol and sodium orthophenylphenol mean "Dowicide"; mg./kg. means parts per million; EEC means European Economic Community; and FAO means Food and Agricultural Organization of the United Nations.

The following is extracted from the letter from Dr. Matthews to Dr. Grierson: "... Since I last wrote, I have received some information from Mr. E. S. Abensour, Chief of the Legislation Branch, FAO, Rome. He informed me that the EEC appears to have reached a compromise on diphenyl and the phenylphenates under which "the legislation of a Member State may totally prohibit the use of one of the preservative agents listed in the Annex only if there is no technological necessity for the use thereof in the foodstuffs produced and consumed on its own territory." Under the conditions outlined, diphenyl tolerances are authorized at 70 mg./kg. of whole fruit; orthophenylphenol and sodium orthophenylphenol at 12 mg./kg. of whole fruit. The chemical treatment must be indicated at wholesale, on invoices and on the outside face of packages; at retail, by a visible sign which will assure facts to the consumers in an unequivocal manner. These regulations will come into effect June 30, 1968.

In a letter from J. W. Stewart, Director of Fruit and Vegetable Division, Foreign Agricultural Service, United States Department of Agriculture, he explained that the present temporary EEC authorization for the use of diphenyl, orthophenylphenol, and sodium orthophenylphenol on citrus fruits expires on June 30, 1968."

The 70 mg./kg. limit on diphenyl is lower than our U.S. tolerance of 110 parts per million. We should have no difficulty keeping within this tolerance providing that fruit packed with diphenyl pads is not allowed to get warm for considerable periods. Tangerines (which we do not usually ship to Europe), are the only citrus fruit which normally exceed the EEC limit of 70 mg./kg. The 12 mg./kg. limit for Dowicide is slightly higher than the U.S. regulation and gives us no reason to worry.