

INSTITUTE OF FOOD AND  
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FLORIDA  
COOPERATIVE  
EXTENSION SERVICE

## PACKINGHOUSE NEWSLETTER

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Key Word Index Gift Fruit Packinghouse Day, Juice Standards, Maturity

### CITRUS GIFT FRUIT PACKINGHOUSE DAY

This meeting is being planned with the Florida Gift Fruit Shippers Association, and is scheduled Tuesday, May 18, 1982 at the University of Florida, IFAS, Agricultural Research & Education Center, Lake Alfred. Registration is scheduled at 9 AM and the program will begin at 9:40 AM. At this writing, the program is still being formulated to include the following subjects:

Decay control	Packaging
Packing fruit flow	Licensing gift fruit
Degreening	UniPack individual fruit wrapping
New varieties	Juice sanitation
Packer conferences	Harvesting
Fruit displays	Equipment displays

Florida Citrus Commissioner Dorothy Shipes is also a gift fruit shipper who has consented to introduce speakers on the program. One speaker will be Florida Senator Curtis Peterson explaining the proposed bill to license gift fruit shippers.

This meeting is open to the public. Commercial exhibitors must first obtain an invitation from the Florida Gift Fruit Shippers Association and lunch tickets must be purchased no later than May 5, 1982 from the Association, 521 N. Kirkman Road, Orlando, FL 32811. Phone (305) 295-1491.

Will Wardowski  
Extension Service

Bill Miller  
AREC  
Lake Alfred

INTERNATIONALLY, OUR JUICE MATURITY STANDARDS ARE UNINTELLIGIBLE

Florida has the highest standards in the world for internal quality of citrus fruit. When we were writing a paper on international standards (see Available Publications) Dr. Jerry Ting of the Department of Citrus and I could find no standards anywhere nearly as high as those that the Florida citrus industry imposes upon itself. The Florida standards are particularly high for juice yield (Fig. 1). It is a pity that they are expressed in terms that are completely unintelligible to anyone other than those in the Florida citrus industry.

For oranges, Florida stipulates 4-1/2 gallons per box (5 gallons per box if color-added). Not only is the "box" an archaic local measure, but the U.S. gallon is an anomaly, being based on the old wine gallon, not the internationally accepted imperial gallon. An imperial gallon of water weighs exactly 10 pounds, a useful and manageable measure which the U.S. gallon certainly is not. For grapefruit, we stipulate a minimum of so many cubic centimeters (cc) juice for each size of fruit. Cubic centimeters, also called milliliters (ml), are internationally accepted terms. But not only do fruit sizes expressed as "count" mean very little to overseas buyers, but these sizes no longer have any fixed range of diameters. Current grade standards only stipulate so many fruit per container and a stipulated range of diameters. Our grapefruit may be juicier than most other grapefruit, but you need detailed knowledge of some regulations and a calculator to prove this.

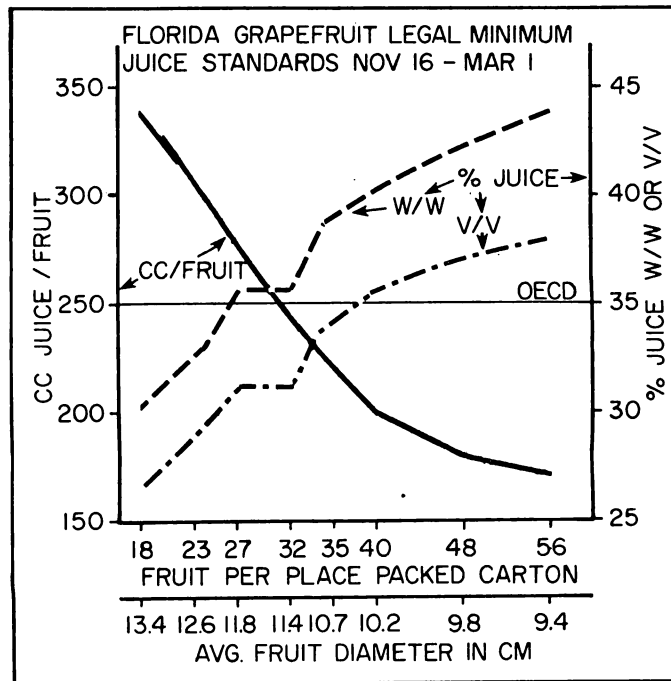


Fig. 1. Florida grapefruit: Minimum juice requirement for November 16 through March 1. The legal juice requirement, as cc per individual fruit for each size, is also expressed as % juice volume, both v/v and w/w. Note that the smaller sizes (common in the export trade) would greatly exceed the OECD (European) minimum % w/w juice content although the 2 largest sizes of exactly comparable maturity would be below OECD minimum standard.

For lemons and limes, juice is expressed as percent of juice by volume (v/v) which approaches international methods but which again puts Florida at a disadvantage. The specific gravity of juice is always above one, the specific gravity of any fruit that will float in water is less than one. Thus, expressing juice as percent juice by volume (v/v) gives a much lower percentage than when expressed as percent juice by weight (w/w)

The use of the international standard of percent juice (w/w) would show that Florida citrus standards are usually higher than expected in the export markets to which we ship.

Bill Grierson, AREC  
Lake Alfred

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AVAILABLE PUBLICATIONS

Available from Dr. W. Wardowski, AREC, 700 Expt. Stn. Rd., Lake Alfred, FL 33850

"Quality standards for citrus fruits, juices and beverages" by W. Grierson and S. V. Ting. Proc. Int. Soc. Citriculture, pages 21-27. 1978.

"Responsibility - Key Word." In his Principal Address at the 93rd Annual Meeting of the Florida State Horticultural Society, Loyal Frisbie, Editor Emeritus The Citrus Industry reviewed past and present problems of the Florida citrus industry.

"Florida citrus quality tests" by W. Wardowski, J. Soule, W. Grierson and G. Westbrook. University of Florida Bulletin 188. 30 pages.

Available from Dr. D. Spalding, USDA, ARS, 13601 Old Cutler Rd., Miami, FL 33158

"Low-dose irradiation as a treatment for grapefruit and mangoes infested with Caribbean fruit fly larvae." U.S. Dept. Agr., Agr. Res. Ser. ARR-S-10/October, 1981.

Available from Sr. I. Sanchez, Pascal Hermanos, S.A., Calle Cronista Carreres II, Valencia 3, SPAIN

"A survey of Spanish citrus packinghouses" by I. Sanchez. Published in Fruit Trades Journal (in English).

"Cardboard boxes for packaging fruit and vegetables" by I. Sanchez. Talk at the Fourth Fefco Marketing Seminar, November 1981, Paris, France (in English).

Available from Dr. S. Ben-Yehoshua, The Volcani Center, P. O. Box 6, Bet Dagan, ISRAEL 50200

"Decay control and fungicide residues in citrus fruits seal-packed in a high-density polyethylene film" by S. Ben-Yehoshua, A. Apelbaum and E. Cohen. Pestic. Sci. 12:485-490. 1981.

This newsletter is published at a cost of \$85.32 or 6 cents per copy, to give the latest news to the packinghouse industry.

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