



INSTITUTE OF FOOD AND
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FLORIDA
COOPERATIVE
EXTENSION SERVICE

PACKINGHOUSE NEWSLETTER

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Key Word Index Canada, Degreening, Diphenyl, Drying, Labeling Cartons, Noise, OSHA, Picking, Scheduling Changes, Safety, Tangerines.

THE 1977-'78 SEASON IS UPON US

A few packinghouses have already opened and the trickle of fruit will soon become a torrent. This is a good time to review the things we all know but are apt to be overlooked until trouble strikes.

Picking

Try to keep fresh fruit picking crews off cannery picking, particularly those harvesting specialty fruit. DO NOT LEAVE PICKED FRUIT EXPOSED TO THE SUN. (We have already had badly sun burned fruit brought in to us for diagnosis). Get picked fruit to the packinghouse as quickly as possible. Never let it dry out more than can be helped.

After Degreening (Degreening, See page 3)

NEVER "harden off" fruit after degreening. If you are not ready to run it immediately, leave the humidifiers and fans on, but cut off the heat and ethylene.

Fungicides and Waxing

Check nozzles repeatedly to make sure that they are not clogged. Fungicides applied in water as a non-recovery spray do a better job, with lower residue levels, than when applied in the wax.

Drying

With the soaring costs of fuel, unnecessary inefficiencies are very expensive. One of the most common such inefficiencies is excessive fuel use (and poor drying) due to dirty radiators. RADIATORS SHOULD BE CLEANED WEEKLY both for fuel economy and for better drying.

Packing

Do not overfill cartons. With a "waterlevel fill", fruit have a much better chance of arriving round, rather than square, triangular, or other curious shapes. Besides, why give away the 5% or more of the fruit involved in producing these undesirable high packs.

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MANDARIN-TYPE FRUIT AND DIPHENYL

Mandarin-type citrus fruits such as Dancy tangerines, Murcott Honey tangerines and tangelos absorb diphenyl (biphenyl) more readily than other citrus varieties. This old problem (see Packinghouse Newsletter No. 1, September 1, 1965) was brought to our attention by a report that mandarins were condemned in Europe due to excessive diphenyl residue. If diphenyl pads are used, use one pad per carton for mandarin-type fruits rather than the customary two pads.

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GUILTY OF NOISE POLLUTION?

One of the most straightforward OSHA regulations deals with noise pollution. Noise itself is defined as any undesirable sound (usually intermittent or random in nature). It is measured by use of a sound level meter employing the dB(A) scale. This scale is chosen since it approximates more closely the response characteristics of the human ear. Below is a table summarizing current allowable exposure levels:

<u>Sound level, dB(A)</u>	<u>Time in Hours</u>
90	8
95	4
100	2
105	1

Field studies of some Florida packinghouses indicated that many operations are border-line cases with regard to the above limits.

The decibel scale is logarithmic in nature so various sound levels cannot be combined directly. For example, if an 85 dB(A) source originates from Machine "A" and 75 dB(A) from adjoining Machine "B", the combined output is only 85.4 dB(A). In most cases, if the largest reading is 6 dB(A) or more above other noise readings, one can take the largest reading as a good approximation of the overall sound level.

Noise can be reduced at the source (by engineering design, machinery maintenance and vibration isolation) or by interrupting the sound path (by structural acoustical absorbing material, acoustical enclosures or ear plugs). For example, installing padding to the underside of metal chutes or making them more structurally rigid can have a marked effect upon noise levels.

Within OSHA noise standards or not, a quieter working environment usually will result in more productive, less fatigued employees.

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DEGREENING RECOMMENDATIONS UNCHANGED

With the degreening season starting and another source of ethylene being promoted, it seems appropriate to note that our degreening recommendations are unchanged. Degreening recommendations for Florida citrus fruit include temperature of 82 to 85°F, ethylene at 1 to 5 parts per million (ppm), a portable analyzer to determine the proper ethylene concentration, relative humidity of 90 to 96%, fresh air ventilation of one air change per hour and air circulation of 100 cubic feet per minute (CFM) per pallet box capacity of the room.

These recommendations will be found in greater detail in Circular 389, "Recommendations for Degreening Florida Citrus Fruits". See available publications in this newsletter.

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TIMING MAJOR CHANGE APPROVALS

We have all heard of long delays in obtaining some equipment. Delays of six months are common, and in some cases a large remodeling or building project can be delayed by the lack of critical components. Boards of Directors meeting at the end of the season (June) cannot expect to approve major building, additions or remodeling to be completed by the start of the next season (September). If your organization is to attempt major changes during the summer, a Board of Directors meeting to consider approving the project would be better scheduled during the Christmas break than at the end of the season.

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PARLEZ FRANCAIS? YOU MUST

Inspectors representing the separatist Quebec provincial government recently swooped down on a Dunkin' Donuts plant in Montreal and confiscated 10,000 doughnut boxes because they had English labels but none in French.

Perhaps as early as 1983, Quebec may eliminate English and require only French on labels. This will pose an obvious problem for American companies marketing in Canada because they must have one label for Quebec and another for the rest of Canada.

The PMA Report
Volume 9, No. 16
August 26, 1977

AVAILABLE PUBLICATIONS

Available from Dr. W. F. Wardowski, AREC, P. O. Box 1088, Lake Alfred, FL 33850

Packinghouse Newsletter Index for issues 1 - 89.

"Sixteenth Annual Citrus Packinghouse Day Program & Abstracts." Sept. 7, 1977. 12 pages.

"Recommendations for degreening Florida fresh citrus fruits" by W. F. Wardowski and A. A. McCornack. Circular 389. May, 1973.

Available from Dr. R. Phillips, AREC, 18905 SW 280th Street, Homestead, FL 33031

"Stylar-end breakdown in 'Tahiti' lime" by R. L. Phillips and Seymour Goldweber. Undated, 2 pages.

Available from Dr. Kary Mathis, Food and Resource Economics Department, 1157 McCarty Hall IFAS, University of Florida, Gainesville, FL 32611

"Produce merchandisers' preferences for point-of-purchase advertising materials" by Robert L. Degner and Kary Mathis. FAMRC Staff Report 1. February, 1977.

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