

## INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES UNIVERSITY OF FLORIDA

FLORIDA COOPERATIVE **EXTENSION SERVICE** 

# PACKINGHOUSE NEWSLETTER

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Key Word Index Decay Control, Diphenyl, Export, Fungicide Regulations, Japan, Magnetic Broom. Packers' Corner, Resistant Molds, Safety, SOPP, Thiabendazole (TBZ), Trash Elimination

#### POSTHARVEST FUNGICIDE RECOMMENDATIONS FOR CITRUS EXPORTS TO JAPAN

Several recent inquiries have been made as to our recommendations for postharvest fungicides on citrus for export to Japan. Three fungicides are now allowed on citrus sold in Japan; diphenyl, sodium o-phenylphenate (SOPP), and thiabendazole (TBZ) (see Packinghouse Newsletter No. 96 for an approved list of tolerances). Florida Department of Citrus Official Rules, Chapter 20-33, revised January 14, 1979 requires that either SOPP or TBZ be applied to citrus packed in Florida and shipped to Japan. Use of both is permitted.

TBZ is the most effective of the three fungicides for stem-end rots and molds, the ost common forms of decay on Florida fruit. SOPP should also be applied in the soap to id cleaning and to keep the first part of the packing line clean to reduce contamination from sour rot. Dip tanks or soak tanks can be a source of contamination by green molds and sour rot, and should be avoided.

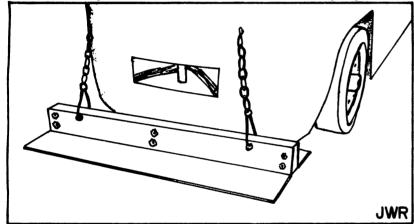
After bloom (usually in mid-March), the keeping quality of grapefruit decreases and decay increases. We have previously recommended against shipping grapefruit late in the season in April or May (Packinghouse Newsletter No. 85). However, with the tariff structure in Japan, we recognize that fruit will be shipped as late as possible, even into June. Such late fruit needs all the protection possible. Diphenyl at the rate of two pads per carton can safely be added from mid-season to the end of the season. Diphenyl reduces sporulation of green mold on infected fruit and thereby reduces soilage by mold spores of remaining fruit within the carton. Diphenyl will also control strains of green mold which may have developed resistance to TBZ. Recent tests have confirmed that the high diphenyl residues found early in the 1977-78 season were just that, early season residues. This season we found similar high diphenyl residues of grapefruit intentionally harvested prior to maturity, and these residues decreased as the fruit samples matured until they reached predicted normal levels.

> Will Wardowski, Extension Service Bill Grierson, AREC Eldon Brown, Florida Department of Citrus, Lake Alfred John Smoot, USDA, Orlando

# PACKERS' CORNER

#### MAGNETIC BROOM JUNK COLLECTOR

Jim Ellis, General Manager, Lake Garfield Citrus Coop. decided to do something about the metal in his receiving yard. He purchased a large magnet, about  $1\text{-}1/2" \times 4" \times 36"$ , with two pieces of  $4" \times 6" \times 36"$  steel angle bolted to it as shown in the illustration (these measurements are not exact requirements, but they work well in this case). He then hung the unit on the back of a lift truck by chains so that it cleares the ground by about 2 inches. This silent, pollution free, weary-free worker picks up bolts, nails, staples and other metal every day. The initial collection was several pounds of metal a day, but now the amount is down to a handful a day. The cost? Jim ordered a second one for his other yard lift truck because the cost is about the same as one truck tire not counting down-time and labor of changing the tire.



Will Wardowski Extension Service Lake Alfred

### DR. STEVEN NAGY JOINS LAKE ALFRED GROUP

Having our prejudices, it is nice to have fresh fruit win one occasionally. Steve Nagy is well known in processing circles for his work at the USDA Citrus and Subtropical Products Laboratory in Winter Haven and as one of the editors of the two-volume AVI text "Citrus Processing, Science and Technology."

He has now joined our Harvesting and Handling Section in the Florida Department of Citrus position left open with Andy McCornack's retirement (Packinghouse Newsletter No. 96). With increasingly onerous federal regulations, decay control research has long since ceased to be a matter of simply testing fungicides. Today the FDA and EPA want to know what happens to each fungicide residue in the fruit. Does it break down? If so, to what? Are addition compounds formed with fruit components? If so, what are their properties? Because this sort of concern is increasingly worldwide, the Florida Citrus Packers have requested that some staff member be responsible for keeping track of any such residue regulations for any pesticides in the increasing list of countries to which Florida citrus is exported. Steve Nagy's background is well adapted to the exceedingly precise analyses (often well below the 1 part per million level) involved in this new direction being taken by decay control research.

Bill Grierson AREC Lake Alfred

#### FIRE SAFETY

Don't stack pallets and empty crates against an outside building wall, warns the Kemper Insurance Co., nothing that there's a tendency to do this. "This creates a serious fire hazard—since the stack is, in effect, a wooden chimney. If a fire starts at the base of the stack, it could get out of control in seconds!" Their advice: Keep stacks at least 50 ft away from any building (25 ft. if facing a blank masonry wall). Do not stack higher than 20 ft, keeping at least a 50-ft distance between stacks. Keep dry grass around stacks well trimmed. Remove broken pallets and boxes. Make the area a "No Smoking" zone.

Modern Materials Handling Page 3, November 1978

# OSHA: Relief is in sight

In the food industry, the Occupational Safety and Health Administration's (OSHA) regulations rank at the top of any nuisance list. Recently however, the agency has vowed to be more prudent in its relationship to industry in general, and now comes the welcome news that it will soon wipe off the books over 900 outdated safety standards.

The announcement was made by Labor Secretary Ray Marshall appearing recently before Senate subcommittee. Marshall claimed the standards being eliminated would have little or no effect upon worker protection. Among the regulations to go, for example, is one governing split toilet seats, which may—says Marshall—have a legitimate hygienic value but does not contribute to worker safety.

OSHA director Dr. Eula Bingham announced last December that she planned to eliminate about 1,000 standards from the agency's books. "Although OSHA has not been enforcing any of these provisions since they were proposed for revocation, some have expressed doubt concerning the agency's commitment to the deletion project," said Marshall. "Let me take this opportunity to assure you that we plan to sign the final rule eliminating over 900 of the regulations in the immediate future," he asserted.

OSHA also plans to revise the 4,000 or so remaining industrial safety standards, beginning with those dealing with fire and electrical requirements and those governing walkingworking surfaces.

The PMA Report Volume 10, No. 23 December 8, 1978

## CITRUS PACKINGHOUSE DAY

The Annual Citrus Packinghouse Day will be Wednesday, September 5, 1979 with 9 AM Registration and 9:40 AM program at the Agricultural Research and Education Center, Lake Alfred, Florida. This program for the citrus packing industry is jointly sponsored by the Extension Service, the Florida Citrus Packers, and the Florida Department of Citrus. Equipment demonstrations may be seen during the extended lunch period.

Enter this date on your calendar.

Jim Ellis, General Manager, Lake Garfield Citrus Coop. has already agreed to appear on the program with his innovations found in this, and the last issue of Packinghouse Newsletter under Packers' Corner. Let me know if there are other speakers or topics that ou would like to see on the program.

Will Wardowski Extension Service Lake Alfred

#### AVAILABLE PUBLICATIONS

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

"Florida Citrus Spray Guide - 1979" Florida Cooperative Extension Service Circular 393-E. January 1979.

### Available from Mr. Ben Abbitt, AREC, P. O. Box 1088, Lake Alfred, FL 33850

"Suggested guidelines for allocating citrus grove's purchase price for income tax reporting purposes" by R. Muraro and B. Abbitt. Food and Resource Economics Dept., IFAS, Staff Paper 107. December 1978.

"Investing in agricultural land? Be careful" by B. Abbitt and J. Holt. Florida Food and Resource Economics, Number 24. Sept.-Oct. 1978.

# <u>Available from Division of Fruit & Vegetable Inspection, P. O. Box 1072, Winter Haven, FL 33880</u>

"1977-78 Season Annual Report."

# Available from Florida Fruit Digest Co., 333 Laura Street, Suite 345, Jacksonville, FL 32202

"The Florida Fruit and Vegetable Directory, 1979 Season" published by Florida Fruit Digest Co. Price: \$6.00 + .24¢ sales tax (Florida residents).

### Available from Mr. L. Risse, USDA, 2120 Camden Road, Orlando, FL 32803

"A modified fiberboard citrus box for conventional refrigerated trailers and USDA experimental van container" by R. E. McDonald, T. H. Camp and W. F. Goddard. USDA Marketing Research Report No. 1100. January 1979.

# Available from Dr. J. W. Eckert, Dept. of Plant Pathology, University of California, Riverside, CA 92521

"Post-harvest diseases of citrus fruits" by J. W. Eckert. Outlook on Agriculture, Volume 9(5):225-232. 1978.

# <u>Available from Dr. R. F. Kasmire, Agricultural Extension Service, Dept. of Vegetable Crops, Mann Laboratory, University of California, Davis, CA 95616</u>

"Review: moisture influences produce behavior" by F. G. Mitchell and R. F. Kasmire, plus a series of articles on water loss from horticultural products in this and the next issue of Fruit and Vegetables Perishables Handling (Newsletter) Issue No. 41, January 1979, 10 pages.

This newsletter is published at a cost of \$77.70 or 6 cents per copy, to give the latest news to the packinghouse industry.

W. Wardowski, Editor Associate Professor Extension Horticulturist