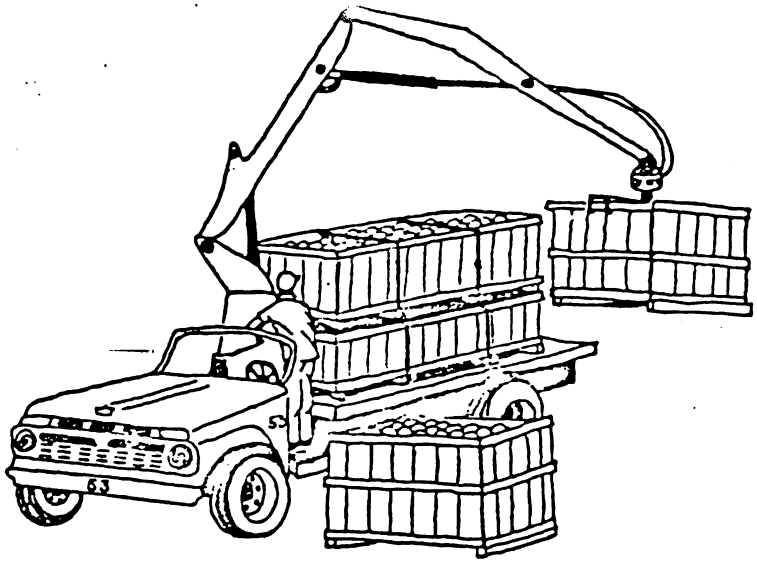

Lake Alfred AREC Research Report CS74-5
1000 Copies
June 3, 1974

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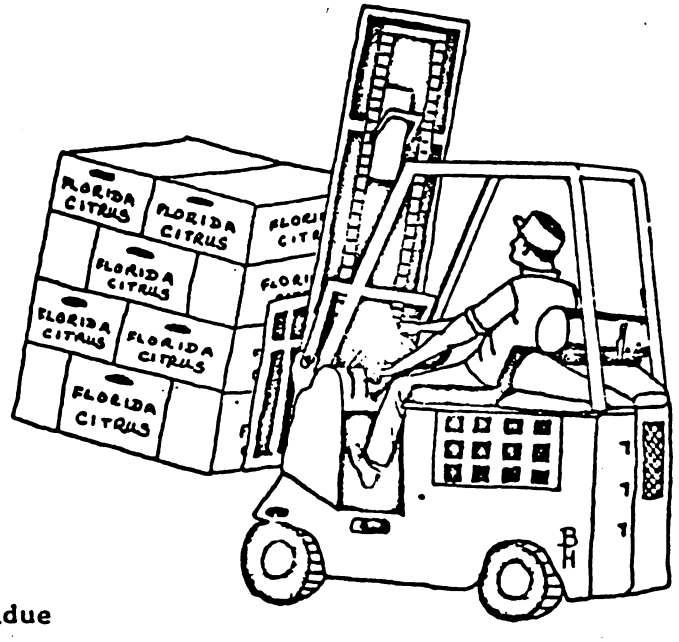
Packinghouse Newsletter

UNIVERSITY OF FLORIDA INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES

and

STATE OF FLORIDA, DEPARTMENT OF CITRUS



*Anyone wishing to receive this newsletter may send a dozen stamped, preaddressed envelopes to the above address.

Key Word Index

Bagging Machines, Fungicide Regulations, Residue Tolerances, Universal Product Code, Safety.

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June 3, 1974

Harvesting and Handling Section

PACKINGHOUSE NEWSLETTER

POSTHARVEST FUNGICIDE RESIDUES

Residues of fungicides in or on fresh citrus fruit, applied for postharvest decay control, are determined by the Division of Fruit & Vegetable Inspection to insure that a fungicide has been applied for decay control. This is required by Florida Department of Citrus (FDOC) Regulation 105-1.43. The maximum residue permitted is established by the Environmental Protection Agency (EPA). The minimum residue is established by the above mentioned regulation.

Regulation 105-1.43 has recently been revised to establish minimum residue levels for benomyl (Benlate) and sec.-butylamine (2-aminobutane). Both of these fungicides have recently been cleared for postharvest use on citrus fruits. Canadian clearances, however, have not been obtained. When the use of these fungicides is approved by Canadian officials, you will be notified through this NEWSLETTER. The use of these fungicides in Florida will not be recommended for postharvest use until Canadian clearances have been obtained. Fruit shipped for domestic use may end up on the Canadian market.

Fungicide residue in or on citrus fruit is only an indication of the value of a postharvest fungicidal treatment and is not always proportional to decay control. Large-sized fruit with smooth peel usually have proportionately less residue than small-sized fruit with a rough peel. For example, grapefruit frequently have a lower fungicide residue than tangerines when both fruits are given the same postharvest fungicidal treatment. This does not mean that the tangerines will have less decay, the reverse is usually true. A low concentration of a postharvest fungicide distributed evenly over the surface of the fruit may result in better decay control than a higher concentration distributed unevenly. Higher fungicide residues usually result when a fungicide is applied in a wax. Some of the fungicide, however, may be "tied-up" in the wax and as a result doesn't contact the surface of the fruit.

As long as fungicide residues do not exceed the tolerances established by the EPA, and one of the fungicides is above the minimum established in the FDOC regulation, the fruit has had an acceptable postharvest fungicide treatment.

When citrus fruit are to be exported (e.g. Japan), only fungicides approved by the country to which the fruit is to be shipped should be used.

A. A. McCornack
FDOC, Lake Alfred

This public document was promulgated at an annual cost of $201.60, or two and one-half cents per copy to inform county agricultural directors, ranchers, and growers of research results in harvesting and fresh fruit handling and marketing.

Universal Product Code (UPC) program moving ahead

Implementation of the Universal Product Code (UPC) program is moving ahead rapidly.

To date, more than 600 grocery manufacturers representing annual sales of over $52 billion and a significant number of food distribution companies with private labels have joined the Uniform Grocery Product Code Council (UGPCC)—the UPC implementing organization—and have been issued code numbers. The growing number of symbol-marked packages, cartons, shipping containers and invoices coming off the production lines is evidence of their participation.

A survey of UGPCC members conducted by Distribution Codes, Inc. (formerly the Distribution Number Bank) administrators of the UPC and UPC symbol, indicates progress far surpasses original time estimates. Manufacturer-members report that as of July 1, 1974:

80% will have shipping cases with symbols

68% will have packages with symbols

56% will have completed conversion of their internal system to five-digit product code numbers.

97% will have appointed a project officer to plan strategies for code implementation and symbol printing.

A survey of store designers and developers at chain, voluntary and cooperative headquarters shows significant distribution progress, too. Some 75% report their particular headquarters have assigned personnel to the problem of integrating the UPC into the organization. More than 40% say their companies have applied for their own UPC numbers—obviously for private label merchandise.

The symbol chosen for UPC is "an oversquare bar code configuration," with human-readable numerals to be printed below the bar code.

The symbol is variable in size, with single bar widths ranging from 0.0095 in. to 0.025 in., with the nominal total symbol size slightly smaller than 1.5 sq. in. It will accommodate the 10-digit code already decided upon by the Grocery Product Industry.

It can be read omni-directionally by electronic scanning equipment, and it is expected that most of the dozen scanners already developed for supermarket use can be adapted to it.

Significant progress on the UPC has come about through a combination of increased source-marking technology and symbol education program. Stepped up action on the part of manufacturers of branded items, who had fallen behind the pace of private label suppliers, allows the grocery industry to take dead aim at the announced industry goal: a minimum 50% coded super market products by the end of 1974 and 75% by the end of 1975.

Motivated by the UGPCC executive committee—which is responsible for UPC guidance, technical assistance, ideas and progress reports—suppliers continue to clear the way for "automated" front-end development. Projections show that if a reasonable number of stores, about 6,000, purchase scanning systems, distributor savings during 1975 can range from $100 to $400 million.

Learning UPC nomenclature and improving total system efficiency are two aspects of this neophyte business with which retailers, wholesalers, producers, and suppliers will have to become familiar. Two publications, available singly or as a unit, do the best teaching job. The "UPC Guidelines Manual" covers symbol specification and location procedures. The new edition of "Recommended Standards for the Grocery Industry" covers such UPC-related topics as case marking, invoices, purchase orders, payables and receivables documents, brokers' memos and related documents. These two documents are available from Distribution Codes, Inc., 1725 K Street N.W., Washington, D.C. 20006.

A UPC random weight produce subcommittee was recently formed and is co-chaired by **Jesse Raybourn** of PMA, and **John Nelson** of UFFVA. A number of knowledgeable individuals from all facets of the produce industry have agreed to serve on this committee, and a committee meeting is being scheduled to initiate actions necessary to get the produce industry actively involved in the UPC program.

The PMA Report
Volume 6, No. 4
February 22, 1974

MECHANIZED PACKAGING NOW IN THE SPOTLIGHT

Recent information on developments in mechanized packaging equipment, particularly for bagging citrus in "Vexar", or other plastic net, bags, points to more decision making for packinghouse owners and managers. Now in sight are choices between multipurpose or single-purpose machines; between using ready-made bags or forming bags from factory-roll tubing ("rope stock") as part of the bagging machine action; between connecting new bag-handling components to existing count-fill equipment or acquiring complete machines.

Evaluation of possible equipment changes for individual packinghouses will involve such factors as:

Package appearance preferences -- shape, labeling, closure.

Flexibility of packaging operation -- normal and maximum output rates; different packages and types of fruit.

Cost effects in packaging operation -- equipment ownership and operating, and plant space requirements (multipurpose and single-purpose machines); labor; packaging materials; degree of utilization of existing packaging equipment by connecting to new bag-handling components; maintenance requirements.

One of the best possibilities for further savings on packaging fresh citrus now appears to hinge on automatic bagging operation in which tubing can be used in a continuous length direct from the factory roll.

Estimated costs developed for comparison show that use of polynet tubing from the factory roll offers savings in the range of $12 to $17 per M (thousand) bags when compared to ready-made, 5-pound polynet bags costing about $27.50 per M. The net saving to be realized after considering labor cost plus equipment ownership and operating costs combined with bag cost may be the full difference in cost of bags from factory-roll tubing vs. ready-made bags, but, in some circumstances, could be somewhat reduced by factors such as equipment ownership cost. Potential for attractive net savings is particularly good, however, because the cost of ready-made polynet bags is about two-thirds of the total cost -- bags, labor, equipment and operating costs -- for bagging and placing filled bags in master cartons.

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We are indebted to Earl Bowman, USDA, Gainesville for the above observations following the bagging machine demonstration, movies and discussion at the April 10th Fla. Fresh Citrus Shippers Association meeting at Lake Alfred. The rope stock International Staple Makfil bagging machine demonstrated has been adapted to fill cartons also and is in operation at Orange-co (formerly Lake Hamilton Coop.). Ed Shores, Orange-co welcomes you to view this machine but suggests that you phone (813--439-1585) first to be sure that it is operating.

Editor

KUMQUATS ANYONE?

We have an inquiry from an exporter looking for a supply of Kumquats "of good shipping quality and in large enough supply." Anyone wishing to contact him, just let us know.

Bill Grierson
AREC Lake Alfred

CITRUS PACKINGHOUSE DAY
WEDNESDAY SEPTEMBER 4,1974
LAKE ALFRED

A featured speaker at Citrus Packinghouse Day will be Edward Hurt, Attorney specializing in Workman's Compensation. We will schedule ten minutes for Mr. Hurt to tell you how to avoid being beaten by him in court, plus ten minutes for you to cross examine him. Mark your calendars, Wednesday, September 4, 1974. This presentation alone will be worth the price of admission (free) plus a day's time.

Editor

LIFT TRUCK SAFETY

Some points on lift truck safety from OSHA:

Only trained and authorized operators shall be permitted to operate a powered industrial truck. Methods shall be devised to train operators in the safe operation of powered industrial trucks.

Trucks shall not be driven up to anyone standing in front of a bench or other fixed object.

No person shall be allowed to stand or pass under the elevated portion of any truck, whether loaded or empty.

Unauthorized personnel shall not be permitted to ride on powered industrial trucks. A safe place to ride shall be provided where riding of truck is authorized.

The employer shall prohibit arms or legs from being placed between the uprights of the mast or outside the running lines of the truck.

When a powered industrial truck is left unattended, load engaging means shall be fully lowered, controls shut off, and brakes set. Wheels shall be blocked if the truck is parked on an incline.

A powered industrial truck is unattended when the operator is 25 feet or more away from the vehicle which remains in his view, or whenever the operator leaves the vehicle and it is not in his view.

Charles A. Coggins, Winter Haven
John C. Sample, Tallahassee
Fla. Dept. of Commerce Industrial
Safety Representatives.

AVAILABLE PUBLICATIONS

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

"Fungicide or Fungistat Treatment Required for Fresh Citrus Fruit" Florida Dept. of Citrus Regulation 105-1.43. April 24, 1974.

Available from American Society for Horticultural Science, National Center for American Horticulture, Mount Vernon, Virginia 22121

"A Better Environment Through Horticulture", 6 page brochure, March 1974.