



Florida Cooperative Extension Service

PACKINGHOUSE NEWSLETTER

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Key Word Index Alternaria Brown Spot, Canker, Japan, Tangerines, Wind Scar.

BEWARE OF CITRUS CANKER

There is increasing political pressure to allow the unrestricted importation of 'Unshiu' oranges (really mandarins) into this country. This offers a very severe threat to the entire U.S. citrus industry. Although endemic in Japan, citrus canker is no threat to their industry because their varieties are immune carriers. However, most of our Florida varieties are highly susceptible.

Citrus canker (Cancrosis A) is a well-known and very destructive disease to fruit, stems, and leaves. It is caused by a bacterium, Xanthomonas citri that is easily spread from infected tissues. Insects, birds, tools, machinery, picking bags, ladders, clothing, and, of course, people all can carry and share in the dispersal of the infectious bacteria. The disease causes severe leaf drop, twig dieback and lesioned fruit unfit for marketing. The only known effective control is best summarized as total destruction of fruit, trees and groves whenever the disease is found.

Citrus canker once gained entrance into Florida citrus groves. In 1910, canker was brought to Florida on infected nursery stock from Japan. It was only eradicated from Florida at great expense to citrus growers and the State after 16 years of persistent effort. Time has a way of obscuring the past, and canker has not been seen in the State by two generations of growers since 1926. Since that time, the Division of Plant Industry of the Florida Department of Agriculture has maintained a steadfast vigil to intercept canker and prevent another invasion.

Conditions in Florida are very favorable for canker to develop and our extensive areas of dense plantings would be very conducive to a possible and very destructive epidemic should canker gain entrance again.

Grapefruit is very susceptible and the disease could lead to a total loss of our grapefruit industry. Sweet oranges are next in susceptibility and it would be very difficult if not impossible to produce crops of oranges.

In 1967, Federal Quarantine 28 was relaxed to permit the importation of 'Unshiu' oranges (Satsuma mandarin type oranges) into Washington, Oregon, Idaho, and Montana. 'Unshiu' fruit can be carriers of the infectious bacteria and unwittingly transported to Florida from these states where entry is permitted.

As long as citrus canker exists anywhere in the world, it poses an eternal threat to Florida citrus. Vigilance on the part of the entire U.S. citrus industry is needed in order to detect the disease promptly and prevent it from becoming established should canker be brought to Florida again.

Ernie DuCharme
AREC, Lake Alfred

ALTERNARIA BROWN SPOT OF DANCY TANGERINE

The Alternaria brown spot of Dancy tangerine, thought to be a new disease by Dr. Jack Whiteside, Pathologist, AREC at Lake Alfred, has made an early appearance this year. According to grower reports, the leafspot has been detected on the spring flush of Dancy tangerines. This is associated with those groves having a heavy infection last year.

The leafspots are similar to the Alternaria leafspot commonly seen on lemon sprouts erroneously referred to as anthracnose. Severe lesions will cause rapid leafdrop. The blemish on the Dancy fruit at first glance looks like hail damage. The lesions may be the size of the diameter of a pencil eraser with some larger and some smaller. The lesions as they heal produce a light tan-colored, callus-like tissue that may eventually fall away; however, most of the fruit will drop to the ground before this can occur. The fruit that does remain on the tree is usually lost due to grade. Later, re-activated lesions take on the appearance of circular brown lesions, and develop into a progressive rot when the fruit nears maturity.

The current thinking, based on field observations, indicates serious infection occurs in June and July. Because preliminary research data in 1975 suggest the rind may become immune by the end of July, adequate control may require two sprays scheduled for early May and mid-June. At this time, the melanose rate of Copper (at 3-4 pounds of the metal per 500 gallon dilute spray) appears to offer the greatest hope. The prognosis for Alternaria brown spot of Dancy tangerine based on the increasing occurrence of the disease leads one to conclude that the worst is yet to come!

Tom Oswalt
Extension Agent-Citrus
Citrus Notes
Polk County Newsletter
May, 1976

For a more complete discussion of this subject, see "Alternaria brown spot of Dancy tangerine and Minneola tangelo. A fungus disease that is apparently new to Florida" by Jack O. Whiteside, The Citrus Industry Magazine, April, 1976.

Editor

WIND SCAR

Citrus wind scar and pest management practices - One of the first major fruit blemishes to develop each season is wind scar. This damage occurs when the young fruit rub against leaves or limbs during the first 3 months of development after bloom. Winds greater than 10 mph are needed for damage to occur. At the present time, insect damage

is not considered to be responsible for any part of the wind scar damage. A project is now underway to relate wind speeds and duration to the amount of wind scar in a given season. The ability of the grower to know early in the season if he will have a severe wind scar problem should be helpful in management decisions. He can more easily decide whether to carry out a minimum spray program the remainder of the year and sell his citrus to processing or, in a low wind scar year, he may wish to expend more money on pest control and maintain more of his acreage with a fresh fruit sales potential. Growers should know which of their groves tend to have less wind scar damage year after year. These may be protected sites from wind or the reduced wind scar may be related to tree age, hedging or some other factor(s). For whatever reason(s), these groves should be the ones to receive more intensive pest control for fresh fruit marketing.

Gene Albrigo
Citrus Pest Management
Newsletter
March 5, 1975
University of Florida
AREC, Lake Alfred

This is repeated because it is the time of year to be aware of this problem.

CITRUS PACKINGHOUSE DAY

Date: Wednesday, September 8, 1976

Place: Agricultural Research & Education Center, Lake Alfred

Program: In planning stages. All the readers of Packinghouse Newsletter are invited to make program and equipment demonstration suggestions. Let me know (by phone, or preferably by card or letter) if there is a topic or particular speaker you would like to hear. Your suggestions will be carefully considered and will aid in the selection of the program. We normally have twice as many worthy talks as the program will allow.

Will Wardowski
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AVAILABLE PUBLICATIONS

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

"Anthracnose, a serious decay of degreened 'Robinson' tangerines" by G. Eldon Brown. Fla. State Hort. Soc. 88:308-311. 1975.

"Postharvest weight loss of Florida citrus fruits" by A.A. McCornack. Fla. State Hort. Soc. 88:333-335. 1975.

"Faculty List, Institute of Food and Agricultural Sciences." January, 1976.

Available from H. J. Connolly, Fla. Department of Citrus, P. O. Box ¹⁴⁸~~249~~, Lakeland, FL 33802

"Japan as a market for Florida citrus fruit" by H. Kitagawa. Fifty page mimeo report.

Available from Dr. E. George Stern, Wood Research Laboratory, College of Agriculture,
Virginia Polytechnic Institute, Blacksburg, VA 24061

"Performance of 2-1/2" 15-gauge duo-fast pallet staples" by E. George Stern. V.P.I. Engineering Experiment Station Bulletin No. 140. January, 1976.

"Comparative performance of southern pine pallets" by E. George Stern and Walter B. Wallin. V.P.I. Engineering Experiment Station Bulletin No. 141. February, 1976.



W. Wardowski, Editor
Associate Professor-
Extension Horticulturist

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