

Fresh citrus issues: Proposed canker rule and MRLs

By Mark Ritenour

Although 90 percent of Florida's citrus is processed, more than 34 million cartons (4/5 bu) were shipped fresh during the 2008-09 season. Of this, approximately 57 percent was grapefruit, 23 percent oranges, and the remaining 20 percent tangerines and tangelos. In general, fruit quality was very good with few reports of decay or peel breakdown during transport and marketing. Despite this, fresh citrus shipments have declined by more than 30 percent since the 2003-04 season.

Over the past five years, the biggest challenges to fresh citrus have been the weather (i.e., hurricanes and tropical storms), the spread of diseases such as canker (*Xanthomonas citri* subsp. *citri*, Xcc) and greening (Huanglongbing; *Candidatus Liberibacter asiaticus*). Implementation of regulations intended to prevent the spread of canker has greatly restricted market access and increased costs.

PROPOSED CITRUS CANKER RULE

Citrus canker was discovered in Florida in 1995, the canker eradication program ended in January 2006, an interim canker rule was published in August 2006, and the current rule was published November 2007. These rules have dramatically changed the way Florida's \$300 million fresh citrus industry grows, packs and ships fruit. The current canker rule requires fruit surfaces to be treated with an approved disinfectant, mandates APHIS inspection at the packinghouse for symptomatic fruit, and prohibits shipment of Florida citrus to other citrus-producing states and territories, regardless of whether fruit show symptoms of canker. Prohibited U.S. states and territories include Arizona, California, Hawaii, Louisiana, Texas, American Samoa, Guam, Northern Mariana Islands, Puerto Rico and Virgin Islands. Some of these were important markets for Florida before the ban.

While there has never been a documented case of citrus canker being introduced into new areas via infected fruit, the 2007 rule exposed a serious lack of knowledge about just how well Xcc cells survive on citrus fruit or within wounds and the ability of infected fruit to spread the disease. Earlier this year, two publications in refereed scientific journals reported results from separate international research groups showing that citrus fruit are highly unlikely to transmit the disease to other regions, even when fruit exhibit canker symptoms. Consequently, a proposed rule was published June 30 in the Federal Register that would discontinue APHIS inspections for canker on fresh fruit and open up shipments to all states, even if symptoms of canker are present. As before, fruit surfaces would still be required to be treated with one of the currently approved disinfectants. Regulators considered adding a requirement to pre-wash the fruit with a detergent before disinfecting, but this was finally determined to be unnecessary. The rule, supporting documents, links to comment on the rule, and viewing of submitted comments are all available at <http://www.regulations.gov/fdmspublic/component/main?main=DocketDetail&d=APHIS-2009-0023>. Comments on the proposed rule had to be received by Aug. 31.

The supporting documents demonstrate the large amount of work involved in developing the proposed rule. These include an updated Pest Risk Assessment (PRA) that con-

cluded neither asymptomatic fruit nor symptomatic fruit treated with an approved disinfectant are "epidemiologically significant as a pathway for introducing citrus canker." This was echoed by the Risk Management Assessment (RMA) which evaluated different possible options for modifying the current canker rule and concluded that the currently proposed "Option 2" is best supported by the evidence. Both the PRA and RMA were peer-reviewed by other scientists. An Environmental Assessment and a Regulatory Impact Analysis and Initial Regulatory Flexibility Analysis are also included as supporting documents.

If adopted, this rule would only apply to domestic shipments. However, more than 40 percent of all fresh Florida citrus is exported outside the United States. Shipments to export markets are governed by the receiving country and many of these still require the fruit to be inspected before shipment. For example, ~34 percent of Florida's exported citrus was sent to countries of the European Union (EU) during the 2007-08 season, and all of these countries still require preharvest grove inspections as well as postharvest fruit inspection for canker before shipping. If a single canker lesion is found on a single piece of fruit, the entire production block is disqualified for EU shipment. Such fruit can be re-graded and re-inspected for shipment to domestic or less restrictive export markets, but such requirements add substantial costs to the process. Adoption of the proposed domestic canker rule would allow diverting such fruit to domestic markets without the costly need to regrade the fruit. It is also hoped the new canker research findings will encourage other countries to re-evaluate their current citrus import regulations.

PESTICIDE MAXIMUM RESIDUE LIMITS

Pesticide maximum residue limits (MRLs) are another important issue for fresh citrus growers and packers. A violation of MRLs is costly, resulting in rejected loads that must be destroyed or redirected to other, less restrictive markets. When no MRL is stated for a pesticide and market, then any detectable residue will violate tolerances. Pesticides can often be detected at concentrations of around 0.01 ppm, depending on the laboratory evaluating the sample and chemical of interest.

Most problems occur when importing countries lower their MRLs and timely notification of the changes does not reach the affected growers and shippers. Thus, fresh citrus growers, packers and shippers are encouraged to check the current MRLs regularly. An up-to-date table of MRLs for domestic and important export markets is posted on the University of Florida Postharvest Resources Web site <http://postharvest.ifas.ufl.edu>

The list is updated for pesticides used on Florida citrus as needed throughout the year. This site also has links to other useful MRL sites such as the U.S. Foreign Agricultural Service's International MRL database <http://www.mrldatabase.com/> and sites for specific markets such as the EU, Canada and Japan. While all these Web sites are useful as a starting point, no guarantee can be made as to their accuracy; always verify these values with other knowledgeable sources.

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