

The big changes in regulations

- Can't ship to citrus producing states
- Multiblock must be inspected and found free of canker 30 days before harvest
- Packing line will be monitored by USDA inspectors looking for canker blemishes

What hasn't changed

Sanitation is as important as ever.
Personnel should sanitize on entry and exit.
Big equipment must sanitize only on exit.

Some critical issues for THIS season ...

- Sanitation guidelines are still in place
- Graders on the line must do the best job possible to keep blemished fruit out of the box. Can we achieve 100% canker-free packed fruit?
- Any blemish might be considered a canker blemish by trading partners
- If canker-blemished fruit gets into the line, does it contaminate all other fruit?

Some ideas to keep cankered fruit out of the packinghouse THIS season

- Inspect blocks carefully before harvest
- Train pickers and packers to know what canker looks like
- Put more inspectors on the line to grade out blemished fruit at all stages.
- Grade out ALL blemishes, don't try to discriminate
- Reduced fruit supply → higher prices to help pay for additional protections

Approaches to lessen danger of disease transmission by canker-blemished fresh fruit (ideas for the future to gain back all fresh fruit markets)

- This year is the first opportunity to work with canker in a real world setting in Florida, and suitable locations are limited. PRA supporting fresh fruit from canker endemic area needs more empirical data. PRA assumes essentially NO CANKER LESIONS.
- Methyl bromide ineffective against bacteria in fruit lesions
- Field grading / sorting?
- Penetrating sanitizers?
- Irradiation?
- Seal in residual bacteria in lesions with finishing wax containing antibacterial agent? (Unlikely to exit alive)
- Consider actual risk - how many bacteria are present in a few missed lesions? Enough to initiate disease?
- How easily is canker transmitted by blemished fruit? Can it happen? (Determine using actual field trials in remote area)
- Explore mechanized robotic field inspection methods to catch the disease earlier before blemished fruit head to the packinghouse
- Explore improved detection of blemished fruit on the line using electronic inspection equipment

For 10 years, we've been showing you canker lesions like these ...



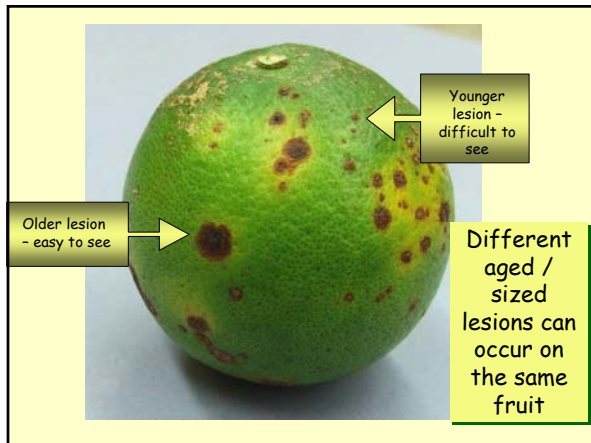
Now, this is what graders will be looking for ...



Smaller lesions (orange) are younger, formed later in the expansion phase of fruit growth. They can be difficult to see.



Larger lesions (grapefruit) formed early in growing season, and are much easier to see.



Older lesion - easy to see

Younger lesion - difficult to see

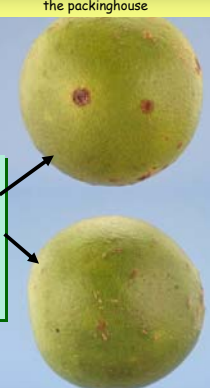
Different aged / sized lesions can occur on the same fruit

These should be detected in field survey, never enter the packinghouse

These might be overlooked in field survey, and are more likely to enter the packinghouse



What fruit graders most likely will be looking for



Ample foliar symptoms would accompany this