

## **GAP Program Rollout, Part 4: Monitoring and Harvesting Practices**

by Nancy Walery

This final article in the series on Good Agricultural Practices (GAP) for citrus growers under the FDA's Food Safety Modernization Act (FSMA) will address many of the Monitoring and Harvesting practices that must be employed for compliance with the FSMA. These topics include grove sanitation, key monitoring concepts, preharvest steps, self-audits, and traceability. SOP references in parenthesis below pertain to the section where you can find details for that named topic in California Citrus Mutual's Grower Food Safety Plan sample manual template (<http://www.cacitrusmutual.com/wp-content/uploads/2015/12/Citrus-Grower-Food-Safety-Plan-Final-05-01-2012.docx>), which is downloadable for each grower use and customize to your own farming operation to become your official GAP manual.

Grove Sanitation (SOP#5 on page 10): Any structures, equipment and containers used in the grove to contain or come into contact with citrus should be cleaned and, if appropriate, sanitized to prevent contamination from pathogens, including blood. While drinking water can be brought into the grove, food and other beverages must be restricted to designated personal areas away from harvest activity. Glass should be avoided in groves; broken glass mandates a detailed safety process to avoid contamination with fruit. Before harvest, you will also need to conduct a Pre-Harvest Inspection (SOP#8, using the form on page 38). Any other unusual occurrences in the grove must be documented in the log found on page 42 of the manual template. Visitors and labor contractors must also comply with grove sanitation procedures as workers do.

Monitoring (SOP#7 on page 14 under Animal Activity): All animals, both wild and domestic must also be restricted from production areas (see SOP#7 on Animal Activity). Growers should monitor the grove and adjacent land for evidence of animal activity and the potential for contamination of fruit or equipment. Evidence of any animal intrusion, however small, should be physically identified (use Animal Monitoring Log on page 37), and a "no-harvest" buffer zone established around the area to prevent the harvest of any potentially contaminated fruit.

Preharvest, Traceability and Self Audits: Within 7 days of harvest, conduct a Pre-Harvest Inspection (SOP#8, using the form on page 38), looking for conditions in the grove that may be likely to result in contamination of the citrus fruit with pathogens, such as evidence of animal intrusion, presence of contaminating materials (such as uncomposted manure, etc.) likely to pose a contamination risk to the grove about to be harvested, and any evidence that the irrigation system may have been compromised. At harvest time, (SOP#10 on page 17), keep records of harvest dates, harvest crews, quantities harvested, subsequent destination of fruit and transporter. Outgoing loads should be identified at the very least with grower block, harvest date and harvest crew and use the same source identification (block ID) as is used by the packer so that in the event of a product recall occur in the marketplace, the fruit is traceable back to its origin. Grower records of cultural practices as well as sources, methods and timing of inputs used in the grove should be maintained for a minimum of 2 years. Annual Self-Audits (SOP#12 on page 19, using the log on page 39) should be conducted to ensure that your GAP program is effective, that food safety procedures are being followed and records are being properly maintained.

*This is the final article in a four-part series. All articles are posted on the CCH website at <http://www.cchcitrus.com/eng/Framesets/presframes.html>. (568)*