

GAP Program Rollout, Part 3: Fertilizer/Soil Amendments and Worker Hygiene

by Nancy Walery

This third article in the series on Good Agricultural Practices (GAP) for citrus growers under the FDA's Food Safety Modernization Act (FSMA) will discuss the topics of Fertilizer/Soil Amendments/Crop Treatments and Worker Training/Health/Hygiene. As previously stated, your first steps must be to identify and begin correcting existing and potential risks after a thorough evaluation of your property, facility and operations. You can accomplish this and concurrently be documenting those risks and corrective measures using 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 you can customize to your farming operation and ultimately becomes your official GAP manual. The standard operating procedures (SOP) referenced below correspond to the named topic in the Grower Food Safety Plan sample manual, which provides more details.

Fertilizer/Soil Amendments/Crop Treatments (SOP#4 on page 8): There are two categories of these products: *biologically active* (compost, biosolids, raw/untreated animal manure, and other non-synthetic treatments containing animal products or manures like compost teas and fish emulsions), and *biologically inactive* (inorganic/synthetic fertilizers and amendments that do not contain animal products or manures), each with its own use, handling and documentation requirements under FSMA. (A sample Soil Amendment/Crop Treatment Application Log is on page 31). Biosolids must stringently follow federal, state, and local requirements, including obtaining Certificate of Analysis (COA) for heavy metals testing and microbiological analysis; biologically inactive products also require COA, label, and documentation detailing all ingredients to prove no presence of animal products. Application and storage requirements of all must minimize potential for crop contamination and direct contact with the fruit.

Pesticide Use (SOP#9 on page 16): Pesticide use procedures must be in place, including mixing/loading, application, rinsing and cleaning of equipment. All procedures must comply with the product label and local regulations including product registration for use on the target crop. A qualified individual must make the decisions for crop production application, and records must be kept on all pesticide use, observing appropriate pre-harvest intervals. The grower should be aware of and monitor Maximum Residue Level (MRL) for each pesticide, which must be stored to prevent contamination of fruit, equipment and water sources.

Worker Training/Health/Hygiene (SOP#5 on page 10 and Worker Food Safety Training Guide on page 33): Worker training is required upon hire and semiannually thereafter and must be documented on the Worker Training Log (page 32). Toilet and handwashing facilities must be regularly maintained and documented (page 36). In an effort to prevent contamination of produce and food-contact surfaces by workers, very specific rules apply to grove sanitation as well as worker health and hygiene practices by workers before, during and after working in the field. Illness and injury reporting must be documented (page 35), as well as Notice of Unusual Occurrence and Corrective Action (page 42).