



CENTRAL VALLEY POSTHARVEST NEWSLETTER

COOPERATIVE EXTENSION • University of California
Kearney Agricultural Center
9240 S. Riverbend Avenue • Parlier, CA 93648 USA
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Tree Fruit and Table Grape Postharvest Technology Day Kearney Agricultural Center • Parlier, CA Thursday, February 15, 2007

A full day program focused on decay control and fruit safety issues mainly on tree fruit and table grapes will be carried out at the Kearney Agricultural Center on Thursday, February 15, 2007. This program will include lectures and demonstrations on decay control, preharvest-postharvest fungicide management, orchard equipment-packingline sanitation, reduction of fruit blemishes, and other related topics. Hands-on demonstrations on how to apply fungicides and disease identification will be part of this program.

There will be no charge but registration is required. To attend please contact Dr. Carlos H. Crisosto at carlos@uckac.edu or Lois Strole, (559) 646-6545 or email lois@uckac.edu, and indicate whether you will be here for lunch.

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**Tree Fruit and Table Grape Postharvest Technology Day
Kearney Agricultural Center • Parlier, CA**

Thursday, February 15, 2007

PROGRAM

- 8:00 Registration/Welcome Carlos H. Crisosto
- 8:30 Where Is the Information? Carlos H. Crisosto
- 9:00 Field Conditions and Sour Rot Control in the Field Themis Michailides
- 9:30 Preharvest Tree Fruit Decay Control..... Jim Adaskaveg
- 10:00 Use of CA/MAP on Plums and Cherries Carlos H. Crisosto
- 10:30 Orchard Factor Influences on Corky Spot and Other Fruit Blemishes Reduction Kevin Day
- 11:00 Preharvest and Postharvest Water Sanitation Management Trevor Suslow
- 11:30 Demonstration..... (F. Gordon Mitchell Laboratory)
- A. Disease Identification
- B. Fungicide Application
- 12:00 Lunch (Questions and Answers)
- 1:30 Fruit Safety for Growers and Packers..... Trevor Suslow
- 2:00 Postharvest Tree Fruit Decay Control (Sour Rot and Others)..... Jim Adaskaveg
- Questions and Answers..... Kevin Day and Carlos H. Crisosto
- 2:45 Afternoon Welcome..... Carlos H. Crisosto
- 3:00 Vineyard Management and Preharvest Sprays to Reduce Table Grape Decay Joe Smilanick
- 3:30 Postharvest Table Grape Decay Control Update Joe Smilanick
- 4:00 2006 Table Grape Inner Packaging Research Update Carlos H. Crisosto
- Questions and Answers..... Jennifer Hashim-Buckey and Carlos H. Crisosto

GOOD AGRICULTURAL PRACTICES REDUCE MICROBIAL CONTAMINATION

**Janet Caprile, Farm Advisor
UCCE Contra Costa County**

The recent incidents of food borne illness from contaminated spinach have reminded us how important our production practices are both for the health of our customers as well as the health of our agricultural industries. Salad crops are particularly vulnerable to microbial contamination as they are eaten raw and have an edible portion that comes in contact with the ground or irrigation water. However, ANY crop that can be eaten raw can cause food borne illness, if contaminated.

This includes MANY of the tree fruits (apples, apricots, cherries, peaches, nectarine, persimmons, plums, etc.) and vegetable crops (green beans, sweet corn, sweet onions, green garlic, tomatoes, fresh herbs, cucumbers, melons, summer squash, peppers, etc.) that we grow. Contamination can come from soil, water, manure, equipment, workers, or animals. It can occur either in the field or in the packing shed. This might be a good time to review your production practices for possible points of contamination and correct them before next season. Keep in mind that once produce has been contaminated, removing or killing the pathogens is very difficult. The best approach is to prevent the contamination in the first place. Below, I have included a brief overview of points to consider:

Manure and Animal Management

- Hot compost or age manure before field application
- Incorporate manures/composts prior to planting
- Maximize the time between application and harvest
- Don't top dress with fresh manure or manure teas
- Exclude domestic animals (dogs, livestock, poultry) from fields during the growing and harvesting season

Minimize Wild Animals in Fields

- Have an active control program for rodents (squirrels, voles, etc.)
- Bare buffers around fields can discourage rodents, reptiles and amphibians from entering fields
- Eliminate cull piles, food residues and other attractants for wild animals

Water Used for Crop Production

- Check irrigation water for fecal coliform contamination
- Be aware of water that passes close to livestock or sewage treatment areas
- Foliar applications made within 2 weeks of harvest should be from potable water

Worker Health and Hygiene

Hepatitis A outbreaks have been linked to infected workers. Any workers who touch fresh produce can contaminate it. This includes pickers, sorters, graders, and packers.

- Train workers about microbial risks and proper procedures
 - Wash hands before handling produce
 - Wash hands after using the restrooms
- Supply soap, clean water, single use towels and enforce their use
- Provide clean restrooms and enforce their use
- Be careful when moving or servicing toilets to prevent leakage
- Provide bandages to handlers with cuts or lesions
- Gloves should be kept clean if they touch produce
- Reassign sick employees to non-food contact jobs

Field & Harvest Sanitation

- Harvest bins, equipment, implements and surfaces that touch fresh produce should be cleaned and sanitized daily
- Remove excess soil in the field
- Minimize crop bruising and damage

Packing & Post Harvest

Water that contacts fresh produce after harvest is widely recognized as the most essential pathogen control point.

- Use potable water for cooling, washing, dipping, grading, etc.
- Use potable water for making ice
- Chlorinate wash water and monitor levels and pH
- Pay special attention to water quality in dump tanks and recirculated water
- Cool produce quickly to minimize potential pathogen growth
- Clean and sanitize staging, loading and food contact surfaces regularly
- Keep birds and rodents out of packing and storage areas

You can find more detailed information at the following websites:

UC Good Agricultural Practices:

<http://ucgaps.ucdavis.edu>

- Self Audit for Growers and Handlers
- Chlorination in Fresh Fruits and Vegetables
- Key Points of Control and Management of Microbial Food Safety: Information for Growers, Packers, and Handlers of Fresh-Consumed Horticultural Products

UC Small Farm Center:

<http://www.sfc.ucdavis.edu>

- Food Safety Begins on the Farm
- US FDA's Overview of Good Agricultural Practices
- Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables
<http://www.foodsafety.gov/~dms/prodguid.htm>
- USDA Audit Verification Program: provides independent, third party audits for a fee. Those passing annual audit receive a certificate and a website posting accessible to customers and participants:
<http://ams.usda.gov/fv/fpbgapghp.htm>

FUTURE DATES

Upcoming events are posted on the Postharvest Calendar at the ANR website at:

<http://ucce.ucdavis.edu/calendar/calmain.cfm?calowner=5423&group=w5423&keyword=&ranger=3650&calcat=0&specific=&waste=yes>

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