University of California
Agriculture and Natural Resources

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2017 University of California's Pistachio Day

Wednesday, January 18th, 2017

Visalia Convention Center, Visalia, California
7:45 AM - 4:00 PM

Please note that this year's session will be a full-day session with a hosted lunch.

Pistachio Day is designed to deliver the latest research-based production practices in a format that enables prospective or current pistachio growers, production managers, and pest control consultants to better achieve their pistachio-growing goals.

The morning session topics include remote sensing for salinity management, *Rhodococcus fascians* update, reports from localized farm advisor projects, pistachio tree training, and updates on new pistachio cultivars.

Two afternoon sessions are being presented:
1. Produce Food Rule for Pistachios
2. Integrated Pest Management for Pistachios

Registration at http://ucanr.edu/sites/pistachioday/
or websearch "UC 2017 Pistachio Day"

UCCE 550 E Shaw Ave. Suite 210-B, CA 93710 • Phone (559) 241-7515 • Fax (559) 241-7539 • Web Site cefresno.ucanr.edu

2017 University of California's Pistachio Day Agenda

7:45 AM **Pistachio Day Welcome and New Production Manual Announcement**

Dr. Louise Ferguson, UC ANR Cooperative Extension Specialist, Department of Plant Sciences, UC Davis

8:05 **Industry Update**

Bob Klein, Research Director for the California Pistachio Research Board, Fresno, CA

8:30 **Tips on Choosing and Producing Pistachios with U.C. Cultivars**

Craig Kallsen, UC ANR Cooperative Extension Advisor, Kern County

9:00 **Implications and Management of the New Bacterial Pathogen *Rhodococcus fascians* in Pistachio.**

Dr. Elizabeth Fichtner, UC ANR Cooperative Extension Advisor, Tulare County

9:30 **Real World Pistachio Salt Tolerance for the San Joaquin Valley**

Blake Sanden, UC ANR Cooperative Extension Advisor, Kern County

10:00 **BREAK**

10:30 **Developing a New Pistachio Orchard: Training, Irrigation and Fertilization, and Young Tree Care**

Bob Beede, Emeritus UC ANR Cooperative Extension Advisor, Kings County

11:15 **Pre-plant Fumigation to Manage Nematodes in Pistachio - Is it Needed?**

David Doll, UC ANR Cooperative Extension Advisor, Merced County

11:30 **Utilizing Online Tools and Information in Preventing Pistachio Planting Pitfalls**

Dr. Mae Culumber, UC ANR Cooperative Extension Advisor, Fresno County

11:45 **LUNCH**

Session #2: Food Safety Modernization Act

1:00 PM **The Produce Safety Rule – What Pistachio Growers Need to Know**
Linda Harris, UC ANR Cooperative Extension Specialist, Department of Food Science and Technology, UC Davis

Session #3 IPM for Pistachio

2:00 **Tree Decline in Pistachio: True Disease or Abiotic Disorder?**

Dr. Florent Trouillas, UC ANR Cooperative Extension Specialist, Department of Plant Pathology, UC Davis

2:30 Navel Orangeworm Management: Sanitation, Mating Disruption, Monitoring, and Chemical Control

Dr. Brad Higbee, Lead Research Entomologist for Wonderful, Inc.

3:15 Navel Orangeworm Mating Disruption Product Options

Dr. Kris Tollerup, UC ANR Cooperative Extension Regional IPM Advisor, Kearney Agriculture Research and Extension Center

3:30 A Brief Update on the Sterile Insect Technique (SIT) Program to Manage Navel Orangeworm

Bob Klein, Research Director for the California Pistachio Research Board, Fresno, CA

University of California Cooperative Extension
48th Tri-County Walnut Day
Thursday, February 2, 2017

Visalia Wyndham
9000 W. Airport Drive, Visalia, California

Tri-County Walnut Day is an annual event where attendees can receive important information about the current state of the industry, regulation compliance, new research developments in production, as well as pest and disease management.

Register online or by mail by 1/30/2017 ($10), or at the door ($15) cash and checks accepted.

http://ucanr.edu/tcwd2017

Please detach and mail this form with a check made payable to **UC REGENTS**

Mail to: UC Cooperative Extension
TCWD
4437B S LASPINA ST
TULARE CA 93274-9537

Name:_____

Number of attendees in party: _____

Amount Enclosed ($10 per person)_____

Company:_____

Address:_____

City/State/Zip:_____

Phone:_____

7:00 AM

8:00

8:10

8:30

9:00

9:15

9:30

10:00

10:30

11:00

11:30

12:00 PM

2017 University of California Cooperative Extension
48th Tri-County Walnut Day Agenda

REGISTRATION
Coffee and Danish Courtesy of California Walnut Commission/Walnut Board
Moderator: Mohammad Yaghmour, UCCE Farm Advisor, Kern and Kings Counties

Welcome Walnut Growers, PCAs, and Members of Allied Industries.
Elizabeth Fichtner, UCCE Farm Advisor, Tulare and King Counties

Looking to the Future. *California Walnut Commission*

Management of Botryosphaeria Canker and Blight in the Presence/Absence of Phomopsis Blight on Walnut. *Themis Michailides, Professor, Dept. of Plant Pathology, UC Davis*

Phenology and Management of Walnut Scale in California Orchards. *Emily Symmes, IPM Advisor, UCCE and UC Statewide IPM Program*

Electronic Resources Offered by UC ANR and UC IPM for Improving Walnut Production. *Emily Symmes, IPM Advisor, UCCE and UC Statewide IPM Program*

Management of Walnut Husk Fly. *R. A. Van Steenwyk, Research Entomologist and CE Specialist Emeritus, Dept. of E.S.P.M., University of California, Berkeley, CA*

BREAK

Steps Toward the Control of Crown Gall. Daniel Kluepfel, Research Plant Pathologist, USDA ARS

Irrigation Management in Walnut Orchards. *Bruce Lampinen, Walnut and Almond Extension Specialist, UC Davis*

Groundwater Supply and Quality: Regulatory Update. *Thomas Harter, Cooperative Extension Specialist, Dept. of Land Air and Water Resources, UC Davis*

Lunch graciously provided by our sponsors

Continuing Education Credit Requested

1.5 hours of PCA (Other); 0.5 hours of PCA (Laws and Regs)

3.5 hours of CCA

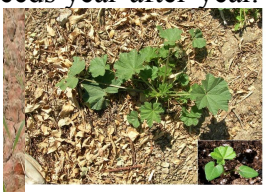
Are You Choosing the Right Spray for the Right Weeds?

Kurt Hembree, UCCE Weed Management Advisor, Fresno County

With tree nut harvest complete and preparations being made for winter, now is the time to choose the right spray for the right weeds in your orchard. We've already had a couple of late-fall showers, which have germinated some key winter weeds like filaree, annual sowthistle, malva, horseweed, and hairy fleabane (see photos). Hopefully you already know what weeds you'll be up against this season. If not,

try and identify them ASAP. Smart, cost-effective weed control hinges on your ability to tailor your herbicide spray program to the specific weeds in your orchard.

If you're not familiar with the weeds in your field, ask your PCA, consultant, chemical representative, or farm advisor to help you identify them. There are also plenty of paperback and online resources that can help you visually match your weeds with their common names as they appear on herbicide labels. *Weeds of California and Other Western States, Weeds of the West*, and *The Grower's Weed Identification Handbook* have good pictures of small and large weeds. The UC IPM website (*http://ucipm.ucanr.edu*) also has a nice weed photo gallery for ID purposes. Make a list of the weeds in each orchard, and keep those lists so you can reference them at a later date. It will allow you to change your spray program to match the changes in your weed flora over time. This small effort in itself, will save you time and money, by not having to be fighting the same weeds year-after-year.



Malva (cheeseweed)

Hairy fleabane

Whitestem filaree

Annual sowthostle

Horseweed (Marestail)

Once you're confident you have identified the weeds you want to target, choose your herbicide(s) accordingly. The preferred method of weed control is to apply a combination of soil-residual (preemergent) herbicides, followed by timely foliar (postemergent) sprays when weeds emerge later. Tank-mixing appropriate pre- and postemergent materials will control both small emerged weeds and germinating weed seeds in the soil. This generally reduces long-term weed control costs compared to all foliar burn-down programs. If you "start clean", your orchard generally "stays clean". Whatever herbicide spray is used, always combine at least two different herbicide mode-of-actions in the spray tank and rotate herbicide mode-of-actions every couple of years. This will help reduce the occurrence of herbicide resistance and maintain herbicide usefulness. While foliar burn-down programs can be successful if the treatments are made when weeds are less than 3-4 inches tall, many growers don't have enough equipment or manpower to be able to get across large acreages in a timely manner to treat when weeds are small and vulnerable. This usually leads to late sprays, weed regrowth, poor or erratic control.

Leaves blown off tree row before preemergent herbicide treatment

For preemergent herbicides to do their job, they need to be sprayed directly onto the soil where the weed seeds are. If leaf litter exists, it is necessary to mechanically blow off the leaves and other debris before spraying to assure good herbicide-soil contact. If there are patches of large, dried weed skeletons present, it may be necessary to send a hand crew in to physically remove them, too. The bottom line is, you want the soil-residual herbicide on the soil, not on the dried-up weeds and other debris where the herbicides can be tied-up and carried away with the first wind. Also, spray ahead of predicted rainfall to insure the herbicides are adequately activated in the soil. Most of the preemergents can remain on the soil surface for 2-3 weeks before needing to be activated by rainfall, but it is best to treat as close to a rainfall event as possible to reduce the amount of volatilization off the soil surface and maintain herbicide integrity. Table 1 lists the herbicides registered in tree nut crops in California. Product cost alone, or spraying "on the cheap" should never be the driving force behind herbicide selection. While cost is still a consideration, selecting products should be mainly based on trying to combine materials that will give you the best control possible for the weeds you want to control. Remember, weed species, soil types, tree age, and other factors often vary from orchard to orchard, so adjust the herbicide package selected accordingly.

Table 1. Herbicides registered in tree nut orchards in California

Herbicide a.i. mode-of-action	**Herbicide product example**	**Herbicide activity**	**Tree nut type**
group 1	Select Max, Poast, Fusilade DX	foliar	almond, pistachio, walnut
group 2	Matrix, Pindar GT (+ grp 14), Mission Sandea	soil and foliar soil and foliar	almond, pistachio, walnut walnut
group 3	Prowl H_2O, Surflan, Treflan	soil soil	almond, pistachio, walnut almond, walnut
group 4	Dri-Clean, Orchard Master	foliar	almond, pistachio, walnut
group 5	Princep	soil	almond, walnut
group 7	Direx	soil	walnut
group 8	Eptam	soil	almond, walnut
group 9	Roundup Powermax	foliar	almond, pistachio, walnut
group 10	Rely 280, Lifeline	foliar	almond, pistachio, walnut
group 12	Solicam	soil	almond, walnut
group 14	Chateau, Goal, Treevix, Venue, Shark,	soil and foliar	almond, pistachio, walnut

	Pindar GT (+ grp 2), Zeus	soil and foliar soil and foliar	almond, pistachio, walnut pistachio, walnut
group 21	Trellis	soil	almond, pistachio, walnut
group 22	Gramoxone SL	foliar	almond, pistachio, walnut
group 27	Broadworks	soil and foliar	almond, pistachio, walnut
group 29	Alion	soil	almond, pistachio, walnut

In preparation for a weed spray, consider this "to do" list to help make the treatment successful:

- Select herbicides that are effective on the target weeds and registered for the tree nut type and age.
- Use herbicide combinations with at least two different herbicide active ingredient (a.i.) mode-of-action group numbers in the spray tank that are effective on your specific weeds.

- Use the highest label rate of herbicide(s) for difficult weeds to control.
- Add buffering agents, surfactants, or other additives as required on the label.
- Treat when the weeds are best controlled, according to the label.
- Make sure the sprayer is calibrated and all parts are working properly.
- Select nozzles and a spray pressure that provides good spray coverage.
- Spray under favorable environmental conditions to minimize spray drift.
- Have the person spraying monitor the application closely and resolve problems as they occur.

Does your Orchard have *Ganoderma* Root and Butt Rot?

Bob Johnson, UC Davis Plant Pathology

Wood decay fungi are ever present in orchard systems, and most species of wood decay fungi pose little threat to the overall productivity and longevity of an almond orchard. *Ganoderma* on the other hand, is a fungal genus that contains a few species that are known to be pathogenic on young trees and can limit the productivity and longevity of an orchard due to early tree mortality. For instance, 120 acres of 9th and 10th leaf almond in Kings County were recently removed because *Ganoderma* root and butt rot resulted in nearly 40% of the trees succumbing to windfall over a 3-year period.

To better understand the incidence and severity of *Ganoderma* and other wood decay fungi in California almonds we need your help. *Ganoderma* infection often is symptomless until the tree falls over (Figure 1), but one easy to spot sign is the presence of the fungal fruiting body, called a conk, near the base of the tree (Figure 2). *Ganoderma* conks are perennial and can vary greatly in size; rusty colored spores can often be seen under and around active conks. If you have experienced decay related windfall or have seen conks in your orchard, please consider contacting us to come take a look. Understanding the distribution and incidence of *Ganoderma* infections will help us to develop management strategies to limit the impact of this potentially damaging disease.

Please contact Bob Johnson at 530-302-6301 or bobjohnson@ucdavis.edu if you are interested.

Figure 1. Windfall caused by *Ganoderma* root and butt rot.

Figure 2. *Ganoderma* conks. Notice rusty red colored spores around conk in bottom right picture.