

Field Notes

San Joaquin County
May 2017

University of California
Agriculture and Natural Resources

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Sabbatical Leave

I will be on sabbatical leave from my position from mid-June through mid-December. I will be studying vegetable plant pathology at Penn State University and hope to bring back home with me new knowledge and techniques that will improve my program and disease control strategies for vegetables here in San Joaquin County.

In my absence, vegetable advisors in adjacent counties can answer your questions or assist you with diagnosing production problems. Gene Miyao, based in our Woodland office, can be reached at emmiyao@ucanr.edu or (530) 666-8732 (office phone). His suggestion is that if you have a problem which can be seen in a good photograph (i.e. clear disease symptoms, etc.), then please send him an email with a close up image (or two) of a symptomatic plant(s). Photos or not, he will get back to you and try to help. As you likely already know, Gene has a wealth of knowledge!

The other UC advisor available to help you is our newest farm advisor, Gerry Spinelli (pronounced same as Jerry). Gerry's background is in irrigation, and he has experience in coastal vegetables and is now quickly getting up to speed on Central Valley vegetables. He is an area (regional) advisor, with responsibility for vegetables in Stanislaus County and for irrigation in the northern San Joaquin Valley (San Joaquin, Stanislaus, and Merced counties). He is based in the Modesto office and can be reached at gspinelli@ucanr.edu or (209) 525-6800 (office). We are very excited to have him join our vegetable team and I strongly encourage you to contact him with your questions, invite him to visit your operation, or just welcome him to our area!

Brenna Aegerter, Vegetable Crops Advisor



Nitrogen Mineralization in Organic and Mineral Soils

We are now in the second year of a project investigating how to estimate nitrogen (N) mineralization in mineral and organic soils. Nitrogen mineralization is the conversion of organic forms of N, which are not plant-available, to inorganic forms of N which are plant-available, like ammonium and nitrate. Mineralization occurs as a result of microbial decomposition of nutrients. Understanding N mineralization is important because it can help us apply N fertilizers more efficiently, by accounting for soil-available nutrients. Due to high groundwater nitrate concentrations, California growers are facing increasing pressure to improve N use efficiency in an effort to reduce nitrate leaching. To maintain competitive yields, however, growers need accurate estimates of soil-available N so that they can adjust fertilizer application rates with confidence.

In Spring 2016, the project team collected soil samples from 30 fields from Tulelake to Fresno County, including five sites in the Delta (having organic soils) and four other sites in San Joaquin County (having mineral soils). All of the fields were in annual crop rotations and had no recent legume cover crops or manure applications. The Delta soils had organic matter that ranged from about 6 to 23 percent; whereas, the soils from other areas of San Joaquin County had about 1.5 to 2 percent soil organic matter (SOM). The bulk density (i.e. the mass divided by volume) of the Delta soils averaged 0.9 g/cm³ compared to the mineral soils, which averaged 1.2 g/cm³. The reason it is important to measure the bulk density is because when soil nutrients are measured, they need to be converted from concentration to lbs/acre per foot of soil depth using a conversion factor. That factor will change depending on the bulk density.

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In general, N mineralization was higher in the organic, Delta soils (Figure 1) than in the mineral soils, but it also varied more among organic soils than among mineral soils. When N mineralization is expressed as a percent of total soil N, however, mineral soils were more variable. This is likely due to the fact that the SOM is more stable in Delta soils than in mineral soils, where SOM is largely derived from recent crop residues. In other words, crop residues influence N mineralization more in mineral soils than in organic soils.

Preliminary results also show that soil temperature and other soil properties have a strong effect on N mineralization. The soil temperature effect has been modeled to show that as temperature increases, N mineralization increases exponentially. The soil properties which most influenced N mineralization included total soil N, total soil carbon (C), particulate organic C (a measure

of the availability of organic matter to microbial decomposition), and pH. These soil variables are more predictive of N mineralization in organic soils than in mineral soils; more work is needed to determine which soil variables best help to predict N mineralization in mineral soils. Soil moisture likely also plays a role in N mineralization, and it will be studied in the future.

We are continuing the study again in 2017 and hope that the results will contribute to a better understanding of N mineralization in both organic and mineral soils, with the ultimate goal of developing an online decision-support tool for growers to help in estimating field-specific N mineralization rates.

Michelle Leinfelder-Miles, Delta Farm Advisor
Daniel Geisseler, Nutrient Management Specialist, UC Davis

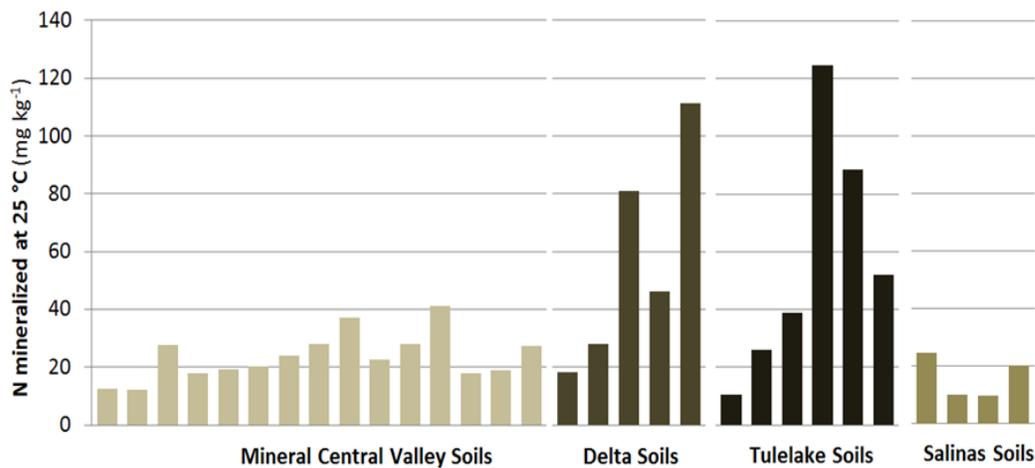


Figure 1. Net N mineralization rates of the 30 soils included in the study in 2016.

California Sorghum Silage at Harvest: Practices and Nutrient Profile

In summer of 2016, sorghum for silage was sampled at harvest on 16 San Joaquin Valley dairies to determine forage quality and current management practices. Herd size of participating dairies ranged from 320 to 5,500 milking cows (median = 2,013), with harvested sorghum acreage ranging from 42 – 574 acres (median = 188).

Sorghum type included brown midrib (n = 11) and grain (n = 5). Sorghum was ensiled in piles (n = 12) and bags (n = 4), and split evenly between dirt and concrete/gravel surfaces. Ten consecutive truckloads of chopped sorghum were sampled and composited at the time of ensiling. Wet chemistry analysis was performed by a commercial laboratory. Delivery rate of the 10 truckloads of sorghum ranged from 12 to 78 minutes (median = 40), with all dairies utilizing custom harvesting services.

There was no difference in nutrient composition between grain and forage type sorghum. Table 1 includes nutrient composition of the harvested sorghum (all samples). For comparison purposes, table 2 includes nutrient composition of 21 corn silage samples taken at harvest in 2014. Sorghum was lower in starch and NFC (non-fibrous carbohydrates), with higher ADF & NDF concentrations than sampled corn. Ash content of harvested sorghum ranged from 9 to 22%, with an average of 12%. Ash is essentially soil content in the feed, so on average, for every 100 lbs of sorghum silage dry matter fed, 12 pounds of dirt will be incorporated into the ration. For comparison, California corn silage typically runs around 6% ash.

Sugar cane aphid (SCA), which colonizes sorghum, was identified in the south San Joaquin Valley during the 2016 growing season. When comparing the nutrient composition of sugar cane aphid infested samples with non-infested samples, SCA caused significant decreases in starch and NFC, with higher crude protein, ADF and ash content. Further interactions were seen between SCA and sorghum type, with decreased starch content in grain varieties.

Table 1. Nutrient composition of sorghum harvested for silage (n=16)

	% of DM							
	DM	CP	ADF	NDF	Starch	NFC	Ash	NDFD 30, %NDF
Average	28.7	9.5	34.6	49.7	10.9	25.3	12.2	48.6
Median	28.4	9.7	34.9	50.4	9.6	27.4	11.8	50.5
Minimum	23.2	5.7	30.4	44.9	1.9	14.4	9.2	35.1
Maximum	34.6	11.7	40.2	55.3	22.5	35.6	21.5	60.3
STD	3.3	1.8	3.1	3.8	6.7	6.0	2.9	7.8

Table 2. Nutrient composition of corn harvested for silage (n=21)

	% of DM				
	CP	ADF	NDF	Starch	NFC
Average	7.7	25.1	41.8	29.2	43.7
Median	7.8	25.5	42.6	28.3	43.1
Minimum	6.2	20.2	35.2	23.3	36.6
Max	8.8	28.3	46.7	36.7	50.7

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Take-home thoughts:

Advantages of sorghum for silage include decreased seed costs, decreased fertilizer needs, and potential for water savings. Unfortunately, the quality of sorghum harvested in 2016 varied greatly. We'll have more information summarized on sorghum quality and chopping parameters in a later newsletter.

- Sugar cane aphid more than likely impacted sorghum quality in 2016. Talk with your crop consultant and be on the lookout for this invasive pest in 2017.
- Plan before harvest. What animals will receive sorghum silage and what is the optimal chop length, stage of harvest, etc.? 2016 particle separator results indicate very coarsely chopped, long particles that may be sorted in total mixed rations.
- Sorghum is not corn; the quality of samples in 2016 show lower levels of starch and NFC, with higher fiber content than typical corn silages. Talk with your nutritionist to best determine how to incorporate sorghum into your feeding system.

Jennifer Heguy, Dairy Advisor, Merced, Stanislaus & San Joaquin Counties

J.P. Martins, Dairy Advisor, Tulare & Kings Counties

Deanne Meyer, Livestock Waste Management Specialist, UC Davis

Distinguishing Bacterial Canker from Phytophthora Root and Crown Rot

I observed a number of almond orchards this spring where the fruit buds never pushed and appeared to die while trees were dormant. Other buds pushed, but the blossoms and growing shoot tips quickly blighted with bacterial blast like symptoms (Fig. 1), followed by blighted leaves (Fig. 2). A number of trees showed full bacterial canker symptoms (Fig. 3) and I worry that these trees will not survive. Bacterial canker and blossom and bud blast are both caused by the plant pathogenic bacteria *Pseudomonas syringae* pv. *syringae* that is usually found living on the surface of healthy plants. *Pseudomonas syringae* lives most of the time as an 'omnipresent epiphyte,' always present on the surface of plants, living happily, just waiting for certain environmental conditions (cold and wet) to occur. These conditions allow it to enter the plant, multiply, and build to high enough populations within the tree to trigger a disease (bacterial blast or canker). Relatively little is known about blossom bacterial blast, but we do know that cold, wet weather can be an important predisposing factor that can worsen the disease.

The picture of 'blasted' flowers are from trees growing in sandy soils in an orchard near Manteca. During almond bloom, we had below freezing temperatures on February 24th, 26th, and March 1st (CIMIS station 070 in Manteca). Bacterial blast is usually more severe in the lower canopy of the tree and in the lower part of an orchard. Blast is usually more severe on earlier blooming varieties, but that may be because earlier blooming varieties tend to be in bloom when temperatures are cooler. Aldrich and Fritz seemed much less affected than Nonpareil, Independence, or Carmel. Bacterial blossom blast has been significantly reduced in trials where trees were protected against frost by running water or wind machines. Harley English, a UC Davis professor in the 1980s, conducted a series of experiments on bacterial blossom blast. Cut blossoming shoots of almond that were subjected to 24.8 °F (-4°C) for two hours were significantly more susceptible to blast than shoots that were not subjected to the two hour frost treatment. In another experiment, cut leafing-out shoots were sprayed with 'ice-nucleating' (the ability

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to catalyze the formation of ice) *Pseudomonas syringae* before being subjected to freezing temperatures. Other shoots were also inoculated but not chilled. Damage to leaf clusters was significantly greater in shoots that had been inoculated and chilled, confirming the interaction between ice-nucleating bacteria and freezing temperatures with bacterial blast.

Trees growing in sandy soils with high ring nematode populations and low nutrient value, and that are typically flood irrigated with district water, appear to be the most susceptible to bacterial canker. Bacterial canker control usually includes preplant fumigation for ring nematode, proper rootstock selection, proper irrigation and nutrition (especially nitrogen and perhaps calcium and iron), and post-plant nematicide treatments (less successful—Movento and VelumOne). Conversion to drip irrigation systems have, in general, improved bacterial canker incidence. Roger Duncan, UC Farm Advisor in Stanislaus County, has shown Viking and Lovell rootstocks to be more tolerant than peach-almond hybrids (Hansen, Nickels, and Brights) and Nemaguard. Roger also cooperated on research that showed copper sprays may also play an important role at reducing bacterial populations. Silicone-based surfactants may help deliver bactericides into previously inaccessible leaf surfaces. There is limited evidence that defoliating leaves in the fall with zinc or urea may improve bacterial canker symptoms.

I'm wondering if freezing temperatures in the fall, before trees were completely dormant, may have contributed to early bud infections, because the buds that didn't push were obviously killed before bloom. Looking at CIMIS data, there were nine days in December with nightly temperatures below 29° F. I'm guessing these early frosts and continued rainfall allowed the bacterium to enter the plant early and reach high enough populations to cause the canker and blast symptoms we observed this spring.

We may also see Phytophthora Root and Crown Rot this spring as a result of all the rain and flooding we have had, especially in saturated soils. I thought I would review the distinguishing characteristics between Bacterial Canker and Phytophthora Root Rot. Symptoms of Phytophthora root rot and bacterial canker are often the opposite of each other, making diagnosis possible. The roots of *Phytophthora* infected trees just below the soil line are often brown and decayed, and as you work your way up the tree, cutting into the vascular system, you usually find healthy tissue in the scaffolds and branches. Usually you find a distinct margin between rotten and healthy vascular tissue as you follow the advance of *Phytophthora*. The roots of Bacterial canker-affected trees are usually healthy and these trees are often suckering because root systems are still alive. Trees with bacterial canker usually have shoots and scaffold death and gumming. Often, only one branch or scaffold is infected. If you cut into affected wood you will almost always have a sweet sour smell, and as you work your way down the tree, cutting into vascular tissue, you eventually find green, healthy tissue as you approach the roots. The sour sap phase of bacterial canker may or may not show gum and cankers, but the inner bark can

be brown, fermented, and sour smelling. Red colored flecks and pockets of bacterial invasion in the bark occur outside canker margins (Fig. 4). There is usually not a distinct margin of infected tissue as in *Phytophthora*. Bacterial canker usually occurs in sandy soils in association with ring nematode, while *Phytophthora* root and crown rot is more often found in heavier soils where over irrigation or rain can increase disease susceptibility. *Phytophthora* control usually includes proper irrigation management and planting trees high on a berm so that the graft union is above the soil line. Phosphorus acid treatments have been shown to reduce *Phytophthora* root and crown rot as a common preventative measure.

Brent Holtz, Almond Advisor and County Director



Figure 1. Blossom and leaf blast.



Figure 2. Blighted leaves.



Figure 3. Bacterial canker.



Figure 4. Bacterial canker red flecking within the bark.

Tomato Powdery Mildew

Mildew pressure has generally been less severe in recent years, but there have still been plenty of severely affected fields, and I continue to believe that early treatments (beginning at approximately 6 weeks after transplanting) are often warranted, especially for later season tomato fields.

I've been conducting fungicide trials in San Joaquin County commercial tomato fields each year since 2006, often with multiple trials each season. One of the most common questions I get in the spring and early summer is "What is the best product for mildew control in tomato?". While the top-ranked products in my trials can vary with the year and the conditions, it is possible now, after so many trials, to make some generalizations about efficacy.

Where I have indicated a number in parentheses after a fungicide, it refers to the FRAC (Fungicide Resistance Action Committee) grouping. This categorization is based on the mode of action of the fungicide. To minimize the risk of resistance developing to fungicides, products in different FRAC groups should be used in combinations or rotation programs. Included in the top-performing group (reliably top-ranked in any trial) are: sulfur dust, Rhyme (3), Luna Sensation (7 + 11), Priaxor

(7 + 11) and Quadris Top (3 + 11). Although I have heard complaints about Quadris Top not working as well as it had previously, I have not observed a decline in its efficacy in any of my trials.

Another group which is effective against mildew (but not with the top group when it comes to heavy pressure or longer spray intervals) includes: wettable/sprayable sulfur, Fontelis (7), Vivando (U8), Cabrio (11), Rally (3), and biological fungicides. As you can see in Table 1, the more effective products can sometimes be stretched to a 20-day interval, depending on disease pressure. On the other hand, weaker products are set up for failure when spray intervals are stretched to 20 days (Table 1, pg. 6).

I recommend that you develop a good rotation program which either incorporates sulfur dust in between fungicide sprays or rotates between products in different FRAC groupings. Many of the new products are formulated mixtures of fungicides in different groups (e.g. Group 7 active ingredient plus group 11 active ingredient). The thinking is that these combination products should help reduce the risk of resistance development. Genetic analyses of the mildew fungal populations conducted by the Stergiopoulos lab at UC Davis (with CTRI funding) have shown that the local populations of mildew do include "individuals" that have the genetic markers of resistance to strobilurin fungicides (FRAC group 11). Therefore, it is not recommended to rely too heavily on strobilurins, and do not apply them alone (e.g. Quadris or Cabrio alone with no tank mix partner). The same could be said for Rally. It does still have some efficacy, although not what it used to be, and should not be used alone or more than once in a row.

We continue to see a mixture of two pathogens attacking tomatoes in our region. The first mildew is *Leveillula taurica*, which is the more familiar of the two, with its bright yellow spots and often sparse sporulation (although sometimes sporulation is abundant). The second species is *Oidium lycopersici*, which exhibits the more abundant white sporulation for which the powdery mildew group was named. This mildew was first documented in California tomatoes in 2015. Thus far, it has only been found in San Joaquin County, eastern Contra Costa County, and somewhat in the northern Delta. Perhaps climatic conditions limit the spread of *Oidium* into hotter areas. This seems unlikely, but is possible. It could be that it is just a matter of time before it is found more widespread in the Central Valley. Only time will tell...

And as a parting note, keep an eye out for Tomato Spotted Wilt Virus (TSWV), especially if it is occurring in resistant varieties of tomatoes or peppers (those with the Sw gene). Last year, resistance-breaking strains of TSWV were documented in the southern San Joaquin Valley in fresh market tomatoes. While it is normal to occasionally see an infected plant even in a resistant variety, if you see an incidence higher than a few percent, it may be worth investigating. Researchers at Davis are interested in learning more about this resistance-breaking strain, so they will be interested in your observations. You can contact Bob Gilbertson at rgilbertson@ucdavis.edu or a farm advisor (see page 1).

Brenna Aegerter, Vegetable Crops Advisor

Table 1. Effect of various spray programs on severity of tomato powdery mildew (and impact on “greenness” or NDVI). Union Island, 2016.

Product	Spray interval	<u>16-Sep</u>		<u>26-Sep</u>				<u>6-Oct</u>			
		Disease severity		Disease severity				Disease severity			
		NDVI	(%)	NDVI				NDVI			
Quadris Top	10-day	0.66	7.5	0.60	ab	5.0	b	0.59	a	5.0	c
Quadris	10-day	0.69	5.0	0.62	a	2.5	b	0.59	a	5.0	c
Quadris Top	20-day	0.68	5.0	0.62	a	2.5	b	0.53	ab	10.7	c
Quadris	20-day	0.69	5.0	0.61	ab	5.0	b	0.52	ab	19.5	bc
Rally	10-day	0.66	7.5	0.60	ab	5.0	b	0.53	ab	20.8	bc
Cabrio	10-day	0.67	7.5	0.58	abc	7.5	b	0.49	bc	21.0	bc
Rally	20-day	0.65	11.2	0.53	bcd	21.0	b	0.43	cd	50.0	ab
Cabrio	20-day	0.64	17.3	0.51	cd	27.0	ab	0.39	d	58.3	a
Non-treated control		0.60	27.0	0.45	d	50.0	a	0.37	d	75.5	a
	Mean	0.66	10.3	0.57		13.9		0.49		29.5	
	LSD	NS	NS	0.08		28.5		0.09		31.4	

Values represent the mean of four observations. Means in the same column followed by the same letter are not statistically different according to the Tukey method. NDVI = Normalized difference vegetation index, which is a measure of photosynthetically active (live, green) tissue. Measurements made with a handheld meter (Trimble Greenseeker) held over the center of the bed and readings averaged over the length of each plot.



Announcements / Calendar of Events

UC Davis Small Grains and Alfalfa/Forages Field Day
Wednesday, May 11, 2017

8:15am - 4:30pm (includes lunch)

UC Davis Agronomy Field Headquarters

2400 Hutchison Drive, Davis, CA 95616

Contact: Michelle Leinfelder-Miles, 209-953-6100,

mleinfeldermiles@ucanr.edu

Farm and Food Business Financing

Friday, May 12, 2017

12:00pm - 1:30pm

Courtland Auditorium, 146 Primasing Ave.

Courtland, CA 95615

This event is being sponsored by Central Valley Ag-PLUS, USDA Rural Development, Valley Vision, Delta Protection Commission, River Delta Unified School District, and Sacramento County. For more information and to RSVP, please contact Adrian Rehn with Valley Vision at 916-325-1630. (See flyer, page 9.)

UC Davis Weed Day 2017

Thursday, July 13, 2017

7:30am to 4:30pm (includes lunch)

Buehler Alumni Center, UC Davis

For more information and to register, please see

http://wric.ucdavis.edu/events/weed_day_2017.html

Weedy Rice Workshop

Wednesday and Thursday, August 9 and 10, 2017

Colusa and Yuba City

Save the date! More information to follow.

Contact: Michelle Leinfelder-Miles, 209-953-6100,

mleinfeldermiles@ucanr.edu

Weed Science School 2017

August 22-24, 2017

Bowley Plant Science Teaching Center, UC Davis

For more information and to register, please see

http://wric.ucdavis.edu/events/weed_science_school_2017.htm

California Small Farm Conference

Sunday, October 29 and Monday, October 30, 2017

San Joaquin County Robert J. Cabral Agricultural Center
2101 E. Earhart Ave., Stockton, CA 95206

(See flyer, page 8.)

The local planning committee is seeking input on the conference. For more information, contact Tacy at

tacy@californiafarmconference.com.

California Leopold Conservation Award® Seeks Nominees

The Sand County Foundation, California Farm Bureau Federation, and Sustainable Conservation are accepting applications for the \$10,000 California Leopold Conservation Award. The award honors California farmers, ranchers, foresters, and other private landowners who demonstrate outstanding stewardship and management of natural resources. Given in honor of renowned conservationist Aldo Leopold, the Leopold Conservation Award inspires other landowners by example and provides a visible forum where farmers, ranchers, and other private landowners are recognized as conservation leaders.

“Receiving the Leopold Conservation Award is an honor and a legacy that we value today and hope inspires our next generation,” said Dina Moore, owner of Lone Star Ranch – the 2016 recipient. “We encourage others to apply for this opportunity to tell their stories of the entwined relationship between working landscapes and conservation.”

“The Leopold Conservation Award was established in the name of Aldo Leopold, who understood the critical nature of working landscapes,” said California Farm Bureau Federation President Paul Wenger. “This award recognizes farmers and ranchers who have developed creative and replicable ideas, relative to the stewardship of the natural resources on their land. As the most productive agricultural state in the nation, with some of the most dazzling ecosystems and landscapes, California farmers and ranchers have shown their ability to protect the environment, while producing a cornucopia of food and farm products that not only creates sustainable economic stimulus but helps feed the rest of our nation and world.”

Nominations must be postmarked by July 14, 2017, and mailed to California Leopold Conservation Award c/o Sustainable Conservation, 98 Battery Street, Suite 302, San Francisco, CA 94111. The 2017 California Leopold Conservation Award will be presented in December at the California Farm Bureau Federation’s Annual Meeting in Garden Grove, CA. The California Leopold Conservation Award is possible thanks to generous contributions from many organizations, including Farm Credit West, American AgCredit, The Harvey L. & Maud S. Sorenson Foundation, Environmental Defense Fund, and The Nature Conservancy.

For application information, please visit leopoldconservationaward.org. For questions, please contact Alex Karolyi at 415-977-0380 x317 or akarolyi@suscon.org.

About the Leopold Conservation Award...

The Leopold Conservation Award is a competitive award that recognizes landowner achievement in voluntary conservation. The award consists of a crystal award depicting Aldo Leopold and \$10,000. Sand County Foundation presents Leopold Conservation Awards in California, Colorado, Kansas, Kentucky, Missouri, Nebraska, North Dakota, South Dakota, Texas, Utah, Wisconsin, and Wyoming.

Join the 2017 California Small Farm Conference Local Planning Committee



CALL FOR CALIFORNIA SMALL FARM CONFERENCE LOCAL PARTICIPANTS

The California Small Farm Conference Planning Committee is sowing the seeds for a compelling program for the California Small Farm Conference 2017, scheduled for October 29 and 30, 2017 in Stockton. Become involved and contribute locally for an exceptional conference that will bear fruit in our work practices in the years to come.

Contribute your expertise, experience and innovation in producing, and processing food, marketing, and creating new opportunities for small scale farmers and the community that creates and sells world class caliber food.

- form a panel with practical innovators in the small farm community
- Provide input on local issues to incorporate in the conference
- Work to identify relevant event sites
- Suggest impactful speakers and participants

Where: The 2017 [California Small Farm Conference](#) (CSFC) will be held at the [Robert J. Cabral Agricultural Center](#) in Stockton. Field visits will be in a 50 mile radius.

When: Sunday, October 29 and Monday, October 30.

How to become involved: Join the planning committee to help us make this a phenomenal experience in October.

And... Think about how you can participate in October and who we should invite to share their experience, skill, and insight. We're looking for the brightest and the best of small-scale farmers, food processors, farmers' market managers, and marketers.

For more information, [email tacy@californiafarmconference.com](mailto:tacy@californiafarmconference.com)



California Small Farm Conference

October 29 & 30, 2017

www.CaliforniaFarmConference.com



Get your farm or food business financed!

You're invited to attend a free workshop and luncheon that will connect food and ag businesses with business resources and financing opportunities. You'll be able to speak one-on-one with a variety of funders and resource providers.

- **Date:** **Friday, May 12, 2017**
- **Time:** 12:00 PM - 1:30 PM
- **Location:** Courtland Auditorium, 146 Primasing Ave, Courtland, CA 95615

This workshop is for **food and ag businesses in the Sacramento River Delta and Sacramento, San Joaquin, Yolo, and surrounding counties**, including farmers, restaurateurs, ranchers, processors, distributors, and others. Community partners are also welcome to attend. Follow-up assistance and additional resources will be available for attendees.

Seats are limited! RSVP to:

Adrian Rehn

adrian.rehn@valleyvision.org

(916) 325-1630

Share this invite with your friends and neighbors!

Parking: The Auditorium is a large building across the street from the Courtland Community Church. Parking is available along Primasing and Washington streets.

***NOTE:** This will be the final AgPlus rural food business workshop that Valley Vision will be holding in the region. If you missed our other workshops and are interested in learning about funding resources for your food business, we encourage you to attend. This AgPlus project is supported by a grant from USDA Rural Development.

We hope to see you there!

Trish, Robyn, and Adrian
Valley Vision



It is the policy of the University of California (UC) and the UC Division of Agriculture & Natural Resources not to engage in discrimination against or harassment of any person in any of its programs or activities. (Complete nondiscrimination policy statement can be found at <http://ucanr.edu/sites/anrstaff/files/215244.pdf>.) Inquiries regarding ANR's nondiscrimination policies may be directed to John I. Sims, Affirmative Action Compliance Officer/Title IX Officer, University of California, Agriculture and Natural Resources, 2801 Second Street, Davis, CA 95618, (530) 750-1397.

The University of California working in cooperation with San Joaquin County and the USDA.