



2018

# THE ALMOND CONFERENCE

GROWING ORGANIC: PANEL UPDATE ON  
PRACTICES AND CERTIFICATION

ROOM 312-313 | DECEMBER 5, 2018



# AGENDA

- **Harbinder Maan**, Almond Board of California, moderator
- **Bryce Spycher**, Almond Board of California
- **Jane Sooby**, CCOF
- **Franz Niederholzer**, UCCE Colusa, Sutter, Yuba
- **Ron Lautrup**, Baugher Ranch Organics





# Growing Organic

December 5, 2018



# Why Organic?

- Americans spend nearly \$50 Billion on organic annually<sup>1</sup>
  - 82% of U.S. households have Organic products in their cupboards and closets<sup>2</sup>
- In 2017, U.S. organic food sales represented 5.5% of total retail food sales<sup>1</sup>
- 14.1% of all fruits and vegetables bought by U.S. consumers are organic<sup>3</sup>
- Organic options are now offered in 75% of all categories on supermarket shelves<sup>4</sup>
- Organic farms are on average more profitable than the average farm<sup>5</sup>

**Consumers are looking for organic products!**

<sup>1</sup>Organic Trade Association. 2018 Organic Industry Survey

<sup>2</sup>Nielsen findings released by the Organic Trade Association, March 2017

<sup>3</sup>Organic Trade Association's 2017 and 2018 Organic Industry Surveys

<sup>4</sup>SPINS Consumer Insights powered by IRI Shopper Network for year ending 12/28/2014, UPC coded items only

<sup>5</sup> Washington State University scientists David Crowder and John Reganold, June 2015

# Organic Almonds Growth

- Organic almond acreage in California has more than doubled in the last ten years.
- Organic almond production in California has grown 132% during the last 10 years.
  - Compound Annual Growth Rate of 8.8%
- Growers are inquiring about transitioning land to organic production
- Increasing requests for both organic almond products and organic almond production information
- Organic Advisory Panel formed in 2016/17 crop year



Sources: USDA/NASS 2008 Organic Survey, 2018 CDFA State Organic Program, 2017/18 USDA Incoming Receipts

# Panel Discussion

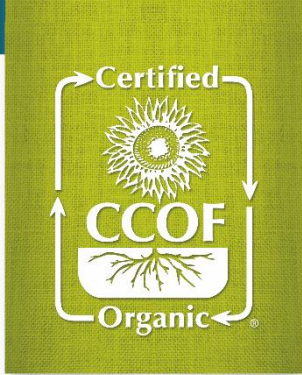
## Panelists:

- Franz Niederholzer (UCCE/Farm Advisor)
- Jane Sooby (CCOF)
- Ron Lautrup (Baugher Ranch Organics)

## Session Structure:

- Panelists will each give introductory comments
- Moderators will guide panel discussion
- Audience Questions & Answers





# **Certified Organic: More Than a Label, It's the Law**

**An Introduction to Organic Certification**

**Presenter: Jane Sooby**

# Organic Defined

- An operation managed in accordance with the Organic Foods Production Act and standards in the Code of Federal Regulations
- Responds to site-specific conditions by integrating cultural, biological, and mechanical practices
- Fosters cycling of resources, promotes ecological balance, and conserves biodiversity



# Specific Organic Requirements

- Land must be free of prohibited materials, including synthetic pesticides and GMOs, for 3 years prior to harvest.
- Organic operations must submit an organic system plan annually to their certifier.

# Specific Organic Requirements

- Every operation is inspected at least once each year.
- All field operations and materials applied must be recorded, and all products must be traceable back to the field in which it was grown.

# What is an Organic System Plan?

- A description of practices that is updated as practices change
- Agreement between applicant and certifier
- Certifier/inspector verifies that
  - Organic system plan describes a compliant system
  - Operation is functioning as described in the organic system plan

# Organic Crop Production

- No synthetic fertilizers allowed; crop rotation, cover crops, and plant and animal materials are used instead.



- Raw manure cannot be applied less than 90-120 days prior to harvest depending on crop type.

# Organic Crop Production

- Organic seeds are required when commercially available.
- Nonorganic planting stock for perennials may be used but product cannot be sold as organic until managed organically for at least 1 year.
- Pest management is done primarily through cultural practices and use of biological and botanical pesticides.

# Organic Crop Production

- Growers must manage in a way that maintains or improves physical, chemical, and biological condition of the soil
- Land must have distinct, defined boundaries and buffer zones to prevent unintended contact with prohibited materials
- Crop rotation is required. In perennials, rotate cover crops planted between rows or alleys.

# Six Simple Steps to Certification

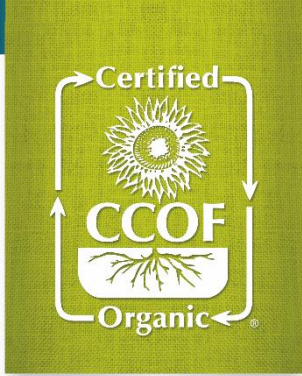
1. Submit application and Organic System Plan (OSP)
2. CCOF reviews application and OSP
3. Inspection
4. CCOF reviews inspection report
5. Certification decision
6. Annual renewal contract and inspection



# Who is CCOF?

- California Certified Organic Farmers, a member-based organization founded in 1973
- Provides certification for organic growers, livestock producers, ingredient suppliers, handlers, warehousing and storage, brokers, wholesalers, private labelers, retailers, and restaurants
- CCOF certifies more than 3,500 organic operations across North America and over 25,000 different organic crops, products, and services





## Questions?

The CCOF website offers a  
wealth of organic information!

[www.ccof.org](http://www.ccof.org)



# Organic Almond Production

Franz Niederholzer, UCCE Farm Advisor

Colusa and Sutter/Yuba Counties



# **Organic almond production is not conventional**

- **Going from conventional, micro-irrigated almonds to organic is challenging.**
- **Fertigating with organic fertilizers can be challenging**
- **Get ready for fertilizer sticker shock**
- **No effective controls for summer disease (except rust)**
- **No fumigation options**
- **No cost-effective organic herbicides.**

# Case study: Organic almond production from the ground up at Nickels Soil Lab. Arbuckle, CA



## **Organic demo block planted at Nickels in 2006.**

- **Site: Class 2-3 soil on rolling terrain, west of I-5 near Arbuckle, CA**
- **Planted by John Edstrom, Bill Krueger and Stan Cutter.**
- **Lovell rootstock; 75% NP & 25% Fritz. 16' X 22' planting.**
- **Every 4<sup>th</sup> tree in every row is a Fritz. Every NP has 2 Fritz adjacent.**
- **10 frame hives! (Thanks to Mike Rosso and Randy Oliver)**
- **Double-line buried drip irrigation. No Treflan in organic hose, all hoses replaced in 2016 due to plugging problems.**
- **Not certified organic, but all practices/materials are certified organic.**
- **Half of the organic demo trees were started w/ conventional inputs and transitioned to organic, half were started as organic.**

# Program to date...



## **Program to date...**

- **Weed control by propane burner and mowing. Weed cloth tested, but abandoned in 2011.**
- **Nutrition via unincorporated compost until 2012, then switched to injected 4-0-2. In 2018, switched to primarily 12-0-0 pelletized feather meal (buried).**
- **Summer disease control improved starting in 2012 with summer sulfur sprays – also helped control mites. [2011 - 2015 were dry years.]**

# Good production (lbs/acre) under organic management has been achieved after rust controlled in 7<sup>th</sup> leaf.

Leaf	Year	Conventional	Organic	Org:Conv	%Leaf N (org)
7 <sup>th</sup> leaf	2012	2438	957	0.39	2.39
8 <sup>th</sup> leaf	2013	2971	2113	0.71	2.41
9 <sup>th</sup> leaf	2014	2450	1528	0.62	1.99
10 <sup>th</sup> leaf	2015	2630	2079	0.79	2.05
11 <sup>th</sup> leaf	2016	2198	1542	0.69	2.11
12 <sup>th</sup> leaf	2017	2217	1406	0.63	2.16
13 <sup>th</sup> leaf	2018	2542	2090	0.82	1.96



# Similar NP reject levels possible with good management/location. 2015

Variety	Pickup date	How many NOW generations	% Worms
<b>Organic Nonpareil</b>	<b>Aug 12-14</b>	<b>2.66</b>	<b>1.5</b>
<b>Conventional Nonpareil</b>	<b>Aug 12-14</b>	<b>2.66</b>	<b>1.6</b>

# Late pollinizers are MUCH more vulnerable than NP under high NOW pressure, as in 2017.

Variety	shake date	How many NOW generations?	% kernel damage
Organic Nonpareil	Aug 12	2.40	0.7
Organic Fritz	Sept 22	3.65	16.1

# Success and challenges of organic production (at this good organic location)

Management	Success	Challenge
Disease	X	
Insect/mite	X	
Weed		X (?)
Nutrient (N)		X

What will El Nino do to this "Success"?



# Weed management in organic production is challenging.



# Propane burners help control weeds in the tree row.



# Getting into organic almond production...

**Start from scratch (plant new orchard)?**

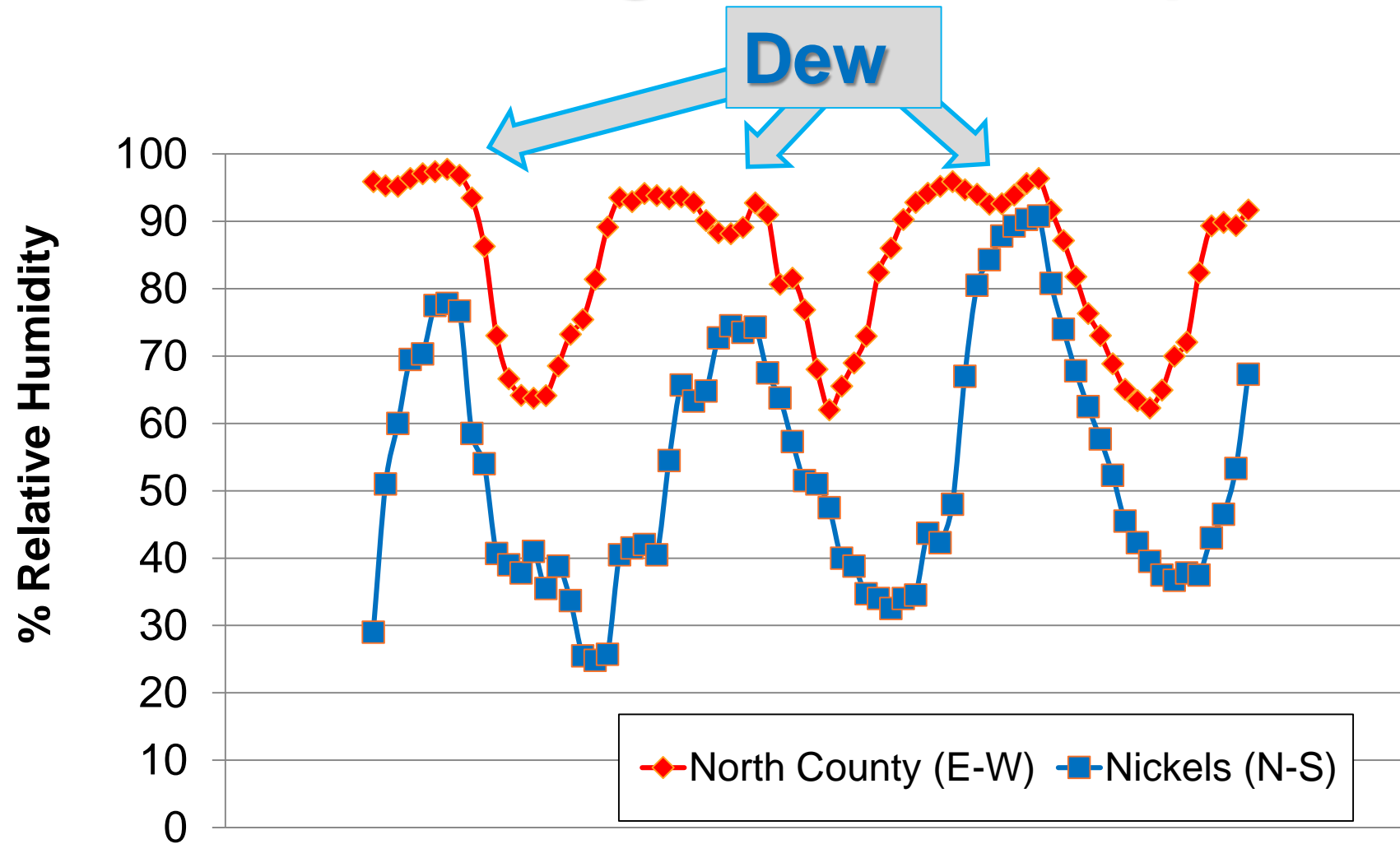
Or

Transition an existing orchard from  
conventional to organic?

# **Location, varieties and orchard system are key to successful organic almond production.**

- **Not all good locations for almond production are good locations for organic almond production.**
- **Plant trees in the direction of prevailing winds**
- **Avoid late harvesting and/or disease sensitive varieties**
- **Shelter organic blocks within conventional blocks?**
- **Consider organic almond farming a different crop from conventional production.**
- **Weather can be the wild card.**

# Not all good locations for almond production are good locations for organic almond production.





**Know the risks, know your operation. Don't make long term decisions based on short term information.**

**Thank you.**



# Baugher Ranch Organics Ron Lautrup VP, Co-Owner

Farming and Processing Organic Almonds  
Since 1984

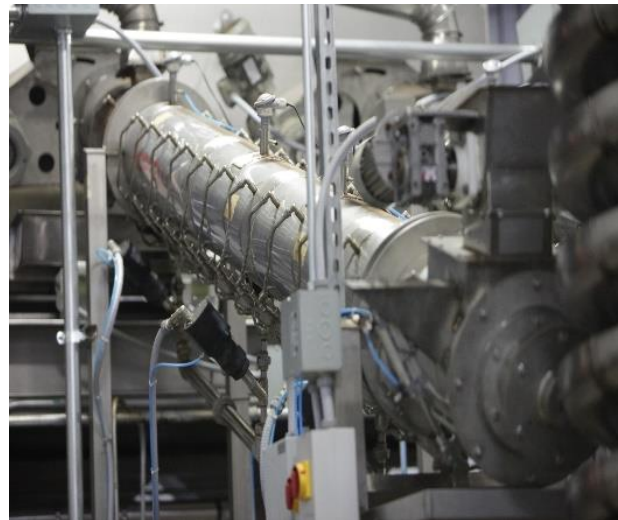
## Giving Trees Ranch Site





# Organic Almond Processing

- Committed to quality and food safety
  - Fully-integrated electronic technology featuring laser, optical, density and x-ray sorting capabilities
  - Full Service Organic Almond Processing and Handling
  - SQF Certified for Global Food Safety Initiative (GFSI) and FSMA compliant
- Onsite cold storage for optimal shelf life and quality
- Staff committed to exceeding customer expectations
- Owners committed to Longevity





Thank you!



# What's Next

**Wednesday, December 5 at 12:00 p.m.**

- Luncheon Presentation – Hall C  
Speaker: David Deak

*Luncheon is ticketed and is sponsored by Moss Adams*



MOSSADAMS



## **Silent Auction**

Start your holiday shopping at our Silent Auction in Hall A+B - all proceeds go towards CA FFA scholarships!

Wednesday & Thursday until 3:00 p.m.



## Buy Your Golden Ticket at the FFA Booth

100 GOLDEN TICKETS WILL BE SOLD

★ ★ ★ ★ **GOLDEN TICKET** ★ ★ ★ ★

Throughout the conference 100 golden tickets will be sold. One lucky person will win and get their choice of one item from the live auction.

**MUST BE PRESENT AT THE GALA DINNER TO WIN.**

**Visit the FFA silent auction booth to purchase  
a golden ticket and learn more!**

The golden ticket winner will be drawn prior to the live auction.