



## Almond Grower Field Day

May 29, 2014

# The Scope of the California Almond Industry

- Spanning 500 miles throughout the Central Valley
- 6,500 growers
- 105 handler/processors
- 100% of U.S. production
- \$4.8 billion in farm value 2012\*
  - 2nd most valuable California crop
- 82% of worldwide production
- \$3.4 billion export value (2012)\*\*
  - California's #1 ag export\*\*\*
  - 50,000+ jobs created
  - Top U.S. specialty export crop

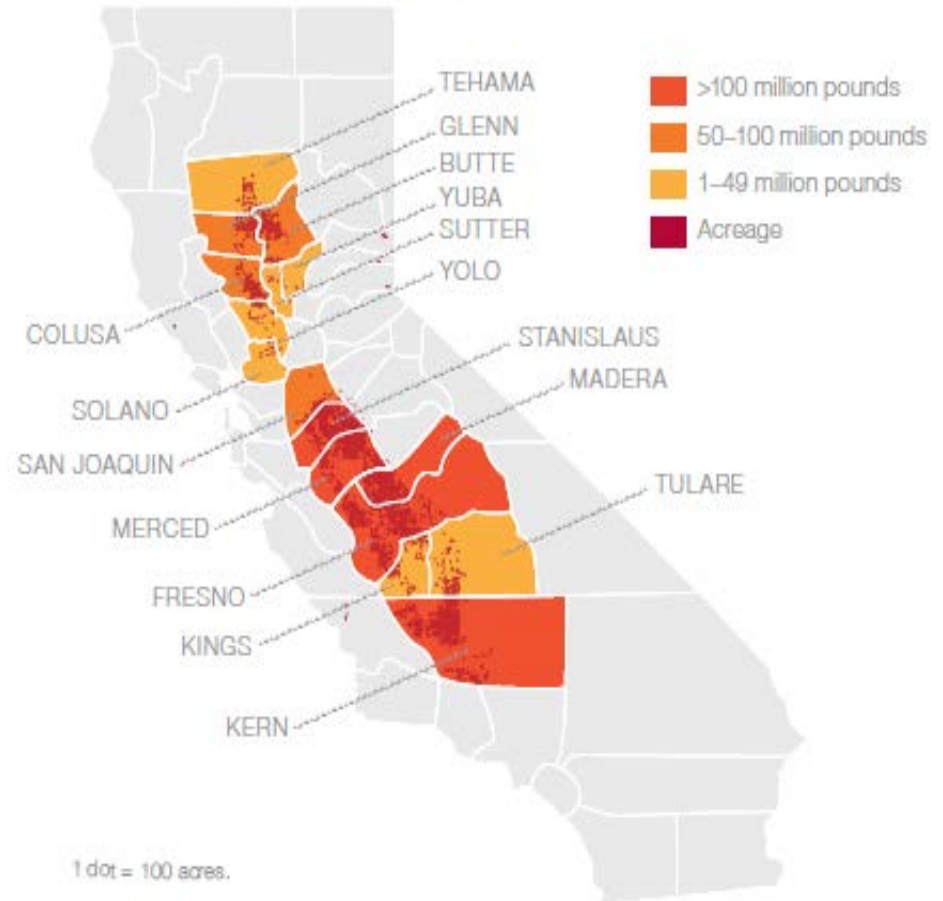
Sources:

\*USDA Agricultural Statistics Service, Pacific Region (NASS/PR)

\*\*U.S. Department of Commerce, Foreign Trade Statistics

\*\*\*Agricultural Issues Center, University of California 2011

Almond Production by County 2012/13



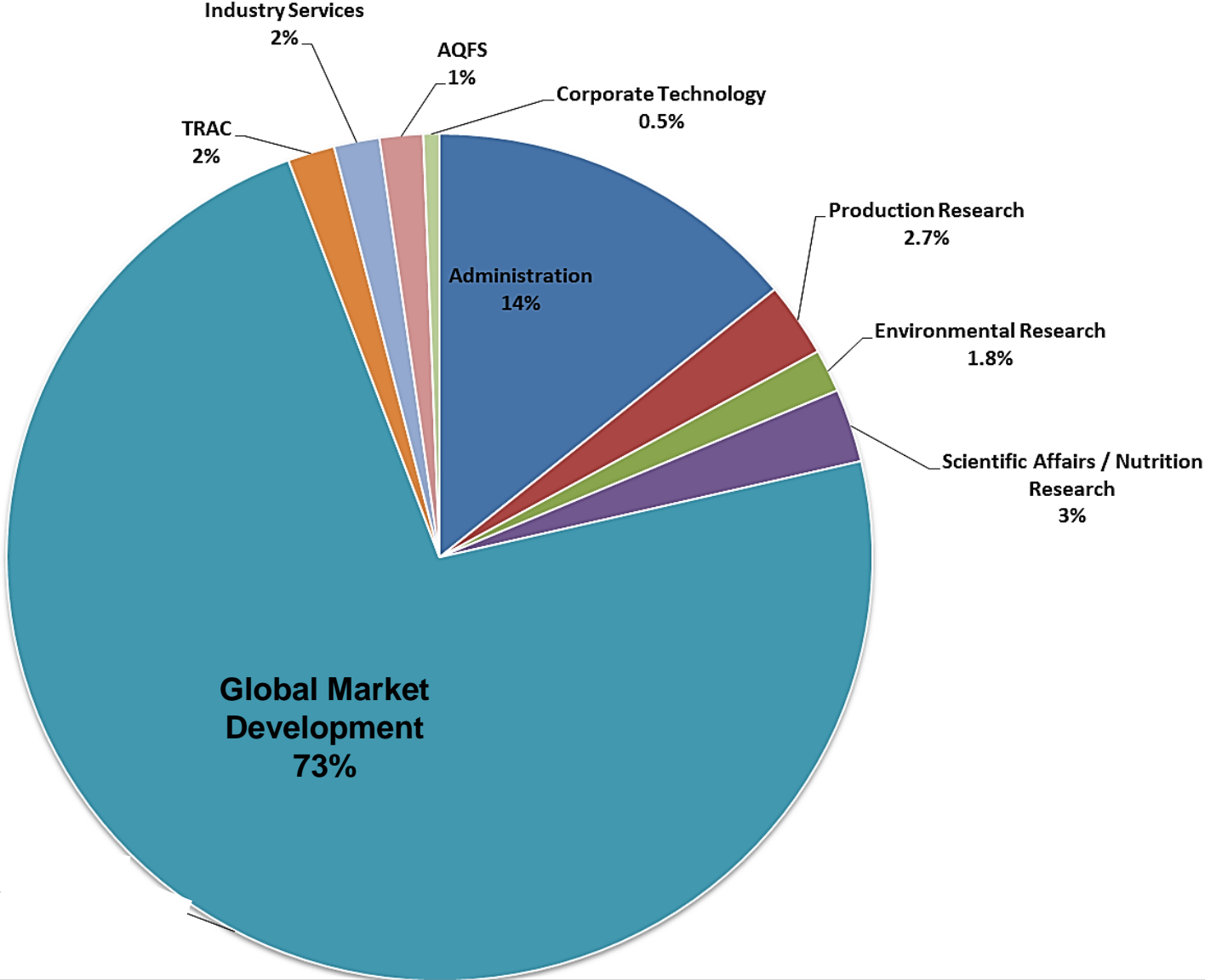
# ABC is a Federal Marketing Order



- Authority: Agricultural Marketing Agreement Act of 1937 (AMAA)
- Purpose: **Allow farmers to work together to solve marketing problems in their industry**
- The **Almond Marketing Order** was established in **1950**
- Funding: Assessment on handlers paid by growers – 3 cents/kernel pound
- Administration: Elected Board of Directors from the California Almond Industry
  - Over 100 Industry volunteers make up the Board and 10 Committees**
- Oversight: USDA, Agricultural Marketing Service
- 44 ABC staff. Offices in U.S., U.K., China, India
- FY 2013-2014 Budget of \$57,686,000



# ABC FY 2013/2014 Budget Allocation Chart





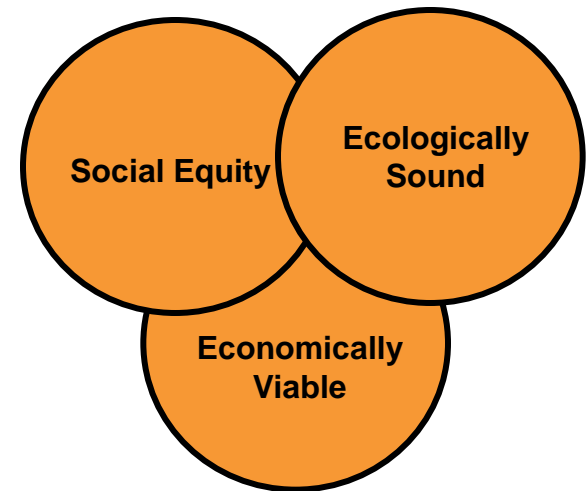
## California Almond Sustainability Program



# ABC Sustainability Definition

*Sustainable almond farming utilizes production practices that are economically viable and are based upon scientific research, common sense and a respect for the environment, neighbors and employees.*

*The result is a plentiful, healthy and safe food product.*



# So, why a sustainability program?

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To tell your story! But who cares?

- Buyers
- Regulators
- Public

"If **you** don't  
tell **your** story,  
someone else  
**will.**"

Lisa Horn, a.k.a. The Publicity Gal  
Tuesday - July 24, 2012(0:57 am)

# California Almond Sustainability Program

- How do we document that almond growers are sustainable?
- → ‘Self-Assessment Tool’
  - Not a survey - growers ‘assess themselves’
  - A continuous process, because agriculture isn’t a static business
  - A tool for learning
  - Content based on grower and expert input (UC, CSU, UCCE and private consultants)

## Nutrient Management

1	How many pounds of nitrogen (N) were applied per acre for this orchard in the season being assessed?	lbs/acre
2	How many pounds of phosphorus (P) were applied per acre for this orchard in the season being assessed? (NOTE: Please use actual P instead of P <sub>2</sub> O <sub>5</sub> *)	lbs/acre
3	How many pounds of potassium (K) were applied per acre for this orchard in the season being assessed? (NOTE: Please use actual K instead of K <sub>2</sub> O*)	lbs/acre
4	What is the percent soil organic matter for this orchard, as measured in the past 5 years**? IF YOU HAVEN'T TESTED FOR THIS, CHECK HERE <input type="checkbox"/>	%

		Not familiar with this	I haven't tried it	I have tried it	My current practice	Not applicable
For my orchard, I am using the following practices and/or technologies for maximizing nutrient management efficiency:						
SOURCE						
5	The following sources of nitrogen were utilized in this orchard in the past year. (Select all that apply):	a. commercial in-organic nitrogen fertilizer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		b. manure (not recommended for food safety reasons) <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		c. compost <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		d. nitrogen-fixing cover crops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	If compost, manure, or nitrogen-fixing cover crops were used, their nitrogen contribution to the crop was estimated and used in calculating the total nitrogen applied.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Irrigation well water (if used) has been analyzed for its nitrogen content at least once during the past 3 years.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a. If the test indicates the water has nitrogen, the amount of nitrogen applied via irrigation over the season is calculated and used in calculating the total nitrogen applied.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# Modules

## Existing

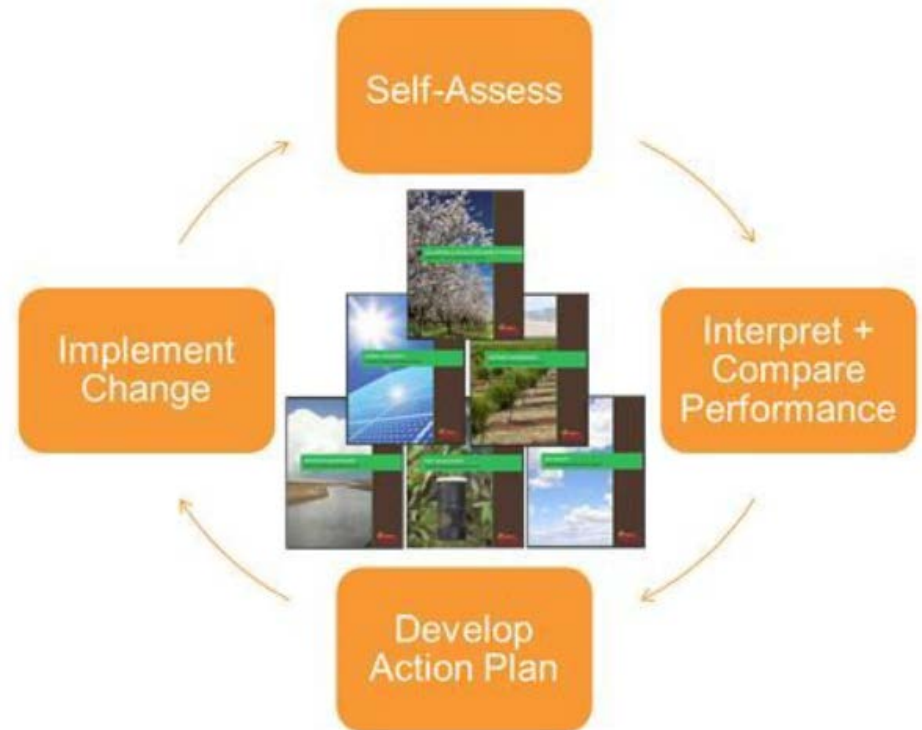
- Irrigation Management
  - Nutrient Management,
  - Air Quality
  - Energy Efficiency
  - Pest Management
- 1 hour DPR CEU



# California Almond Sustainability Program: Workshops and Online

Stay tuned for workshop  
times and locations

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



# On Line:

## <https://www.sustainablealmondgrowing.org/>

### California Almond Sustainability Program

2010

Practice or Metric		Your Selection	Use Statewide
Irrigation Management Module			
Orchard Establishment			
1	Were you involved in this orchard's establishment? <i>If No, click "No" and skip to question 16.</i>	Yes	85.6 %
2	Soil maps (e.g., NRCS soil series or web soil survey) were used to identify potential variations in soil texture, salinity, water holding capacity, or other factors.	Yes	69.7 %
3	Aerial or satellite photos (e.g., Google Earth) were used to identify potential variations in soil texture, salinity, or other factors.	Yes	54.5 %
4	Yield maps from the previous crop (almonds or another crop) were used to identify potential variations in soil texture, salinity, or other factors.	Yes	57.4 %
5	A GPS map of soil characteristics using sensing technology (e.g., EC, Veris® or SIS) was made and used to identify potential variations in soil texture, salinity, or other factors.		25.4 %
6	Backhoe pits were dug or deep auger/core samples were taken (guided by the above and other observed factors) in strategic places to determine:	Yes	
	6a. texture (percent sand, clay, silt) or saturation percentage	Yes	73.0 %
	6b. compaction layers or other soil stratification	Yes	77.5 %
	6c. salinity	Yes	72.3 %
	6d. pH	Yes	75.8 %
	6e. soil organic matter	Yes	66.1 %
7	Deep ripping, slip plowing, or tree hole backhoe pits were dug to address drainage and/or compaction issues (preferably after first testing for these problems).	Yes	90.7 %
8	If suggested by soil sampling, soils were amended to adjust pH, sodicity, salinity, etc. during orchard development.	Yes	80.1 %
9	Soils were amended with organic matter during orchard development.	Yes	44.1 %
10	All water sources were sampled and lab-evaluated for water quality/irrigation suitability.	Yes	76.6 %

**Ability to benchmark against your peers**

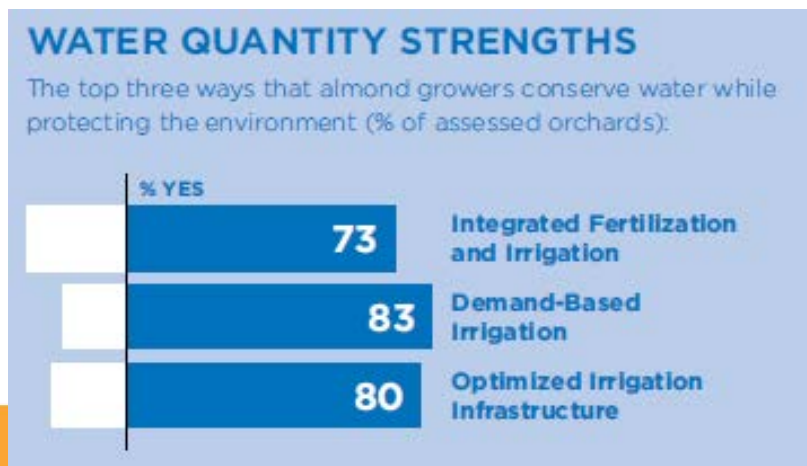
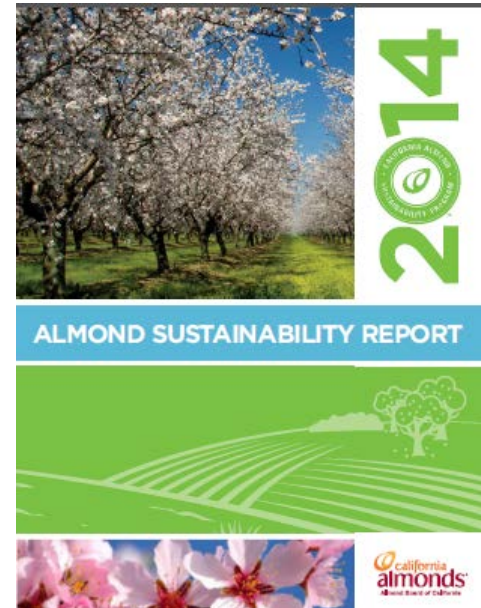
# Sustainability Report

- Represents data collected from 2009 - August, 2013
- 1,080 individual participants
  - 575 participants submitted assessments
- 638 Orchards Assessed
- **95,496 acres assessed ~ 10% of acreage**
  - – Operations represented 255,891 acres
- Details the collective practices
- Calls out strengths and areas for improvement



# Advances and Practices in Almond Irrigation Documented by Almond Sustainability Report

- 25 years of ABC-funded research has been a key to success
  - Advances in micro-irrigation and irrigation scheduling have been a major contributor
    - Micro-irrigation – Now 70% of almond acreage
    - 83% of growers use different technologies to schedule their irrigation based on:
      - Weather / ET (43% usage)
      - Tree needs / Stem water potential
      - Soil conditions / Soil monitoring
- Irrigation grower practices conserve water while protecting the environment (2014 Almond Sustainability Report)
  - Integrated fertilization and irrigation (fertigation)
  - Demand-based irrigation
  - Optimized irrigation infrastructure



# Almond Board resources www.almondboard.com (ALMOND GROWERS)

