



2018

# THE ALMOND CONFERENCE

ALMOND SUSTAINABILITY: JOIN THE JOURNEY!

ROOM 308-309 | DECEMBER 4, 2018



# Continuing Education Units (CEU's)

- **What type of CEU's are offered at conference?**
  - Tuesday – Certified Crop Advisor (CCA)
  - Wednesday – Certified Crop Advisor (CCA)
  - Thursday – Certified Crop Advisor (CCA) and Department of Pesticide Regulations (DPR)
- **Where are the CEU sign in sheets?**
  - CEU sign in sheets will be in the back of each session
  - There are separate forms on Thursday for the CCA and DPR credits
- **Special instructions for Thursday**
  - PCA's will need to pick up their scantrons in the morning before the first session of the day. They will also need to return the scantron at the end of the day to the CEU booth. This is in addition to signing in and out of each session.

# AGENDA

- **Jonathan Hoff**, Monte Vista Farming Co. , moderator
- **Atha Mandis**, Innocent Drinks
- **Franklin Dlott**, SureHarvest
- **Spencer Cooper**, Almond Board of California

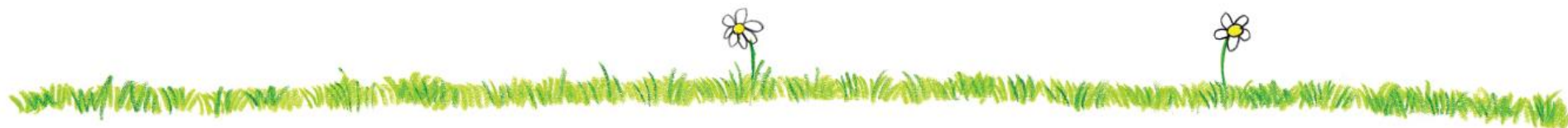




ALMOND SUSTAINABILITY:  
Join the Journey!



04 December, 2018





Athanasios Mandis  
Sustainability Consultant  
Innocent Drinks

# things we make





You might already know that innocent is owned by Coca Cola. We first started working with them in 2009, when they bought a 20% share in our business. Over the years, as we got to know them and they got to know us, Coke bought more shares, until 2013, when they took full ownership.

We have an interesting way of working with them, in that we run this business in the same way that we always have done, independently. We receive great support from Coke, and are proud to be a part of their company, but we are also very proud of this brand and business that we built from the ground up. And Coke are smart enough to know that innocent has a unique set of values and a really clear purpose that are fundamental to our future success.

So they let us get on with it.

We are as committed as ever to our social, ethical, charitable and environmental goals. And since we did the deal with Coke we've expanded from being a simple smoothie company to being one that concocts every kind of healthy drink imaginable.





## OUR sustainability journey

A Brief History of Time

What's the Story?

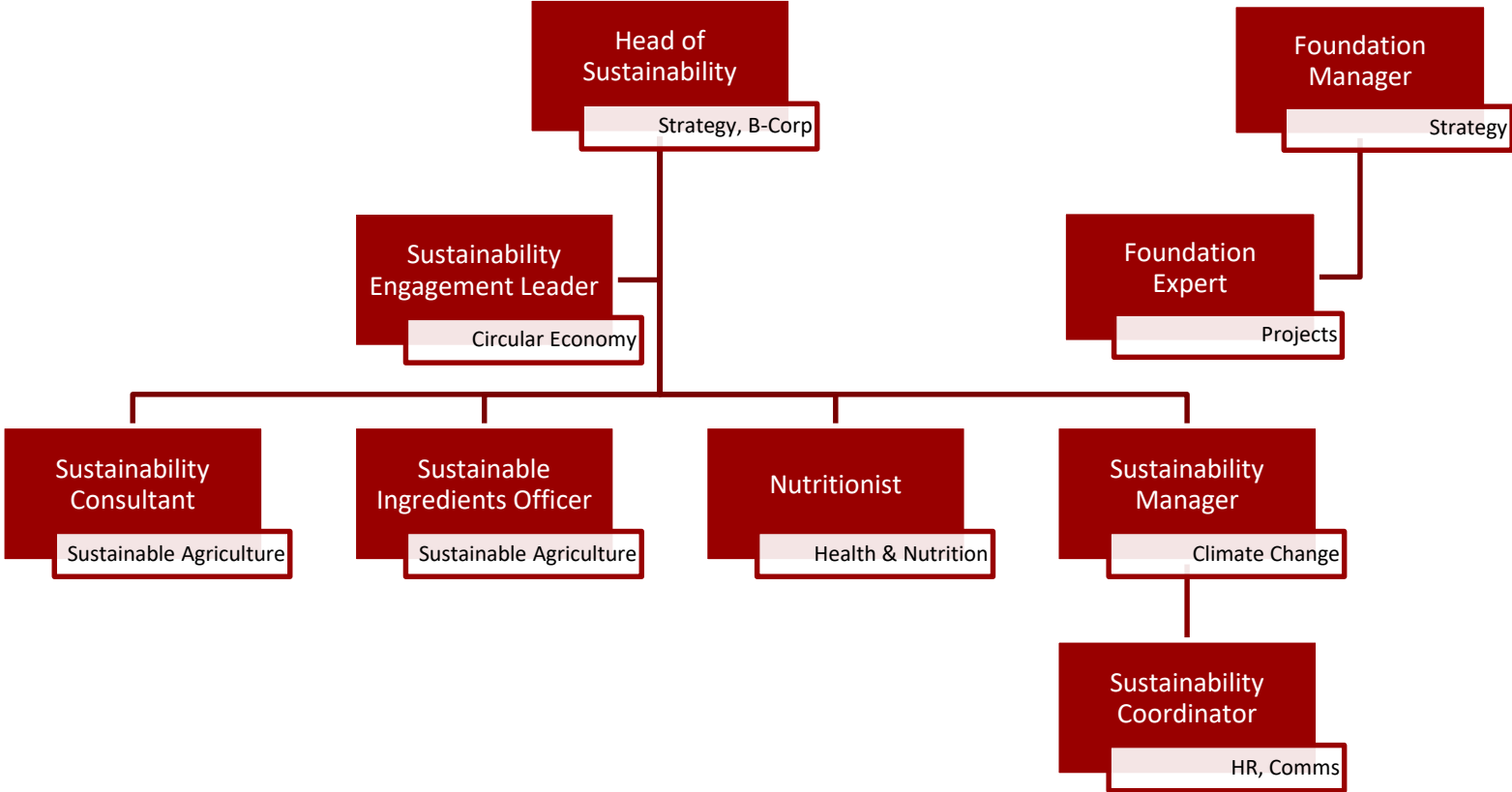
What's *YOUR* story?



sustainability team



£330M turnover, 30+ countries and 400+ staff\*

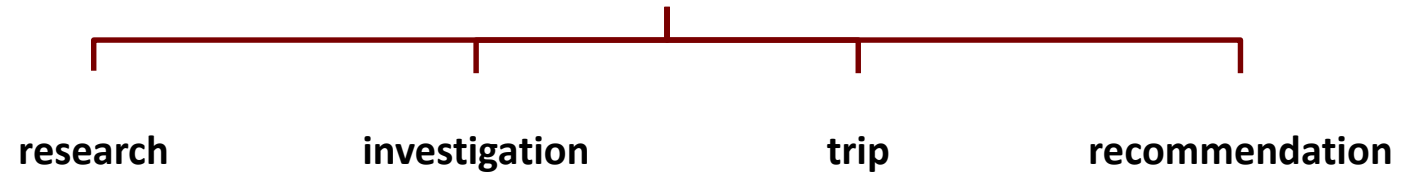


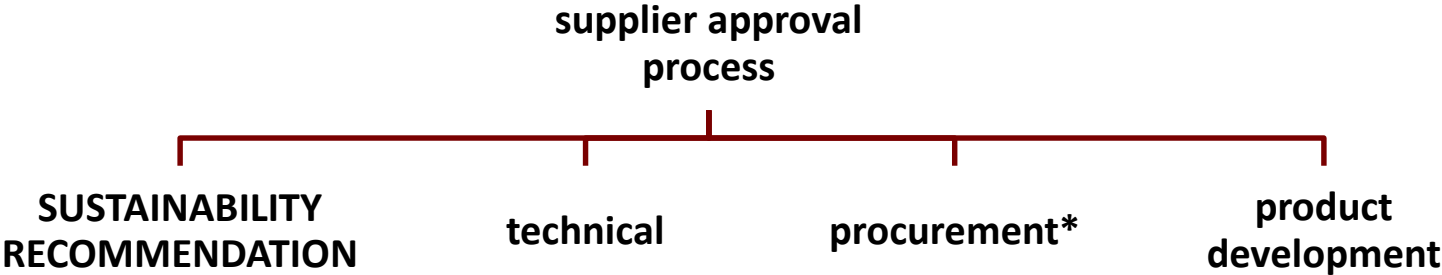
\* no own production sites



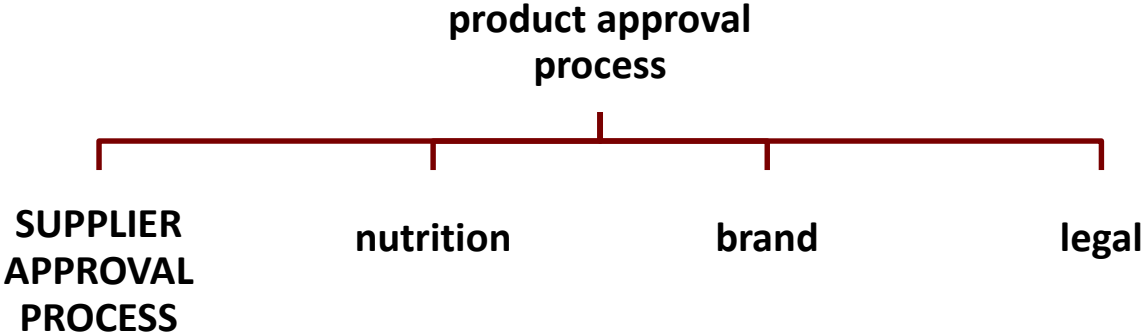


**sustainability  
approval process**





\* *procurement owns the supplier approval process*





sustainable  
agriculture



**GOOD TO THE CORE**  
implementation  
of SAI FSA

**PROTECTED FUTURES**  
continuous improvement  
projects



Brazilian  
Orange

Ivorian  
Cacao

Spanish  
Strawberry

Polish  
Apple

Californian  
Almond

N. American  
Cereal Crops

Nicaraguan  
Passionfruit

Spanish  
Hazelnut

Spanish  
River Basin

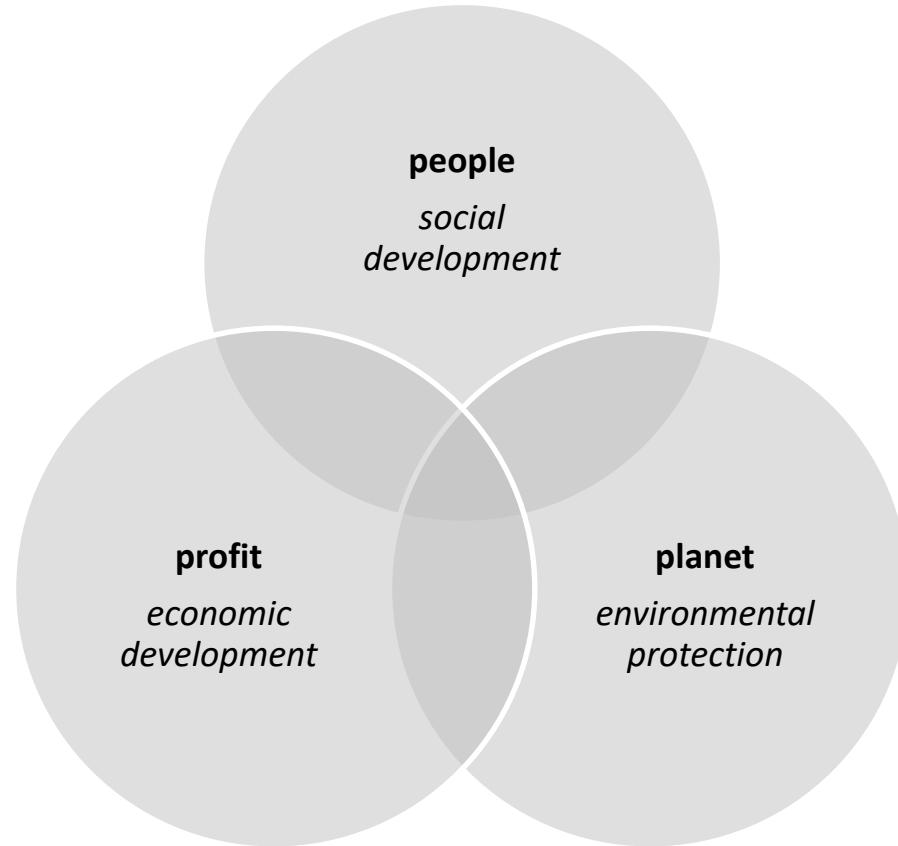
French  
Grape

Greek  
Peach

Indian  
Mango



**Three pillars of sustainable agriculture**





All sustainable agriculture projects to be aligned with one of the following UN SDGs:

01  
**WATER  
RESOURCE  
MANAGEMENT**


02  
**SECURITY OF  
INCOME &  
WELLBEING**

03  
**BIODIVERSITY &  
BEES**


6 CLEAN WATER &  
SANITATION



8 DECENT WORK &  
ECONOMIC GROWTH



15 LIFE ON  
LAND



12 RESPONSIBLE CONSUMPTION &  
PRODUCTION



*Other areas are not excluded, but will not receive as much resource for communication and promotion*



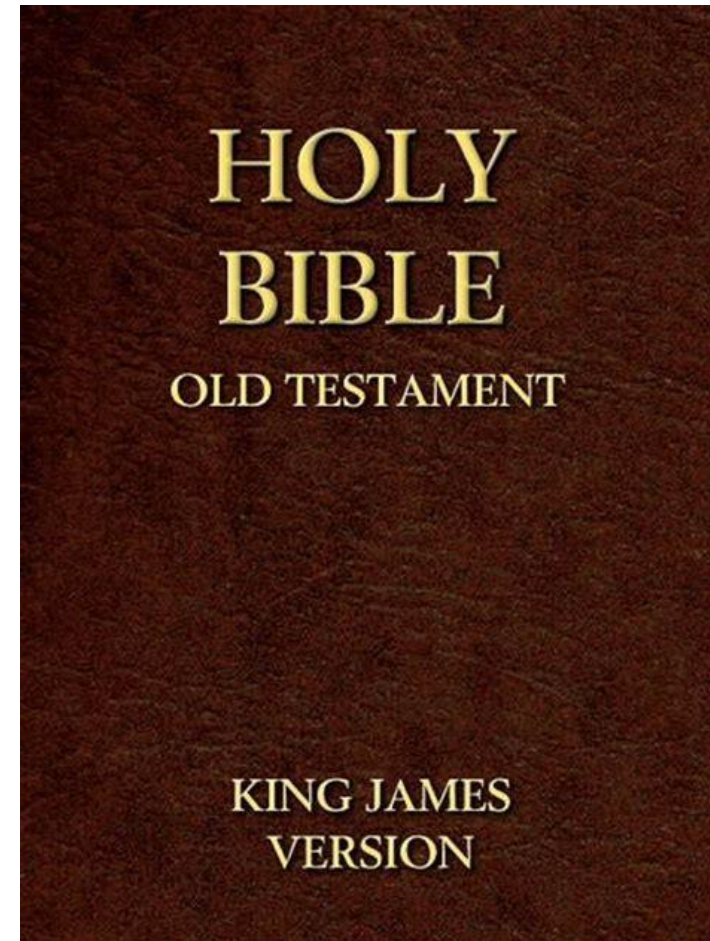
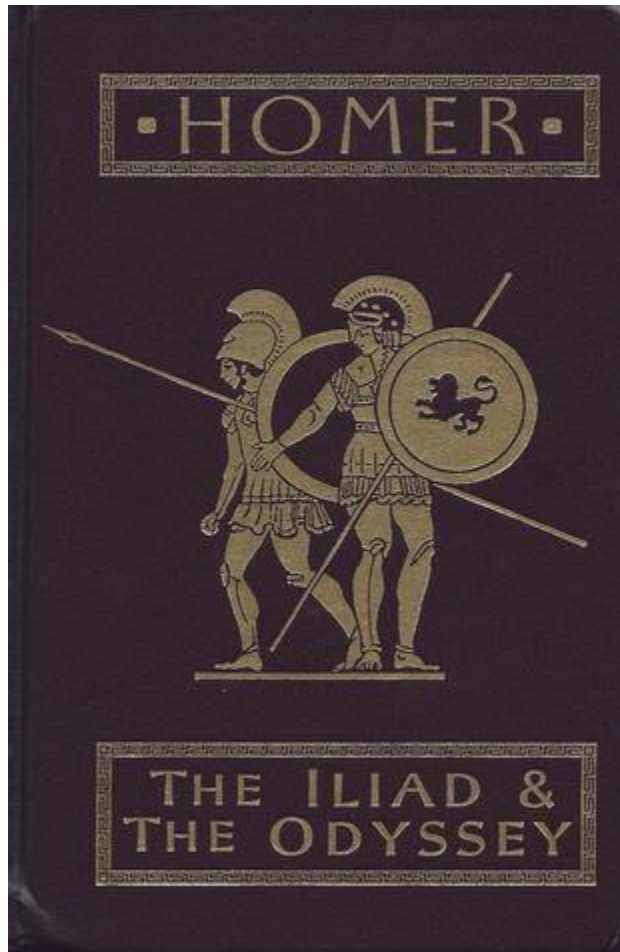


OUR sustainability journey

A Brief History of Time

What's the Story?

What's *YOUR* story?



moral authority . . ?

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**The age of reason began to challenge social norms . . .**

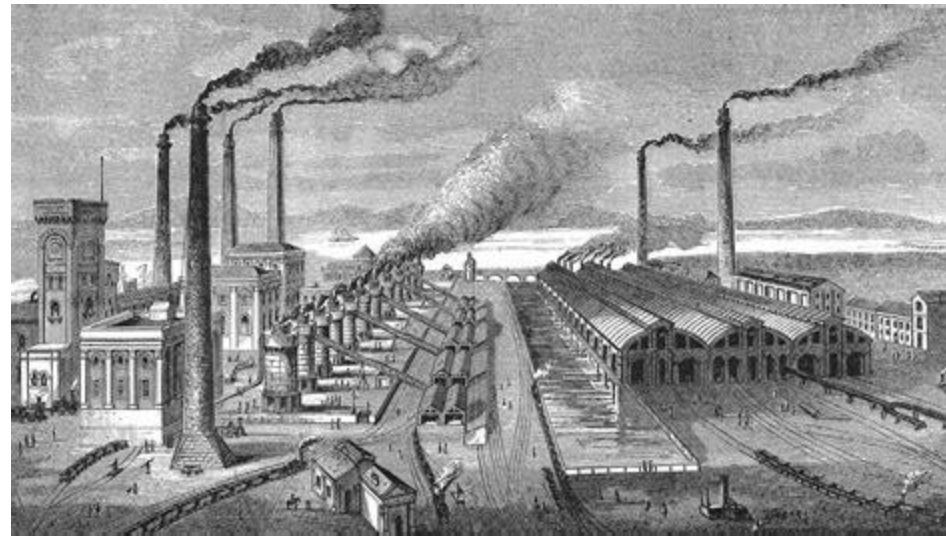


time is of the essence

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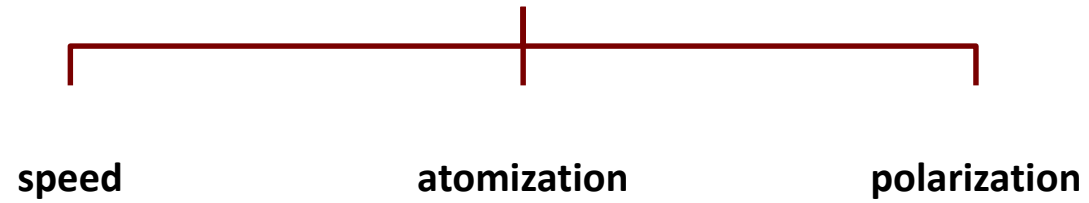


**. . . and our world was to change like never before**

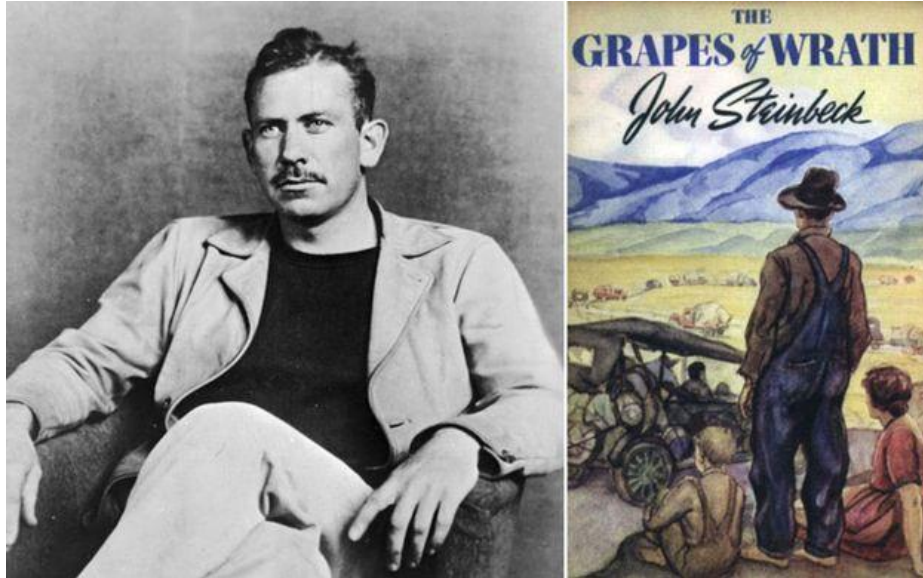




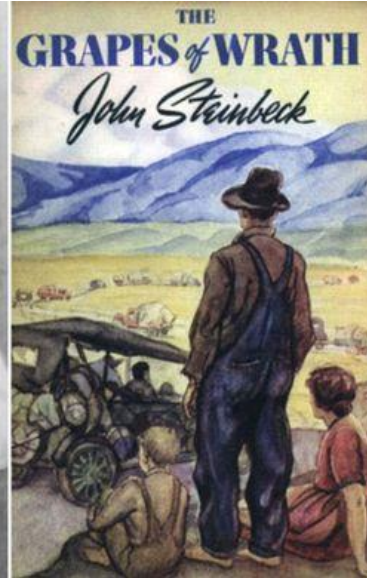
**age of enlightenment &  
industrial revolution**



speed



speed



speed



More than words . . .



140 characters



**Romanticism was to rival the classics and industrial revolution**

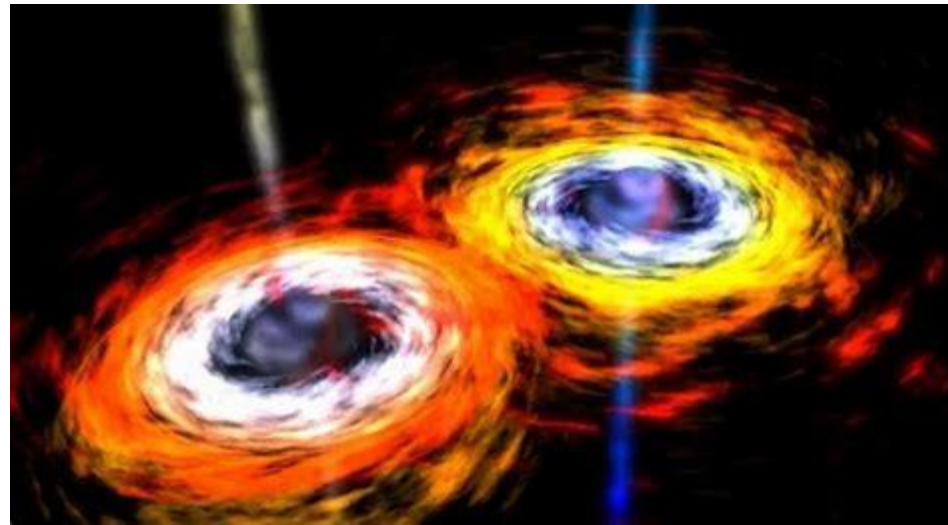


*'The artist's feeling is his law.'* Casper David Friedrich.

polarization



Of algorithms and advertising





OUR sustainability journey

A Brief History of Time

What's the Story?

What's *YOUR* story?



**Who to trust for source of information?**



*'Whichever interpretation prevails at a given time is a function of power, not of truth.'* Friedrich Nietzsche.

*'History will be kind to me for I intend to write it.'* Winston S. Churchill.



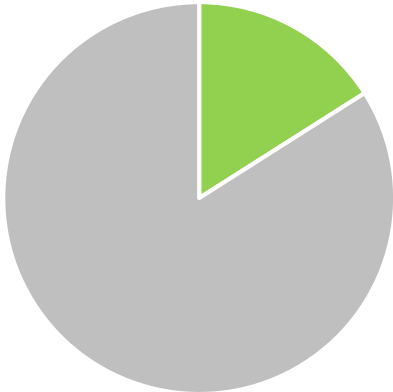
Some people want to share their daily activities . . .



. . . and others want to read about it

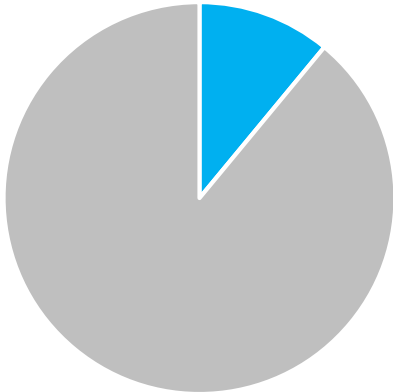


Agricultural Land (16%)



■ Almond ■ Other

Water Usage (11%)



■ Almond ■ Other

# atomization



The screenshot shows a Twitter interface on a Windows desktop. The browser address bar displays the URL: [https://twitter.com/putrid\\_fruit/status/1052160310122033153](https://twitter.com/putrid_fruit/status/1052160310122033153). The profile of **Putrid\_Fruit** (@putrid\_fruit) is visible on the left, with a bio that reads "so many missed opportunities/it could all have been so nice. -will davies-" and location "Hastings, England". The main tweet text says: "Hello Sarah, we're working really closely with the farmers who grow our nuts to make sure they are grown as sustainably as possible. The vast majority of our almond is sourced from either rain-fed or advanced irrigation systems that optimise water efficiency. Hope that helps." The tweet has 3 replies and 5 likes. Below the tweet, there are 7 likes from various users and 1 reply from **Mr Grey @x308MrGrey** dated Oct 17. The Windows taskbar at the bottom shows the time as 09:36 on 23/10/2018.





Yo! Go Bru Inv New Ta 24 New Ta 24 Sm pri bic Hc fac sai W Pri YouTube x Pu

Twitter, Inc. [US] | https://twitter.com/putrid\_fruit/status/1052160310122033153

Home Moments



**Putrid\_Fruit**  
@putrid\_fruit

so many missed opportunities/it could all have been so nice. -will davies-

Hastings, England  
Joined April 2018

 Hello Sarah, we're working really closely with the farmers who grow our nuts to make sure they are grown as sustainably as possible. The vast majority of our almond is sourced from either rain-fed or advanced irrigation systems that optimise water efficiency. Hope that helps.

3 5

**Putrid\_Fruit**  
@putrid\_fruit [Follow](#)

Replying to @innocent @Sarah99Linc

Sounds link euphemistic corporate lingo to me. Where is this magical place you've found with sufficient heat and light and water? Almonds will probably never be a product that can be grown on mass without terrible ecological consequences.

4:32 am · 16 Oct 2018

7 Likes 

1 7

 **Mr Grey** @x308MrGrey · Oct 17

Type here to search

09:36  
23/10/2018

© 2018 Twitter About Help Centre Terms Privacy policy Cookies Ads info



what's the story?

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- Need to engage with the public
- Message needs to be substantiated by facts . . .
- . . . but communicated on an emotional (personal) level

**YOU NEED TO OCCUPY THAT SPACE OTHERWISE SOMEONE ELSE WILL**

(if someone is willing to talk about what they ate for breakfast, chances are they have something to say about almond)



OUR sustainability journey

A Brief History of Time

What's the Story?

What's *YOUR* story?





### Why CASP?

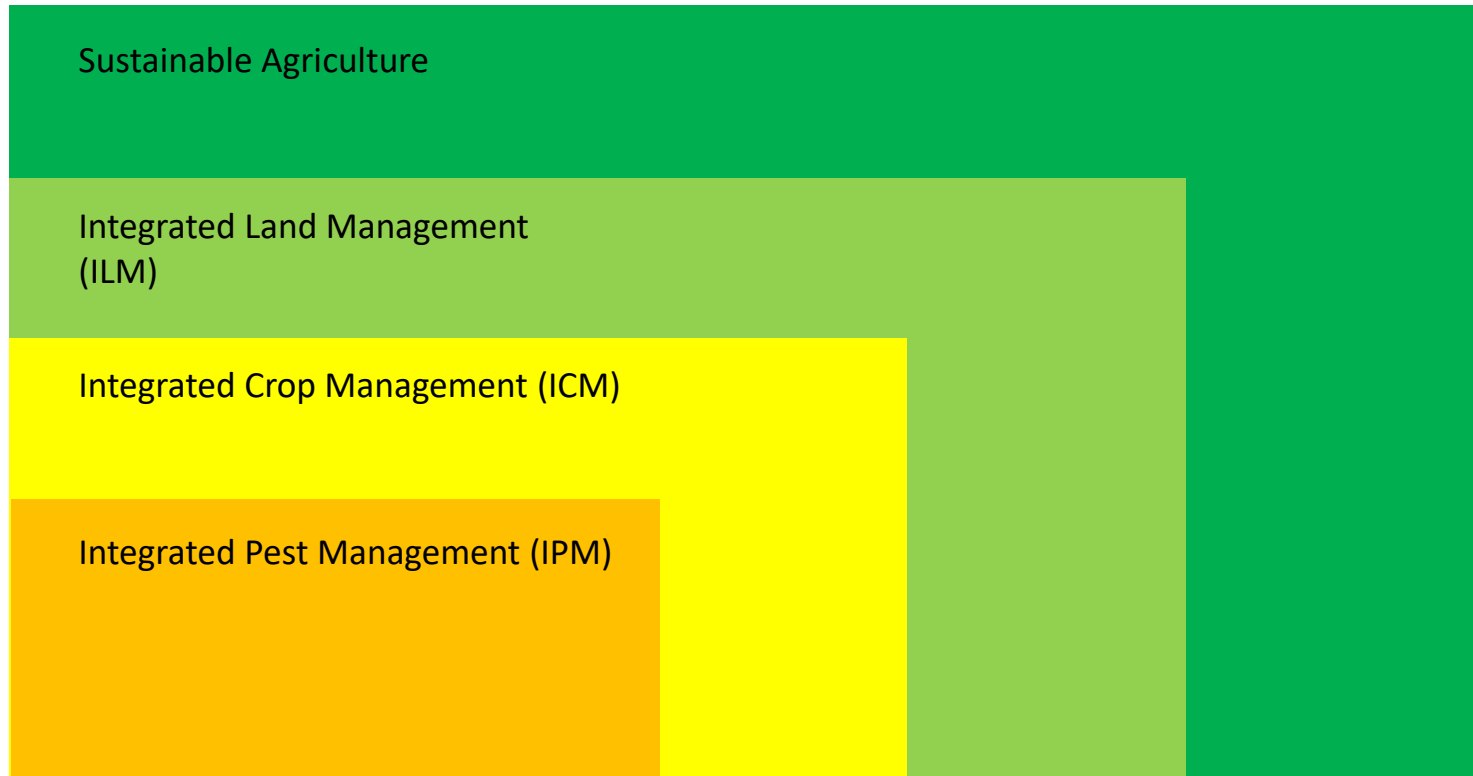
- Tailored standard that reflects main requirements and challenges of the almond sector
- Modern approach (performance-driven)
- Ability to gather significant data and allow the ABC to make substantiated claims
- Benchmarks favourably against the SAI FSA standard (gold)
- Supported by the ABC to promote the almond, but . . .



**WE NEED YOU**



**Farm to landscape approach**



what's YOUR story? #1

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Almond: a successful crop

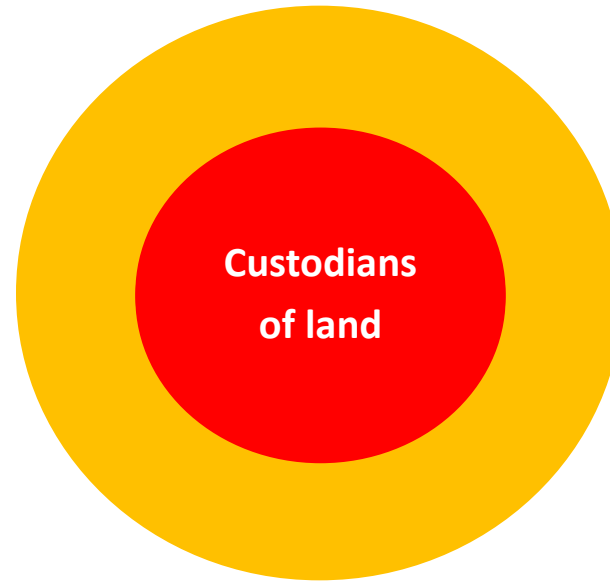
**Custodians  
of land**

## what's YOUR story? #1

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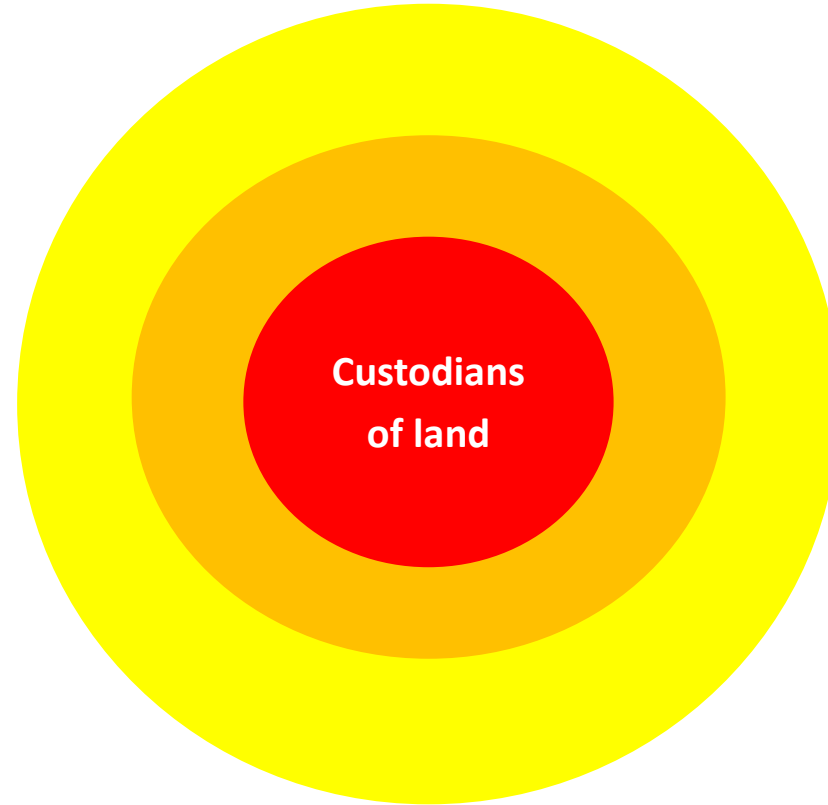
Almond: a successful crop  
Major employer and \$11B



## what's YOUR story? #1



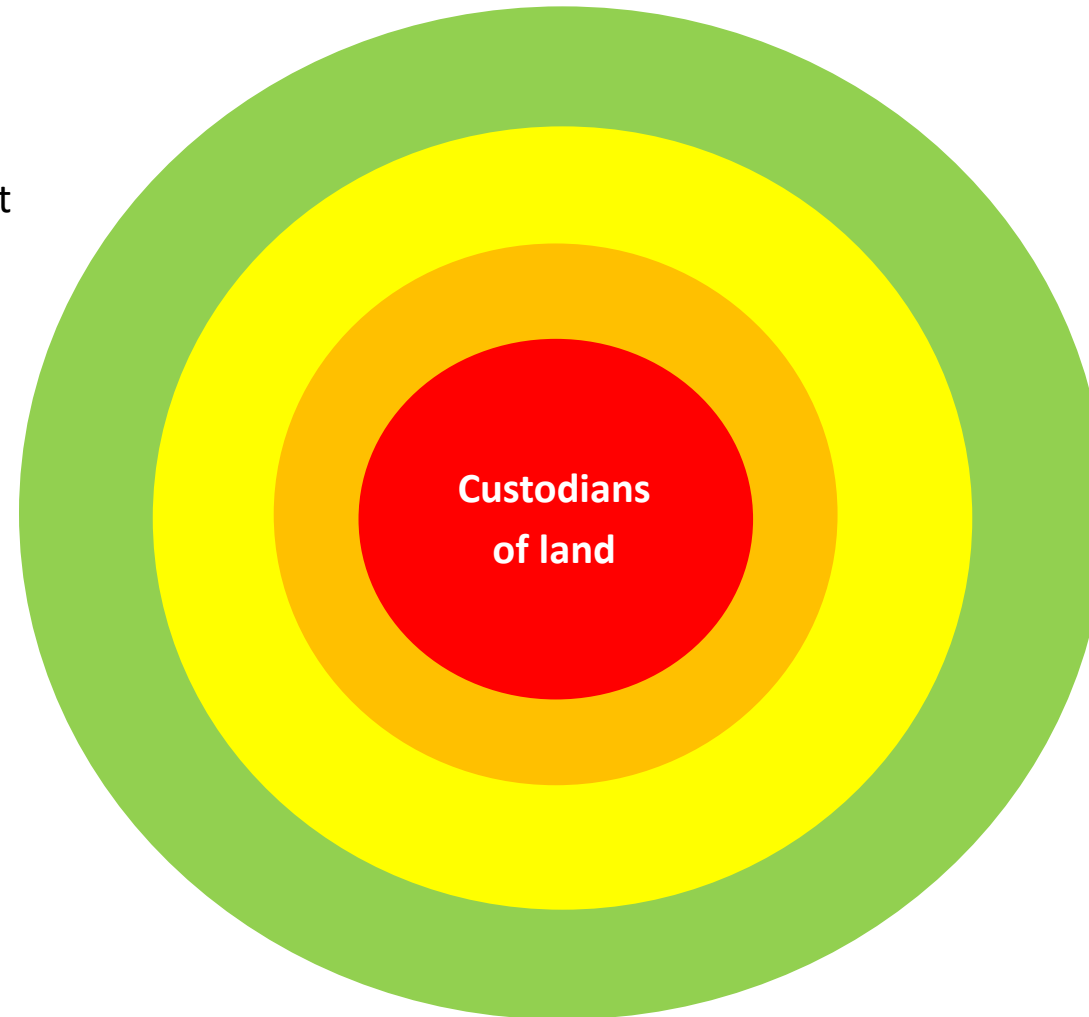
Almond: a successful crop  
Major employer and \$11B  
16% agricultural land







Almond: a successful crop  
Major employer and \$11B  
16% agricultural land  
Part of a basin management



**Reach out, let your ambition match your responsibility**









# Getting started with CASP

Franklin Dlott, SureHarvest



# California Almond Sustainability Program (CASP)



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

- Getting started
  - Create an account or login
- Assessing modules
- Reports
- Data sharing
- Maps
- Help



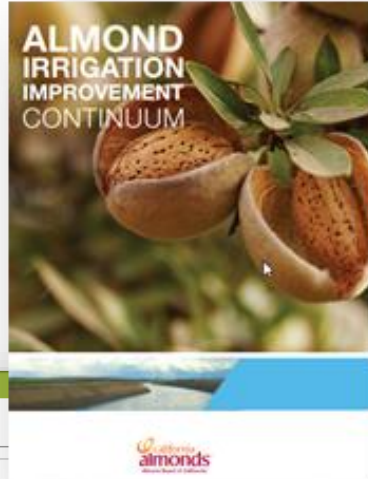
# Come to the ABC Booth #625

**Sign up, participate in the supply chain pilot or get help at the ABC Booth on the trade show floor**

**Tuesday 12/4/18 - 5:30 pm –7:00 pm**  
**Wednesday 12/5/18 - 9:00 am–5:30 pm**  
**Thursday 12/6/18 - 8:00 am–3:00 pm**



# CASP Foundation: Grower Engagement and Participation



**IRRIGATION CALCULATOR**

IRRIGATION CALCULATION WORK FLOW

Crop Year: 2018 Orchard: Grafton Ranch Organization: AA | ABC Orchards Business: ABC Orchards

SETUP WEEKLY INPUTS REPORTS

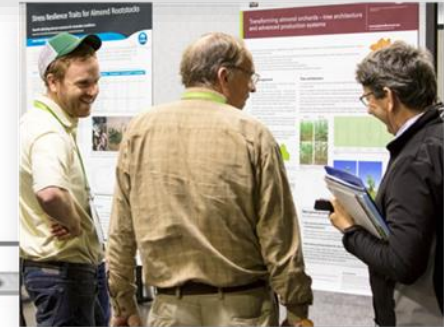
Save Refresh Close Delete

**WEATHER SETUP**

Use Station associated with Zip: \* Map location for Spatial CIMIS: When evapotranspiration (ET<sub>0</sub>) data is not available, the historic average is used.

\* Orchard ZIP code: Confirm

\* CIMIS Station: Shafter (5)



**N I N CALCULATOR**

NITROGEN BUDGET WORK FLOW

PRE-SEASON THROUGH EARLY SPRING PLANT GROWTH SUMMER FALL POST-HARVEST'S USE EARLY THRU HARVEST



**NITROGEN MANAGEMENT PLAN WORKSHEET**

1. Crop Year (Parameter): 2018	4. APRIS	6. Planner ID:		
2. Orchard ID#	5. No. of Locations	7. Orchard #		
3. Name: Shafter 4. Station	8. Field	9. Orchard #		
GROUP NITROGEN MANAGEMENT PLANNING		8. APPLICATIONS	14. Recommended - Planned #	15. Actual #
6. Crop: Almonds	12. Nitrogen Fertilizer	16. High Rate (lb/ac)	17	
7. Production Unit: Pounds per acre	18. Fertilizer (lb/ac)	19. Fertilizer (lb/ac)	18	
8. Proposed Total (lb/ac)	9. Pre-plant (lb/ac)	10. Pre-plant (lb/ac)	0	
9. N Recommended (lb/ac)	11. N Recommended (lb/ac)	20. Organic Matter (lb/ac)	0	
10. Actual	21. Available N in Mineral/Compost (lb/ac)	21. Available N in Mineral/Compost (lb/ac)	0	
Pre-Production Actuals		22. Total N Applied (lb per acre)	19	
11. Actual Total (lb/ac)	23. Nitrogen Credits (lb/ac)	24. Available N in Mineral/Compost (lb/ac)	0	
12. Total N Applied (lb/ac)	25. Available N in Mineral/Compost (lb/ac)	26. Total N Applied (lb/ac)	19	
13. N Recommended (lb/ac)	27. N in Irrigation Water (lb/ac)	28. Total N Applied (lb/ac)	19	
14. Notes:		29. Total N Credits (lb per acre)	0	
15. N in Irrigation Water (lb/ac)		30. Total N Applied (lb/ac)	19	
16. N in Irrigation Water (lb/ac)		31. Total N Applied (lb/ac)	19	
17. N in Irrigation Water (lb/ac)		32. Total N Applied (lb/ac)	19	
18. N in Irrigation Water (lb/ac)		33. Total N Applied (lb/ac)	19	
19. N in Irrigation Water (lb/ac)		34. Total N Applied (lb/ac)	19	
20. N in Irrigation Water (lb/ac)		35. Total N Applied (lb/ac)	19	
21. N in Irrigation Water (lb/ac)		36. Total N Applied (lb/ac)	19	
22. N in Irrigation Water (lb/ac)		37. Total N Applied (lb/ac)	19	
23. N in Irrigation Water (lb/ac)		38. Total N Applied (lb/ac)	19	
24. N in Irrigation Water (lb/ac)		39. Total N Applied (lb/ac)	19	
25. N in Irrigation Water (lb/ac)		40. Total N Applied (lb/ac)	19	
26. N in Irrigation Water (lb/ac)		41. Total N Applied (lb/ac)	19	
27. N in Irrigation Water (lb/ac)		42. Total N Applied (lb/ac)	19	
28. N in Irrigation Water (lb/ac)		43. Total N Applied (lb/ac)	19	
29. N in Irrigation Water (lb/ac)		44. Total N Applied (lb/ac)	19	
30. N in Irrigation Water (lb/ac)		45. Total N Applied (lb/ac)	19	
31. N in Irrigation Water (lb/ac)		46. Total N Applied (lb/ac)	19	
32. N in Irrigation Water (lb/ac)		47. Total N Applied (lb/ac)	19	
33. N in Irrigation Water (lb/ac)		48. Total N Applied (lb/ac)	19	
34. N in Irrigation Water (lb/ac)		49. Total N Applied (lb/ac)	19	
35. N in Irrigation Water (lb/ac)		50. Total N Applied (lb/ac)	19	
36. N in Irrigation Water (lb/ac)		51. Total N Applied (lb/ac)	19	
37. N in Irrigation Water (lb/ac)		52. Total N Applied (lb/ac)	19	
38. N in Irrigation Water (lb/ac)		53. Total N Applied (lb/ac)	19	
39. N in Irrigation Water (lb/ac)		54. Total N Applied (lb/ac)	19	
40. N in Irrigation Water (lb/ac)		55. Total N Applied (lb/ac)	19	
41. N in Irrigation Water (lb/ac)		56. Total N Applied (lb/ac)	19	
42. N in Irrigation Water (lb/ac)		57. Total N Applied (lb/ac)	19	
43. N in Irrigation Water (lb/ac)		58. Total N Applied (lb/ac)	19	
44. N in Irrigation Water (lb/ac)		59. Total N Applied (lb/ac)	19	
45. N in Irrigation Water (lb/ac)		60. Total N Applied (lb/ac)	19	
46. N in Irrigation Water (lb/ac)		61. Total N Applied (lb/ac)	19	
47. N in Irrigation Water (lb/ac)		62. Total N Applied (lb/ac)	19	
48. N in Irrigation Water (lb/ac)		63. Total N Applied (lb/ac)	19	
49. N in Irrigation Water (lb/ac)		64. Total N Applied (lb/ac)	19	
50. N in Irrigation Water (lb/ac)		65. Total N Applied (lb/ac)	19	
51. N in Irrigation Water (lb/ac)		66. Total N Applied (lb/ac)	19	
52. N in Irrigation Water (lb/ac)		67. Total N Applied (lb/ac)	19	
53. N in Irrigation Water (lb/ac)		68. Total N Applied (lb/ac)	19	
54. N in Irrigation Water (lb/ac)		69. Total N Applied (lb/ac)	19	
55. N in Irrigation Water (lb/ac)		70. Total N Applied (lb/ac)	19	
56. N in Irrigation Water (lb/ac)		71. Total N Applied (lb/ac)	19	
57. N in Irrigation Water (lb/ac)		72. Total N Applied (lb/ac)	19	
58. N in Irrigation Water (lb/ac)		73. Total N Applied (lb/ac)	19	
59. N in Irrigation Water (lb/ac)		74. Total N Applied (lb/ac)	19	
60. N in Irrigation Water (lb/ac)		75. Total N Applied (lb/ac)	19	
61. N in Irrigation Water (lb/ac)		76. Total N Applied (lb/ac)	19	
62. N in Irrigation Water (lb/ac)		77. Total N Applied (lb/ac)	19	
63. N in Irrigation Water (lb/ac)		78. Total N Applied (lb/ac)	19	
64. N in Irrigation Water (lb/ac)		79. Total N Applied (lb/ac)	19	
65. N in Irrigation Water (lb/ac)		80. Total N Applied (lb/ac)	19	
66. N in Irrigation Water (lb/ac)		81. Total N Applied (lb/ac)	19	
67. N in Irrigation Water (lb/ac)		82. Total N Applied (lb/ac)	19	
68. N in Irrigation Water (lb/ac)		83. Total N Applied (lb/ac)	19	
69. N in Irrigation Water (lb/ac)		84. Total N Applied (lb/ac)	19	
70. N in Irrigation Water (lb/ac)		85. Total N Applied (lb/ac)	19	
71. N in Irrigation Water (lb/ac)		86. Total N Applied (lb/ac)	19	
72. N in Irrigation Water (lb/ac)		87. Total N Applied (lb/ac)	19	
73. N in Irrigation Water (lb/ac)		88. Total N Applied (lb/ac)	19	
74. N in Irrigation Water (lb/ac)		89. Total N Applied (lb/ac)	19	
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76. N in Irrigation Water (lb/ac)		91. Total N Applied (lb/ac)	19	
77. N in Irrigation Water (lb/ac)		92. Total N Applied (lb/ac)	19	
78. N in Irrigation Water (lb/ac)		93. Total N Applied (lb/ac)	19	
79. N in Irrigation Water (lb/ac)		94. Total N Applied (lb/ac)	19	
80. N in Irrigation Water (lb/ac)		95. Total N Applied (lb/ac)	19	
81. N in Irrigation Water (lb/ac)		96. Total N Applied (lb/ac)	19	
82. N in Irrigation Water (lb/ac)		97. Total N Applied (lb/ac)	19	
83. N in Irrigation Water (lb/ac)		98. Total N Applied (lb/ac)	19	
84. N in Irrigation Water (lb/ac)		99. Total N Applied (lb/ac)	19	
85. N in Irrigation Water (lb/ac)		100. Total N Applied (lb/ac)	19	





# Create Account

The image shows a screenshot of the California Almonds Sustainability Program website. The website features a navigation menu with links for Home, About The Program, Tools & Benefits, Contact, Blog, and Login. A central banner reads "Welcome to the CALIFORNIA ALMOND SUSTAINABILITY PROGRAM Online System" with a prominent green "CREATE ACCOUNT" button. A callout box on the left highlights this button with the text "CREATE ACCOUNT". Below the banner, there is a "LOGIN" section with input fields for name and password, and a "Login" button. The footer contains links for Home, Contact, Login, About The Program, Blog, Create Account, Tools & Benefits, and Newsroom, along with social media icons for Facebook, Twitter, and YouTube.

# Create Account – Primary Details

Primary Details      Organization Setup      Orchard Setup

Username \*      ?

Password \*      ?

Confirm Password \*

NEXT

Home      Contact      Login  
About The Program      Blog      Create Account  
Tools & Benefits      Newsroom

f      t      youtu

# Create Account – Organizational Setup

Primary Details      Organization Setup      Orchard Setup

Farming Business Name \*

Total Acres Farmed in this Business \*

NEXT

# Create Account – Orchard Setup

The screenshot shows a three-step progress bar at the top: Primary Details (green), Organization Setup (green), and Orchard Setup (orange). The Orchard Setup step is active. Below the progress bar are three input fields: Orchard Name \*, Orchard Acres \*, and County\*. Below these fields is a Terms and Conditions section with a checkbox that is checked, indicating agreement to the terms. At the bottom is a large green SUBMIT button with a mouse cursor clicking on it.

**Primary Details**      **Organization Setup**      **Orchard Setup**

Orchard Name \*

Orchard Acres \*

County\*

**Terms And Conditions**

CASP collects personal information and details about your operations in order to provide you with customized services, calculate your results, and allow the creation and maintenance of a "User Account" to store your information for your own future use and review. CASP confidentially shares aggregated anonymized self-assessment, irrigation budget, and nitrogen budget data with Almond Board of California. Successfully maintaining data in a secure and confidential manner is a hallmark of CASP since 2009.






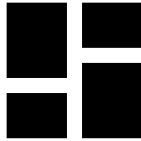
I have read and agreed to these terms and conditions

**SUBMIT**

# Create Account – Sign Up Complete – I Want To...

CREATE ACCOUNT

## I WANT TO...

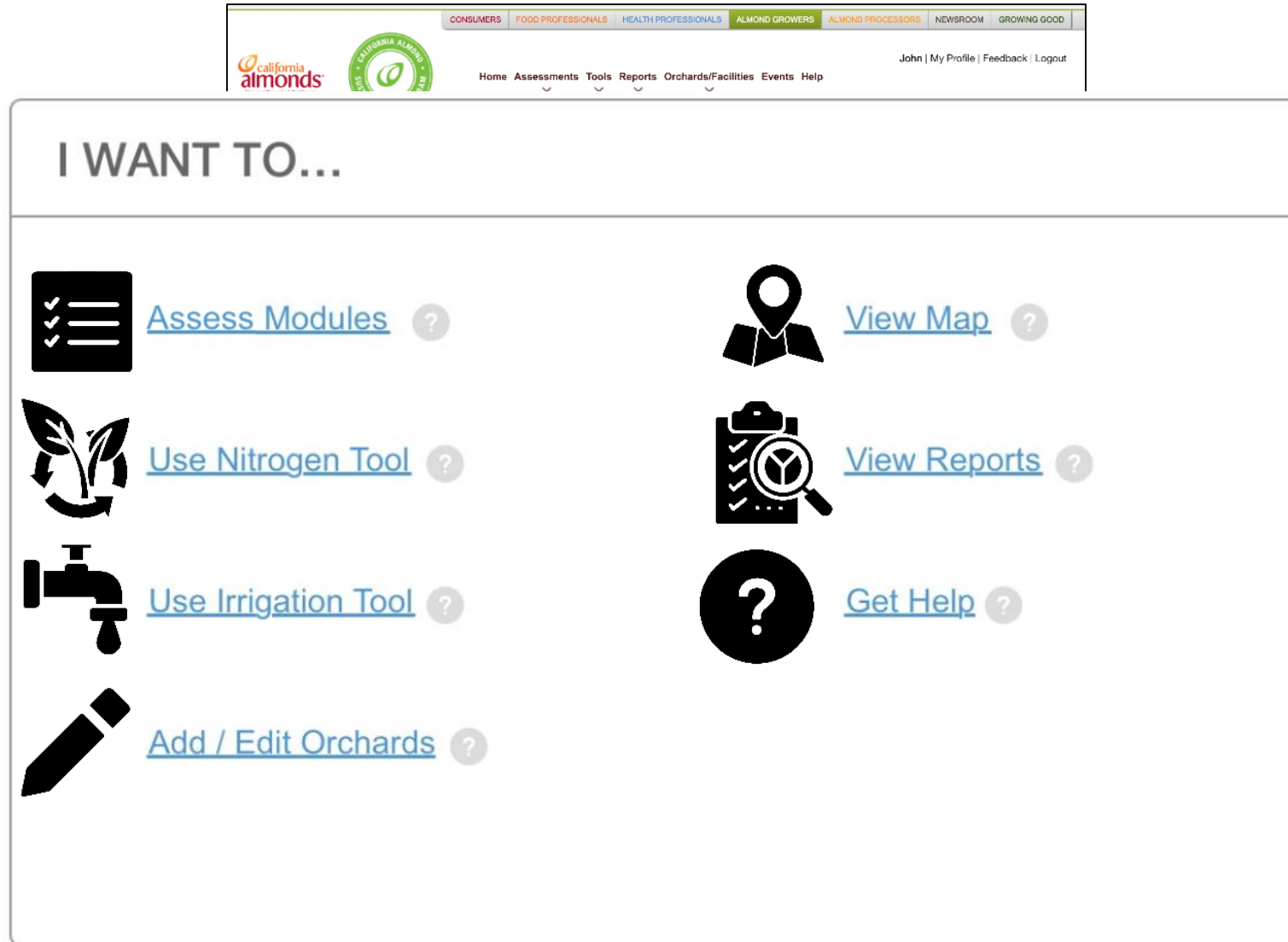
 <a href="#">Assess Comprehensive Modules</a> ?	 <a href="#">Assess Irrigation Continuum</a> ?	 <a href="#">Use Nitrogen Tool</a> ?
 <a href="#">Use Irrigation Tool</a> ?	 <a href="#">Add/Edit Orchards</a> ?	 <a href="#">Go to Home Dashboard</a> ?

# Returning User Login








The image shows a screenshot of the California Almonds Sustainability Program Online System website. The main page features a navigation bar with links for CONSUMERS, FOOD PROFESSIONALS, HEALTH PROFESSIONALS, ALMOND GROWERS, and ALMOND PROCESSORS. The main content area includes a large banner with the text "Welcome to the CALIFORNIA ALMOND SUSTAINABILITY PROGRAM Online System" and a "Login" button. Below the banner are sections for "CREATE ACCOUNT" and "ABOUT THE PROGRAM".

Two inset boxes show the "ACCOUNT LOGIN" and "USER LOGIN" forms. The "ACCOUNT LOGIN" form includes fields for "Username" and "Password", each with a "I forgot" link, and a "Login" button. The "USER LOGIN" form is identical but includes a "Logout" button below the "Login" button. A mouse cursor is shown clicking the "Login" button in the "USER LOGIN" form.


# Home Page: I WANT TO...



The screenshot shows the top navigation bar of the California Almonds website. It includes the website logo, a navigation menu with categories like CONSUMERS, FOOD PROFESSIONALS, HEALTH PROFESSIONALS, ALMOND GROWERS, ALMOND PROCESSORS, NEWSROOM, and GROWING GOOD. Below the navigation bar is a user profile section with the name 'John' and links for 'My Profile', 'Feedback', and 'Logout'. The main content area is titled 'I WANT TO...' and contains a grid of seven interactive menu items, each with an icon and a link:

-  [Assess Modules](#) ?
-  [View Map](#) ?
-  [Use Nitrogen Tool](#) ?
-  [View Reports](#) ?
-  [Use Irrigation Tool](#) ?
-  [Get Help](#) ?
-  [Add / Edit Orchards](#) ?

# Spotlight on Water



**california almonds**  
Almond Board of California

**SPOTLIGHT ON Water**

**LEADERS IN EFFICIENT IRRIGATION**  
Decades of Almond Board leadership has led to impactful programs that have laid the foundation for California's success as a world leader in almond production.

**TRANSFORMATIVE IRRIGATION**  
The California Almond Board began its work in 1982 to determine if a microirrigation system could work in almond orchards. After years of testing, the Board determined that microirrigation could be used uniformly across the state. Today nearly 80% of California almond orchards use microirrigation and, as a result, the number of acres that can be planted has grown significantly.


**A ROADMAP TO CONTINUOUS IMPROVEMENT**  
While almond farmers have always been innovative, there's more everyone can do to improve almond irrigation. The Almond Board's Irrigation Improvement Continuum provides a roadmap for almond farmers across varying management areas.

**EFFICIENT ALMOND IRRIGATION**

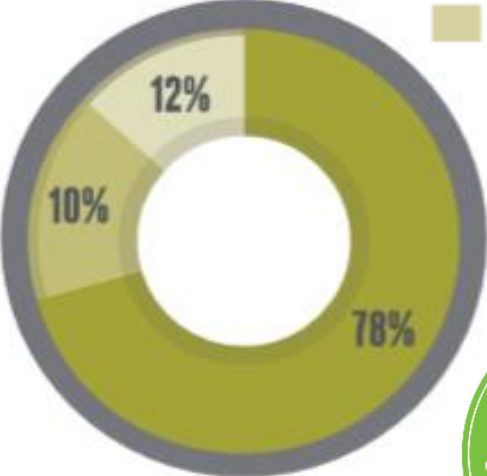
1. CALCULATING WATER REQUIREMENTS
2. MONITORING WATER USE
3. MEASURING AND EVALUATING PERFORMANCE
4. MONITORING AND EVALUATING PERFORMANCE
5. MONITORING AND EVALUATING PERFORMANCE

©2017 Almond Board of California. Document 02017-0002

## Almond farmers are AHEAD OF THE CURVE FOR EFFICIENT IRRIGATION ADOPTION




**CALIFORNIA STATEWIDE<sup>1</sup>**  
irrigation method



**CALIFORNIA ALMOND<sup>2</sup>**  
irrigation method

- microirrigation
- sprinkler
- flood



Modesto, California

FARM PROFILE: alfalfa, almonds, grapes, peaches, walnuts

ACRES OF ALMONDS: 650



# Assessing Modules

Orchard

The screenshot shows the top navigation bar of the California Almonds Sustainability Program website. On the left, there are logos for 'california almonds' (Almond Board of California) and the 'CALIFORNIA ALMOND SUSTAINABILITY PROGRAM'. On the right, there is a user profile 'Spencer' with links for 'My Profile', 'Feedback', and 'Logout'. A main navigation menu includes 'Home', 'Assessments', 'Tools', 'Reports', 'Orchards/Facilities', 'Events', and 'Help', with dropdown arrows under 'Assessments', 'Tools', 'Reports', and 'Orchards/Facilities'. Below the navigation is a green header with the word 'ASSESSMENTS' in white. The main content area features a dropdown menu on the left with the following items: 'Organizations', 'AA | Almond Board', 'Stanislaus', and 'stanislaus ( )'. A large black hand cursor icon is pointing at the 'stanislaus ( )' option. To the right of the dropdown is a white box with the text 'SELECT THE ORCHARD/BLOCK OR PROCESSING FACILITY THAT YOU WANT TO ASSESS.' in blue.

# Assessing Modules

Year & Orchard

e-Module View

Modules

The screenshot displays the California Almonds assessment interface. At the top, the user is logged in as 'Spencer' with options for 'My Profile', 'Feedback', and 'Logout'. The main navigation menu includes 'Home', 'Assessments', 'Tools', 'Reports', 'Orchards/Facilities', 'Events', and 'Help'. A sidebar on the left contains a 'Year' dropdown set to '2017/2018', an 'Organizations' list with 'AA | Stanislaus' selected, and a 'stanislaus (45.00)' entry. The main content area features a 'PRACTICES' section with the following details: Name: stanislaus, Type: Orchard, Organization: AA | Almond Board, and Enterprise: AA | Stanislaus. Below this is a 'Modules' section with a progress indicator: 'All valid questions answered' (green checkmark), 'Some questions answered' (yellow exclamation mark), and 'No questions answered' (red X). The modules listed are: Irrigation Management, Nutrient and Soil Management, Air Quality, Energy Efficiency, Pest Management, Ecosystem Management, Financial Management, Workplace and Communities, and Bee Health and Propagation. A mouse cursor is pointing at the 'Bee Health and Propagation' module. The bottom of the page shows a list of e-modules: 'INTRODUCTION - SUSTAINABILITY AND IRRIGATION MANAGEMENT', 'ORCHARD ESTABLISHMENT' (highlighted in blue), 'HOW YOU START HAS LONG-TERM IMPLICATIONS', and 'A MAP IS WORTH A THOUSAND WORDS - AN ORCHARD DEVELOPMENT TOOL'.

Reports

# Assessing Modules – Bee Health and Pollination

<input checked="" type="checkbox"/> Financial Management	<input checked="" type="checkbox"/> Workplace and Communities	<input checked="" type="checkbox"/> Bee Health and Pollination		
--	---	--	--	--

## BEST MANAGEMENT PRACTICES GUIDE

**01** Our operation was aware of the Almond Board's guide: Honey Bee Best Management Practices for California Almonds.  
*If No, then click 'No' and skip to question 4.*

Yes  
 No

**02** Practices in the guide specific to our internal farm operation were used.

Yes  
 No

**03** Practices in the guide relevant to our role in communication and coordination with parties throughout the pollination and pest management communication chain were used.

Yes  
 No

# Module Assessment Comparison Report

The screenshot displays the 'ASSESSMENTS' interface. At the top, there are logos for 'california almonds' and 'CALIFORNIA ALMOND SUSTAINABILITY PROGRAM'. The navigation bar includes 'Home', 'Assessments', 'Reports', 'Orchards/Facilities', 'Events', and 'Help'. The 'ASSESSMENTS' section features a filter for 'Year: 2017/2018' and a tree view of 'Organizations' including 'AA | Stanislaus' with a score of 45.00. A 'PRACTICES' section lists 'Irrigation Management', 'Nutrient Management', 'Ecosystem Management', and 'Pest Management', each with a status indicator (red 'X' for missing). A green dropdown menu is open over the 'Reports' link, listing: 'Action Plan Notes', 'Assessment Answers', 'Assessment Comparison' (highlighted by a mouse cursor), 'ILRP Compliance Map', 'Irrigation Improvement Continuum', and 'Nitrogen Management Plan'. Below this, a blue header reads 'BEE HEALTH AND POLLINATION', followed by 'INTRODUCTION AND GENERAL INFORMATION - POLLINATION EFFICIENCY'. The main content area contains text about honey bee and native pollinator management. At the bottom, a blue footer reads 'BEST MANAGEMENT PRACTICES GUIDE'.

Reports

# Module Assessment Comparison Report

Generate

Export As PDF

Practice or Metric				
Bee Health and Pollination Module				
BEST MANAGEMENT PRACTICES GUIDE		Your Selection	Answer Choices	Use Statewide
01	Our operation was aware of the Almond Board's guide: Honey Bee Best Management Practices for California Almonds. <i>If No, then click 'No' and skip to question 4.</i>	X	Yes	73.4%
			No	26.6%
	02. Practices in the guide specific to our internal farm operation were used.	X	Yes	90.9%
			No	9.1%
	03. Practices in the guide relevant to our role in communication and coordination with parties throughout the pollination and pest management communication chain were used.	X	Yes	88.6%
			No	11.4%

# Home Page: Grower Data Sharing

## DATA SHARING

[Take A Tour](#)

[CANCEL](#) [RETURN TO HOME](#)

### INSTRUCTIONS

1. Select your Handler in the drop down menu by orchard.
2. Select OPT-IN to share data with your handler.
3. Select OPT-OUT to turn off data sharing.
4. The data sharing status per orchard will update based on your selections.

Note: To ensure clear data sharing opt-in/opt-out with the correct handler, you will need to select the handler and either "OPT-IN" or "OPT-OUT" for each orchard.

If you don't see your Handler, contact support at [CASP@sureharvest.com](mailto:CASP@sureharvest.com)  
831-477-7797

Orchard Name	Handler for Orchard	Status	Action
Turlock Site	Select Handler	No Sharing	
Gratton Ranch	Select Handler	No Sharing	

# Maps

## View Maps

CASP Home Map Help

2018 Organization: AA | Almond Board Enterprise: Almond Board Orchard: stanislaus Map Year: 2018

**VIEW Orchard View**

Mode:  View  Edit

AA | Almond Board  
AA | Stanislaus  
stanislaus

Display Options

<input checked="" type="checkbox"/> APNs <input checked="" type="checkbox"/> Fill color	<input checked="" type="checkbox"/> Ad hoc features <input checked="" type="checkbox"/> Fill color	<input checked="" type="checkbox"/> Orchards and facilities <input checked="" type="checkbox"/> Fill color	<input checked="" type="checkbox"/> Labels
--	---	---	--

Map Satellite

Find Location

Cooper Welding

Williams SWEEP Training

stanislaus

Lambuth Lateral

Valley Home Rd

APN 123-45-678

Google

Map data ©2018 Google Imagery ©2018, DigitalGlobe, U.S. Geological Survey, USDA Farm Service Agency | 100 m | Terms of Use

# Home Page: Take A Tour and Help



The screenshot shows the California Almonds website home page. At the top, there is a navigation bar with links for CONSUMERS, FOOD PROFESSIONALS, HEALTH PROFESSIONALS, ALMOND GROWERS, and FOOD PROCESSORS. Below this is a secondary navigation bar with links for Home, Assessments, Tools, Reports, Orchards/Facilities, Events, and Help. The main content area is divided into three sections: HELP, TOURS, and FEEDBACK. The HELP section includes links for USER GUIDES (Getting Started Guide, N Calculator User Guide, Irrigation Calculator User Guide, Map Guide) and FEEDBACK (Provide Feedback). The TOURS section includes links for Home Dashboard Tour, Education Text Tour, N Calculator Tour, and Irrigation Calculator Tour. A 'Take A Tour' button is located in the top right corner of the main content area, and a hand cursor is pointing at it. A 'Next' button is also visible in the TOURS section.

Take A Tour



# Come to the ABC Booth #625

**Sign up, participate in the supply chain pilot or get help at the ABC Booth on the trade show floor**

**Tuesday 12/4/18 - 5:30 pm –7:00 pm**  
**Wednesday 12/5/18 - 9:00 am–5:30 pm**  
**Thursday 12/6/18 - 8:00 am–3:00 pm**





2018

# THE ALMOND CONFERENCE

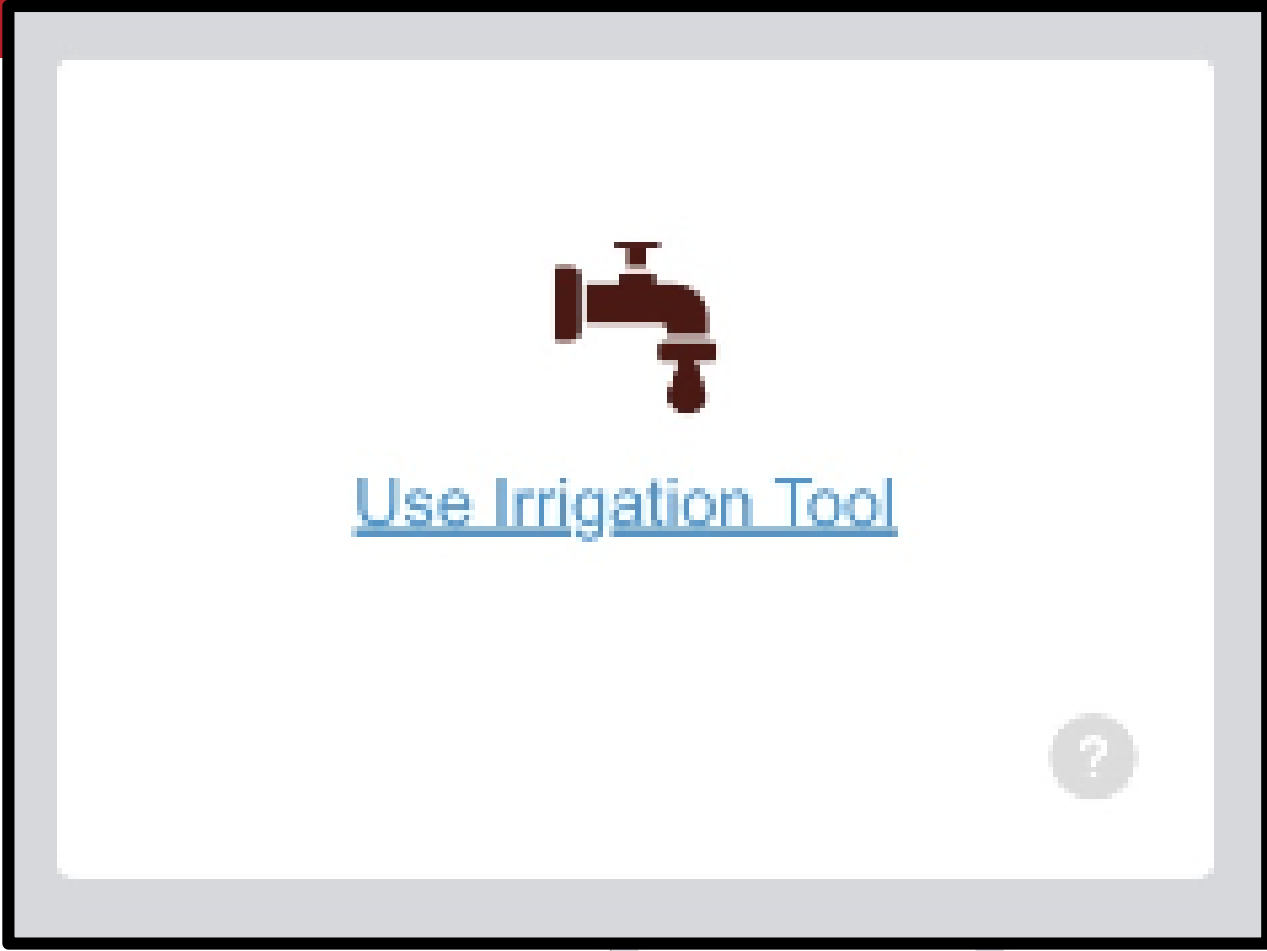
ALMOND SUSTAINABILITY: JOIN THE JOURNEY!

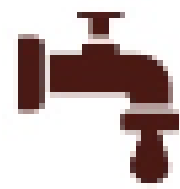
ROOM 308-309 | DECEMBER 4, 2018




# Tools within CASP

The screenshot shows the California Almond Sustainability Program (CASP) website. The browser address bar displays <https://www.sustainablealmondgrowing.org>. The navigation menu includes: SWITCH TO ALMONDS.COM, CONSUMERS, FOOD PROFESSIONALS, HEALTH PROFESSIONALS, ALMOND GROWERS (highlighted), ALMOND PROCESSORS, and NEWSROOM. The main navigation bar contains: Home, About The Program, Benefits To You, Contact, Blog, and a Login button. The main content area features a large banner with the text: "Welcome to the CALIFORNIA ALMOND SUSTAINABILITY PROGRAM Online System" and a "CREATE ACCOUNT" button. Below the banner are four tiles: "CREATE ACCOUNT" (with an image of a man and woman), "ABOUT THE PROGRAM" (with an image of an orchard), "BENEFITS TO YOU" (with an image of hands holding almonds), and "USER LOGIN" (with input fields for Username and Password, a "Remember Me" checkbox, and a "Login" button).





[Use Irrigation Tool](#)





3

Orchard Setup

up

te!

..



[Use Nitrogen Tool](#)

?

?



[Use Irrigation Tool](#)

?



[Add/Edit Orchards](#)

?



[Go to Home Dashboard](#)

?



## IRRIGATION CALCULATOR

Take A Tour

### IRRIGATION SCHEDULE SUMMARY

Filter your list

Add Irrigation Schedule

Crop Year	Organization	Enterprise	Orchard	
2018	AA   Almond Board	AA   Stanislaus	stanislaus	<a href="#">Open</a> <a href="#">Clone</a> <a href="#">PDF</a>
2017	AA   Almond Board	AA   Stanislaus	stanislaus	<a href="#">Open</a> <a href="#">Clone</a> <a href="#">PDF</a>

Crop Year: 2018 Orchard: stanislaus Organization: AA | Almond Board Business: AA | Stanislaus

SETUP WEEKLY INPUTS REPORTS

Save

Refresh

SETUP ?

WEATHER SETUP

Use Station associated with Zip:

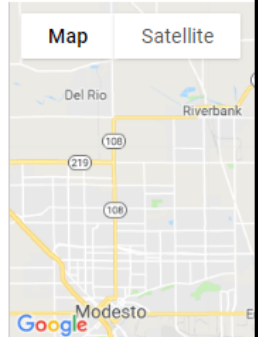
\* Map location for Spatial CIMIS When evapotranspiration (ET<sub>o</sub>) data

\* Orchard ZIP code: ?

95361 Confirm

\* CIMIS Station: ?

Oakdale (194)



\* Latitude: ?

37.706853

\* Longitude: ?

-120.778012

\* denotes required for calculations

BASIC ORCHARD SETUP

Year Orchard Planted: ?

2014

Acres: ?

45

\* Row Spacing: ?

21

(feet)

\* Tree Spacing: ?

16

(feet)

Mature Orchard ?

\* Orchard Canopy Cover at Midday: ?

80 %

\* denotes required for calculations

SAVE

ADVANCED ORCHARD SETUP

Responses to items below are optional and do not change Run Hrs to Meet ET<sub>o</sub>. Available Soil Moisture (ASM) columns.

Effective Rooting Depth (feet): ?

3

Soil Texture by Depth: ?

Add Delete

	Start Depth (feet)	End Depth (feet)	Soil Texture
<input type="checkbox"/>	Surface	3	Fine - Loams, silt loams, sandy clays, silty clays

Soil Notes: ?

Irrigation System Subsurface Wetted Volume: ?

80 %

Available Soil Moisture (ASM) Depletion Alert (%): ?

50 %

IRRIGATION SETUP

Week to start accumulating ET<sub>o</sub>: ?

Week #8: 2/25/2018 - 3/3/2018

Number of Sets: ?

1

Typical Run Time (hours): ?

18

\* System Type: ?

Micro-sprinkler-

Irrigation System Notes: ?

\* Emitters / Microsprinklers per Tree: ?

1

\* Average Gallons per Hour (GPH) Rate per Emitter / Microsprinkler: ?

10.6 gph

\* Distribution Uniformity: ?

89 %

\* denotes required for calculations

SAVE

# IRRIGATION CALCULATION WORK FLOW ?

[Go to Assessment](#)
[Learn More +](#)
**Crop Year:** 2018

**Orchard:** stanislaus

**Organization:** AA | Almond Board

**Business:** AA | Stanislaus

[SETUP](#)
[WEEKLY INPUTS](#)
[REPORTS](#)
[Save](#)
[Refresh](#)
[Close](#)
[Delete](#)

Week ? All Weeks ▾	Run time (hours) ?	Run to Meet ETC ?		Run to Fill ASM ?		Calculated % ASM Depleted ?	Measured Soil Moisture ?	Measured Rainfall (Inches) ? <small>* CIMIS value</small>	Observed Tree Status ?
		Hours	Inches	Hours	Inches				
MAY (#21) 5/27 - 6/2	<input type="text" value="34"/>	39.4	1.77	64.0	2.88	100%	<input type="text"/>	<input type="text"/>	<input type="text"/>
JUN (#22) 6/3 - 6/9	<input type="text" value="36"/>	43.4	1.95	71.3	3.21	100%	<input type="text"/>	<input type="text"/>	<input type="text"/>
JUN (#23) 6/10 - 6/16	<input type="text" value="36"/>	45.0	2.03	73.0	3.29	100%	<input type="text"/>	<input type="text"/>	<input type="text"/>
JUN (#24) 6/17 - 6/23	<input type="text" value="36.5"/>	45.7	2.06	73.2	3.29	100%	<input type="text"/>	<input type="text"/>	<input type="text"/>
JUN (#25) 6/24 - 6/30	<input type="text" value="37"/>	47.3	2.13	74.3	3.35	100%	<input type="text"/>	<input type="text"/>	<input type="text"/>
JUL (#26) 7/1 - 7/7	<input type="text" value="42.5"/>	49.6	2.23	71.0	3.20	100%	<input type="text"/>	<input type="text"/>	<input type="text"/>

[SAVE](#)

This recommendation is not intended to be used as the sole source of information for making irrigation decisions. Local environmental conditions can have a profound effect on irrigation demands. The Almond Board of California, the University of California, and the California State University are not responsible for the accuracy of this model.

Crop Year: 2018

SETUP

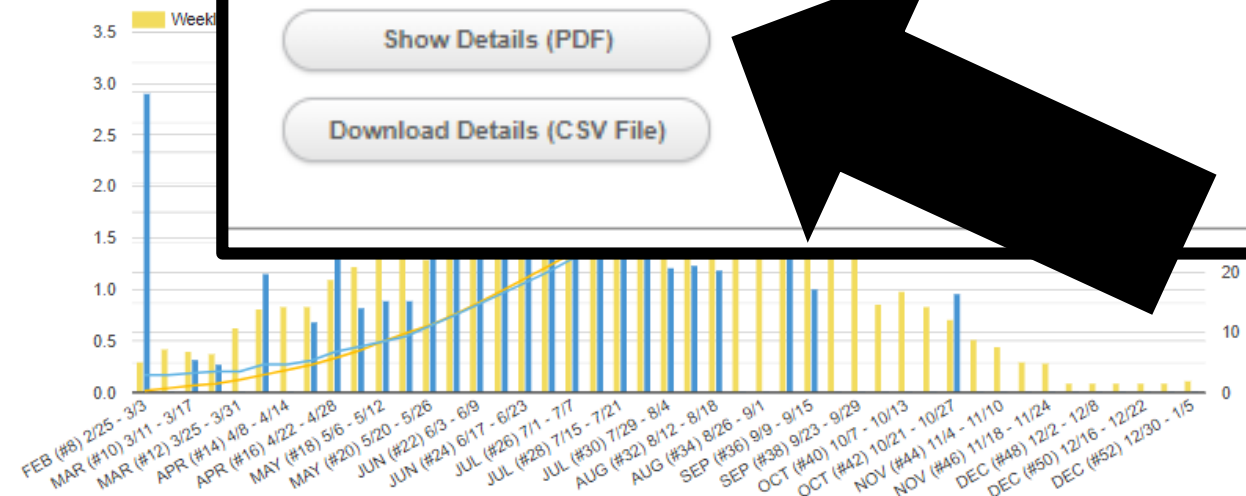
WEEKLY IN

## REPORTS ?

## SEASONAL IRRIGATION

Crop Evapotranspiration (ETc)

Download Chart (PDF)



## DETAILED

A comprehensive report showing weekly values for reference evapotranspiration (ET<sub>o</sub>), crop coefficients (K<sub>c</sub>) and crop evapotranspiration ET<sub>c</sub> with accumulated ET<sub>c</sub>, CIMIS precipitation, entered and effective precipitation along with run hours and inches required to meet ET<sub>c</sub>, run hours and inches required to fill Available Soil Moisture (ASM), ASM depletion and observed tree status by week. Click [Show Details \(PDF\)](#) to create formatted printable report, click [Download Details \(CSV File\)](#) to download a file compatible Excel.

[Show Details \(PDF\)](#)
[Download Details \(CSV File\)](#)

## SUMMARY

An overview report showing entered run hours along with run hours and inches to meet ET<sub>c</sub>, Run Hours to fill ASM, and ASM depletion by week.

Click [Show Details \(PDF\)](#) to create formatted printable report, click [Download Details \(CSV File\)](#) to download a file compatible Excel.

[Show Summary \(PDF\)](#)
[Download Summary \(CSV File\)](#)

## DETAILED

A comprehensive report showing weekly values for reference evapotranspiration (ET<sub>o</sub>), crop coefficients (K<sub>c</sub>) and crop evapotranspiration ET<sub>c</sub> with accumulated ET<sub>c</sub>, CIMIS precipitation, entered and effective precipitation along with run hours and inches required to meet ET<sub>c</sub>, run hours and inches required to fill Available Soil Moisture (ASM), ASM depletion and observed tree status by week. Click [Show Details \(PDF\)](#) to create formatted printable report, click [Download Details \(CSV File\)](#) to download a file compatible Excel.

[Show Details \(PDF\)](#)

## SUMMARY

An overview report showing entered run hours along with run hours and inches to meet ET<sub>c</sub>, Run Hours to fill ASM, and ASM depletion by week.

Click [Show Details \(PDF\)](#) to create formatted printable report, click [Download Details \(CSV File\)](#) to download a file compatible Excel.

[Show Summary \(PDF\)](#)
[Download Summary \(CSV File\)](#)



## Irrigation Schedule Details

Orchard/Org/Business: stanislaus Schedule Year: 2018

### Schedule Details

Year	2018
Organization	AA   Almond Board
Enterprise	AA   Stanislaus
Orchard	stanislaus

### Orchard Details

Year Planted	2014
Orchard Status	Immature
**Orchard Canopy Cover at Midday	80%
Krt Factor	100%
Acres	45
**Row / Tree Spacing	21 x 16 feet
Trees per Acre	129.6
**Soil Texture	0 - 3 feet: Fine - Loams, silt loams, sandy clays, silty clays, clays (2.4)
Soil Notes	
**Effective Rooting Depth	3 feet
Available Soil Moisture for Orchard	3.6 inches
Available Soil Moisture in Wetted Area	2.88 inches
Available Soil Moisture (ASM) Depletion Alert (%)	50%

\*\* Denotes item required for calculation

This recommendation is not intended to be used as the sole source of information for making irrigation decisions. Local environmental conditions can have a profound effect on irrigation demands. The Almond Board of California, the University of California, and the California State University are not responsible for the accuracy of this model.

### Weather Data Setup Details

## Irrigation Schedule Details

Orchard/Org/Business: stanislaus Schedule Year: 2018

Week	Typical ETo (in.)	This Yr ETo (in.)	Kc	ETc (in.)	Accum ETc (in.)	CIMIS Precip (in.)	Entered Precip (in.)	Effective Precip (in.)	Run Hrs to Meet ETc	Entered Run Hrs	Inches Supplied	Run Hrs to Fill ASM	Inches to Fill ASM	Calc % ASM Depleted	Entered % ASM Depleted	Obs Tree Stress
12/30 - 1/5	0.28		0.4	0.11	52.03				2.5			66.5	2.99	100		
1/7 - 1/13	0.28	0.18	0.4	0.07		1.61		0.89	1.6		0.89	45.8	2.06	72		
1/14 - 1/20	0.28	0.26	0.4	0.1		0.22			2.3			48.2	2.17	75		
1/21 - 1/27	0.28	0.32	0.4	0.13		0.25	1	1	2.8		1	28.8	1.3	45		
1/28 - 2/3	0.49	0.4	0.41	0.16		0.01			3.6			32.4	1.46	51		
2/4 - 2/10	0.49	0.59	0.41	0.24			3	3	5.4	10.75	3.54		-1.78	0		
2/11 - 2/17	0.49	0.65	0.41	0.27					5.9	28.75	1.45		-1.03	0		
2/18 - 2/24	0.49	0.61	0.41	0.25					5.6			5.6	0.25	9		
2/25 - 3/3	0.77	0.48	0.62	0.3	0.3	1.17	2.5	2.5	6.6	8	2.9		-2.31	0		
3/4 - 3/10	0.77	0.68	0.62	0.42	0.72	0.01			9.4			9.4	0.42	15		
3/11 - 3/17	0.77	0.64	0.62	0.4	1.12	0.9		0.32	8.8		0.32	11.1	0.5	17		
3/18 - 3/24	0.77	0.61	0.62	0.38	1.5	0.85		0.28	8.4		0.28	13.3	0.6	21		
3/25 - 3/31	0.77	1.02	0.62	0.63	2.13				14.1			27.3	1.23	43		
4/1 - 4/7	1.19	1.01	0.8	0.81	2.94	1.95		1.16	18		1.16	19.5	0.88	30		
4/8 - 4/14	1.19	1.05	0.8	0.84	3.78	0.02			18.7			38.1	1.72	60		
4/15 - 4/21	1.19	1.05	0.8	0.84	4.62	0.69	0.69	0.69	18.7		0.69	41.5	1.87	65		
4/22 - 4/28	1.19	1.37	0.8	1.1	5.72				24.3	28.25	1.43	37.6	1.69	59		
4/29 - 5/5	1.54	1.3	0.94	1.22	6.94				27.1	16.25	0.82	48.5	2.18	76		
5/6 - 5/12	1.54	1.66	0.94	1.56	8.5				34.7	17.5	0.89	65.6	2.95	100		
5/13 - 5/19	1.54	1.49	0.94	1.4	9.9				31.1	17.5	0.89	77.6	3.49	100		
5/20 - 5/26	1.54	1.37	0.94	1.29	11.19	0.24			28.6	34	1.72	58.6	2.64	92		
5/27 - 6/2	1.82	1.69	1.05	1.77	12.96				39.4	34	1.72	64	2.88	100		
6/3 - 6/9	1.82	1.86	1.05	1.95	14.91				43.4	36	1.82	71.3	3.21	100		
6/10 - 6/16	1.82	1.93	1.05	2.03	16.94				45	36	1.82	73	3.29	100		
6/17 - 6/23	1.82	1.96	1.05	2.06	19				45.7	36.5	1.85	73.2	3.29	100		
6/24 - 6/30	1.82	2.03	1.05	2.13	21.13				47.3	37	1.87	74.3	3.35	100		

This recommendation is not intended to be used as the sole source of information for making irrigation decisions. Local environmental conditions can have a profound effect on irrigation demands. The Almond Board of California, the University of California, and the California State University are not responsible for the accuracy of this model.



[Use Nitrogen Tool](#)



Orchard Setup



[Use Nitrogen Tool](#)



[Use Irrigation Tool](#)



[Add/Edit Orchards](#)



[Go to Home Dashboard](#)





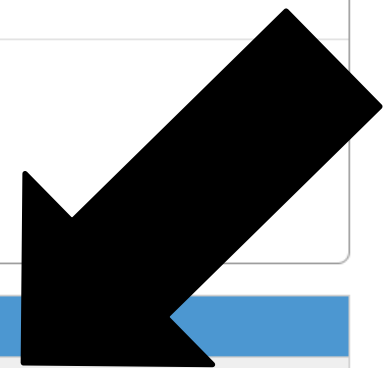
# N CALCULATOR

Take A Tour

## N BUDGET SUMMARY

Filter your list

Add N Budget



Crop Year	Organization	Enterprise	Orchard	Last Yield Entered	
2017	AA   Almond Board	AA   Stanislaus	stanislaus	Pre-Application	<p>Open</p> <p>Clone</p> <p>PDF</p>

Home

Blog



Help

Newsroom





# N CALCULATOR

## SOURCE

Crop Year: 2017

Organization: AA | Almond Board

Enterprise: AA | Stanislaus

Orchard: stanislaus

Fertilizer Application History: Fruit Maturity or Early Post-Harvest

## TARGET

Crop Year: 2018

Organization: AA | Almond Board

Enterprise: AA | Stanislaus

Orchard: stanislaus

Fertilizer Application History: All Recorded Applications

CLONE



KERNEL YIELD
IRRIGATION N-CREDIT
MANURE N-CREDIT
COMPOST N-CREDIT
COVER CROP N-CREDIT
OTHER N-CREDITS
FERTILIZER APPLICATION
LEAF FACTOR
WATER COALITION INFORMATION

Previous Tab
Save Budget
Close Budget
Next Tab

Enter pounds of kernels per acre for each growth stage. Click Refresh Calculations to update N budget values Scroll down.

### PRE-APPLICATION PREDICTED KERNEL YIELD ?

Last year's yield:  
  
*(or this year's pre-application predicted yield)*

2 years ago yield:

3 years ago yield:  
 ⌵

### FRUIT GROWTH OR KERNEL FILL REVISED ESTIMATE ?

Use in Calculations:

Post bloom estimated yield:  
 ⌵

### POST-HARVEST ACTUAL KERNEL YIELD ?

Use in Calculations:

This year's actual yield:  
 ⌵

### REPORTS

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### CALCULATIONS

Refresh Calculations

#### Kernel Yield

Pre-Application Predicted	2700 lbs/Acre
Pre-Harvest Estimated	lbs/Acre
Post-Harvest Actual	lbs/Acre

#### Crop Nitrogen Demand Based on Yield

By Pre-Application Predicted	184 lbs N/Acre
By Pre-Harvest Estimated	lbs N/Acre
By Post-Harvest Actual	lbs N/Acre

#### N Credits

Irrigation	lbs N/Acre
Manure	lbs N/Acre
Compost	lbs N/Acre

### FERTILIZER APPLICATION ?

<input type="checkbox"/>	Edit	Timing	Date	Product Name	Prod. App Rate	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	App Method
<input type="checkbox"/>					0	0	0	0	
<input type="checkbox"/>		Early Spring		Other Fertilizer	3 gal	2	6	0	Fertigation - Drip
<input type="checkbox"/>		Early Spring	3/7/2017	CAN-17 17-0-0 +8.8Ca	5	0	0	0	
<input type="checkbox"/>		Fruit Growth	3/30/2016	UAN 32 32-0-0	10 gal	35	0	0	Fertigation - Drip
<input type="checkbox"/>		Fruit Growth	3/30/2016	UAN 32 32-0-0	10 gal	35	0	0	Fertigation - Drip
<input type="checkbox"/>		Kernel Fill	4/16/2016	UAN 32 32-0-0	10 gal	35	0	0	Fertigation - Drip
<input type="checkbox"/>		Kernel Fill	4/1/2016	Other Fertilizer	25 lbs	0	0	12	Ground Applied
<input type="checkbox"/>		Fruit Maturity or Early Post-Harvest	10/1/2016	UAN 32 32-0-0	10 gal	35	0	0	Fertigation - Drip
<input type="checkbox"/>		Fruit Maturity or Early Post-Harvest	9/30/2016	UAN 32 32-0-0	10 gal	35	0	0	Fertigation - Drip
<input type="checkbox"/>		Fruit Maturity or Early Post-Harvest	10/12/2016	Other Fertilizer	2 gal	2	6	0	
<input type="checkbox"/>		Fruit Maturity or Early Post-Harvest	10/17/2017	Other Fertilizer	3 gal	2	11	0	Fertigation - Micro Sprinkler
<input type="checkbox"/>		Fruit Maturity or Early Post-Harvest	9/14/2016	N-pHURIC 15/49 15-0-0 + 16S	2 gal	4	0	0	Fertigation - Drip

### REPORTS

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### CALCULATIONS

Refresh Calculations

#### Kernel Yield

Pre-Application Predicted	2000 lbs/Acre
Pre-Harvest Estimated	2700 lbs/Acre
Post-Harvest Actual	3000 lbs/Acre

#### Crop Nitrogen Demand Based on Yield

By Pre-Application Predicted	147 lbs N/Acre
By Pre-Harvest Estimated	184 lbs N/Acre
By Post-Harvest Actual	204 lbs N/Acre

#### N Credits

Irrigation	lbs N/Acre
Manure	lbs N/Acre
Compost	60 lbs N/Acre
Cover Crop	lbs N/Acre
Other N-Credits	lbs N/Acre
<b>Sum of N-Credits</b>	<b>60 lbs N/Acre</b>

**NITROGEN MANAGEMENT PLAN WORKSHEET**

1. Crop Year (Harvested):	2016	4. APN(s)	5. Field(s) ID
2. Member ID #:			Test
3. Name:			

CROP NITROGEN MANAGEMENT PLANNING		N APPLICATIONS/CREDITS	15. Recommended / Planned N	16. Actual N
6. Crop	Almonds	17. Nitrogen Fertilizers		
7. Production Unit	Pounds (kernel)	18. Dry/Liquid (lbs/ac)	124	187
8. Projected Yield (Units/Acre)	2000	19. Foliar N (lbs/ac)	0	0
9. N Recommended (lbs/ac)	184	20. Organic Material N		
10. Acres	100	21. Available N in Manure/Compost (lbs/ac estimate)	60	60
<b>Post Production Actuals</b>		22. Total N Applied (lbs per acre)	184	247
11. Actual Yield (Units/Acre)	3000	23. Nitrogen Credits (est)		
12. Total N Applied (lbs/ac)	247	24. Available N carryover in soil (annualized lbs/acre)	0	0
13. ** N Removed (lbs N/ac)		25. N in Irrigation water (annualized, lbs/ac)	0	0
14. Notes:		26. Total N Credits (lbs per acre)	0	0
		27. Total N Applied & Available (lbs per acre)	184	247

**PLAN CERTIFICATION**

28. CERTIFIED BY:	29. CERTIFICATION METHOD	X
	30. Low Vulnerability Area, No Certification Needed	
	31. Self-Certified, approved training program attended	
DATE:	32. Self-Certified, UC or NRCS site recommendation	
	33. Nitrogen Management Plan Specialist	

\*\* Your Coalition will provide the method to be used to estimate N Removed.

Numbering in this Nitrogen Management Plan differs slightly from the template approved by the Central Valley Water Board 23 December 2014.

# Want to sign up for CASP today?

- Where can I sign up for CASP today?
  - ABC Booth #625



# Questions

[Scooper@almondboard.com](mailto:Scooper@almondboard.com)

209-604-3727



Thank you!



# What's Next

## Tuesday, December 4

- State of the Industry – Hall C at 4:15 p.m.
- Research Poster Session – Hall A+B at 5:30 p.m.

*Be sure to join us at 5:30 p.m. in Hall A+B for Dedicated Trade Show Time and Opening Reception, sponsored by FMC Agricultural Solutions*

The logo for FMC, consisting of the letters 'FMC' in a bold, red, sans-serif font. The 'F' is stylized with a thick vertical bar and a horizontal bar that extends to the left.