

# The California Almond Sustainability Program (CASP)

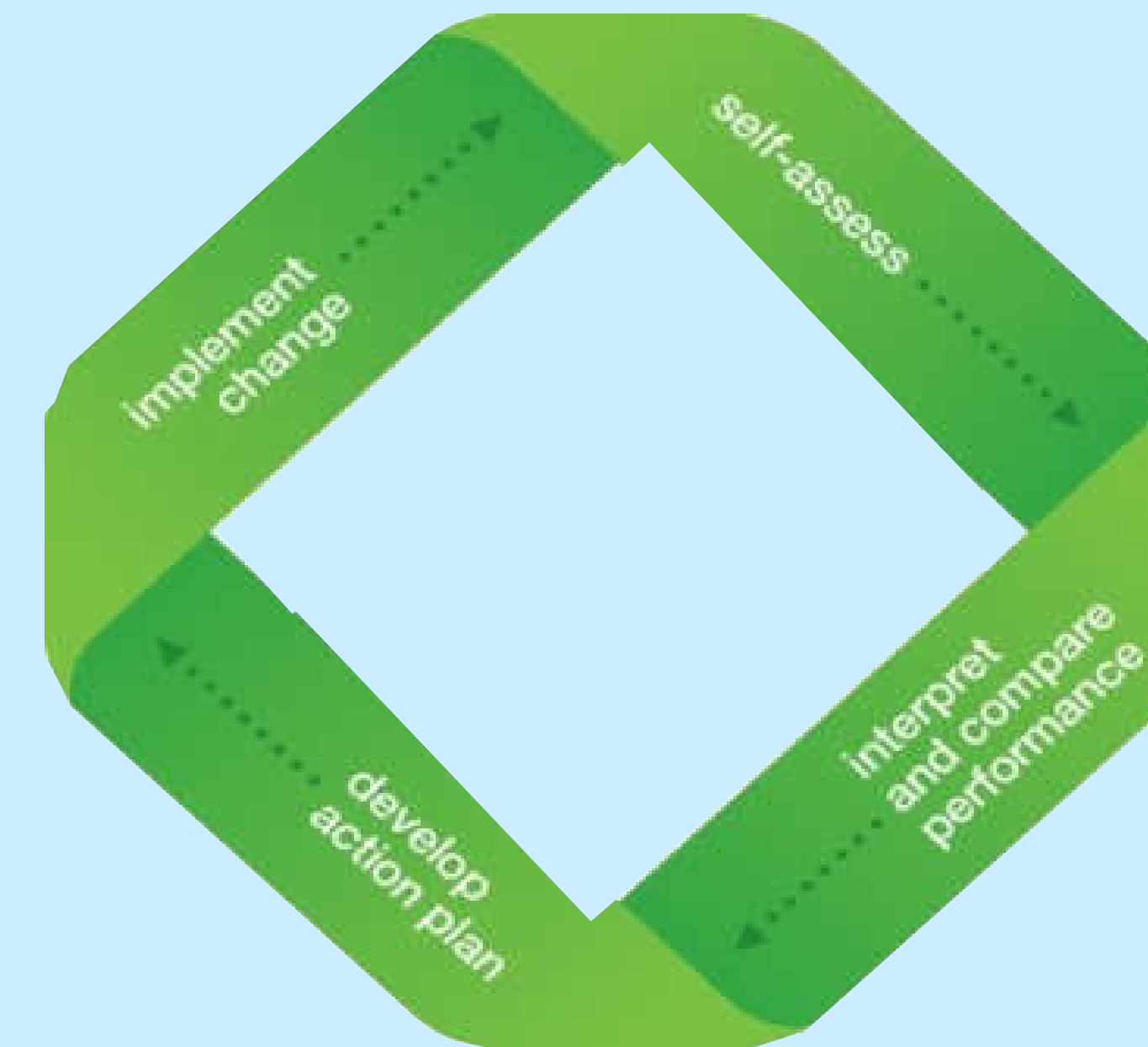
## Almond Board of California (ABC)



Documenting the California Almond community's thoughtfulness and efforts in using environmentally friendly and socially responsible practices is critical to ensuring California Almonds remain a crop of choice and nut of choice to buy.

CASP achieves this through grower and handler assessment of best management practices (BMPs), the interpretation and communication of results, and the application of results for education and continuous improvement.

CASP elements constitute the Cycle of Continuous Improvement, allowing participants to confidentially assess practices; compare results to those statewide; learn about, plan for and implement alternatives; and periodically reassess.



Grower and handler participation includes completing assessments captured in the online assessment, education and reporting system at [www.sustainablealmondgrowing.org](http://www.sustainablealmondgrowing.org).

Modules for assessment are Irrigation Management, Nutrient Management, Energy Efficiency, Air Quality, Pest Management, Ecosystem Management, Financial Management and Workplace and Community.

To date, 1,425 growers and handlers have participated, resulting in assessments on behalf 565 farming operations for 788 orchards covering 156,309 acres.

Extensive grower involvement has enabled understandings of statewide use of orchard BMPs with statistical significance. The 2014 Almond Sustainability Report tells this "Good Story" by applying SureHarvest's Value Analysis Methodology to detail strengths, and opportunities for improvement, in BMPs that provide the most environmental and grower economic value.

Results are being used for communications and to target educational needs for continuous improvement.



**Nitrogen Budget**

**Nitrogen Budget Work Flow**

PRE-SEASON THROUGH EARLY SPRING | FRUIT GROWTH | KERNEL FILL | FRUIT MATURITY OR EARLY POST-HARVEST

Recommended vs Applied N (lbs/Acre) chart showing trends over time.

Reports section showing Pre-Application Predicted Kernel Yield and Crop Nitrogen Demand Based on Yield.

**NITROGEN MANAGEMENT PLAN WORKSHEET**

1. Crop Year (Harvested): 2015	4. APNs(s)	5. Field(s) ID
2. Member ID #: ID for Coalition	800.22.1123 123-456-478	McHenry Ranch
3. Name: Jesse A Santos		

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 (Bt/ac)	290	258
8. Projected Yield (Units/Acre): 3000	19. Foliar N (Bt/ac)	0	0
9. N Recommended (Bt/ac): 291	20. Organic Material N		
10. Acres: 22	21. Available N in Manure/Compost (Bt/ac estimate)	0	0
<b>Post Production Actuals</b>		22. Total N Applied (lbs per acre)	290
11. Actual Yield (Units/Acre): 2800	23. Nitrogen Credits (est)		
12. Total N Applied (Bt/ac): 258	24. Available N carryover in soil (annualized Bt/ac)	0	0
13. ** N Removed (Bt N/ac)	25. N in Irrigation water (annualized, Bt/ac)	0	0
14. Notes:	26. Total N Credits (lbs per acre)	0	0
	27. Total N Applied & Available (lbs per acre)	290	258

**PLAN CERTIFICATION**

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

**Part D - Farm Map**  
(Keep Onsite - For Inspection Purposes Only)

Draw/Develop a map in the space below describing your farm operation including information such as parcel layout, crops grown, and irrigation infrastructure (wells, pipes, ditches, surface water discharge points, etc.). Update any well locations, field boundaries and surface water discharge points if they change in the future.

Legend:  
 X - In-Use Well Locations  
 A - Known Abandoned Well Locations  
 Q - Observation/Monitoring well  
 DP - Off Farm Surface Water Discharge Points (pipes, ditches, etc.)

APN(s): 123-456-789, 123-456-790  
 Almond Orchard(s): Orchard 1, Orchard 2

Year: 2015 Coalition Member ID(s): ID for Coalition Member Name(s): Jesse A Santos

### What's New for 2016?

- Improved online nitrogen budgeting (UC model) that produces ILRP Nitrogen Management Plans.
- Online mapping of orchards, APNs and ad hoc features to help achieve ILRP compliance.
- Online irrigation decision support tool.
- Additional education via [www.sustainablealmondgrowing.org](http://www.sustainablealmondgrowing.org) and workshops to increase BMP adoption based on grower economic value, environmental value and assessment results.
- Visit the ABC booth for more information about CASP.