MEMBER COMPLIANCE ASSISTANCE WORKSHOP

January 15, 2019
Kings River Water Quality Coalition



TODAY'S AGENDA

- Welcome and Overview
- Upcoming Changes to General Orders
- Member Obligations for 2018
- Nitrogen Summary Report Data
- Online Demonstration of KRWQC Website



- Amendments to General Orders Required by State Water Resources Control Board
 - Aligns Requirements with East San Joaquin Order
 - Multiple Items Considered "Precedential"
- Regional Board Action to Approve Changes to All Other Orders February 2019
- Requirements Begin January 2020



- Amendments to Tulare Lake General Order Required by State Water Resources Control Board
 - Drinking Water Well Testing
 - Required Testing of ALL Drinking Water Supply Wells on Enrolled Parcels
 - Proper Lab Protocols Must Be Observed
 - Members Must Notify Regional Board and Users of Tested Wells If Nitrate-N Exceeds 10 ppm within 10 Days
 - Test Results Reported Directly to State by Testing Laboratory
 - Not a Coalition Function



Template Changes

- Nitrogen Management Plans
 - Incorporation of Irrigation and Nitrogen Management Practice Sections from Farm Evaluation
 - Consideration of Predicted Crop Water Usage (ET)
 - Consideration of Nitrogen Content of Pumped Groundwater
 - Reporting of Age of Permanent Crops
 - Certification Required in High Vulnerable Areas
 - Certification Required in Low Vulnerable Areas for Identified Outliers (3-year Average)



- Template Changes
 - Farm Evaluation Surveys
 - Inventory of Drinking Water Wells per Parcel
 - Removal of Irrigation and Nitrogen Management Practices
 - Separation of Production Wells From Abandoned Wells
 - Reporting Reduced to Once Every 5 Years
 - Report Through 2020 (to Coalition 2021), Next Report 2025 (reported 2026)



- Template Changes
 - Nitrogen Summary Report
 - Reporting of Specific Categories of Nitrogen Applied
 - Reporting of Yield
 - Grower Calculations Minimal
 - Not Being Asked to Calculate/Report Applied/Yield (A/Y)
 Values
 - Coalition Will Do Calculations and Report Back to Growers



Grower Data Availability

- Each Grower will be Assigned an Anonymous ID Number
- Each Parcel will be Assigned an Separate Anonymous ID Number
- Coalitions Report Data Summaries by ID Number (Grower, Parcel) WITHOUT Revealing Actual Grower Name or Location
 - Aggregated by Township
 - Such Data is Available to Regional or State Board by Request



MEMBER OBLIGATIONS

- By March 1, 2019
 - Farm Evaluation (High Vulnerability Parcels Only): Update Information on File as Needed
 - Nitrogen Summary Report: Turn in 2018 Crop Year Data (High Vulnerable Parcels Only)
 - Nitrogen Management Plan: 2019 Planning Completed and Certified (if required)



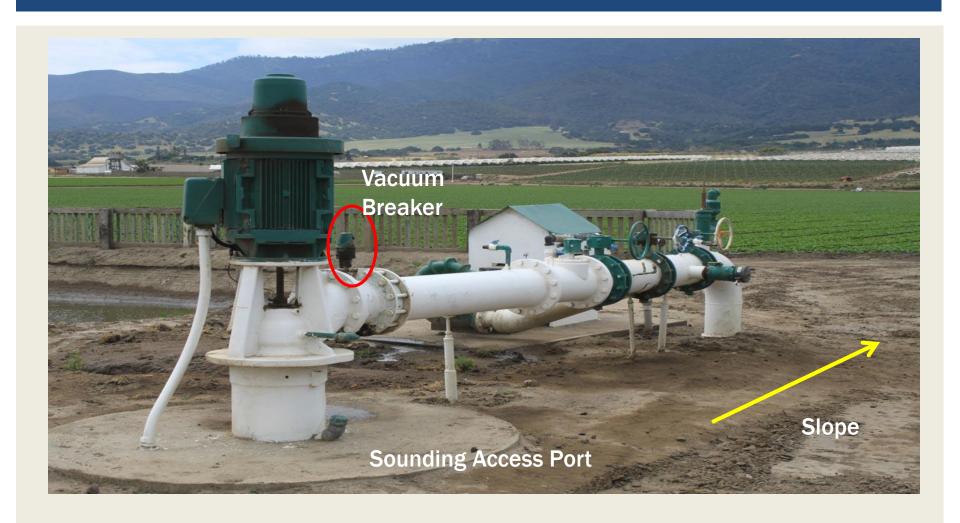
URGENT MANAGEMENT PRACTICES

- Requirements of Comprehensive Groundwater Management Plan Approved by Regional Water Quality Control Board
 - Applies to HV Areas
 - Recommended for All Areas
- Three Urgent Requirements
 - Wellhead Protection
 - Destruction of Abandoned Wells, where known
 - Pumped Groundwater Nitrate Testing



- Insure that Surface Water Cannot Flow into Well Casings (Ground Slopes Away from Wellhead)
- Storage of Agricultural Material Away from Wellhead
- No Standing Water Near Wellhead
- Adequate Backflow Prevention Measures in Place
 - Check Valves, Vacuum Breakers, Air Gap, Injector Interlocks













ABANDONED WELLS

- If Abandoned (no plans for future use),
 Proper Well Destruction needed
 - Consult with Professional as to specific local requirements



NITRATE TESTING

- If using groundwater to irrigate, you should have an understanding of the N concentration in your well water
 - Use the Results in the Nitrogen Management Plan
 - Certifiers may require testing and dictate frequency in order to certify your Nitrogen Management Plan (3-5 years between tests)
 - Helpful to get test results reported as ppm (parts per million) NO3-N



AVAILABLE RESOURCES

agmpep.com

- Calculator for Converting Irrigation Water N to Pounds N/Ac
 - Adjusts for Ratio of Surface/Groundwater Use
 - Adjusts for Crop Water Consumption (ET)
- ET data available at <u>www.krcd.org</u> (Updated Weekly)
- Website also has more information for:
 - Wellhead Protection
 - Well Destruction
 - Nitrogen Removal



AVAILABLE RESOURCES

- Personal Nitrogen Summary Report
 - Available at <u>www.kingsriverwqc.org</u>
 - Field by Field (Crop Specific) Performance
 - Nitrogen Applied Compared to Others
 - Applied divided by Removed (A/R) Ratio Comparison
 - Limited to Crops With Known Nitrogen Removed Coefficients
 - Provides Status (Outlier or Not) of Field (Current Year)



- 4 "R"s of Nitrogen Management
 - A Concept that Promotes Nitrogen Use Efficiency
 - Right Rate
 - Right Time
 - Right Place
 - Right Source
 - All Four Are Interrelated



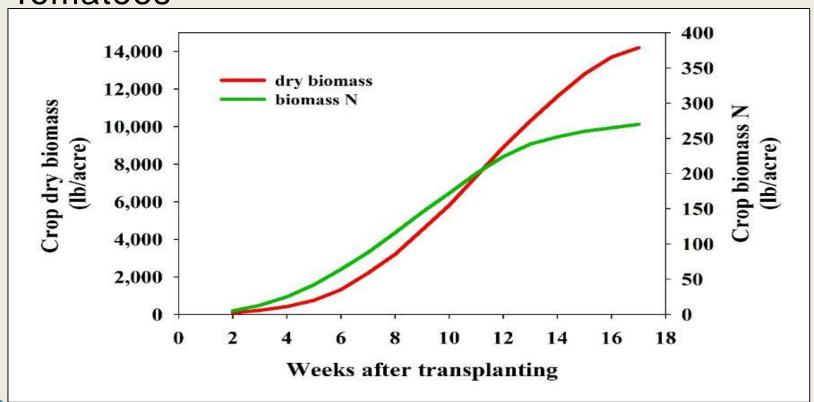
- Right Rate
 - Consideration of Nitrogen Needs for Yield Desired
 - How Much Have I Applied Before?
 - Can I Get the Same Yield With Less?
 - How Much Does the Plant Retain?
 - How Do I Narrow the Gap between Yield Requirements and Residual Soil Nitrogen?



- Right Time
 - Adequate Supply Ahead of Plant Need
 - Consideration of Crop Growth Stage
 - Balance Between Vegetative and Reproductive Growth



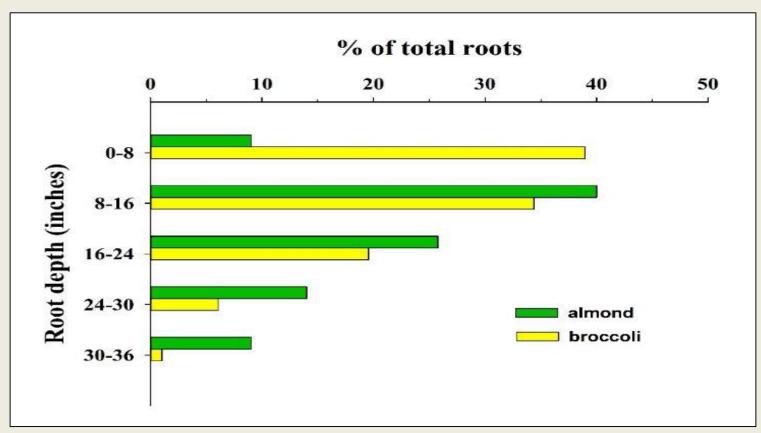
Tomatoes





- Right Place
 - Putting the Nitrogen Source Where the Roots Are
 - Minimizing Movement Below Rootzone
 - Irrigation Management
 - Soil Texture
 - Form Applied







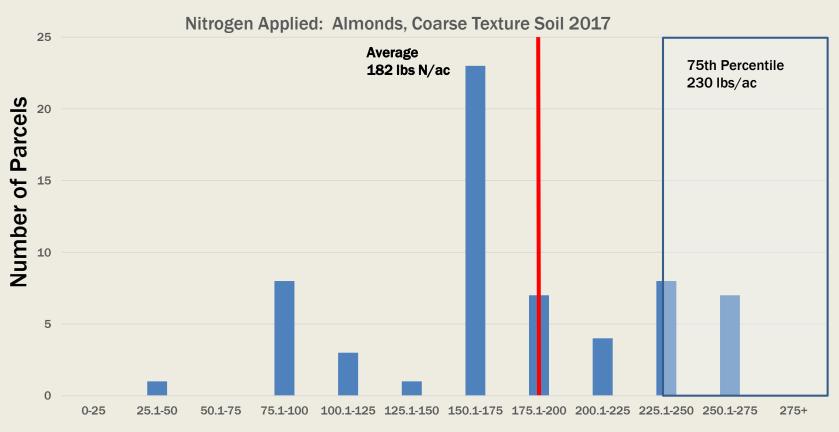
Source: Tim Hartz, UCCE (ret)

- Right Source
 - Do You Need Rapid Uptake?
 - Liquid vs. Solid Formulations
 - Nitrate or Ammonium Based Product
 - Fertigation vs. Band Applications vs. Foliar
 - Does Your Soil Promote Volatilization of Nitrogen Fertilizer?
 - Soil pH, Climate, Slow Water Infiltration Rates

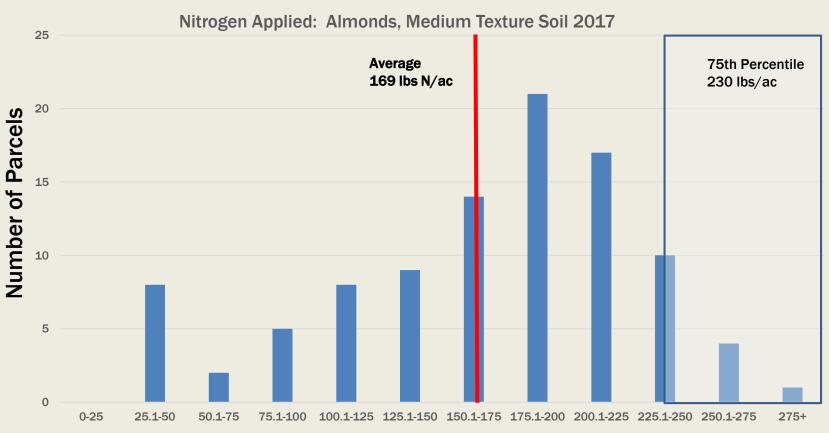


- Nitrogen Management Plan and Nitrogen Summary Reporting Are Aimed at Raising Grower Awareness Regarding Nitrogen Use
 - How Much Do I Really Need?
 - How Much Do I Get For "Free"?
 - Nitrate in Pumped Groundwater
 - How Much More Do I Need to Buy?
 - Is My Crop Using All That I Apply?
 - How Am I Doing Compared to Other Growers?

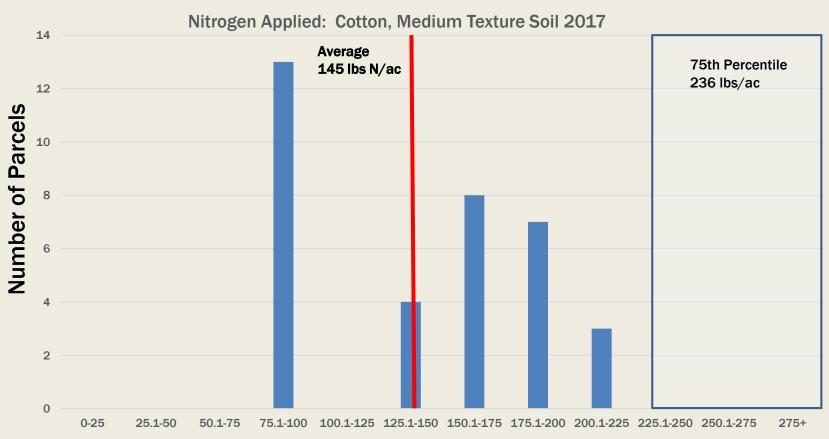




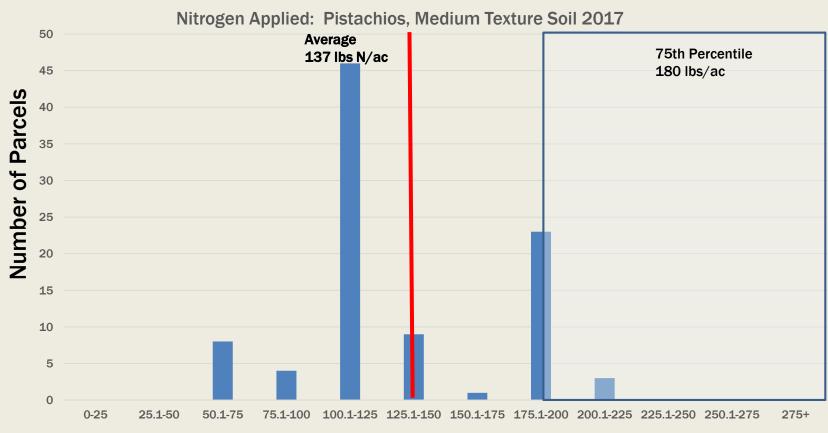




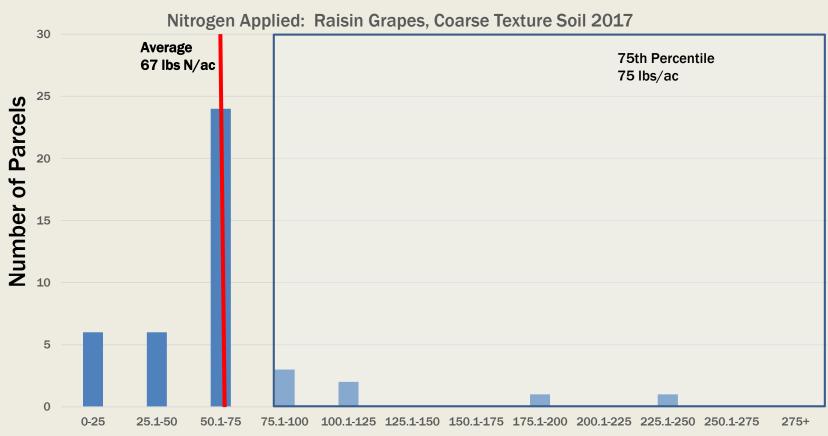


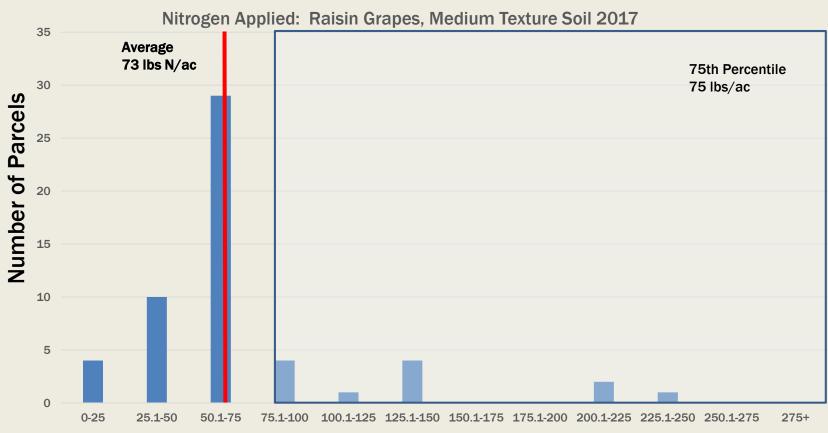




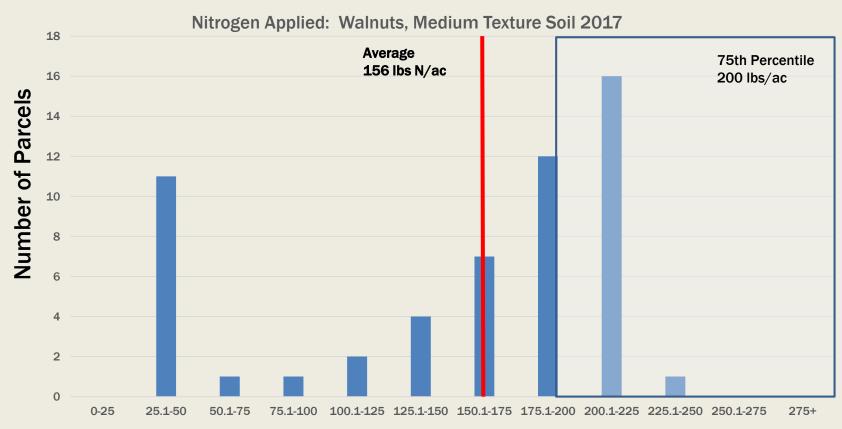




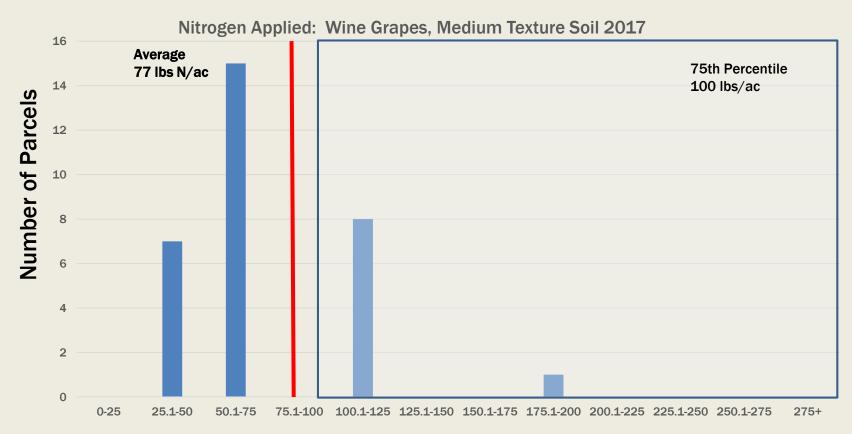














QUESTIONS?



DEMONSTRATION OF ONLINE SYSTEM



CONCLUSIONS/TAKEAWAYS

- Changes to the Current Program to Take Place by 2020
- Domestic Well Testing on Enrolled Parcels
 Will Be Required of All Members
- Data to Date Suggests that Growers Are Efficient with Nitrogen Applications



COALITION ASSISTANCE

- Staff is available to assist you in the completion of Farm Evaluation or Nitrogen Summary Templates
- In Office visits can be scheduled as requested
- Call (559) 365-7958 or email info@kingsriverwqc.org whenever you have any questions



ONLINE SUBMISSION METHOD

Farm
Evaluation
Survey
Nitrogen
Summary
Report

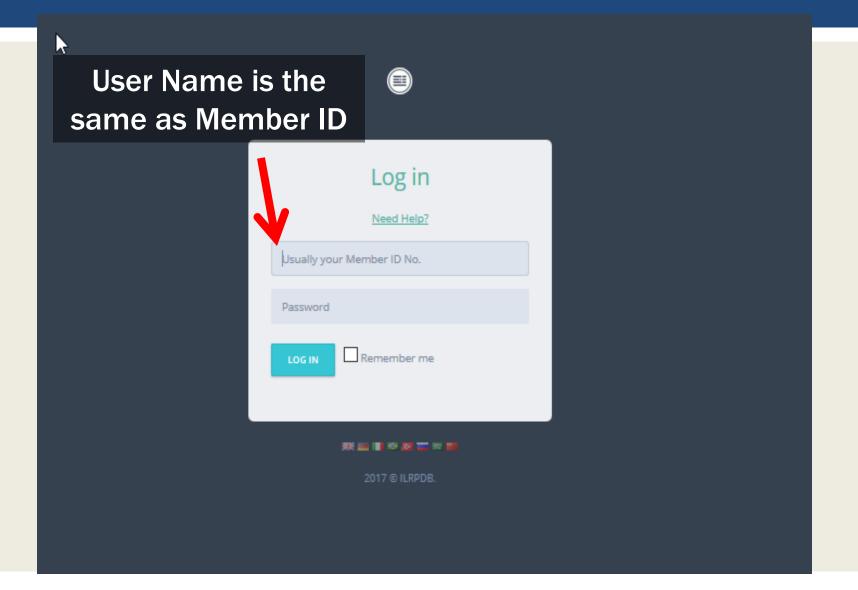


HOMEPAGE

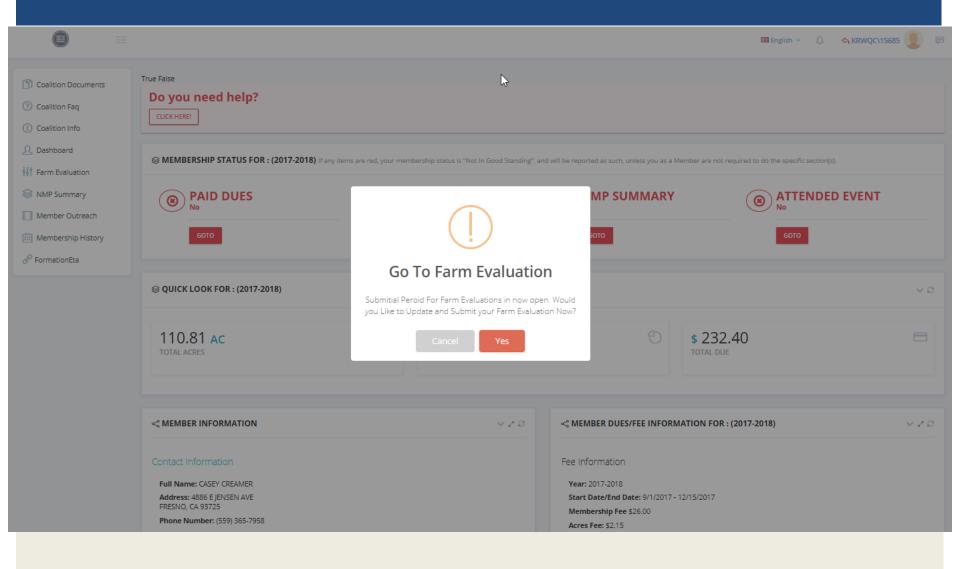




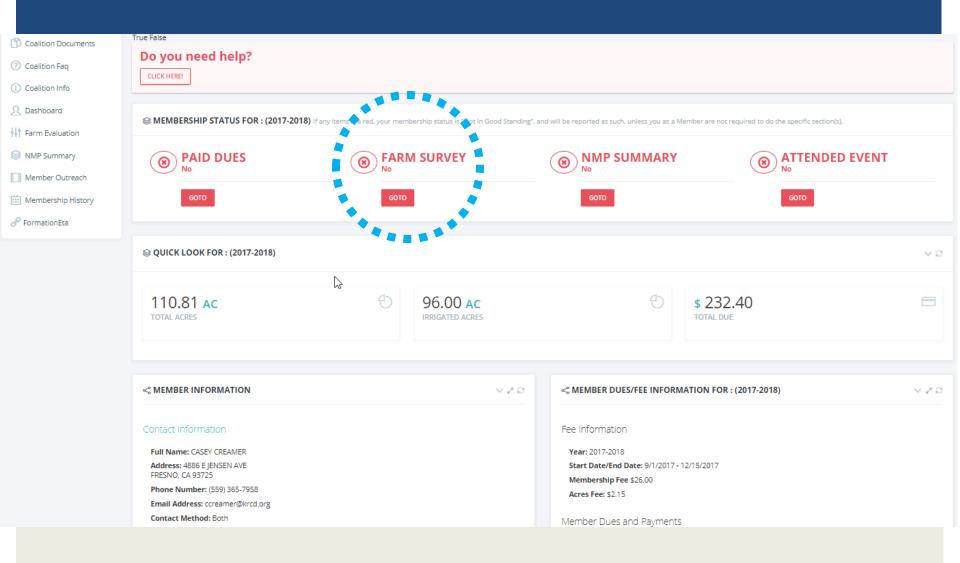
DATABASE LOG-IN



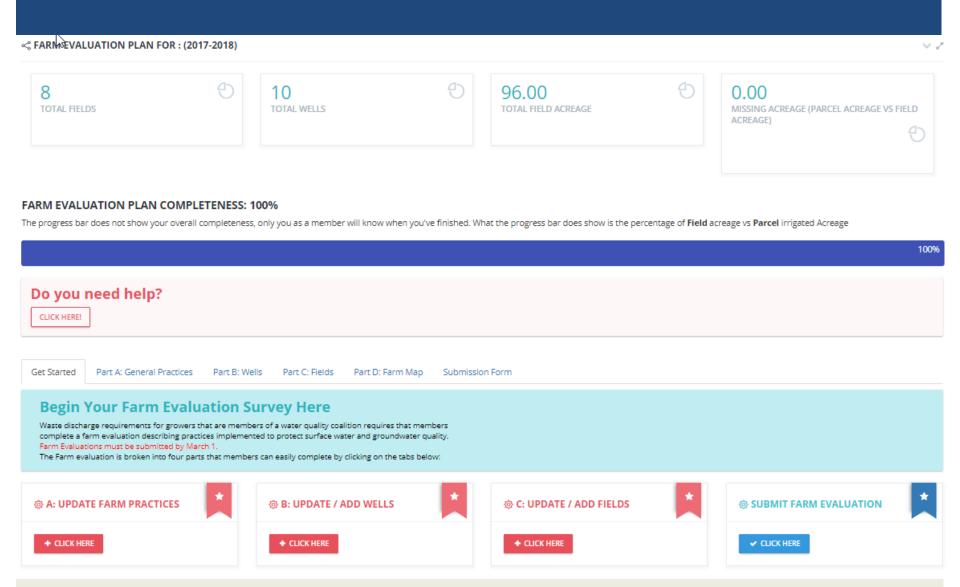
DASHBOARD



DASHBOARD



FARM EVALUATION



FARM EVALUATION (ZOOMED IN)

Do you need help?

CLICK HERE!

Get Started

Part A: General Practices

Part B: Wells

Part C: Fields

Part D: Farm Map

Submission Form

Begin Your Farm Evaluation Survey Here

Waste discharge requirements for growers that are members of a water quality coalition requires that members complete a farm evaluation describing practices implemented to protect surface water and groundwater quality. Farm Evaluations must be submitted by March 1.

The Farm evaluation is broken into four parts that members can easily complete by clicking on the tabs below:

FIELD LIST

Impet Started

Part A: General Practices

Part B: Wells

Part C: Fields Part D: Farm Map

Submission Form

Part C: Field Evaluations

Tab 1. Field Information - Identify your field name, its total acreage and select crop type and a specific crop. You can use mapping tools to approximately draw the specific field on your parcel.

Tab 2. Field Specific Evaluation - Identify your irrigation methods and check all irrigation efficiency practices that apply to your field. For any practices not listed please identify by typing in the "other practice."

Identify nitrogen management methods to minimize leaching past the root zone by checking all that apply. Tab 3. Sediment and Erosion Control - Identify your irrigation practices for managing sediment and erocion by checking all that apply. For any practices not listed please identify by typing in the "other practice."

Identify your cultural practices for managing sediment and erosion by checking all that apply. For any practices not listed please identify by typing in the "other practice."

VIDEO DEMO

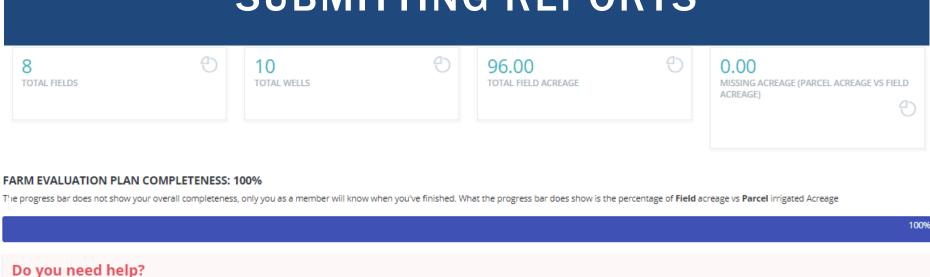
Current Yearld: 3 (here for testing)

+ ADD NEW FIELD

og Field List

Actions	Field Name	APN	On Map?	Acres	СгорТуре	Crop Variety	Primary Irrigation Method	Irrigation Practice Name	Sediment and Erosion Practice Name
2 8	Del Rey	309-061-40	Yes	17.00	TRUCK, NURSERY AND BERRY CROPS	Misc Truck	Drip	Asian Vegatable	No Name Provided or Practice is incomplete
2 8	Indianola West	309-140-56	Yes	13.00	TRUCK, NURSERY AND BERRY CROPS	Misc Truck	Drip	Asian Vegatables	No Name Provided or Practice is incomplete
2 8	Indianola/Clinton	309-061-07	Yes	13.00	TRUCK, NURSERY AND BERRY CROPS	Misc Truck	Drip	Asian Vegatables	No Discharge
Z 8	Shields	309-061-49	Yes	14.00	IDLE	Fallow	Fallow	Unplanted	No Name Provided or Practice is incomplete
(Z) (E)	Greenwood	309-192-01	Yes	18.00	TRUCK, NURSERY AND BERRY CROPS	Misc Truck	Drip	Asian Vegatables	No Name Provided or Practice is incomplete
(Z) (B)	Adademy	309-180- 43S	Yes	8.00	TRUCK, NURSERY AND BERRY CROPS	Misc Truck	Drip	Asian Vegatables	No Name Provided or Practice is incomplete
Z 8	Academy Fallowed Field	309-180- 43S	Yes	10.00	IDLE	Fallow	Fallow	Unplanted	No Name Provided or Practice is incomplete
GettingStarte	ed#GetStarted								

SUBMITTING REPORTS



CLICK HERE!

Get Started Part A: General Practices Part B: Wells Part C: Fields Part D: Farm Map

Submission Form

I certify under penalty of law this document and all attachments were prepared under my direction in accordance with a system designed to assure that qualified personal or represented Members properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment for violations. Current Yearld: 3 (here for testing)

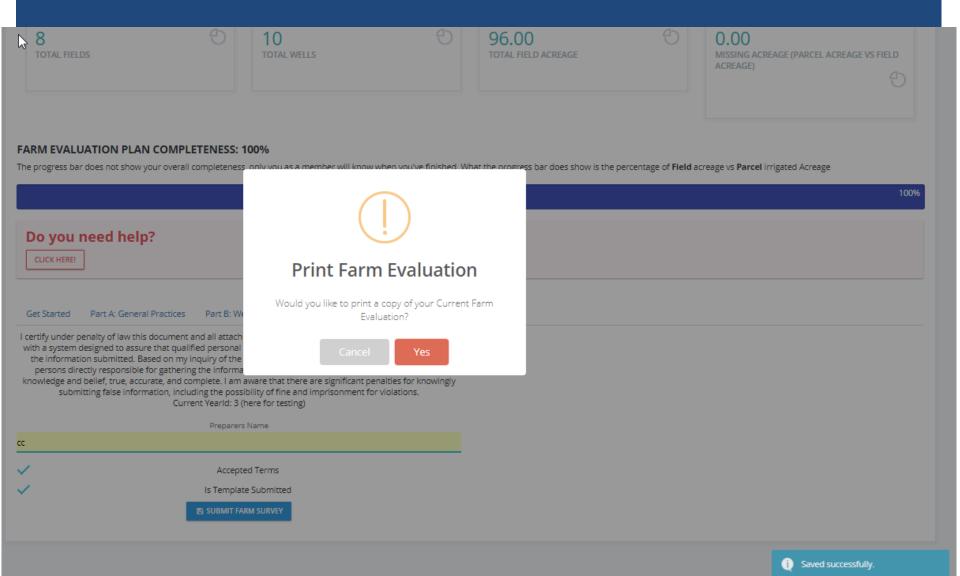
Preparers Name

Accepted Terms

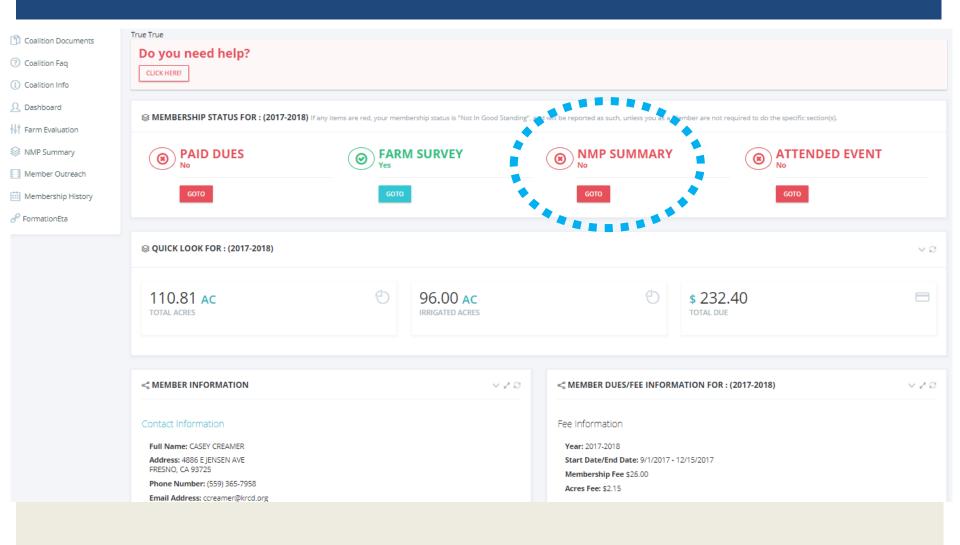
Is Template Submitted

■ SUBMIT FARM SURVEY

OPTION TO PRINT-OUT REPORT



AFTER COMPLETING THE FES



LISTING OF FIELDS FROM FES

NMP SUMMARY COMPLETENESS: 0%

Progress bar shows completeness of NMP Summary, Every Field in your Farm Evaluation must have an NMP Summary. Once every Field has a NMP Summary, progress will show 100% complete

+ ADD NMP SUMMARY

☑ Export to Excel								
Field Name	Crop Type	Crop Variety	Field Acreage	Primary Irriga	A (Ibs/acre)	A÷Y 🔻	Production Unit 🔻	N Y
Adademy (APN: 309-180-43S)	TRUCK, NURSERY AND BERRY CROPS	Asian	8	Drip	0	0		⊗
Indianola/Clinton (APN: 309- 061-07)	TRUCK, NURSERY AND BERRY CROPS	Asian	13	Drip	0	0		⊗
Del Rey (APN: 309-061-40)	TRUCK, NURSERY AND BERRY CROPS	Asian	17	Drip	0	0		⊗
Clinton Farm (APN: 309-191- 20)	TRUCK, NURSERY AND BERRY CROPS	Asian	3	Drip	0	0		⊗
Indianola West (APN: 309-140- 56)	TRUCK, NURSERY AND BERRY CROPS	Asian	13	Drip	0	0		⊗
Greenwood (APN: 309-192-01)	TRUCK, NURSERY AND BERRY CROPS	Asian	18	Drip	0	0		⊗
1								

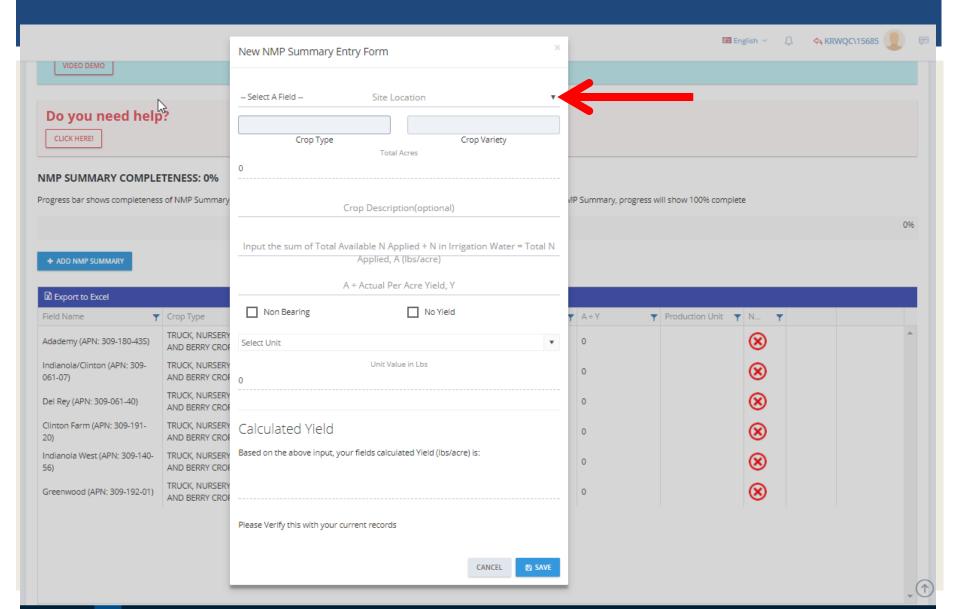
LISTING OF FIELDS FROM FES

NMP SUMMARY COMPLETENESS: 0%

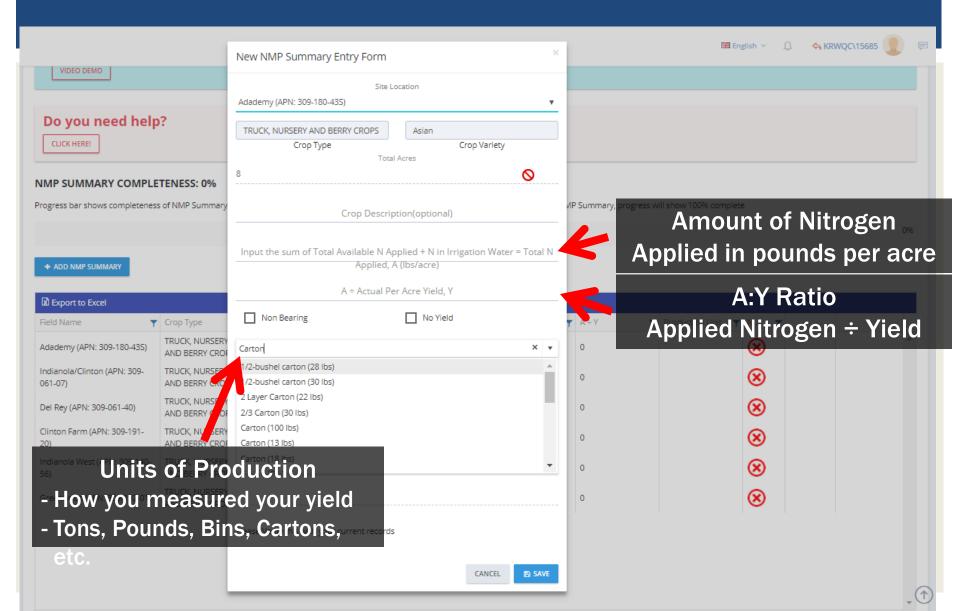
Progress bar shows completeness of NMP Summary, Every Field in your Farm Evaluation must have an NMP Summary. Once every Field has a NMP Su

+ ADD NMP SUMMARY												
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Adademy (APN: 309-180-43S)	TRUCK, NURSERY AND BERRY CROPS	Asian	8	Drip	0	0						
Indianola/Clinton (APN: 309- 061-07)	TRUCK, NURSERY AND BERRY CROPS	Asian	13	Drip	0	0						
Del Rey (APN: 309-061-40)	TRUCK, NURSERY AND BERRY CROPS	Asian	17	Drip	0	0						
Clinton Farm (APN: 309-191- 20)	TRUCK, NURSERY AND BERRY CROPS	Asian	3	Drip	0	0						
Indianola West (APN: 309-140- 56)	TRUCK, NURSERY AND BERRY CROPS	Asian	13	Drip	0	0						
Greenwood (APN: 309-192-01)	TRUCK, NURSERY	Asian	18	Drip	0	0						

NITROGEN SUMMARY REPORT



NITROGEN SUMMARY REPORT



COMMON UNITS OF PRODUCTION

- Tons
- Pounds
- Bale
- Bin (pounds)
- Lug/Tote Box (pounds)
- Crate (pounds)
- Carton (pounds)



COMMON ISSUES ON SUBMITTED REPORTS

Farm Evaluations

- Not listing your Member ID and/or Name on any page
- Not listing Crops and/or APNs on Part C of the Farm Evaluation Survey
- Not including all of the Member IDs represented on the Farm Evaluation Survey

Nitrogen Summary Report

- Missing Crops, Crop Year, APNs, Member ID, Production Units
- Please don't send in your worksheets in place of the summary report