

2025 IVILC GROWER MEETINGS

IVILC@icfb.net

www.icfb.net/IVILC





AGENDA

- 2024 Reporting Status
- 2025 Deadline Reminders
- Updates & Advocacy Efforts

Groundwater Monitoring Requirements

Crop Coefficients

- Reporting Portal Updates & Tools
- State Water Resources Control Board Expert Panel

UPDATES &
ADVOCACY
EFFORTS

2024 & 2025 Reporting Status

- 2025 - 89% Surveys Completed
- IVILC received Notice of Violation (NOV) for 2024 reporting
 - Members who did not complete reporting
 - Failure to submit on-farm drinking well testing
 - Deviations in INMP data for carrots & sudan hay (only crops with coefficients)

UPDATES &
ADVOCACY
EFFORTS

2025 Reporting Deadline

- Farm Plan & INMP Summary Reports due January 31, 2026 for crops harvested in 2025
- INMP Worksheet for 2026 crops to be kept on farm
- Complete any missing reports for previous years

UPDATES &
ADVOCACY
EFFORTS

Groundwater Monitoring

- Precedential Requirement from San Joaquin General Order
- Challenges with coming up with well network acceptable for State Water Board
 - No direction on what they expect
 - No economic considerations
- February 2025 - Submitted exemption request
- May 2025 – Exemption denied
- Next step – explore redesignation/change beneficial uses

UPDATES &
ADVOCACY
EFFORTS

Crop Coefficients

- Originally, 95% of crops needed coefficients by 2024 and 99% by 2025
- Received extension to 2029 and 2030
- Currently have coefficients for Sudan Hay and Carrots
- Dr. Montazar received grant to work on additional crops
- Need desert specific coefficients

UPDATES &
ADVOCACY
EFFORTS

Advocacy Efforts

- IVILC committee
- Quarterly meetings with Regional Board
- Invite Regional Board members on ICFB annual ag tour
- Attend Regional Board meetings and tours, provide public comment
- One-on-one meetings with board members
- Submit comments during public comment periods
- Work with California Farm Bureau legal team

PORTAL: DASHBOARD TOUR

The screenshot displays the IVILC Member Dashboard. The top navigation bar includes a 'How-To Video' link, a phone number '(760) 352-5831', an email 'ivilc@icfb.net', and a 'LOGOUT' button. The main content area features a grid of tiles: 'Member and Parcel Information', 'Farm Plan & Output Summary Report', '2026 Crop Year', 'Document Repository', and 'Map'. A sidebar on the left contains a 'Getting Started' section with links to 'Canal and gate information', 'Assessor Parcel Number information', 'Required submittals', and 'More Resources'. A 'Show Tour' button is also present. Five callout boxes provide guided information: 1. 'Find answers to Frequently Asked Questions here.' with a 'Next' button. 2. 'Welcome to the IVILC Member Portal! Start here to review your membership records, including: 1. Contact information, 2. Enrolled Gates, 3. Enrolled Parcels, 4. Linked Secondary Contacts.' with a 'Next' button. 3. 'After reviewing your enrolled gates. Begin your Surveys here.' with a 'Next' button. 4. 'Click here to download a blank INMP Worksheet. Complete this for the upcoming year and keep in your files.' with a 'Next' button. 5. 'Review and Print Notice of Confirmation. Happy exploring!' with a 'Done' button. Each callout box includes a 'Hide all portal Tours' checkbox and a 'Back' button.

Welcome to the IVILC Member Dashboard.

Getting Started

The Imperial Valley Irrigated Lands Coalition is an entity managed by the Imperial County Farm Bureau. All ICFB members with irrigated commercial agricultural land may join the IVILC to comply with state regulations.

This Portal provides access to your IVILC membership information including:

- Canal and gate information
- Assessor Parcel Number information
- Required submittals
- and more

More Resources

Show Tour

Change Password

IS Review NDC

Help

How-To Video (760) 352-5831 ivilc@icfb.net LOGOUT

Welcome to the IVILC Member Portal!

Start here to review your membership records, including:

1. Contact information
2. Enrolled Gates
3. Enrolled Parcels
4. Linked Secondary Contacts

Hide all portal Tours

Back Next

Find answers to Frequently Asked Questions here.

Hide all portal Tours

Back Next

Member and Parcel Information

Farm Plan & Output Summary Report

2026 Crop Year

Document Repository

Map

Click here to download a blank INMP Worksheet. Complete this for the upcoming year and keep in your files.

Hide all portal Tours

Back Next

After reviewing your enrolled gates. Begin your Surveys here.

Hide all portal Tours

Back Next

Review and Print Notice of Confirmation.

Happy exploring!

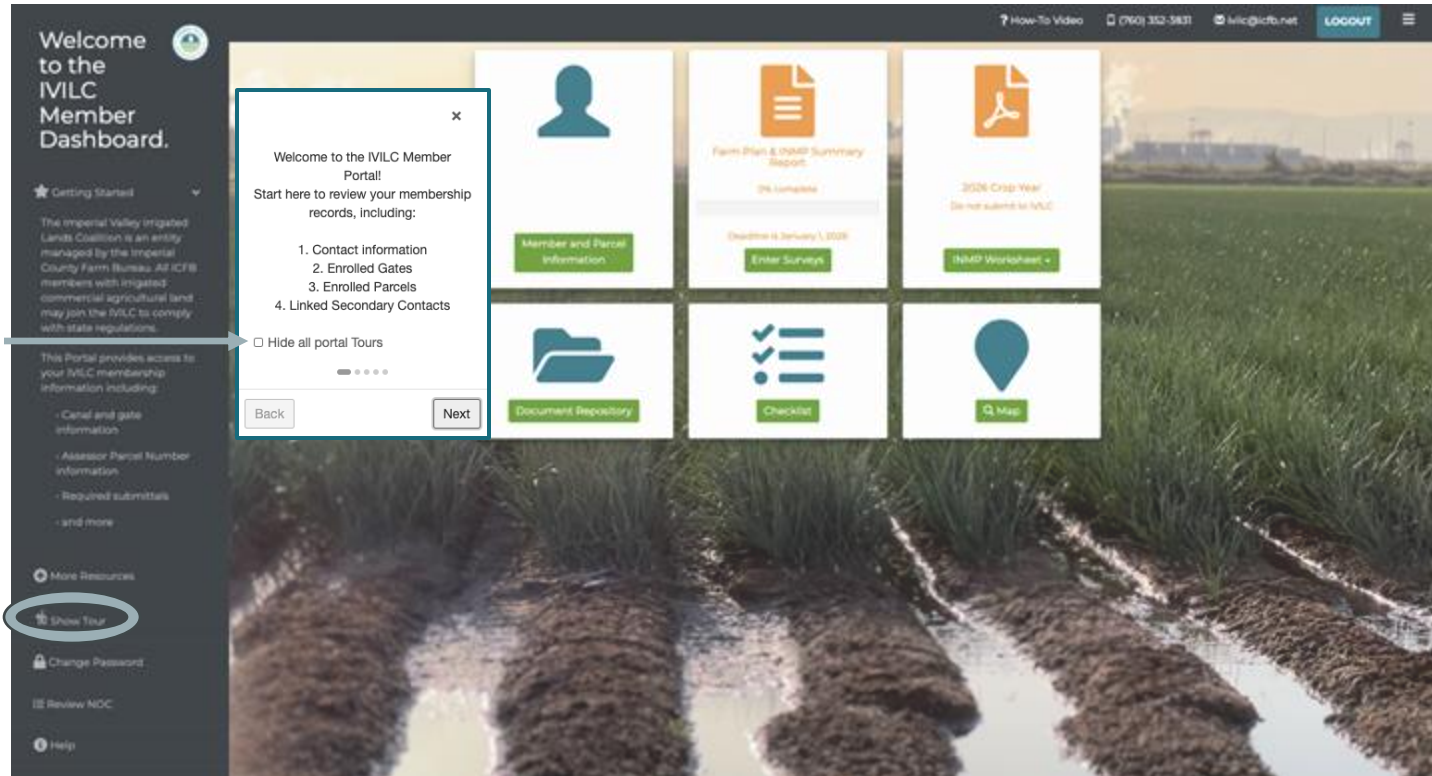
Hide all portal Tours

Back Done

PORTAL: DASHBOARD TOUR

To hide all
portal tours,
check this box

To begin the
Dashboard
tour again,
click here



PORTAL: DASHBOARD TOUR

Step #1

-Review your Member & Parcel info & update all details you need to stay informed on any changes.

- Tip: finalize your enrollment on the Member and Parcel Information page before starting your surveys.

Membership Information

Member ID: 599

Role:

Member Name: Melissa Fregoso

Company Name: ICFB

ICFB Membership: 093258-13-01-000

Language Preference:

[Edit](#)

Contact Information

Address: 1000 Broadway

City: El Centro

State (use two letters): CA

Zip Code: 92243

Email Address: melissa@icfb.net

Phone 1: (760) 352-3831

Phone 1 Type: LANDLINE

Phone 2:

Phone 2 Type:

[Edit](#)

Your email address is your username. Please note an update to your email address will also update your username.

Invoicing Information

All IVLC members must pay an annual membership to the Imperial County Farm Bureau (ICFB) and pay state fees through the Imperial Irrigation District (IID). The IVLC does not currently charge a fee for being in the coalition. However, in order for the ICFB to administer the coalition and provide these services as a more simple and low cost compliance option, we do require a Farm Bureau membership. Members will be receiving IID bills in November/December, which is to cover the state fee for the Irrigated Lands Program. For billing questions, please contact IID at 760-339-9322. Find a copy of the fee schedule [here](#).

[Click to Add/Edit Secondary Contacts](#)

Enrolled Parcels

Search Enrolled Parcels

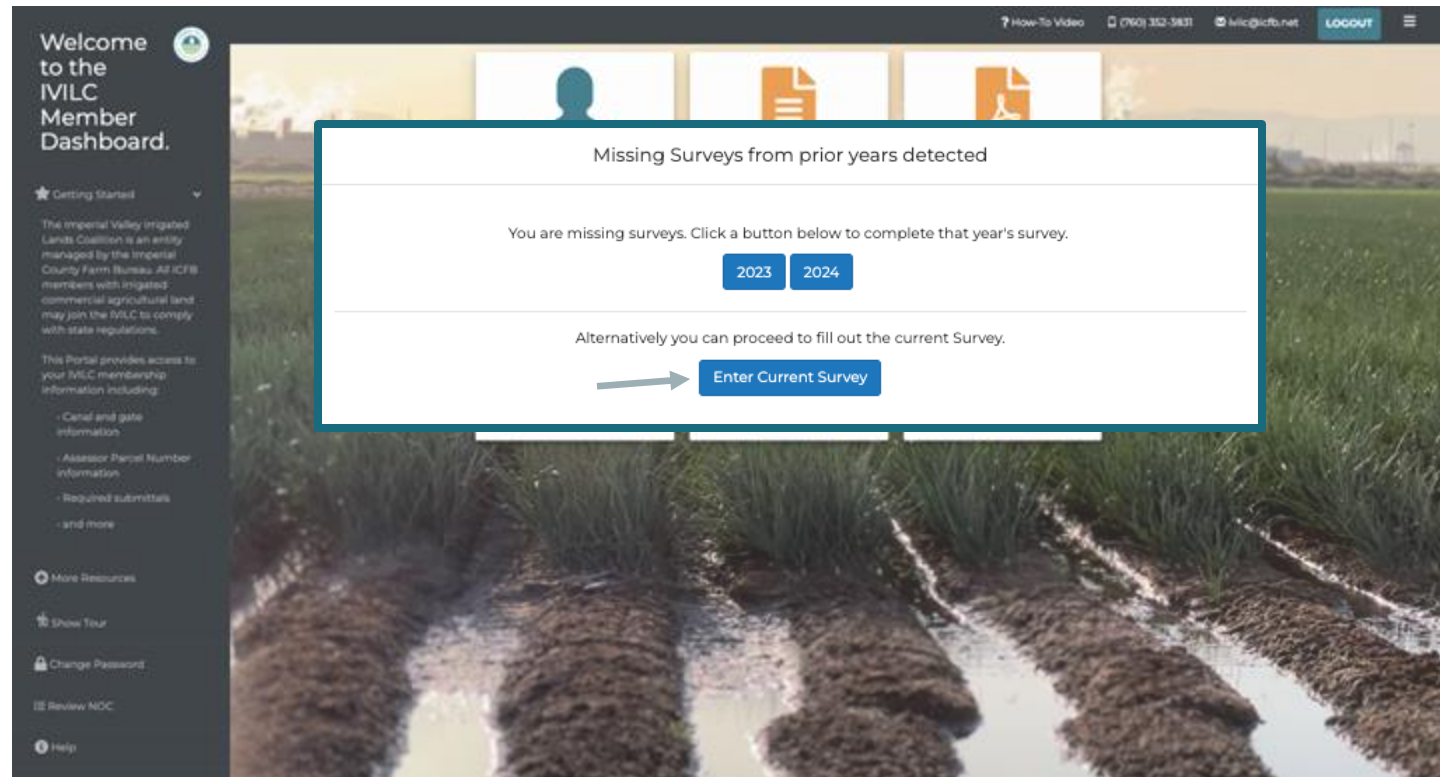
Assessor's Parcel Number (APN)	Canal	Gate	Acreage	Landowner	Delete	Gate not used for Agriculture
059-190-006	Alamitos	ALA 20 001	0.87	Unknown	Delete	☐
059-190-007	Alamitos	ALA 20 001	4.78	Unknown	Delete	☐
054-300-006	Alder	ALD P018	2.54	Unknown	Delete	☐
059-010-057	Alder	ALD 4A002	26.22	Unknown	Delete	☐
059-010-058	Alder	ALD 4A002	8.56	Unknown	Delete	☐
048-250-114	Bryant	BRY 56 001	0.24	Unknown	Delete	☐
048-420-001	Bryant	BRY 56 001	23.61	Unknown	Delete	☐
054-250-019	Dogwood	DOG 3 001	65.16	Unknown	Delete	☐

[Add a new Canal/Gate and associated Parcels](#)

PORTAL: DASHBOARD TOUR

Step #2

- Enter Current Survey. A message will remind you if your company hasn't yet turned in the Survey Reports for the past years (2023 & 2024).
- Create a list of all the items required to complete the reporting for 2025.
- Begin your survey report (Farm Plan & INMP).
- Most recent parcel information is available in the map module.
- Contact the FB office for any technical issues.



PORTAL UPDATES

- Click here to add all your enrolled parcels to the parcel table below.
- Tip: finalize your enrollment on the Member and Parcel Information page before starting your surveys.
- After adding your parcels, add a Management Unit Description (MU), Crop, Crop Age, and Acreage information. All parcels with the same management practices can be grouped into one MU.
- Click Edit to enter information for each parcel. Click Update to save your edits.
- Click Duplicate to add another record for a specific parcel. This will add an additional record for one parcel rather than all parcels under a gate.
- This Management Unit Assignment page can now be exported as a CSV file

How-To Video (760) 352-3831 ivltc@icfb.net Logout

It is recommended not to lump low yield and high yield fields into one MU.

What is a Management Unit?
A Management Unit (MU) is a group of fields or parcels that are managed the same way. Parcels with the same irrigation method, crop, age, fertilizer management practices, and per acre yield can be grouped into one MU.

Crop Rotation
Document crop rotation on a parcel by adding a row for the each crop grown within the year (the Duplicate button will help with this).
Add a checkmark under Crop Rotation to indicate the given field had multiple crops grown on the land over the year.

Preview Management Units

Add All Enrolled Parcels Add Parcels Clear Data Export to Excel Select a gate: Select a Gate Add Parcels

Edit	Delete	Duplicate	Crop Rotation	MU Description	Canal Gate Numbers	Field ID	APN	TRS	MU	Crop	Year Planted	Crop Acres
			No	Broccoli	BRY 56 001		048-250-114	14S14E5	4	BROCCOLI	2024	15
			No	Broccoli	BRY 56 001		048-420-001	14S14E5	4	BROCCOLI	2024	10
			Yes	ALFALFA SEED	DOG 3 001		054-250-019	16S14E32	2	ALFALFA, SEED	2025	40
			Yes	ALFALFA HAY	DOG 3 001		054-250-019	16S14E32	5	ALFALFA, HAY	2025	40
			Yes	Bermuda Hay	ALD P018		054-300-006	16S14E3	8	GRASS, BERMUDA, HAY	2023	30
			Yes	Bermuda Seed	ALD P018		054-300-006	16S14E3	7	GRASS, BERMUDA, SEED	2023	30
			No	Lettuce	ALD 4A002		059-010-057	17S14E1	9	LETTUCE	2025	22
			No	Lettuce	ALD 4A002		059-010-058	17S14E1	9	LETTUCE	2025	13
			No	Onion	AI A 20 001		059-190-006	17S16F9	6	ONIONS, DEHYDRATOR	2025	7

Next

PORTAL UPDATES

- Management Crop & Acre Details will now be displayed throughout the survey and not hidden.
- Your MUs from the previous page are listed under Step 1 Management Unit(s). To edit an MU, click the back button.
- Copy/Paste functionality for nitrogen & yield values is now available.

The Nitrogen/Yield entry page now has an export CSV tool

1 Export

Download a CSV file of your data on this page.

Do NOT alter the column names or layout in the file in any way if you plan to utilize the import tool.

Export Data

2 Edit

Fill out your file

Use the CSV file as a place to gather the nitrogen and yield information per management unit. The Calculator tool below can be used to calculate the pounds per acre applied within your management unit for a variety of fertilizer types.

Download Calculator

3 Import

Upload the completed file using our import tool.

Data will be loaded for your review.

Note: Upload will fail if the file formatting has been changed. Data will not load if the MU numbers do not match those shown on the page.

No file chosen

Import Data

OR

Copy and paste columns of values into the nitrogen source or harvest yield columns from any spreadsheet.

Import tool added –requires members start with the exported Nitrogen/Yield file

Step 1 Management Unit(s)		Nitrogen Sources				Yield			Additional Information
Description Number	Acre Crop	N in Irrigation Water before adding synthetic fertilizer (lbs/acre)	Organic Amendments (lbs/acre)	Dry/Liquid Fertilizers (lbs/acre)	Foliar Fertilizers (lbs/acre)	Harvested Yield (Per Acre)	Production Unit	Yield Information	Comments
ALFALFA SEED 2	40 ALFALFA, SEED						Pounds	None	Comments
Broccoli 4	25 BROCCOLI						Pounds	None	Comments
ALFALFA HAY 5	40 ALFALFA, HAY						Pounds	None	Comments
Onion 6	12 ONIONS, DEHYDRATOR						Pounds	None	Comments
Bermuda Seed 7	30 GRASS, BERMU DA, SEED						Pounds	None	Comments

PORTAL UPDATES

- Nitrogen & Yield information page can now be exported as a CSV file of your data (Example Shown)
- Do NOT alter the column names or layout in the file in any way if you plan to utilize the import tool.
- Enter pounds of Nitrogen applied per acre for each source & crop yield per acre for each of the management units.

[illegible]

PORTAL UPDATES

- Nitrogen Calculation Tool has been updated with categories simplified
- Use the CSV file as a place to gather the nitrogen and yield information per management unit. The Calculator tool below can be used to calculate the pounds per acre applied within your management unit for a variety of fertilizer types.

Calculator for Applied Nitrogen - Instructions
This form is currently available in English only. For translation services, please contact the Imperial Valley Irrigated Lands Coalition at (760) 352-1831 or via e-mail at ivilc@icfb.net

1. ENTER THE NAME OF YOUR MANAGEMENT UNIT IN COLUMN 1.
2. ENTER THE SIZE (ACRES) OF YOUR MANAGEMENT UNIT IN COLUMN 2.
3. ENTER THE CONCENTRATION OF NITROGEN CONTAINED WITHIN YOUR IRRIGATION WATER.
4. ENTER THE TOTAL AMOUNT OF IRRIGATION WATER APPLIED PER ACRE, IN INCHES, TO YOUR MANAGEMENT UNIT.
5. ENTER THE TYPE OF ORGANIC AMENDMENTS APPLIED TO YOUR MANAGEMENT UNIT (i.e., "MANURE", "COMPOST", ETC.).
6. ENTER THE TOTAL AMOUNT OF NITROGEN APPLIED PER ACRE FROM THE ORGANIC AMENDMENT.
7. USE THE DROPDOWN LIST TO LOCATE THE NAME OF THE CONVENTIONAL FERTILIZER USED AND ENTER HOW MANY POUNDS OR GALLONS OF EACH WERE APPLIED TO THE MANAGEMENT UNIT IN ONE YEAR.
8. USE THE DROPDOWN LIST TO LOCATE THE NAME OF THE FOLIAR FERTILIZER USED AND ENTER HOW MANY POUNDS OR GALLONS OF EACH WERE APPLIED TO THE MANAGEMENT UNIT IN ONE YEAR.
9. FOR ALL LIQUID FERTILIZERS, ENTER THE PRODUCT DENSITY IN POUNDS PER GALLON, WHICH CAN BE FOUND ON THE FIRST PAGE OF THE LABEL OR ON THE CONTAINER. THIS IS PRE-POPULATED FOR COMMON FERTILIZERS.
10. IF A LIQUID FERTILIZER IS USED, ENTER A DENSITY OF 8.33 POUNDS PER GALLON.

ADDITIONAL NOTES:
FOR NITROGEN IN IRRIGATION WATER, NITROGEN IS ALSO REFERRED TO AS NITRATE-N, NITROGEN-NITROGEN, OR NO₃-N.
FOR ORGANIC AMENDMENTS, NITROGEN CONTENT VARIES SIGNIFICANTLY BETWEEN DIFFERENT SOURCES. A CERTIFIED CROP ADVISOR CAN HELP YOU DETERMINE THE AMOUNT OF NITROGEN AVAILABLE IN ORGANIC AMENDMENTS YOU APPLY.
FOR DRY FERTILIZERS, THE CALCULATION FOR TOTAL POUNDS PER ACRE IS DONE AS FOLLOWS:
TOTAL AMOUNT APPLIED IN POUNDS * NITROGEN PERCENTAGE IN DRYWEIGHT / 100 = NITROGEN UNIT SIZE IN POUNDS
FOR LIQUID FERTILIZERS, THE CALCULATION FOR TOTAL POUNDS PER ACRE IS DONE AS FOLLOWS:
TOTAL AMOUNT APPLIED IN GALLONS * NITROGEN PERCENTAGE IN DRYWEIGHT / 100 * 8.33 = NITROGEN UNIT SIZE IN POUNDS

After entering your information, navigate to the bottom of this worksheet to find a tabular summary of your total nitrogen application from each source in a format that is consistent with the "Nitrogen Sources" section of the INMAP Summary Report and Farm Plan electronic survey form from the IVILC Member Portal.

MANAGEMENT UNIT NAME:
MANAGEMENT UNIT SIZE (ACRES):

NITROGEN IN IRRIGATION WATER

NITROGEN CONCENTRATION IN IRRIGATION WATER (PPM)	TOTAL IRRIGATION WATER APPLIED PER ACRE (INCHES)	TOTAL NITROGEN APPLIED PER ACRE (POUNDS PER ACRE)
0.00	0.00	0.00

TOTAL NITROGEN APPLIED IN IRRIGATION WATER (POUNDS PER ACRE): 0.00

NITROGEN IN ORGANIC AMENDMENT APPLICATION

TYPE OF ORGANIC AMENDMENT	TOTAL NITROGEN APPLIED (POUNDS PER ACRE)
0.00	0.00

TOTAL ORGANIC AMENDMENT NITROGEN APPLIED (POUNDS PER ACRE): 0.00

NITROGEN IN CONVENTIONAL FERTILIZER APPLICATIONS

Dry (Dryweight) Fertilizers

NAME OF DRY FERTILIZER PRODUCT APPLIED	TOTAL AMOUNT APPLIED (POUNDS)	NITROGEN (%)	MANAGEMENT UNIT SIZE (ACRES)	TOTAL POUNDS PER ACRE
0.00	0.00	0.00	0.00	0.00

TOTAL DRY ORGANIC FERTILIZER APPLIED (POUNDS PER ACRE): 0.00

Liquid Fertilizers

LIQUID FERTILIZER PRODUCT APPLIED	TOTAL AMOUNT APPLIED (GALLONS)	NITROGEN (%)	PRODUCT DENSITY (POUNDS PER GALLON)	MANAGEMENT UNIT SIZE (ACRES)	TOTAL POUNDS PER ACRE
0.00	0.00	0.00	0.00	0.00	0.00

TOTAL LIQUID FERTILIZER APPLIED (POUNDS PER ACRE): 0.00

TOTAL CONVENTIONAL FERTILIZER NITROGEN APPLIED (POUNDS PER ACRE): 0.00

NITROGEN IN FOLIAR FERTILIZER APPLICATIONS

Foliar Fertilizers (Dry/Granular)

LIQUID FOLIAR FERTILIZER PRODUCT APPLIED	TOTAL AMOUNT APPLIED (GALLONS)	NITROGEN (%)	MANAGEMENT UNIT SIZE (ACRES)	TOTAL POUNDS PER ACRE
0.00	0.00	0.00	0.00	0.00

TOTAL DRY (GRANULAR) FOLIAR FERTILIZER APPLIED (POUNDS PER ACRE): 0.00

Foliar Fertilizers (Liquid)

LIQUID FOLIAR FERTILIZER PRODUCT APPLIED	TOTAL AMOUNT APPLIED (GALLONS)	NITROGEN (%)	PRODUCT DENSITY (POUNDS PER GALLON)	MANAGEMENT UNIT SIZE (ACRES)	TOTAL POUNDS PER ACRE
0.00	0.00	0.00	0.00	0.00	0.00

TOTAL LIQUID FOLIAR FERTILIZER APPLIED (POUNDS PER ACRE): 0.00

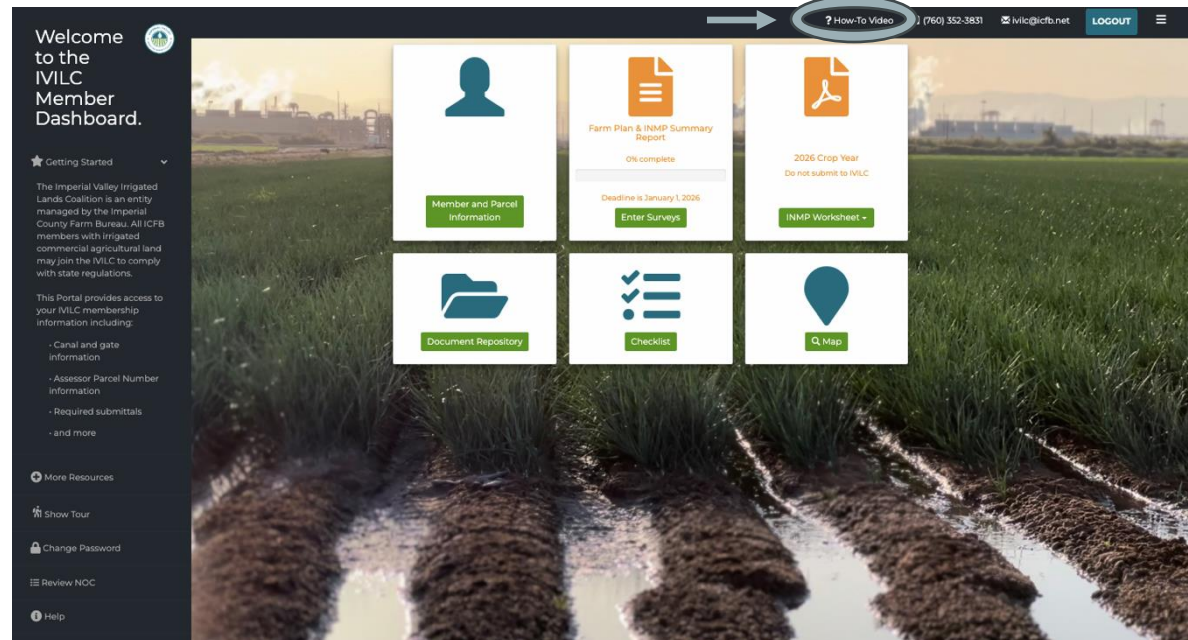
TOTAL FOLIAR FERTILIZER DRY AND LIQUID NITROGEN APPLIED (POUNDS PER ACRE): 0.00

SUMMARY OF TOTAL NITROGEN APPLIED
This table provides a summary of the total nitrogen applied to your management unit from different sources. It mirrors the "Nitrogen Sources" section found on the IVILC Member Portal INMAP Summary Report and Farm Plan electronic survey form.

0.00 NITROGEN SOURCES (POUNDS)	0.00 ORGANIC AMENDMENTS (POUNDS)	0.00 CONVENTIONAL FERTILIZERS (POUNDS)	0.00 FOLIAR FERTILIZERS (POUNDS)
0.00	0.00	0.00	0.00

COMING
SOON

- A new Step-by-step video on how to complete your Farm Plan & INMP Summary Reports will be updated and added to the member portal below for members to review all the new portal updates
- IVILC Coalition Members will get an email when this feature is available to use



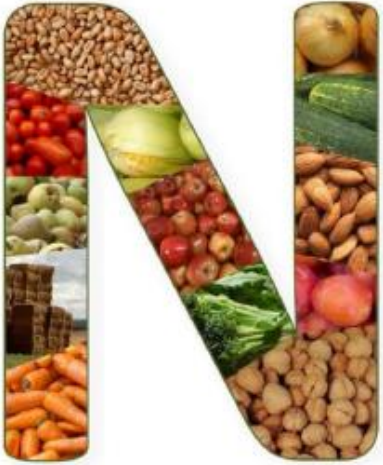
HOW TO STAY
INFORMED
AND
INVOLVED

- Subscribe to RWQCB email updates
https://public.govdelivery.com/accounts/CAWRRCB/subscribe/new?qsp=colorado_river
- Watch RWQCB Meetings
https://www.waterboards.ca.gov/coloradoriver/board_info/agenda/
- Make sure you're subscribed to ICFB's email newsletter
- Participate on ICFB's IVILC Committee
- Apply For a RWQCB Appointment

Irrigated Lands Regulatory Measure

Regulatory Measure =

Applied Nitrogen (A) – Removed Nitrogen (R)



- N from fertilizer
- N from compost
- N from organic amendment/fertilizer
- N from irrigation water

- N removed at harvest
- N removed through sequestration in woody materials
- N removed by cover crops
- N removed through quantifiable treatment method such as biochar

N removed at harvest = Crop yield × Crop coefficient

N-removal crop coefficient values are under development for the desert region.

Commodity	# Fields sampled	mean N-Coeff.	min N-Coeff.	max N-Coeff.	mean % solids	min % solids	max % solids	mean %N	min %N	max %N
Alfalfa hay	12	0.033293	0.01780	0.04520	-	-	-	3.33	1.78	4.52
Bermuda grass hay	5	0.018361	0.01220	0.0240	-	-	-	1.84	1.22	2.40
Bell pepper (Red)	6	0.001919	0.001710	0.002075	8.15	4.91	9.54	2.42	2.03	3.48
Bell pepper (Green)	5	0.002105	0.001982	0.002382	6.77	5.92	7.34	3.13	2.85	3.66
Broccoli	9	0.005405	0.003749	0.007342	10.15	8.96	11.42	5.31	3.72	6.73
Cauliflower	10	0.002180	0.001591	0.002609	6.59	4.99	8.54	3.35	2.44	4.49
Dehydrator onion	5	0.002555	0.002253	0.002884	22.93	20.61	26.21	1.12	0.98	1.29
Klein grass hay	8	0.022197	0.01120	0.03360	-	-	-	2.22	1.12	3.36
Romaine lettuce	19	0.001851	0.001062	0.002774	5.54	3.32	8.48	3.42	2.16	4.02
Head lettuce	20	0.001384	0.001043	0.002093	4.35	2.66	5.63	3.18	2.88	3.71
Green leaf lettuce	11	0.002219	0.001494	0.003382	6.30	4.18	9.11	3.61	2.71	4.18
Wheat - seeds	4	0.029573	0.02740	0.0310	-	-	-	2.95	2.74	3.10
Wheat - straw	4	0.012973	0.00860	0.01780	-	-	-	1.29	0.86	1.78

Lemons,
Dates, and
Cotton are
included.

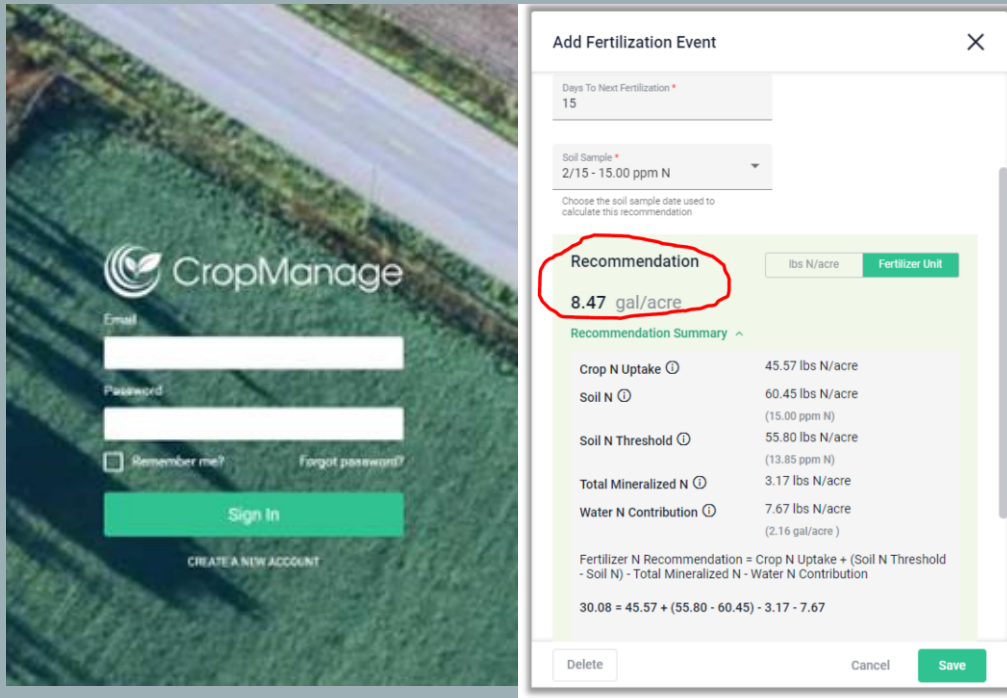
Examples of N removal values for desert crops

$$R = \text{Crop N-removal coefficient} \times \text{Yield (lbs/ac)}$$

Crop	N-removal coefficient	Yield (lbs/ac)	R (lbs N/ac)
Alfalfa	0.033293	22,000	731
Kleingrass	0.022197	18,000	400
Bermudagrass	0.018361	17,000	312
Romaine lettuce	0.001851	55,000	102

Additionally, we develop crop coefficient values for P and K.

Site specific recommendations need using other tools:



The image shows the CropManage login interface on the left, featuring a green background with a field scene. It includes fields for Email and Password, a 'Remember me?' checkbox, a 'Forgot password?' link, a green 'Sign In' button, and a 'CREATE A NEW ACCOUNT' link. On the right, an 'Add Fertilization Event' modal is open. It displays 'Days To Next Fertilization' as 15 and 'Soil Sample' as 2/15 - 15.00 ppm N. A red circle highlights the 'Recommendation' of 8.47 gal/acre. Below this is a 'Recommendation Summary' table.

	lbs N/acre	Fertilizer Unit
Recommendation	8.47 gal/acre	
Recommendation Summary		
Crop N Uptake	45.57 lbs N/acre	
Soil N	60.45 lbs N/acre (15.00 ppm N)	
Soil N Threshold	55.80 lbs N/acre (13.85 ppm N)	
Total Mineralized N	3.17 lbs N/acre	
Water N Contribution	7.67 lbs N/acre (2.16 gal/acre)	
Fertilizer N Recommendation = Crop N Uptake + (Soil N Threshold - Soil N) - Total Mineralized N - Water N Contribution		
$30.08 = 45.57 + (55.80 - 60.45) - 3.17 - 7.67$		

CropManage Irrigation and Nitrogen Decision Tool

Data inputs of weather, ET, satellite imagery, soil physical and chemical properties, irrigation efficiency to generate accurate and timely irrigation and fertilization recommendations based on crop-specific models.



<https://cropmanage.ucanr.edu/>

N and Water applications: Grower standard vs. recommended

Two lettuce trial fields under drip irrigation in desert

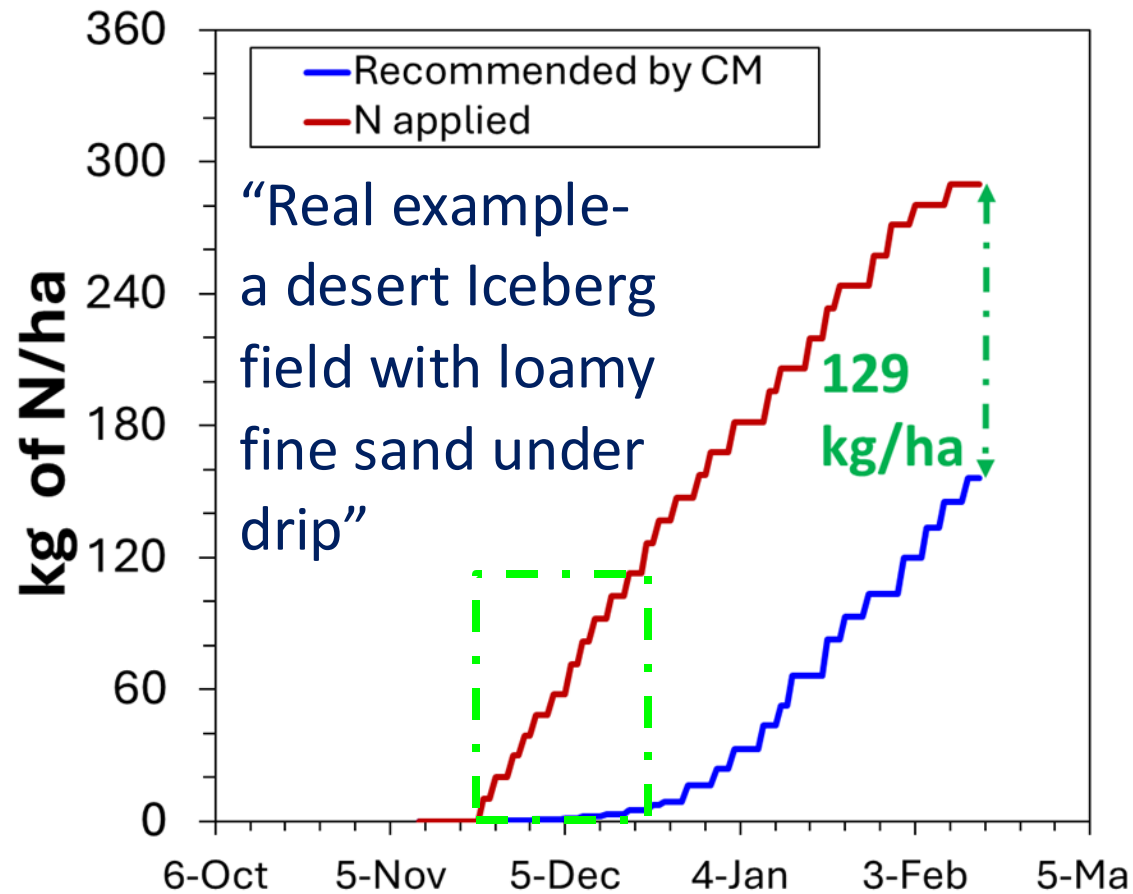
Trial field	Grower standard (GS) or CM	Applied water or recommended (in)	Applied N or recommended (lbs/ac)	
1	GS	21.8	258	Loamy fine sand
	CM	11.0	143	
2	GS	10.4	120	Silty loam
	CM	9.1	107	

- In loamy fine sand field: Grower applied 100% more water and 80% more nitrogen than recommended.
- In silty clay loam field: Grower applied 14% more water and 13% more nitrogen than recommended.

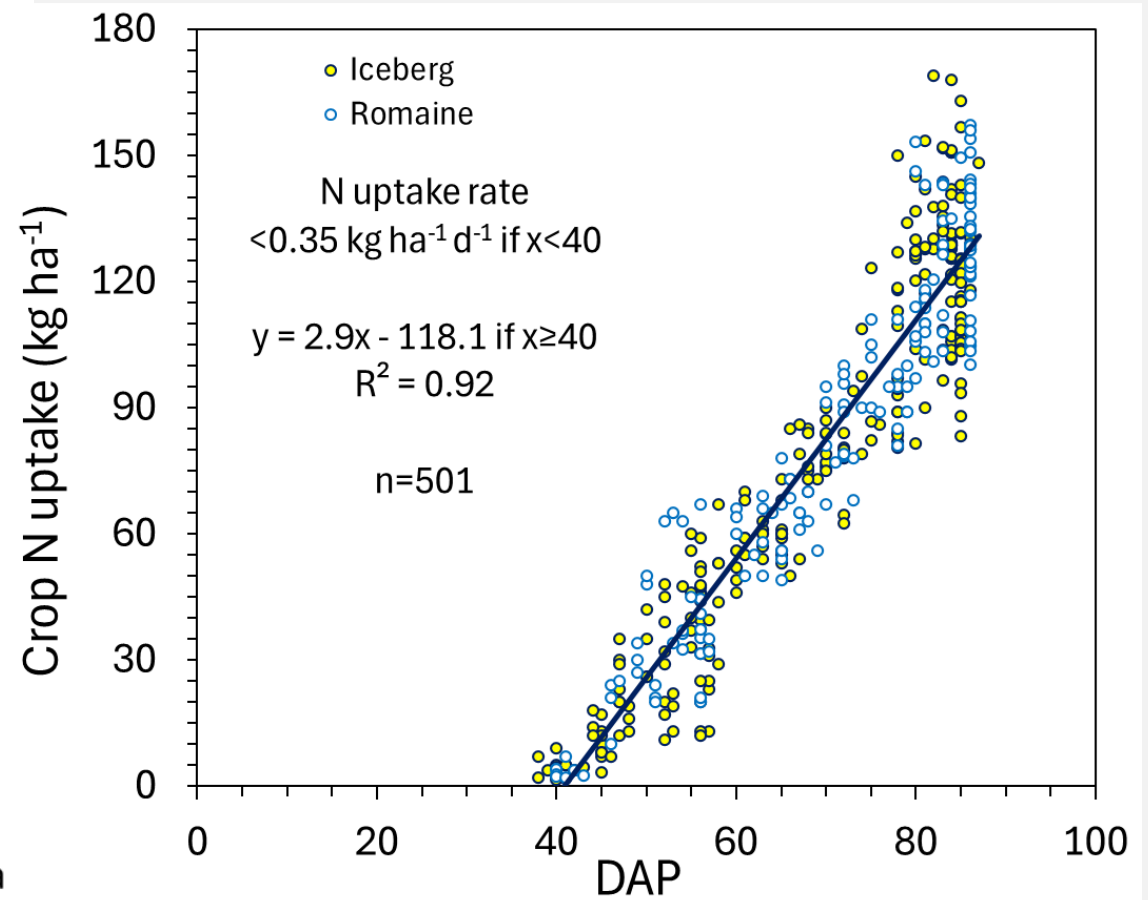
CropManage (CM) decision support tool was used.



Example: Desert Lettuce crop N uptake



35 irrigation events
28 N application events



Gradually increases after thinning
with an average rate of $2.9 \text{ kg ha}^{-1} \text{ d}^{-1}$
(varying from 2.1 to $3.7 \text{ kg ha}^{-1} \text{ d}^{-1}$)

State Water Control Board Standard

Nitrogen discharge = $A - R = 50 \text{ lbs/ac}$

To protect groundwater quality

(US limit of 10 mg/L nitrate-N in drinking water)

Do we need a limit for $A - R$? what will be?

The Water Control Board has established an **Agricultural Expert Panel** to work on the issue and provide recommendations for improving the ILRP.



**What to expect
on this topic?**

**Nitrogen
discharge = $A - R$**