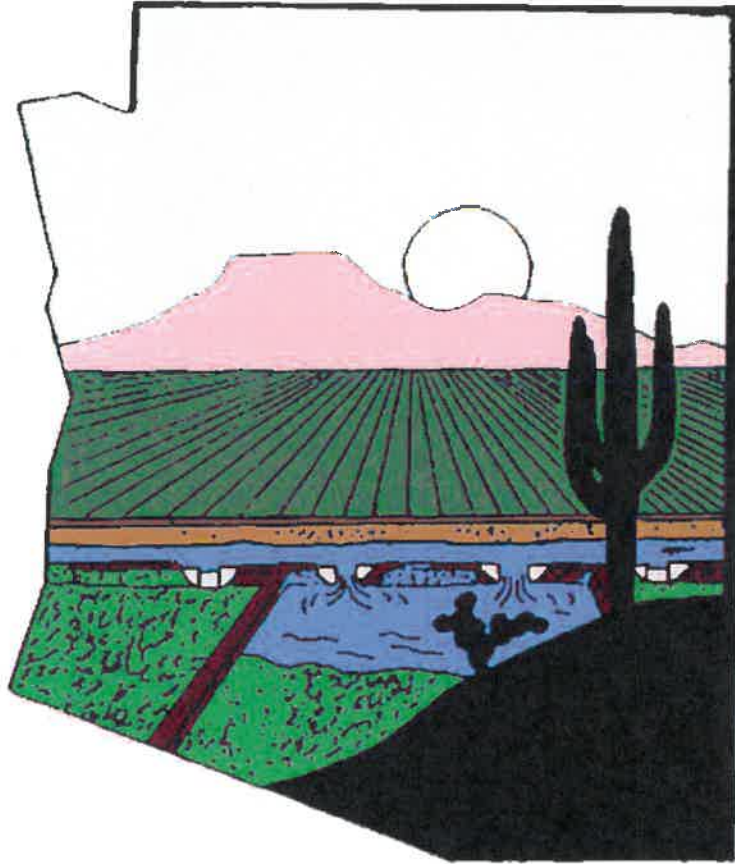


# *Irrigation Management Service*

## *1ST QUARTER REPORT*

JAN 2025 – MAR 2025



**520 N. Camino Mercado– Suite 2F  
Casa Grande, Arizona  
Telephone (520) 635-2430**

*IMS is a water conservation program sponsored by the Eloy Natural Resource Conservation District (NRCD), Florence-Coolidge NRCD, West Pinal NRCD, the USDA Natural Resources Conservation Service (formerly SCS), the US DOI Bureau of Reclamation, and the Arizona Department of Water Resources (ADWR). This printed information was produced in accordance with a water conservation (or augmentation) program which was either partially or entirely funded by the State of Arizona Department of Water Resources Conservation Assistance (or Augmentation) Fund.*

**Contract : 2025-3204IGA**

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**Contract : 2025-3204IGA**

## **Program Highlights and Plans for the Next Quarter**

### During this Quarter the Major IMS Activities were:

- 3 Standard Evaluations
- Planned and had 4 BMP review and new signup workshop
  - Maricopa Stanfield Irrigation district office
  - Central Arizona Irrigation district
  - San Carlos IDD
  - Casa Grande NRCS field office
- Continue meeting and assisting BMP Cooperators
- Continue doing BMP verifications
- Worked with NRCS on IWM (Irrigation water management)
- Continued with BMP Enrollments

### Activities Planned for the Next Quarter are:

- Continue doing evaluations and BMP verifications
- Compiling list of potential season long program cooperators
- Worked with NRCS and NREC
- Continued with BMP Enrollments
- Assist Bmp Cooperators with Lease change paperwork

## **BMP Summary**

- Assisted BMP Cooperators with Re-Application 5 Management plan (ALL 200 FARMS HAVE TO RE-APPLY BY JULY 1, 2024)
- 200 farms in the BMP program to date
- 92,000 acres in BMP to date
- Met periodically with all BMP cooperators at BMP WORKSHOPS
- Collected Verification information

### **III. Status of IMS Standard and Season-Long Evaluations**

Contract Minimum Requirements (by December 31, 2025):

- a) Turf evaluations @ 4 minimum; Status:0 of 4,
- b) Standard evaluations @ 14minimum; Status: 3 of 14
- c) Season-long evaluations @ 6 minimum; Status:0 of 6

## List of IMS Cooperators

Hennes Farm  
Ramsey Echeverria  
Marvin Wuertz  
Deanna Diwan  
Diwan Ranches INC\*  
LKH Farming  
M&G Farm  
CMK Harvesting  
B&J Farms  
John Donnelly Farms  
John Walker\*  
John Foster Turf\*  
Douglas Gladden  
Robert Boyle  
Bruce Bartlett\*  
Tierra Verde Farms  
MFG Farms  
Kelly Freeman  
Riggins Farms II  
Robert Boyle  
Tempe Farming  
TNT Farms  
Sam Smith  
Greg Wuertz  
Claude Brown  
T&T Farms LLC  
TTTT Farms LLC  
T&K Red River Dairy  
Tom T. LLC  
T&T Farms LLC  
TTTT Farms LLC  
TTTT Farms  
Dairy View Farms  
Markwood Enterprises  
River Bush Farms I  
River Bush Farms II  
River Bush Farms III  
Normark Farms  
Davis Farms  
Davis Farms II  
Terry Boyle Farm  
Peterson Farms I  
Peterson Farms II  
Bechtel Eagle Farms I  
Bechtel Eagle Farms II  
Bechtel Eagle Farms III  
Walter Buell  
El Fuerte Farms

Irish Way Dairy  
Sidewinder Farming INC  
The Shelhow Limited Par  
John Nevitt  
Mark Dobson  
Timothy Maher  
Arnaldo Burgos  
Gordita LP  
Marathon Farming CO. \*  
Dorothy Tappan  
Penny Malone  
Cockrill Brothers\*  
Robert W & Elizabeth Boyle\*  
RLF Desert Farm\*  
Glen Rogers Farms  
R&D Farm Part.  
Daniel Nowlin Farms\*  
Calalina Farms\*  
SD farms  
Vertucio Farms  
Kirk Weddle\*  
Johnny Lopez  
Youtsey Farms  
Foshee  
Jong Family Trust  
Barnes And Son  
Gieber Eloy  
Carl Carter  
Rancho Asueno \*  
Red Barn  
Santa Rosa\*  
Mark Osland  
RPT Farms\*  
Brandon Salmons Farms\*  
Charles Bush Farms  
T&K Farms\*  
Tomkinson Farms\*  
Antonio Haro \*  
Shamrock Farms \*  
Cooley Farms  
MFC Arizona  
Dennis Dugan \*  
SCR Farms  
Tres Points \*  
Cooley farms  
Holland farm  
David Wuertz  
James Shaw  
Siebe Hamstra  
Mourning Dove

\*MULTIFARM COOPERATOR



## CONTRIBUTIONS

### CONTRIBUTIONS MADE TO THE IMS PROGRAM

Irrigation Management Service (IMS)  
Casa Grande, Arizona

This Quarter

IMS Board Members' Time – Program administration (613 + 0 hrs @ \$20)	\$ 12,260.00
2. NRCD Directors' Mileage	150.00
3. Volunteer Hours (0 hrs @ \$10)	-0-
4. Private Grants and Contributions	-0-
5. NRCS Office space, phone, etc.	3,000.00
6. Equipment on loan to IMS	-0-
7. NRCD clerical time	200.00
8. Other contributions	<u>600.00</u>
<b>CONTRIBUTIONS this qtr</b>	<b>\$ 16,210.00</b>

NOTES: #1. Team Leader queried NRCD Boards as to their estimated time contributions to the IMS program. This is the summary of these discussions:  
WP NRCD: 3 hrs/wk/member = 15 hrs/wk x 12 wks/qtr = 180 hrs/qtr + 1 hr/member @ monthly NRCD mtg x 3 mtgs/qtr = 15 hrs + IMS Quarterly @ 4 hrs total 199 hrs/qtr;  
Eloy NRCD: 2 hrs/wk/member = 10 hrs/wk x 12 wks/qtr = 120 hrs + 1 hr/member @ monthly NRCD mtg x 3 mtgs/qtr = 15 hrs + IMS Quarterly @ 4 hrs total 139 hrs/qtr;  
FC NRCD: 50 hrs/qtr/member x 4 members = 200 hrs plus 75 hrs/qtr by IMS representative total 275 hrs/qtr.  
#7. Clerical time only partially covered by IMS budget contribution: Clerk at an additional 25 hrs/qtr (2+hrs/wk x 12 wks) x \$8/hr = \$200  
#8. Other contributions: a) IMS truck license, registration & insurance is contributed by the AZ State Land Dept: Est. @ \$200 per month by 3 months = \$600; b) End of season grower meetings at local IDD's and UA MAC: 9 hrs x \$50/hr for room rental =

## **EVALUATIONS**

*A Standard Evaluation shall also consist of all of the following:*

- a) An initial-event irrigation system performance analysis.*
- b) Recommendations to improve irrigation water management.*
- c) Information about irrigation scheduling services and techniques.*
- d) A discussion of the fundamentals of efficient irrigation water management techniques with each grower cooperator.*
- e) A follow-up visit to solicit comments from the grower or turf facility cooperator regarding the effectiveness of the services provided by the IMS Program.*

*A Seasonal Evaluation shall also consist of all of the following:*

*All the services provided in a Standard Evaluation.*

*Educate the farmer and field staff on the irrigator's formula, irrigation scheduling methods, crop CU curves, water measurement methods, and how to analyze irrigation system performance.*

*Follow-up visits periodically through the growing season to systematically present this educational program aimed at improving the grower's water management skill.*

## STANDARD EVALS

EVAL #: 2025-001

DATE: 2/05/25

CROP TYPE: ALFALFA

WATER SOURCE: DISTRICT TURNOUT

IRRIGATION SYSTEM: LEVEL BASIN

*SUMMARY: The field is a level basin system with siphons and supplied by a district irrigation turnout and a split head . The goal is to flash water across the field apply no more than 5" ... The soil type is a Sandy loam with (AWHC) of 1.8 , Irrigation needs are 4.3 ". Set size is 3.09 ac with 4 CFS applied 3.25hrs ....resulting in 5.06".... Field size is 24.89 ac with a time of 28 hrs therefore applying 5.4" with an efficiency of 79.6 % . ... A uniform irrigation application was achieved ..... Strategy for upcoming irrigations include monitor soil moisture levels which will dictate the timing of irrigation.*

# Irrigation Evaluation Summary Sheet

#: 2025-001

Irrigation Goal: REFILL ROOTZONE

## FIELD INFORMATION:

Length(ft): 800  
Field size(ac): 24.89  
Grade(ft/100ft): 0.00

Width(ft): 1355  
Set Area(ac): 3.09  
Side Grade: 0.00

Today's Date: 02/05/25  
Set Width(ft): 168  
Crop ID #: Alfalfa  
Field ID #: #2

## WATER SOURCE:

Supply Source: District

\$ per acre foot \$0.00

Salinity(ppm): N/A  
(estimate)

## SOILS INFORMATION:

Primary Soil Series: \_\_\_\_\_ Texture: Sandy Loam  
Average AWHC\*\*\* for a 4 foot root zone: 7.40 inches  
Leaching Needs: 1.00 inches  
Average Amount to Refill Root Zone: 4.30 inches  
Total Amount Needed: 4.30 inches

Other Soil Info: \_\_\_\_\_

## IRRIGATION INFORMATION:

Irrigation system: Furrows Furrows per set: 1  
Flow Rate: 4.80 CFS  
(measured) 2160 Gallons per Minute  
2160 Gallons per Minute per border

Set Time, hours: 3.25 Total Depth Applied: 5.06 inches Runoff(initial)\*: 0.0%  
Field Time, hours: 28.00 Avg Depth Applied (fld): 5.40 inches  
Net Applied (amount infiltrated): 5.40 inches (Total Depth Applied - Amount of Runoff): 5.40 inches Runoff(avail)\*\*: 0.0%

\*Initial runoff is tailwater measured leaving the field.

\*\*Available runoff assumes a 15% loss, due to seepage and evaporation, from the initial amount.

\*\*\*AWHC - Available Water Holding Capacity

\*\*\*\*Water Beneficially Used = Total Amount Needed + Assumed Reused Runoff

## RESULTS:

Field Application Efficiency(FAE) = Total Amount Needed / Net Applied (field)

**FAE = 79.6%**

Irrigation Efficiency(IE) = Water Beneficially Used\*\*\*\* / Net Applied

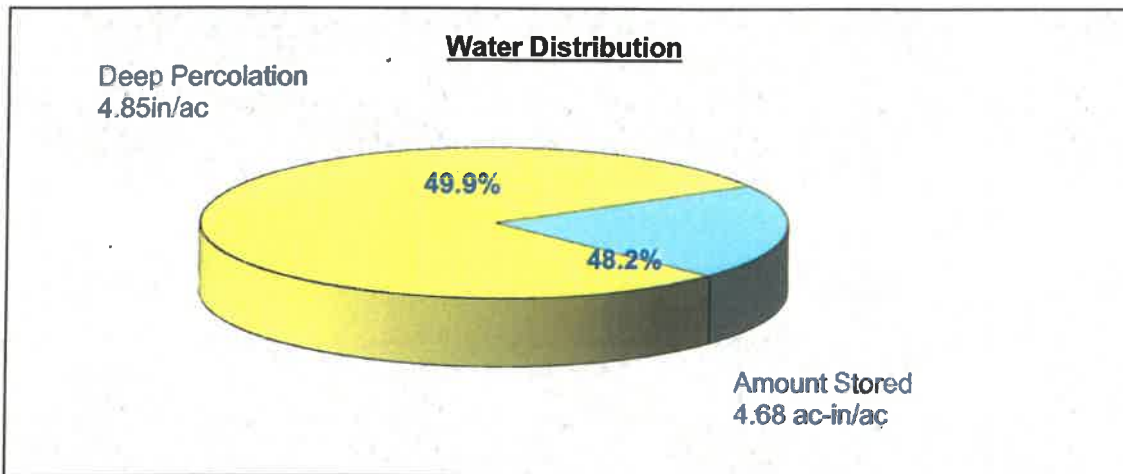
**IE = 85.0%**

Was irrigation goal achieved? yes

# Irrigation Evaluation Summary Sheet

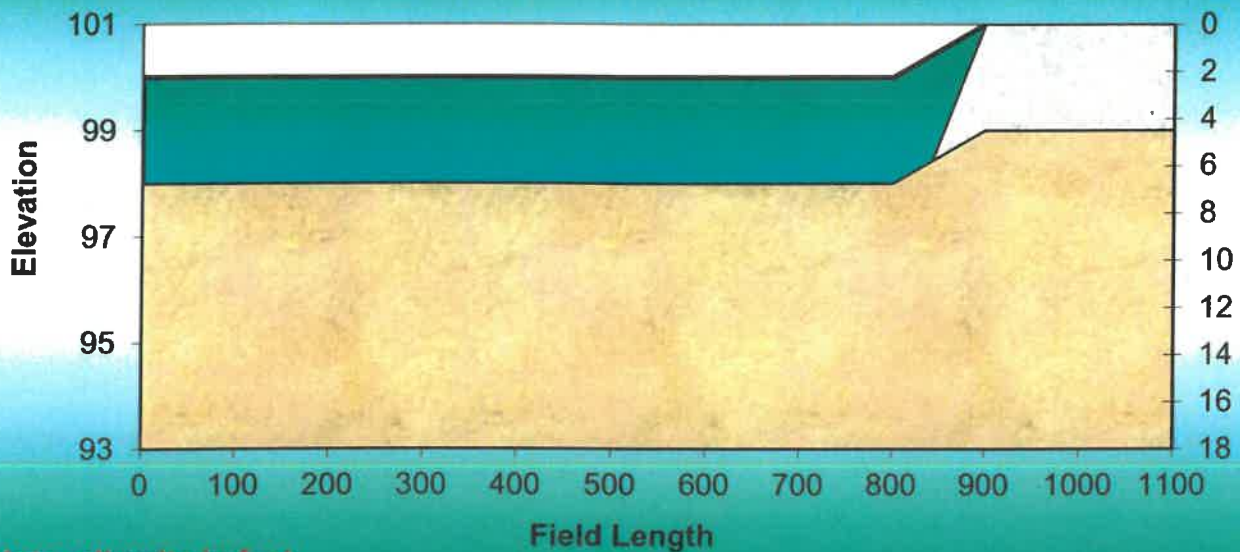
## WATER DISTRIBUTION

Water Used:	Depth (in.)
Amount Applied	5.40
Runoff Amount (initial)	0.00
Runoff Amount (avail.)	0.00
Deep Percolation	1.10
Amount Stored (root zone)	4.30



Advance Times:      Min.:      2.75      Max.:      3.25      Avg      3

## Field Profile: Slope & Elevation



Note: all units in feet

EVAL #: 2025-002

DATE: 2/26/25

CROP TYPE: ALFALFA

WATER SOURCE: DISTRICT TURNOUT

IRRIGATION SYSTEM: LEVEL BASIN

*SUMMARY: The field is a level basin system with ports and supplied by a district irrigation turnout. The goal is to flash water across the field apply no more than 5" ... The soil type is a Sandy Clay loam with (AWHC) of 1.8, Irrigation needs are 4.2 ". Set size is 3.8 ac with 8CFS applied 2.25 hrs ....resulting in 4.73" .... Field size is 18.37 ac with a time of 10.5 hours therefore applying 4.57" with an efficiency of 91.9 %. ... A uniform irrigation application was achieved ..... Strategy for upcoming irrigations include monitor soil moisture levels which will dictate the timing of irrigation.*

# Irrigation Evaluation Summary Sheet

#: 2025-002

Irrigation Goal: REFILL THE ROOTZONE

## FIELD INFORMATION:

Length(ft):	<u>1380</u>	Width(ft):	<u>580</u>	Today's Date:	<u>02/26/25</u>
Field size(ac):	<u>18.37</u>	Set Area(ac):	<u>3.80</u>	Set Width(ft):	<u>120</u>
Grade(ft/100ft):	<u>0.00</u>	Side Grade:	<u>0.00</u>	Crop ID #:	<u>Alfalfa</u>
				Field ID #:	<u>1</u>

## WATER SOURCE:

Supply Source:	<u>Dist. turnout</u>	\$ per acre foot	<u>\$0.00</u>	Salinity(ppm): (estimate)	<u>N/A</u>
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## SOILS INFORMATION:

Primary Soil Series:	<u></u>	Texture:	<u>Sand clay Loam</u>
Average AWHC*** for a 4 foot root zone:	<u>7.40 inches</u>		
Leaching Needs:	<u>1.00 inches</u>		
Average Amount to Refill Root Zone:	<u>4.20 inches</u>		
Total Amount Needed:	<u>4.20 inches</u>		

Other Soil Info:

## IRRIGATION INFORMATION:

Irrigation system:	<u>on flat</u>	Furrows per set:	<u>1</u>		
Flow Rate: (measured)	<u>8.00 CFS</u>				
	<u>3600 Gallons per Minute</u>				
	<u>3600 Gallons per Minute per border</u>				
Set Time, hours:	<u>2.25</u>	Total Depth Applied :	<u>4.73 inches</u>	Runoff(initial) <sup>†</sup> :	<u>0.0%</u>
Field Time, hours:	<u>10.50</u>	Avg Depth Applied (fld):	<u>4.57 inches</u>		
Net Applied (amount infiltrated):	<u>(Total Depth Applied - Amount of Runoff): 4.57 inches</u>			Runoff(avail) <sup>**</sup> :	<u>0.0%</u>

\*Initial runoff is tailwater measured leaving the field.

\*\*Available runoff assumes a 15% loss, due to seepage and evaporation, from the initial amount.

\*\*\*AWHC - Available Water Holding Capacity

\*\*\*\*Water Beneficially Used = Total Amount Needed + Assumed Reused Runoff

## RESULTS:

Field Application Efficiency(FAE) = Total Amount Needed / Net Applied (field)

**FAE = 91.9%**

Irrigation Efficiency(IE) = Water Beneficially Used\*\*\*\* / Net Applied

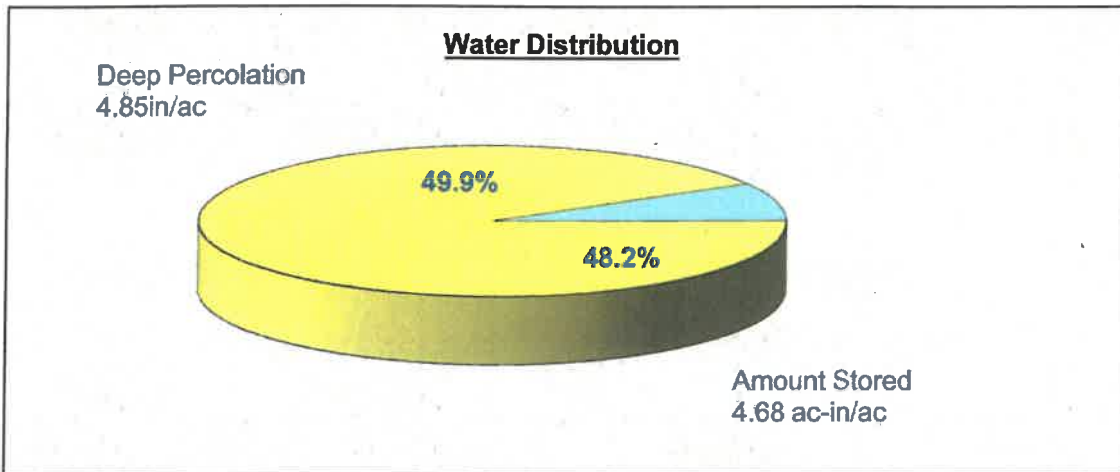
**IE = 88.7%**

Was irrigation goal achieved? yes

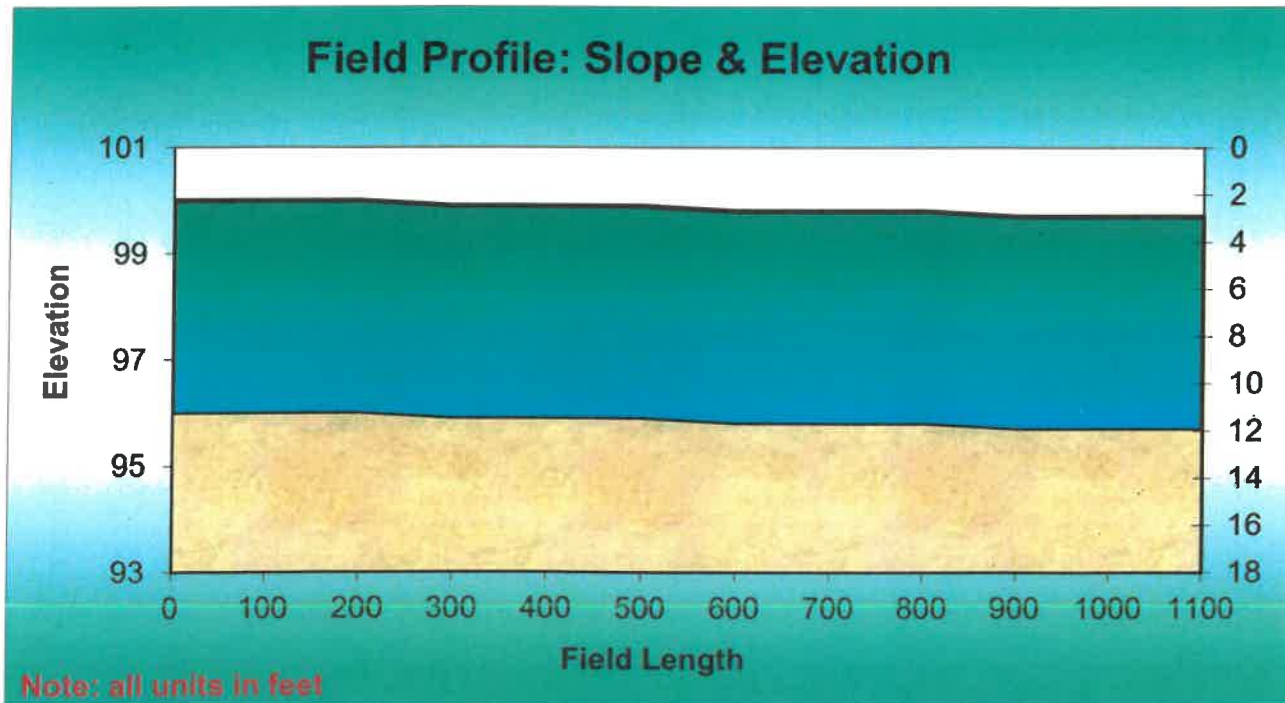
# Irrigation Evaluation Summary Sheet

## WATER DISTRIBUTION

Water Used:	Depth (in.)
Amount Applied	4.57
Runoff Amount (initial)	0.00
Runoff Amount (avail.)	0.00
Deep Percolation	0.37
Amount Stored (root zone)	4.20



**Advance Times:**      **Min.:**      **2.75**      **Max.:**      **3.25**      **Avg**      **3**



EVAL #: 2025-003

DATE: 3/11/25

CROP TYPE: ALFALFA

WATER SOURCE: DISTRICT TURNOUT

IRRIGATION SYSTEM: NEAR LEVEL BASIN

*SUMMARY: The field is a Near level basin system with ports and supplied by a district irrigation . The goal is to flash water across the field apply no more than 5" ... The soil type is a Silty Sandy loam with (AWHC) of 2.0 , Irrigation goals are 4-5". Set size is 7.54 ac with 7CFS applied 5 hrs ....resulting in 4.64".... Field size is 35.28 ac with a time of 22 hrs applying an average of 4.36" across the field with an efficiency of 91.6% ... A uniform irrigation application was achieved ..... Strategy for upcoming irrigations include monitor soil moisture levels which will dictate the timing of irrigation.*

# Furrow Irrigation Evaluation Summary Sheet

#: 2025-003

Irrigation Goal: REFILL THE ROOTZONE

## FIELD INFORMATION:

Length(ft):	<u>1340</u>	Width(ft):	<u>1147</u>	Today's Date:	<u>03/11/25</u>
Field size(ac):	<u>35.28</u>	Set Area(ac):	<u>7.54</u>	Set Width(ft):	<u>245</u>
Grade(ft/100ft):	<u>0.15</u>	Side Grade:	<u>0.03</u>	Crop ID #:	<u>Alfalfa</u>
				Field ID #:	<u></u>

## WATER SOURCE:

Supply Source:	<u>Well</u>	\$ per acre foot	<u>\$0.00</u>	Salinity(ppm): (estimate)	<u>N/A</u>
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## SOILS INFORMATION:

Primary Soil Series:	<u></u>	Texture:	<u>Silty Sand Loam</u>
Average AWHC*** for a 4 foot root zone:	<u></u>		<u>7.20 inches</u>
Leaching Needs:	<u></u>		<u>1.00 inches</u>
Average Amount to Refill Root Zone:	<u></u>		<u>4.00 inches</u>
Total Amount Needed:	<u></u>		<u>4.00 inches</u>

Other Soil Info:

## IRRIGATION INFORMATION:

Irrigation system:	<u>Furrows</u>	Furrows per set:	<u>1</u>
Flow Rate: (measured)	<u>7.00 CFS</u>		
	<u>3150 Gallons per Minute</u>		
	<u>3150 Gallons per Minute per border</u>		
Set Time, hours:	<u>5.00</u>	Total Depth Applied :	<u>4.64 inches</u>
Field Time, hours:	<u>22.00</u>	Avg Depth Applied (fld):	<u>4.36 inches</u>
Net Applied (amount infiltrated):	<u></u>	(Total Depth Applied - Amount of Runoff):	<u>4.36 inches</u>
		Runoff(initial)*:	<u>0.0%</u>
		Runoff(avail)**:	<u>0.0%</u>

\*Initial runoff is tailwater measured leaving the field.

\*\*Available runoff assumes a 15% loss, due to seepage and evaporation, from the initial amount.

\*\*\*AWHC - Available Water Holding Capacity

\*\*\*\*Water Beneficially Used = Total Amount Needed + Assumed Reused Runoff

## RESULTS:

Field Application Efficiency(FAE) = Total Amount Needed / Net Applied (field)

**FAE = 91.6%**

Irrigation Efficiency(IE) = Water Beneficially Used\*\*\*\* / Net Applied

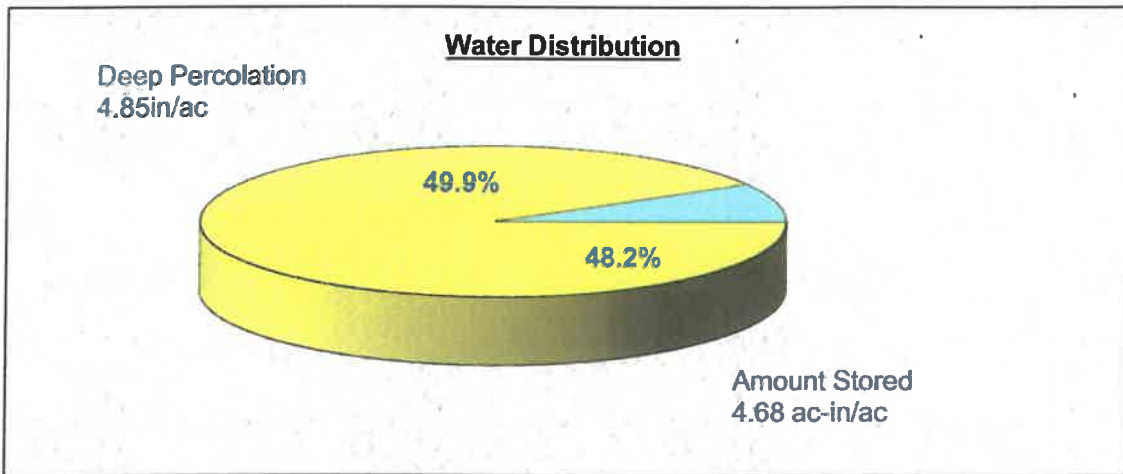
**IE = 86.1%**

Was irrigation goal achieved? yes

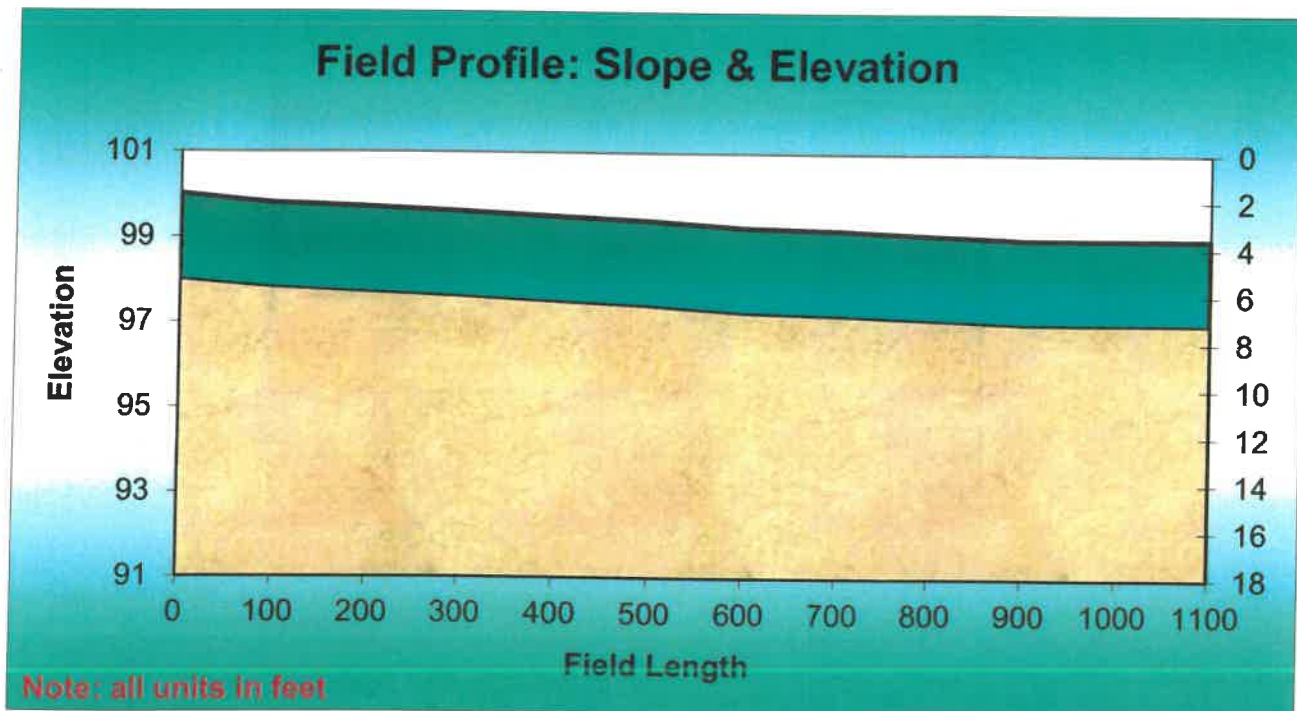
# Furrow Irrigation Evaluation Summary Sheet

## WATER DISTRIBUTION

Water Used:	Depth (in.)
Amount Applied	4.36
Runoff Amount (initial)	0.00
Runoff Amount (avail.)	0.00
Deep Percolation	0.36
Amount Stored (root zone)	4.00



Advance Times:      Min.:      2.75      Max.:      3.25      Avg      3



Targeted depth of penetration:      4'      Was this targeted depth met?:      Yes

## SERVICES

### **HELD 4 BMP WORKSHOPS (60 BMP farms)**

*Maricopa Stanfield Irrigation district office  
Central Arizona Irrigation district  
San Carlos IDD  
Casa Grande NRCS field office*

### **WENT OUT AND VERIFIED BMP PRACTICES (50 BMP farms)**

- *Irrigation Water Practices applied and Crop residue management cutting of stalks, ripping, discing , landplaning, Land leveling soils and planting*
- *Other practices view (Crop rotation , Soil Moisture Monitoring , Measuring water flow rates, soil water quality testing and mulching)*

### **2 STANDARD EVALUATION VOIDED**

- *Evaluations voided due to water delivery flow change in the middle of evaluation.*

### **WILL CONTINUE TO ASSIST COOPERATORS WITH NEW BMP SMP APPLICATIONS**