Ventura County Resource Conservation District

Low Volume Irrigation System Evaluation

Ranch;	Date;
Location;	VCAILG#
Block #;	Contact;
# Manifold ;	Phone #
Crop and Spacing;	

Summary of Uniformity Findings;

lq **DU** = 0.00

target **l**ow **q**uarter **D**istribution **U**niformity is 0.85 or better !

Emitter Emission Uniformity %	0.00%
Estimated Average Flow/Emitter (in/hr)	0.000
Estimated Average Flow/Emitter (in/24hr)	0.000

Conclusions and Recommendations;

Pressure Variations;

The three main reasons for pressure variation are,

1. Irrigation sets are not matching pump capacities.

a. Irrigation set demand in gpm exceeds the pump capability, resulting in low pressures y/n

b. Irrigation set demand in gpm are less than the pump potential, resulting in high pressures. y/n

2. Irrigation lines are undersized relative to total water flow. y/n

3. Elevation changes are causing gain/loss in PSI. y/n

Emitter Variations;

1. Multiple emitter flow rates are installed. y/n

2. Manufacture variability may be an issue. y/n

3. Emitter plugging is causing uniformity problems. y/n

Water Quality related issues;

1. Plugging due to; y/n

Calcium deposits

Bacterial

Physical

2. Quick Nitrate Test;

Potential Water Savings;

Recommendations:

To "save" water or increase the D.U. either under irrigate, or shut it off.
For best quality and yield bring the irrigation system up to par, and manage the system to provide the correct amount of water at the optimum timing !!!

Low Volume Irrigation System Evaluation Results;

Ranch Name;	Date;
Location;	VCAILG#
Block #;	Contact;
# Manifold ;	Phone #'s
Crop and Spacing;	

Emitter Catch Data;

Poly Hose Line #	Emitter (ml)	Flow (gph)	Emitter (ml)	Flow (gph)	Emitter (ml)	Flow (gph)	Emitter (ml)	Flow (gph)	Emitter (ml)	Flow (gph)
Manifold # 1		**0.00**		**0.00**		**0.00**		**0.00**		**0.00**
Poly side 1		*first C-1*		*first C-2*		*first C-3*		*mid #1 C-1*		*mid # 1 C-2*
Manifold # 1		**0.00**		**0.00**		**0.00**		**0.00**		**0.00**
Poly side 1		*mid #1 C-3*		*mid #2 C-1*		*mid #2 C-2*		*mid #2 C-3*		*mid #3 C-1*
Manifold # 1		**0.00**		**0.00**		**0.00**		**0.00**		**0.00**
Poly side 1		*mid #3 C-2*		*mid #3 C-3*		*Terminal C-1*		*Terminal C-2*		*Terminal C-3*
Manifold # 1		**0.00**		**0.00**		**0.00**		**0.00**		**0.00**
Poly side 2		*first C-1*		*first C-2*		*first C-3*		*mid #1 C-1*		*mid # 1 C-2*
Manifold # 1		**0.00**		**0.00**		**0.00**		**0.00**		**0.00**
Poly side 2		*mid #1 C-3*		*mid #2 C-1*		*mid #2 C-2*		*mid #2 C-3*		*mid #3 C-1*
Manifold # 1		**0.00**		**0.00**		**0.00**		**0.00**		**0.00**
Poly side 2		*mid #3 C-2*		*mid #3 C-3*		*Terminal C-1*		*Terminal C-2*		*Terminal C-3*
Manifold # 2		**0.00**		**0.00**		**0.00**		**0.00**		**0.00**
Poly side 1		*first C-1*		*first C-2*		*first C-3*		*mid #1 C-1*		*mid # 1 C-2*
Manifold #2		**0.00**		**0.00**		**0.00**		**0.00**		**0.00**
Poly side 1		*mid #1 C-3*		*mid #2 C-1*		*mid #2 C-2*		*mid #2 C-3*		*mid #3 C-1*
Manifold # 2		**0.00**		**0.00**		**0.00**		**0.00**		**0.00**
Poly side 1		*mid #3 C-2*		*mid #3 C-3*		*Terminal C-1*		*Terminal C-2*		*Terminal C-3*
Manifold # 2		**0.00**		**0.00**		**0.00**		**0.00**		**0.00**
Poly side 2		*first C-1*		*first C-2*		*first C-3*		*mid #1 C-1*		*mid # 1 C-2*
Manifold # 2		**0.00**		**0.00**		**0.00**		**0.00**		**0.00**
Poly side 2		*mid #1 C-3*		*mid #2 C-1*		*mid #2 C-2*		*mid #2 C-3*		*mid #3 C-1*
Manifold # 2		**0.00**		**0.00**		**0.00**		**0.00**		**0.00**
Poly side 2		*mid #3 C-2*		*mid #3 C-3*		*Terminal C-1*		*Terminal C-2*		*Terminal C-3*
Catch time in seconds	*30*									

Low Volume Emitter Emission Uniformity Results;

Number of Catches	
#LQ Catches	
LQ Average Catch(ml)	
Average Catch (ml)	
Ave. Flow Rate (gph)	
Emitters/Plant	1
Wetted Area Ft. (Dia.)	14.000
Wetted Area Ft^2	
Est. Applied in./hr	
Est. Applied in./24hr	

lqDU (low quarter Distribution Uniformity)

Coefficient of Variation (CvU) = (1-Std Dev / Ave of Catches) x 100%

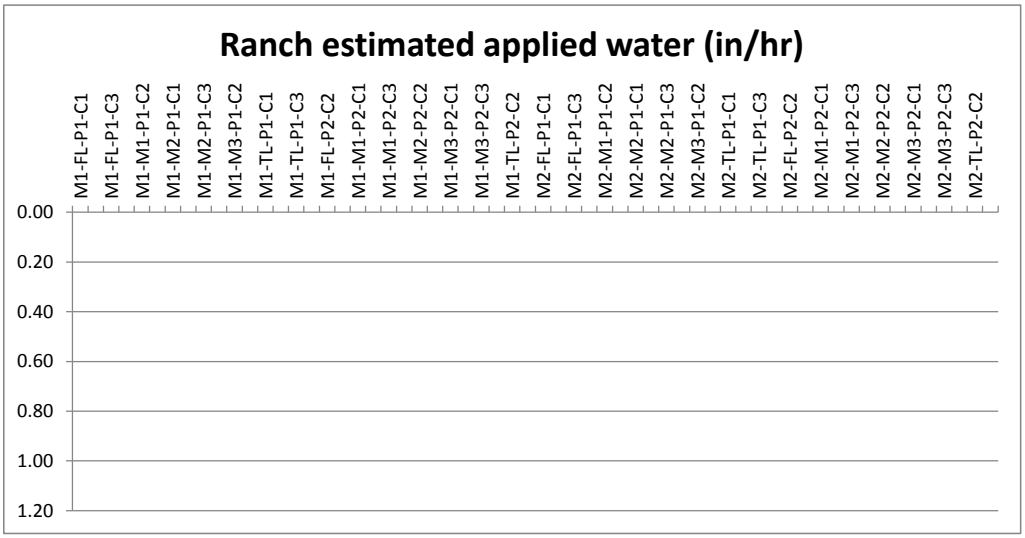
Pressure Test Results							
Manifold #1				Manifold #2			
First Line psi's			GPS points	First Line psi's			GPS points
Poly Side 1	Riser	Poly Side 2	% variation	Poly Side 1	Riser	Poly Side 2	% variation
	Middle #1		GPS points		Middle #1		
Poly Side 1	Riser	Poly Side 2	% variation	Poly Side 1	Riser	Poly Side 2	% variation
	Middle #2		GPS points		Middle #2		GPS points
Poly Side 1	Riser	Poly Side 2	% variation	Poly Side 1	Riser	Poly Side 2	% variation
	Middle #3		GPS points		Middle #3		GPS points
Poly Side 1	Riser	Poly Side 2	% variation	Poly Side 1	Riser	Poly Side 2	% variation
	Terminal		GPS points		Terminal		GPS points
Poly Side 1	Riser	Poly Side 2	% variation	Poly Side 1	Riser	Poly Side 2	% variation

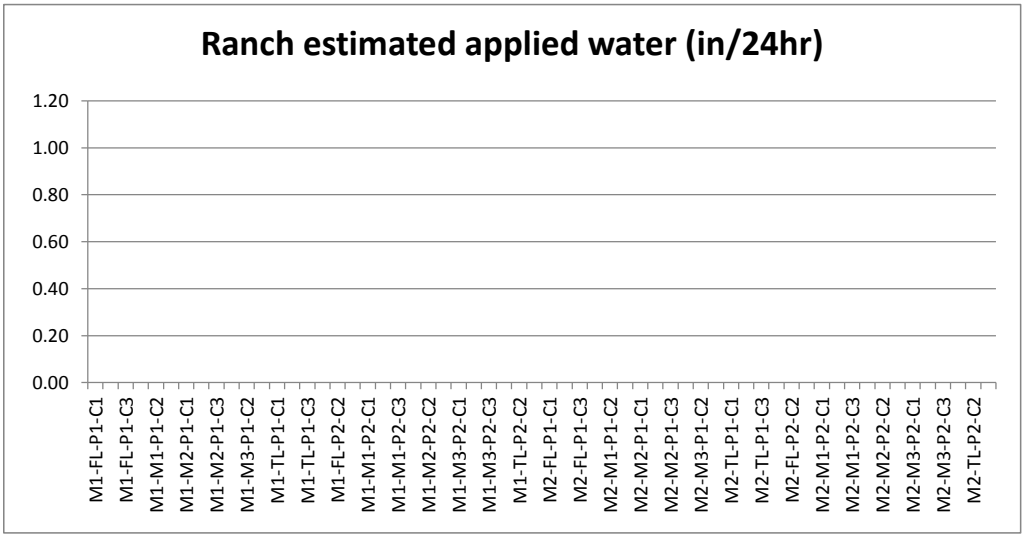
Ranch Name;
Block #;
Manifold ;

C's = catches in gph

First Line Side 1 psi=	Poly Side 1	C-3=	C-2=	C-1=	First Line Riser psi=	C-1=	C-2=	C 3=	Poly Side 2	First Line Side 2 psi=
Middle #1 Side 1 psi=	Poly Side 1	C-3=	C-2=	C-1=	Middle #1 Riser psi=	C-1=	C-2=	C 3=	Poly Side 2	Middle #1 Side 2 psi=
Middle #2 Side 1 psi=	Poly Side 1	C-3=	C-2=	C-1=	Middle #2 Riser psi=	C-1=	C-2=	C 3=	Poly Side 2	Middle #2 Side 2 psi=
Middle #3 Side 1 psi=	Poly Side 1	C-3=	C-2=	C-1=	Middle #3 Riser psi=	C-1=	C-2=	C 3=	Poly Side 2	Middle #3 Side 2 psi=
Terminal Line Side 1 psi=	Poly Side 1	C-3=	C-2=	C-1=	Terminal Line Riser psi=	C-1=	C-2=	C 3=	Poly Side 2	Terminal Line Side 2 psi=

Emitter Location	Estimated water (in/hr)	Estimated water (in/24hr)
M1-FL-P1-C1		
M1-FL-P1-C2		
M1-FL-P1-C3		
M1-M1-P1-C1		
M1-M1-P1-C2		
M1-M1-P1-C3		
M1-M2-P1-C1		
M1-M2-P1-C2		
M1-M2-P1-C3		
M1-M3-P1-C1		
M1-M3-P1-C2		
M1-M3-P1-C3		
M1-TL-P1-C1		
M1-TL-P1-C2		
M1-TL-P1-C3		
M1-FL-P2-C1		
M1-FL-P2-C2		
M1-FL-P2-C3		
M1-M1-P2-C1		
M1-M1-P2-C2		
M1-M1-P2-C3		
M1-M2-P2-C1		
M1-M2-P2-C2		
M1-M2-P2-C3		
M1-M3-P2-C1		
M1-M3-P2-C2		
M1-M3-P2-C3		
M1-TL-P2-C1		
M1-TL-P2-C2		
M1-TL-P2-C3		
M2-FL-P1-C1		
M2-FL-P1-C2		
M2-FL-P1-C3		
M2-M1-P1-C1		
M2-M1-P1-C2		
M2-M1-P1-C3		
M2-M2-P1-C1		
M2-M2-P1-C2		
M2-M2-P1-C3		
M2-M3-P1-C1		
M2-M3-P1-C2		
M2-M3-P1-C3		
M2-TL-P1-C1		
M2-TL-P1-C2		
M2-TL-P1-C3		
M2-FL-P2-C1		
M2-FL-P2-C2		
M2-FL-P2-C3		
M2-M1-P2-C1		
M2-M1-P2-C2		
M2-M1-P2-C3		
M2-M2-P2-C1		
M2-M2-P2-C2		
M2-M2-P2-C3		
M2-M3-P2-C1		
M2-M3-P2-C2		
M2-M3-P2-C3		
M2-TL-P2-C1		
M2-TL-P2-C2		
M2-TL-P2-C3		


Ranch estimated applied water (in/hr)
M1-FL-P1-C1
M1-FL-P1-C3
M1-M1-P1-C2
M1-M2-P1-C1
M1-M2-P1-C3
M1-M3-P1-C2
M1-TL-P1-C1
M1-TL-P1-C3
M1-FL-P2-C2
M1-M1-P2-C1
M1-M1-P2-C3
M1-M2-P2-C2
M1-M3-P2-C1
M1-M3-P2-C3
M1-TL-P2-C2
M2-FL-P1-C1
M2-FL-P1-C3
M2-M1-P1-C2
M2-M2-P1-C1
M2-M2-P1-C3
M2-M3-P1-C2
M2-TL-P1-C1
M2-TL-P1-C3
M2-FL-P2-C2
M2-M1-P2-C1
M2-M1-P2-C3
M2-M2-P2-C2
M2-M3-P2-C1
M2-M3-P2-C3
M2-TL-P2-C2
0.00
0.20
0.40
0.60
0.80
1.00
1.20


Ranch estimated applied water (in/24hr)
1.20
1.00
0.80
0.60
0.40
0.20
0.00
M1-FL-P1-C1
M1-FL-P1-C3
M1-M1-P1-C2
M1-M2-P1-C1
M1-M2-P1-C3
M1-M3-P1-C2
M1-TL-P1-C1
M1-TL-P1-C3
M1-FL-P2-C2
M1-M1-P2-C1
M1-M1-P2-C3
M1-M2-P2-C2
M1-M3-P2-C1
M1-M3-P2-C3
M1-TL-P2-C2
M2-FL-P1-C1
M2-FL-P1-C3
M2-M1-P1-C2
M2-M2-P1-C1
M2-M2-P1-C3
M2-M3-P1-C2
M2-TL-P1-C1
M2-TL-P1-C3
M2-FL-P2-C2
M2-M1-P2-C1
M2-M1-P2-C3
M2-M2-P2-C2
M2-M3-P2-C1
M2-M3-P2-C3
M2-TL-P2-C2