



Texas Alliance for Water Conservation

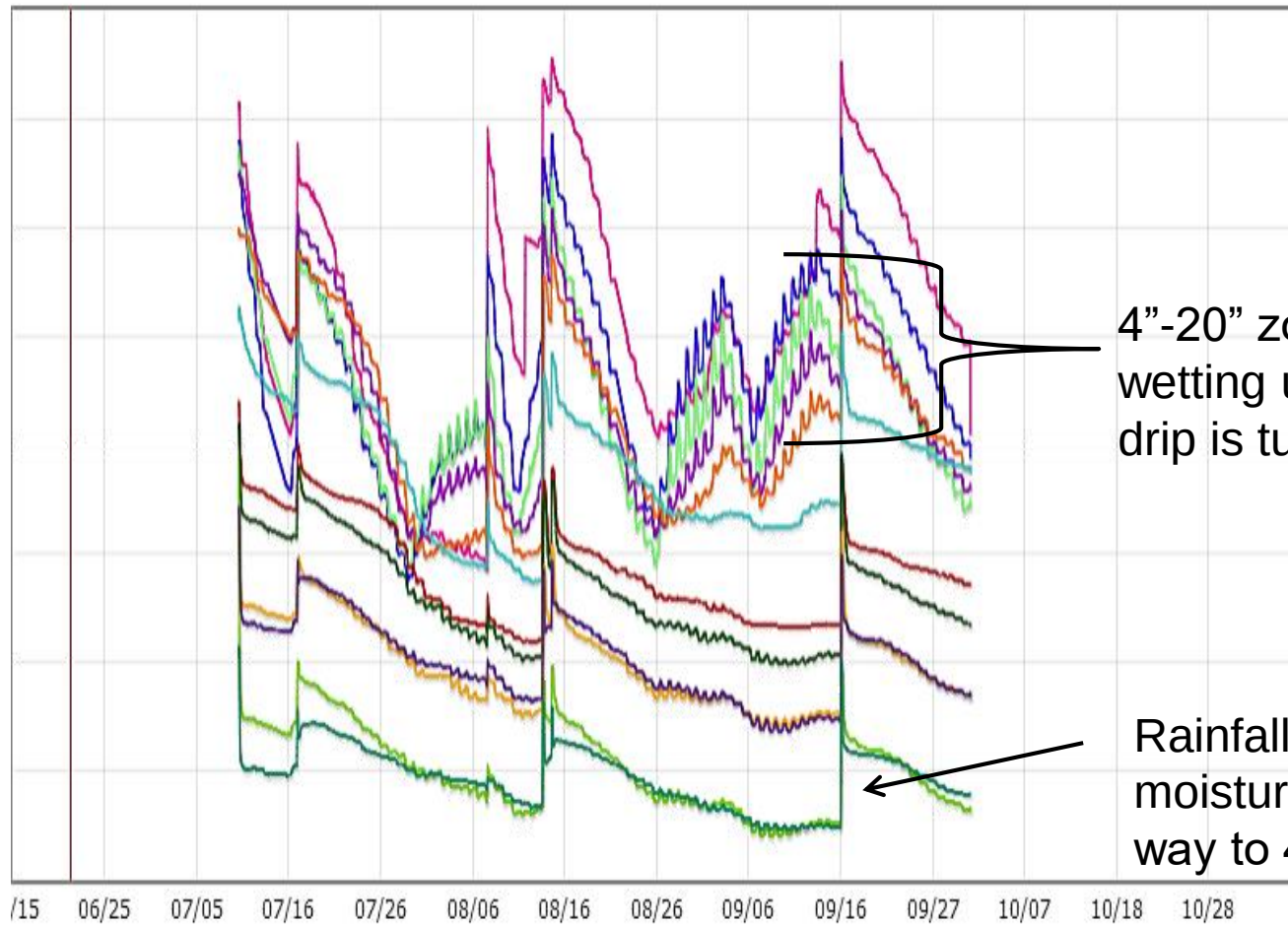
Rick Kellison, Project Director



TEXAS TECH UNIVERSITY

College of Agricultural Sciences
& Natural Resources™

Sensor Graph



4"-20" zones
wetting up when
drip is turned on.

Rainfall stored
moisture all the
way to 48"

☐ [] ° [F]

☒ 4"	☒ 8"
☐ 12"	☐ 16"
☒ 20"	☒ 24"
☒ 28"	☒ 32"
☒ 36"	☒ 40"
☒ 44"	☒ 48"

☒ Toggle All On/Off

☐ Show/Hide Stages

Reset Graphs

Print

LEPA vs LESA



Spray



LEPA

LEPA vs LESA Budget Comparison

2011

	2011			
	LEPA		LESA	
PER ACRE GROSS INCOME	Quantity	Total	Quantity	Total
Cotton lint	1001	\$ 900.90	879	\$ 791.10
Cotton seed	0.72	\$ 245.39	0.63	\$ 215.48
PER ACRE TOTAL GROSS INCOME		\$ 1,146.29		\$ 1,006.58
PER ACRE TOTAL OF ALL COST		\$ 968.89		\$ 945.93
PER ACRE NET PROJECTED RETURNS		\$ 177.40		\$ 60.65
Percent Increase		193%		
WATER APPLIED - INCHES		26.1		
Lint lbs per acre-in of water applied		38.4		33.7
Percent Increase		13.9%		

LEPA vs LESA Budget Comparison

2012

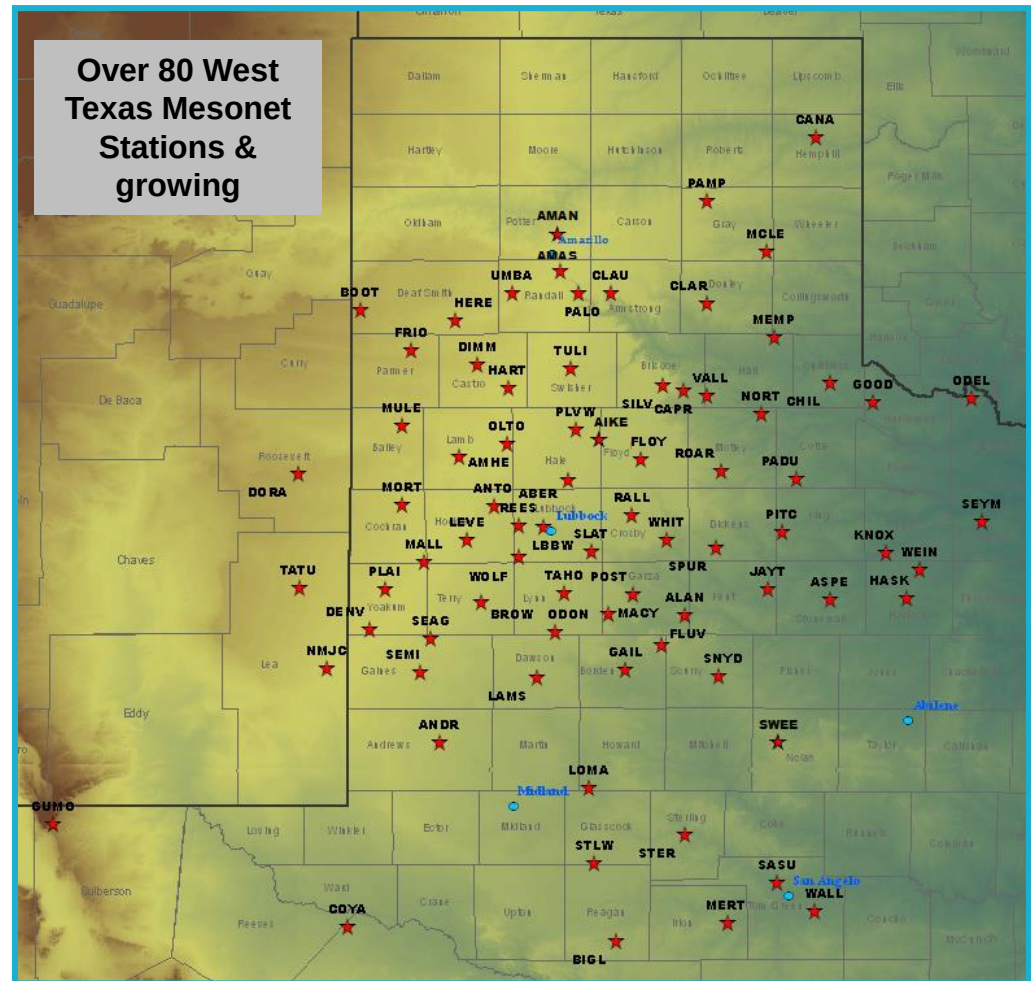
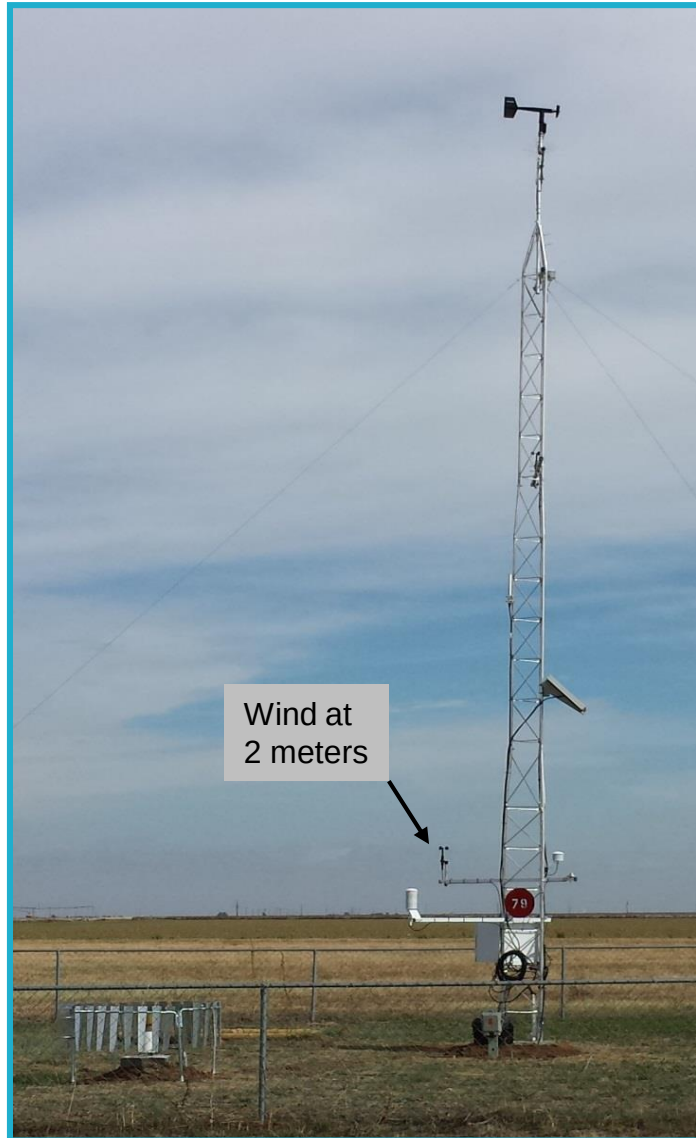
	2012			
	LEPA		LESA	
PER ACRE GROSS INCOME	Quantity	Total	Quantity	Total
Cotton lint	1057	\$ 951.30	896	\$ 806.40
Cotton seed	0.76	\$ 213.39	0.65	\$ 180.88
PER ACRE TOTAL GROSS INCOME		\$ 1,164.69		\$ 987.28
PER ACRE TOTAL OF ALL COST		\$ 980.33		\$ 950.04
PER ACRE NET PROJECTED RETURNS		\$ 184.35		\$ 37.25
Percent Increase		395%		
WATER APPLIED - INCHES		19		
Lint lbs per acre-in of water applied		55.6		47.2
Percent Increase		18.0%		

LEPA vs LESA Budget Comparison

2013

	2013			
	LEPA		LESA	
PER ACRE GROSS INCOME	Quantity	Total	Quantity	Total
Cotton lint	1165	\$ 873.75	1028	\$ 771.00
Cotton seed	0.84	\$ 235.19	0.74	\$ 207.53
PER ACRE TOTAL GROSS INCOME		\$ 1,108.94		\$ 978.53
PER ACRE TOTAL OF ALL COST		\$ 924.94		\$ 906.33
PER ACRE NET PROJECTED RETURNS		\$ 184.00		\$ 72.20
Percent Increase		155%		
WATER APPLIED - INCHES		16.5		
Lint lbs per acre-in of water applied		70.6		62.3
Percent Increase		13.3%		

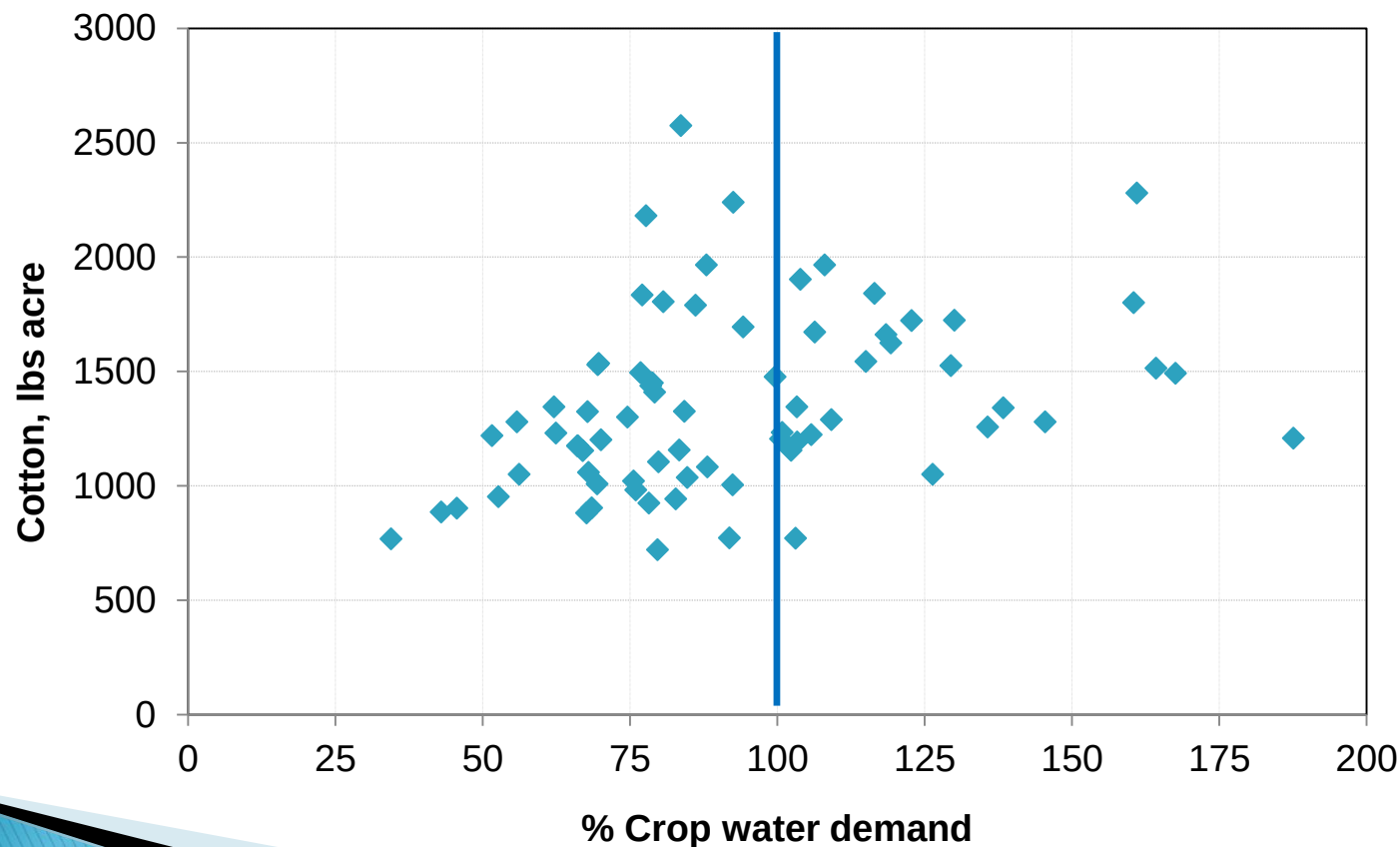
Potential Evapotranspiration



Relationship between Cotton Yield and Percent Water Demand

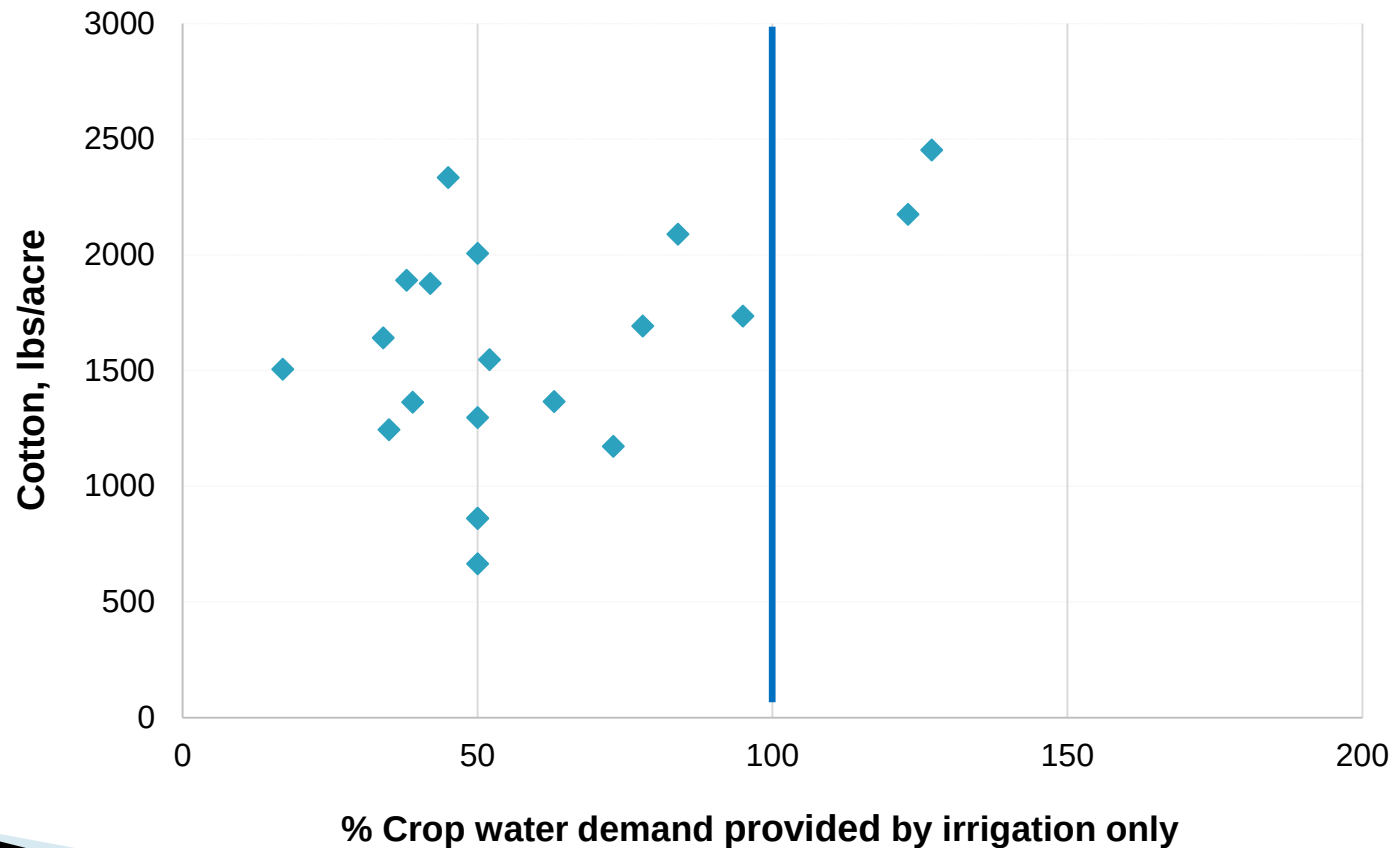
Project Sites 2006–2010

Total crop water = Rainfall (70% effective) + Irrigation (in-season)



Relationship between Cotton Yield and Percent Water Demand

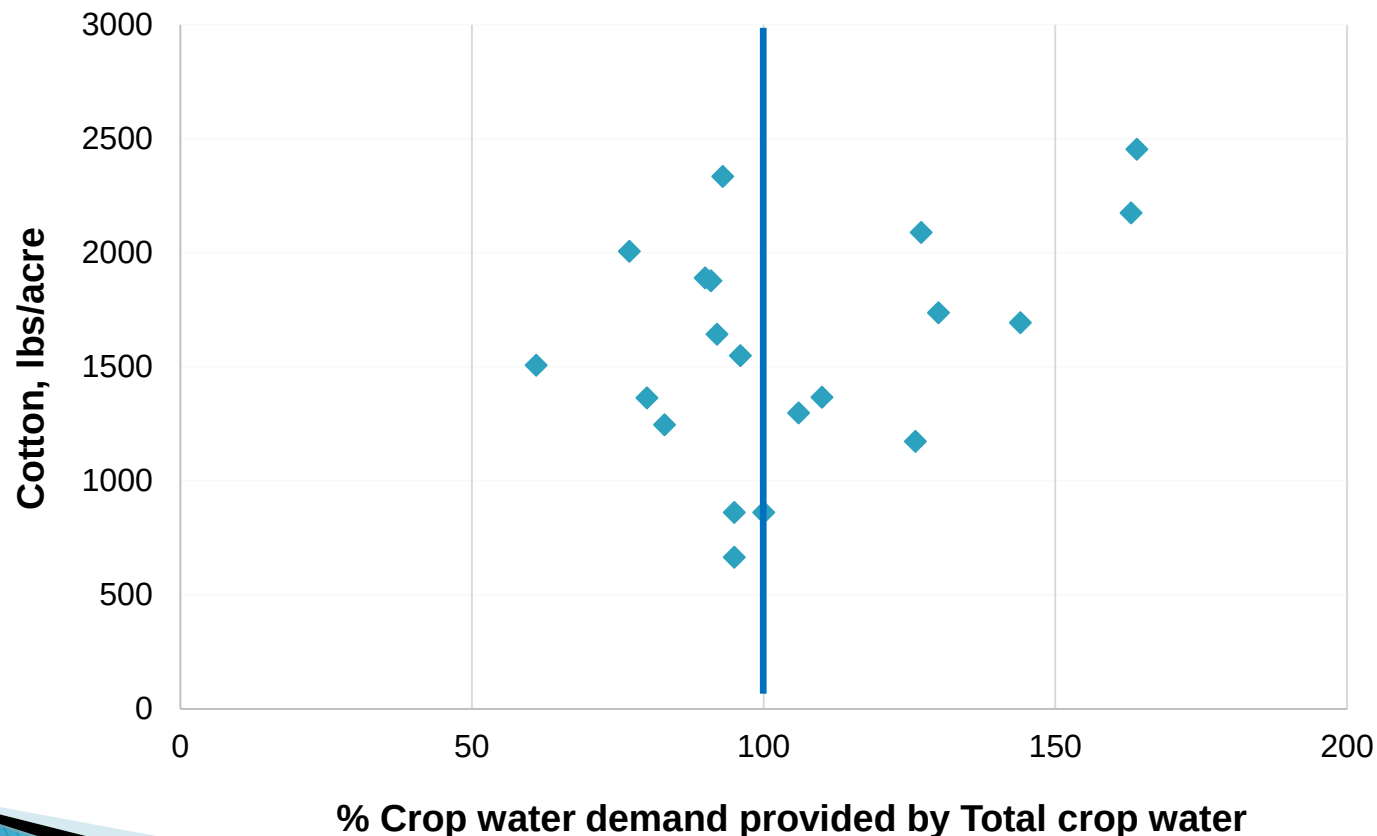
Project Sites 2013



Relationship between Cotton Yield and Percent Water Demand

Project Sites 2013

Total crop water= Rainfall (70% effective) + Irrigation (in-season) + Soil moisture contribution (planting to harvest)



Thank You!



Texas Alliance for Water Conservation



TEXAS TECH UNIVERSITY
College of Agricultural Sciences
& Natural Resources