Lower Rio Grande Valley Agriculture Water Conservation Demonstration Initiative (ADI)

Maximization of On-Farm Surface Water Use Efficiency by Integration of On-Farm Application and District Delivery Systems
Agriculture Water Conservation Demonstration Initiative

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Principal Participants

- Harlingen Irrigation District
- Delta Lake Irrigation District
- Texas A&M Kingsville
- Texas A&M AgriLife
- Axiom-Blair Engineering
- TSS&WCB
- USDA-NRCS
Advisory Committee

- Chris Allen – Cooperator
- Leonard Simmons – Cooperator
- Edward Bauer – Grower
- Sam Morrow – Cooperator
- Harold Siever – Cooperator
- Troy Allen – Delta Lake Irrigation District Manager
- Ray Prewitt – Texas Citrus Mutual
- Dr. Shad Nelson – Texas A&M Kingsville
- Dr. Juan Enciso – Texas A&M Extension Service
- Dr. Al Blair – Axiom-Blair Engineering
- Dr. Steven Klose – Texas Cooperative Extension
- Andy Garza – TSSWCB
ADI Tasks

1. Flow Meter Calibration Facility
2. Develop District Policies and Templates to Support Conservation
3. Demonstration of Internet Based Irrigation Information and Scheduling
4. Demonstration and Comparison of On-Farm Technologies (Drip, Surge, Center Pivot, and Flood)
5. Evaluation of On-Farm, Manual and Automated, Measuring Systems
6. Demonstration of Variable Speed Pump Control and Optimization
7. Economic Evaluation of Demonstrated Technologies
Harlingen Irrigation District
Meter Calibration Facility
Metering Manifold
Metering Flume

3’ X 4’ X 140’
Max flow 15 cfs.
3 Reaches controlled by automated gates.
Semi automated calibration controlled by Look Out software
Variable Speed

20 cfs diesel pump
Internet Based Information

Real time flow information.
Weather information.
Water user accounting system.
www.hidcc1.org
Surge and Automated Surface Irrigation
Center Pivot & Sprinkler Technologies
Texas A&M AgriLife
Weslaco

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Drip and Flood on Multi-year and Annual Crops
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Economic Evaluation of Demonstrated Technologies

Texas AgriLife Service
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