The Irrigation Technology Center
Texas A&M University System

Overview of the Irrigation Technology Center

Description

Creation of the Irrigation Technology Center (ITC) was approved by the Board of Regents, Texas A&M University System on May 24, 2002. The ITC was established as a center of the Texas Water Resources Institute, administrated through Texas Cooperative Extension and the Texas Agricultural Experiment Station.

The Water Technology and Conservation Center will be a component of the ITC ("a center with in a center") and, when fully developed, will cover almost 500 acres and include 4 testing laboratory and outdoor testing and training facilities including all major agricultural and landscape irrigation systems.

Mission

- Promote efficient irrigation and water conservation while maintaining profitable agricultural production and quality urban landscapes
- Help coordinate irrigation research and extension programs of the Texas A&M University System
- Develop new facilities, capabilities and programs for irrigation research, education and service
- Establish an equipment testing and verification program and develop minimum design and performance standards for irrigation systems

Major Programs

Texas A&M School of Irrigation (http://irrigation.tamu.edu)
Continuing education classes for irrigation professionals.

Irrigation District Education and Assistance (http://idea.tamu.edu)
Technical assistance, applied research and educational services to help irrigation districts conserve water, improve operational efficiency, and plan rehabilitation and renovation projects.

TexasET Network and Website (http://TexasET.tamu.edu)
Daily ET (evapotranspiration) data and weather summaries from 28 weather stations located throughout Texas, with web-based tools for determining irrigation requirements of agricultural crops, urban landscapes, and home yards.

Individual and Group Training
Study tours and individually customized training programs for domestic and international visitors ranging from two weeks to 4 months.

International Programs
Coordination of irrigation projects and activities with the International Ag Programs Office (recent examples: the creation of agriculture and urban water management courses for master degree credit and professional continuing education in Jordan, a solar-power irrigation development and electrification project in Benin).
Examples of On-going Projects

Public Service Project
Renovation of the irrigation systems of the San Antonio Botanical Garden conducted in cooperation with the irrigation industry, trade associations and a public water utility.

Turf/Groundcover Field Site
Design of a facility consisting of 180 plots for scientific determination of the water needs of landscape plants for different end users conducted in cooperation with the irrigation industry, trade associations and a public water utility.

Drip Irrigation with Municipal Wastewater
New installation of a 10-acre drip irrigation system on row crops. Project is in cooperation with the Natural Resources Conservation Service and the Bureau of Reclamation in Tom Green County.

Drip and Furrow Irrigation of Row Crops
Large-scale (33 acre), side-by-side comparison of drip and furrow irrigation in cooperation with the irrigation industry and a non-profit research farm (Rio Farms), in Hidalgo County.

ET Controller Evaluation
Installation and evaluation of current and emerging technologies for controlling landscape irrigation in cooperation with 5 manufacturers, 2005.

Drip and Furrow Irrigation of Row Crops
A 10 acre, side-by-side comparison of drip and furrow irrigation in cooperation with the irrigation industry in Cameron County.

Irrigation Water Management of Citrus
Drip and furrow irrigation of grapefruit and oranges covering 8 fields in cooperation with Rio Queen Farms in Cameron County.

Cooperation and Support

- The ITC has developed close working relations with local and state organizations, agencies, associations and utilities.
- Plans are under development for creation of advisory boards to provide guidance on testing, education, research, and demonstration programs/projects, and on facility design.
- Fourteen major public agencies and organizations have passed resolutions and statements of support for the ITC.
- The ITC is a part of the Texas State Water Plan and recommendations of the State Task Force on Water Conservation.
- Discussions are underway on cooperative programs with irrigation centers in California, Mexico, Italy and France.
- On-going cooperative training program with the Center for Training and Assistance in Irrigation (CEAR), Guanajuato, Mexico.

Proposed New Facilities

- The Water Technology and Conservation Center to be built in City South San Antonio. The WTCC will be constructed in City South San Antonio as part of a new planned community and university campus complex. Funding will be sought through a capital campaign and from other sources to build and operate the facility.
- The Center for Irrigation District Studies, a concept design is under development for facilities to support irrigation district modernization research and education programs.