

**Texas A&M University System
FY 2009 Federal Initiative**

Tarleton State University

Title: Center for Bio-Energy Recovery from Agricultural Wastes

Description: This initiative will establish the equipment infrastructure and enable the “Center for Bio-Energy Recovery from Agricultural Wastes” to be established at Tarleton State University. This Center will be an integral part of the Southwest Regional Dairy Center authorized by the Texas Legislature in 2006 for construction at Tarleton State University, a member of The Texas A&M University System.

Relevance and Background: The Texas-New Mexico (southwest) region of the United States is predicted to host the largest geographical concentration of dairies in the nation within 15 years. Tarleton is located in Stephenville, Erath County, Texas, which is currently the largest dairy producing county in the region. This significant increase in dairy production will create environmental challenges and renewable energy opportunities.

The State of Texas has authorized construction of the \$11.1M Southwest Regional Dairy Center at Tarleton. This Dairy Center will be the only technologically up-to-date teaching/research facility of its kind in the southwestern United States. The research mission of the Dairy Center is to identify challenges and develop solutions to enhance the economic and environmental sustainability of the southwest dairy industry. With rising energy costs and increasing environmental pressures, the Center for Bio-Energy Recovery from Agricultural Wastes will function as an integral component of the Southwest Regional Dairy Center.

This initiative will enable the Center for Bio-Energy Recovery from Agricultural Wastes with the equipment and technology necessary to research, develop and demonstrate the conversion of prominent animal wastes (dairy, beef cattle feedlot, poultry) into renewable energy and other beneficial products. Specific technologies of interest include anaerobic digestion/methane generation, gasification, ethanol and biodiesel.

Knowledge gained through this initiative will improve the sustainability of animal-based agricultural systems; help ensure an abundant and affordable food supply; enhance environmental quality for future generations; and contribute solutions to the developing energy crisis and future energy needs of the United States.

Amount Requested: \$9.1 M

Budget/Cost: \$9.1 M over 4 years

Item	FY09	FY10	FY11	FY12	TOTAL
Operating	.40 M	.43 M	.45 M	.48 M	1.76 M
Equipment	2.50 M	2.50 M	0	0	5.00 M
Salaries	.55 M	.57 M	.60 M	.62 M	2.34 M
TOTAL	3.45 M	3.50 M	1.05 M	1.10 M	9.10 M

Funding History: N/A

Anticipated Non-Federal Resources: \$11.1 M from State of Texas for construction of the Southwest Regional Dairy Center.

Agency/Agencies Targeted:

- USDA
- EPA
- DOE

Background and Contacts:

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Contacts to-date: None

Potential partners:

- Texas Agricultural Experiment Station
- Texas Engineering Experiment Station
- Texas Cooperative Extension
- Texas A&M University
- Texas Veterinary Medical Diagnostic Lab
- West Texas A&M University
- College of Veterinary Medicine, TAMU
- New Mexico State University
- Texas Tech University
- Oklahoma State University

Potential supporters:

- Texas Association of Dairymen
- New Mexico Association of Dairymen
- Texas Cattle Feeders