



FY 2010-2011 Exceptional Item: Enhancing Research Capacity and Increasing Return on Investment

Requested Amount: \$16 million (biennial amount)

Program Description

Goals are to develop new, young scientists; increase acquisition of external funds; enhance programmatic impacts for consumers and producers; and attract and retain top-quality scientists through investments in facility upgrades.

- Texas AgriLife Research facilities and human capital are critical components of the agency's ability to serve the citizens of Texas in the areas of agriculture, natural resources, and life sciences.
- AgriLife Research requests resources (which the agency will match on a one-to-one basis) to attract and train graduate students at Texas universities, especially students from Texas.
- Our research missions have outgrown our facilities and we require larger and upgraded laboratory space, specialized instrumentation and equipment, and access to greater talent. The ability of AgriLife Research to attract and retain top-quality scientists is compromised because research facilities are no longer state-of-the-art.

Benefit to the State / Results

- The approximately 400 scientists employed by AgriLife Research generate about \$1.50 of external funding for every \$1 invested by the state. Investment in upgrading facilities and training new graduate students will increase this return on investment and allow AgriLife Research scientists, who are now often working in dated facilities, to be even more productive and competitive, especially as we develop new partnerships.
- This initiative supports the state's goals of furthering the development and application of knowledge through enhanced programmatic impact. It will yield significant economic returns through increased leveraging of external funding for research; enhance the state's scientific workforce by developing an increased number of graduate students; and allow for recruitment and retention of top scientists from around the United States and throughout the world.

Improving Life Through Science and Technology.

Background Information

- AgriLife Research's staffing model has evolved to include a greater integration of graduate students, visiting scientists, and postdoctoral fellows. This proposed graduate training effort will enhance research efforts and offer unique experiences for these individuals.
- Most of the agency's facilities, especially those at AgriLife Research and Extension Centers around the state, were built some 40 years ago and have had little investment in major upgrades. AgriLife Research is ineligible for tuition revenue bonds (TRBs).
- AgriLife Research scientists' priorities have expanded to include new economically and topically important research areas, such as animal and plant genomics; DNA or marker-assisted genetic selection; chemical and biological speciation of air, water, and waste constituents; bioenergy feedstock conversion; and viral diseases of plants and animals. Unfortunately, AgriLife Research facilities are dated in several critical aspects (e.g., ventilation and utility systems that preclude experimental isolation or precise measurements of chemical or biological organisms), and this limits the ability of scientists and staff to conduct relevant research and obtain external funding.
- Investment in upgrading facilities and training new graduate students will
 - allow scientists to better address societal and public needs and have greater involvement in new research opportunities relevant to regional and state economic development;
 - increase development of advanced technologies that will enhance environmental quality, foster higher production, improve food safety, and develop higher-quality products with reduced resource inputs and environmental footprints; and
 - allow AgriLife Research to attract, train, and retain excellent local talent.
- AgriLife Research scientists and facilities are often the face of agricultural and natural resources research to the public. Both should reflect the world-renowned, cutting-edge, and life-changing nature of the agency.

For more information, contact:

Mark A. Hussey, Ph.D., Director
Texas AgriLife Research
Texas A&M System
113 Jack K. Williams
Administration Building
2142 TAMU
College Station, TX 77843-2142
p. 979-845-7984
f. 979-458-4765
mhussey@tamu.edu

Joe Cox, Assistant Vice Chancellor
for External Relations
AgriLife Agencies
Texas A&M System
113 Jack K. Williams
Administration Building
2142 TAMU
College Station, TX 77843-2142
p. 979-845-7984
f. 979-458-4765
joecox@tamu.edu