

Texas A&M University Combined Research and Extension Plan of Work 2021-2025

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I. Plan Overview

1. Executive Summary

Texas is the second largest state in the nation with approximately 25 million citizens. The size and scope of Texas pose unique challenges with a wide range of diversity including both the agricultural and human sectors. The issues and needs of Texans vary by numerous factors and, in many cases, are complex. Texas is one of the most rural and most urban states in the nation with a majority of its citizens living in 20 of the 254 counties in the state.

Texas A&M AgriLife Research (AgriLife Research) and the Texas A&M AgriLife Extension Service (AgriLife Extension) are the land-grant research and Extension components of the Texas A&M System and are headquartered in College Station, Texas. Since its beginning in 1876 as a land-grant institution, Texas A&M University has been a recognized leader in agriculture, food, and natural resources. Today, Texas A&M University, AgriLife Research, and AgriLife Extension continue this legacy through outstanding academic programs, important contributions to science through research and discovery, and life-long learning and youth development through Extension programs.

The work of both AgriLife Research and AgriLife Extension is guided by strategic plans. AgriLife Research developed a strategic plan to focus its resources on issues of highest importance as identified by agency scientists and other stakeholders. The major topical areas in the strategic plan are identified as priorities. These priorities are vital and equally important to ensuring a positive future for Texas and its citizens. The priorities are as follows:

- 1) Achieve resilience in food, fiber, and ecological systems through adaptive strategies.
- 2) Detect, monitor, and mitigate insect vector-borne diseases and invasive species.
- 3) Enhance agricultural information systems and expand their use through innovative applications.
- 4) Integrate basic and applied research at the nexus of food and health.

The Extension strategic plan is designed to enable the dissemination of research-based information to the citizens of Texas on issues of importance as identified through grassroots and other stakeholder input processes. This information is intended to allow the citizens of Texas to make sound decisions that will improve the overall quality of life for themselves and all Texans. The goals of the Extension strategic plan are:

- 1) Ensure a sustainable, profitable, and competitive food and fiber system in Texas.
- 2) Enhance natural resource conservation and management.
- 3) Build local capacity for economic development in Texas communities.
- 4) Improve the health, nutrition, safety, and economic security of Texas families.
- 5) Prepare Texas youth to be productive, positive, and equipped with life skills for the future.
- 6) Expand access to Extension education and knowledge resources.

Work on issues of importance in the state is a joint endeavor by both AgriLife Research and AgriLife Extension. Research-based information is translated to practical best management practices and disseminated via multiple channels including the network of agents in all 254 counties in the state.

Both AgriLife Research and AgriLife Extension conduct identification of issues and needs at multiple levels. Grassroots involvement by citizens, advisory groups, and commodity and industry groups are just a few of the ways this information is generated. Work with other states on areas of shared interest is also of high priority. This report addresses programs of

primary importance in Texas. The programs selected also address federal initiatives for agriculture and natural resources, individuals and families, communities, and youth and adult leadership development.

2. FTE Estimates

Year	1862 Extension	1862 Research
2021	385.0	155.0
2022	385.0	155.0
2023	385.0	155.0
2024	385.0	155.0
2025	385.0	155.0

II. Merit / Peer Review Process

AgriLife Research and AgriLife Extension Administrative Leaders serve as merit reviewers for the Federal Plan of Work, the Federal Report of Accomplishments and Results, and associated grants and contracts. This team is comprised of senior administrative staff, as well as department heads and associate department heads for Extension. This leadership team is responsible for the oversight and management of all programs conducted by research and Extension faculty.

III. Stakeholder Input

1. Actions to Seek

Both AgriLife Extension and AgriLife Research use multiple methods to reach stakeholder groups within the State of Texas. AgriLife Extension uses multiple sources of input from various stakeholders. These include local clientele, commodity/special interest groups, trend data monitored by specialists, various county committees, elected officials, and emerging issues. Teams of Extension and research faculty meet to analyze these issues, which lead to priority setting and development of programs to address the needs and issues raised by the various stakeholder groups and methods.

Approximately every five years, AgriLife Extension holds open forums to identify issues. These forums are held in each of the 254 counties. Issues identified are entered into a state-wide database and used to guide programming. The last state-wide needs assessment was conducted in the Spring of 1999. Data from these forums and other processes are used to guide programming.

Local Leadership Advisory Boards (LABs) meet to validate issues raised in the local stakeholder input process in the non-forum years. Leadership Advisory Boards serve as a conduit to local citizens and their needs. These boards are comprised of community opinion leaders charged with providing long-term visioning and advocacy for the local Extension program. Approximately 2,500 individuals serve on Leadership Advisory Boards across the state. This process continues as the local process to raise and validate issues. Another 10,000 citizens serve on program area committees, task forces, coalitions, and youth boards. These volunteers represent specific areas of the local program and are involved in issues

identification, program development and delivery, evaluation and interpretation of programs, and management of other volunteers. These volunteers represent all 254 counties in the state.

AgriLife Research Administration, Department Heads, and Resident Directors regularly meet with the major agricultural industries and commodity groups in Texas. AgriLife Research has encouraged the public to participate in helping set priorities, assess current program and process effectiveness, and determine future directions. These processes were open, fair, and accessible to encourage individuals, groups, and organizations to have a voice, and treated all with dignity and respect. Stakeholders were initially identified by membership in listed organizations, though all events were public and were announced in the press and other written notice. Input from these events was captured by AgriLife Research participants, and in some cases, was published for further public use. Stakeholder input has always been critical to AgriLife Research processes and programs, and listed events and organizations continue as essential partners in setting the AgriLife Research agenda and recognizing and addressing emerging issues. A concentrated effort was done for small grains, corn, sorghum, and cotton resulting in a jointly developed strategic plan. AgriLife Research also met with leading animal health companies, large cow-calf operators, stockers, cattle feeders, and leaders in high-throughput sequencing to develop a research strategy to benefit the beef industry.

2. Methods to Identify

The basis for Texas Extension's relevance in the State of Texas is grassroots involvement. Texas Extension engages the local Leadership Advisory Board in the identification and validation of new and emerging issues. Information from other stakeholders is obtained in various ways. Regular meetings are held with various commodity and interest groups. These groups provide input into programmatic decisions including development of new efforts, modification of existing efforts, and termination of programs that are no longer relevant. Finally, various subject matter groups employ the use of surveys and other needs assessment processes to gain information specifically about their subject area. Data from these processes are used to develop programs to address issues. For research, the above listed groups and organizations provide invaluable input into the stakeholder process. Also, research maintains an active contact list and engages stakeholders on a regular and ongoing basis.

3. Methods to Collect

Both AgriLife Extension and AgriLife Research use multiple methods to reach stakeholder groups within the State of Texas. AgriLife Extension uses multiple sources of input from various stakeholders. These include local clientele, commodity/special interest groups, trend data monitored by specialists, various county committees, elected officials, and emerging issues. Teams of Extension and research faculty meet to analyze these issues, which lead to priority setting and development of programs to address the needs and issues raised by the various stakeholder groups and methods.

Methods of data collection include surveys, focus group sessions, data collected as a result of program evaluations, expert panels, meetings with stakeholders, and open forum type meetings to solicit input. All data from all sources is considered when decisions are made regarding the future directions of Research and Extension efforts.

4. How Considered

The basis for AgriLife Research and AgriLife Extension's relevance in the State of Texas is grassroots involvement.

AgriLife Extension has utilized Open Listening Sessions as part of the grassroots Texas Community Futures (TCFF) Process. These sessions provide local clientele the opportunity to voice their opinion on issues of importance to their lives and the lives of others in their community. The last state-wide needs assessment was conducted in the Spring of 1999. Data from these forums and other processes are used to guide programming. Local Leadership Advisory Boards (LABs) lead efforts to raise new and validate current issues being addressed in local communities. The process allows for flexibility in approaches based on community resources.

Face-to-face meetings and an online data collection effort are part of the options offered. Approximately 2,500 individuals serve on Leadership Advisory Boards across the state. In addition, another 10,000 citizens serve on program area committees, task forces, coalitions, and youth boards. These volunteers represent specific areas of the local program and are involved in issues identification, program development and delivery, evaluation and interpretation of programs, and management of other volunteers. These volunteers represent all 254 counties in the state.

Both AgriLife Extension and AgriLife Research utilize various methods to analyze and incorporate input from stakeholders. Teams of Extension and research faculty meet based on need to analyze these issues, which leads to priority setting and development of programs to address the needs and issues raised by the various stakeholder groups and methods. Strategic plans and roadmaps for AgriLife Research and AgriLife Extension have been developed to guide our efforts.

IV. Critical Issues

1 Agriculture Production

Description:

Texas leads the nation in several areas including cattle, cotton, hay, sheep, goats and mohair. Twenty billion dollars annually is added to the Texas economy from agricultural. Agriculture production will focus primarily on livestock and crop production, and also includes economics, fruit and vegetable production, pest management, range management, wildlife, and horticulture.

Term: Long

Science Emphasis Areas

Agroclimate Science
Bioeconomy, Bioenergy, and Bioproducts
Environmental Systems
Food Safety
Sustainable Agricultural Production Systems

2 Natural Resources and the Environment

Description:

This includes research and extension work to serve the needs of clientele through basic and applied research, and extension directed to the problems and their impacts on Texas' natural resources and environment. The focus of this area includes water, range management, wildlife, and environmental stewardship while being mindful of the need for producers to remain profitable.

Term: Long

Science Emphasis Areas

Agroclimate Science
Environmental Systems
Sustainable Agricultural Production Systems

3 Community and Economic Development

Description:

Efforts in community and economic development are designed to increase the capacity of targeted Texans to respond to rapidly changing socioeconomic forces that impact their community and quality of life through increasing the understanding of these forces and potential responses from both an individual and community perspective. Specific issues include concerns about workforce development, community and regional economic viability, and sustainable communities.

Term: Long

Science Emphasis Areas

Education and Multicultural Alliances
Food Safety
Human Nutrition
Youth Development

4 Connecting Agriculture and Health

Description:

Today more than ever the connection of agriculture to the foods we consume is critical. Consumers must sift through a vast number of sources to find information on agriculture, food, and the connection of these for accurate and unbiased information. This area of work focuses on agriculture, our food, and the connection to health. Research and extension efforts will focus on producing a high-quality food supply, while providing consumers access to evidence-based information to make informed decisions.

Term: Intermediate

Science Emphasis Areas

Education and Multicultural Alliances
Family & Consumer Sciences
Food Safety

Human Nutrition
Sustainable Agricultural Production Systems
Youth Development

5 Health and Wellness

Description:

Chronic diseases continue to be the leading cause of morbidity and mortality in Texas. Health and nutrition related diseases such as heart disease, cancer, diabetes, and obesity will be the primary focus of this area.

Basic and applied research, and educational programs will focus on prevention and management while helping individuals to understand the consequences of dietary and lifestyle choices. Safety will also be addressed through educational programming.

Term: Long

Science Emphasis Areas

Education and Multicultural Alliances
Family & Consumer Sciences
Food Safety
Human Nutrition
Youth Development

6 Youth Development and Leadership

Description:

The youth development and leadership program will focus on enhancing the skills needed for youth to become productive adults. Specifically, this program will serve to highlight the work in Texas associated with project experiences including club projects, curriculum enrichment, and special interests. These areas are represented by various subject areas including but not limited to agriculture, human health, workforce development and other less traditional projects such as photography, computers, etc.

Term: Long

Science Emphasis Areas

Education and Multicultural Alliances
Family & Consumer Sciences
Youth Development

7 Adult and Community Leadership

Description:

Adult and community leadership continues to be a major effort within Texas. Volunteers are one of the most important commodities to Texas Extension, ensuring that Extension maintains relevance and helping the agency deliver programs. Communities in Texas continue to need trained leaders and to ensure viability and resiliency in the era of diminishing rural economies and disasters.

Term: Long

Science Emphasis Areas

Education and Multicultural Alliances

Family & Consumer Sciences

Youth Development