

New Mexico State University Main Campus Combined Research and Extension Plan of Work 2022-2026

Status: Final
Date: 05/24/2021

I. Plan Overview

1. Executive Summary

New Mexico's rich history is rooted in agriculture and remains a top producer in the agricultural industry. New Mexico State University College of Agricultural, Consumer and Environmental Sciences (ACES) research and extension support fundamental and applied science and technology research to benefit New Mexico's citizens in the economic, environmental, social, health, and cultural aspects of agriculture, natural resources management, and family issues.

The NMSU College of ACES bases research, extension, and education programs on four pillars, which are the critical issues identified for our state. Each of these pillars drives economic and community development within the state of New Mexico. These critical issues are (1) Food & Fiber Production and Marketing, (2) Water Use and Conservation, (3) Family Development and Health of New Mexicans, and (4) Environmental Stewardship, all of which are based on the foundation of education and training of qualified professionals in the field of agriculture.

Food & Fiber Production and Marketing – The focus on several key areas that support the growth and improvement of plant and animal agricultural products in Mexico. The College of ACES faculty and staff foster technological innovation to enhance competitiveness and security of New Mexico agriculture, and increase value-added in the state.

Water Use and Conservation – Water is the most limiting resource for New Mexico. All aspects of water use affect agricultural efficiency, profitability, and human health. Water management will become more critical as water demands for urbanization and industrialization increase.

ACES' Family Development and Health of New Mexicans – The family is the fundamental institution of society. The College of ACES researches human behavior, child and adolescent development, human nutrition and food science, clothing and textiles, and family resource management. The College's research and Extension programs on human nutrition and wellness are aimed at keeping people from becoming ill and are likely considered "preventive medicine" programs.

Environmental Stewardship – Rural and urban human activities affect land, water, and air. Through teaching, research, and extension programs, the College of ACES is committed to furthering our understanding, using science-based knowledge, of human impacts on the environment and supporting environmentally-sound agricultural and natural resource practices.

In addition to these critical issues, NMSU ACES research and Extension are expanding efforts in value-added agriculture. This will include faculty and Extension specialists working with industry partners to identify opportunities for growth and need within the state.

Agricultural sustainability is another area of focus for ACES and will include research and Extension projects that are centered on meeting the global need for food, fuel, and fiber needs without compromising other resources.

2. FTE Estimates

| Year | 1862 Extension | 1862 Research |
|------|----------------|---------------|
| 2022 | 120.0 | 140.0 |
| 2023 | 120.0 | 140.0 |

| | | |
|------|-------|-------|
| 2024 | 120.0 | 140.0 |
| 2025 | 120.0 | 140.0 |
| 2026 | 120.0 | 140.0 |

II. Merit / Peer Review Process

The Merit Review Process that will be Employed during the 5-Year POW Cycle

Internal University Panel

External University Panel

External Non-University Panel

All projects directed by the Agricultural Experiment Station (AES) and Cooperative Extension Services (CES) are subject to a peer-review process. Planned activities and research can be brought forward by faculty and/or specialists in response to an area of interest or high demand or can be brought forward by external advisory boards. These advisory boards provide suggestions to ensure research is meeting the needs of the communities that AES and CES serve in varying parts of the state.

III. Stakeholder Input

1. Actions to Seek

Use of media to announce public meetings and listening sessions

Targeted invitation to traditional stakeholder groups

Targeted invitation to non-traditional stakeholder groups

Targeted invitation to traditional stakeholder individuals

Targeted invitation to non-traditional stakeholder individuals

Targeted invitation to selected individuals from general public

Survey of traditional stakeholder groups

Survey of the general public

Survey specifically with non-traditional groups

New Mexico State University will continue to use a variety of methods to seek and collect feedback from our stakeholders. AES and CES support programs within the College of ACES on the NMSU main-campus as well as 12 off-campus agricultural science centers (ASCs) and 33 individual county offices. Each ASC hosts an annual field day where research is presented, and new initiatives are discussed. Public input is provided from small-scale farmers and ranchers utilizing the ASCs and advisory committee members who provide external reviews. Cooperative Extension hosts events regularly throughout the state through varying media platforms to seek stakeholder input and actively share research findings with the public.

2. Methods to Identify

Use Advisory Committees

Use Internal Focus Groups

Use External Focus Groups

Open Listening Sessions

Needs Assessments

Use Surveys

NMSU uses advisory committees that represent the populations they serve around the state, focus groups, and knowledge of specialists, agents, and researchers to identify stakeholders. Community members are encouraged to provide feedback throughout the year, which will help guide programs. The public is invited to participate in any listening sessions offered.

3. Methods to Collect

Meeting with traditional Stakeholder groups

Survey of traditional Stakeholder groups

Meeting with traditional Stakeholder individuals

Meeting with the general public (open meeting advertised to all)

Survey of the general public

Meeting specifically with non-traditional groups

The College of ACES uses a variety of methods to collect stakeholder input, as noted above. Meetings are the most common method used to collect data. With the advancement in technologies and for full accessibility, this will include virtual meetings. When necessary, specific meetings will be held with appropriate stakeholder groups to solicit input.

4. How Considered

In the Budget Process

To Identify Emerging Issues

Redirect Extension Programs

Redirect Research Programs

In the Staff Hiring Process

In the Action Plans

To Set Priorities

Feedback from our stakeholders is used to assess and determine current critical issues within the state. Feedback will continue to be collected and will be used to plan research and extension priorities for the College of ACES. Stakeholder feedback is also used to assist in budget allocation and hiring decisions.

IV. Critical Issues

1 Food & Fiber Production and Marketing

Description:

Food & Fiber Production and Marketing focuses on several key areas that support the growth and improvement of plant and animal agricultural products in New Mexico. This includes dealing with animal genetics and genomics, nutrition, reproduction, physiology, stresses, and management systems; genetics, genomics, stresses, efficiencies, and management systems of plants; and pests and pathogens of plants and animals, weeds, biological control, and integrated pest management systems. Additionally, this plan will support research for animal welfare/protection, as well as economics and marketing of agricultural products and businesses. NMSU is expanding transdisciplinary research with a focus on food processing, food safety, and developing value-added agricultural products that support community development and the New Mexico economy.

Term: Long

Science Emphasis Areas

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

2 Water Use and Conservation

Description:

Water is the most limiting resource for New Mexico. Therefore, research and extension efforts on water-related issues are critical. Efforts will focus on various facets of water management systems, including irrigation, policy, conservation, and use. These activities naturally overlap with the production and environmental aspects of programming.

Term: Long

Science Emphasis Areas

Agroclimate Science
Environmental Systems
Sustainable Agricultural Production Systems

3 Family Development and Health of New Mexicans

Description:

The NMSU College of ACES takes pride in caring for the whole family unit from physical to mental health. Research focuses on human behavior, child and adolescent development, human nutrition and food science, clothing and textiles and family resource management. This critical issue also includes youth development programs.

Term: Long

Science Emphasis Areas

Family & Consumer Sciences
Food Safety
Human Nutrition
Youth Development

4 Environmental Stewardship

Description:

Environmental stewardship research includes soil coverage, plant, nutrient relationships; management of saline and sodic soils, and salinity. This also includes management of range resources, management and sustainability of forest resources, urban forestry, aquatic and terrestrial wildlife, conservation of biological diversity; waste disposal, recycling, and reuse; and natural resource and environmental economics.

Term: Long

Science Emphasis Areas

Agroclimate Science
Environmental Systems
Sustainable Agricultural Production Systems