

**NEW MEXICO STATE UNIVERSITY  
COLLEGE OF AGRICULTURE AND HOME ECONOMICS  
PLAN OF WORK**

**New Mexico Agricultural Experiment Station  
and  
New Mexico Cooperative Extension Service**

**For the Period Covering  
October 1, 1999 – September 30, 2004**

---

Gary Cunningham  
Associate Dean and Director  
Agricultural Experiment Station

---

Billy Dictson  
Interim Associate Dean and Director  
Cooperative Extension Service

**Submitted July 1999**

## **Introduction**

Agriculture in New Mexico is a steadily growing industry. Livestock cash receipts continue to rise yearly, followed by crop receipts. Farmers and ranchers sold a record \$1.9 billion in products in 1997. Cattle and calves, wholesale milk, and hay occupy the three top positions. Chile holds fourth place, onions fifth, and the greenhouse nursery industry and pecans follow closely behind.

Historically, New Mexico farmers and ranchers have enjoyed special attention in this state where only three locales call themselves “cities” (defined by having populations of greater than 50,000) and 90% of lands currently are considered range lands. New Mexico holds title to some of the true pioneer families of the present day cattle industry, with early cattle ranching in pure breeds and then later crossbreeding to create more fertile and adaptable cattle.

Competition is fast on the heels of an agricultural economy that encompasses the highly traditional and the ultra modern. Northern New Mexico low income agricultural Hispanic families are receiving leadership and organizational skills to identify and effectively resolve economic development problems. The Rural Agricultural Improvement and Public Affairs Project helps farmers and ranchers develop and implement sustainable farming and ranching programs appropriate for northern New Mexico, recognizing historical and cultural ties to the land.

In southern New Mexico, the Mexican border possesses one of the last frontiers for economic development in America. U.S. cities to the east and west of Las Cruces have undergone serious economic development. Southern New Mexico is now experiencing rapid and challenging change. Agriculture has the advantage of being geographically tied to the state’s resources. Struggles, though, are emerging with land and water resources and visionaries are trying to tackle many divergent land use planning issues.

Other economic influences on New Mexico’s highly agricultural economy include the possibility of an expanded space port industry in southern New Mexico, management of a rapidly expanding noxious weed problem, wolf reintroduction, and predator control issues. There are more public interest groups and private citizens seeking input into range land use issues, and there is more emphasis on sustainable natural resources and concern for their preservation. Many of these issues have increased the need for the Cooperative Extension Service to develop a farm mediation program and other educational programs to aid farmers and ranchers in understanding changing government regulations. While modern-day range “wars” are now fought with information and applied research, the New Mexico ranching industry remains a colorful mosaic of Anglo, Hispanic, and Native American influences—a symbol of the American West, and both an historic and economic treasure.

The new global economy presents increased opportunities for agricultural exports. The time is ripe for New Mexico's high-value food products to expand their export marketability. Long-closed markets are opening, and trade and tariff barriers are falling. For the first time, millions of people around the world

are entering the middle class, improving their diets, and sampling products from the rest of the world, including New Mexico's famous chile products.

The New Mexico Dairy Industry has grown dramatically in the last decade and now ranks 12<sup>th</sup> in average number of milk cows. Since 1990, the dairy industry in New Mexico has grown faster than in any other state, with a 172.6% increase in production. In addition, the dairy industry has attracted many allied industries, including milk processors, dairy equipment companies, feed companies, professional services such as veterinarians and consultants, and other service-oriented businesses.

The Cooperative Extension Service Plant Sciences Department is looking ahead to the opening of the College's Center for Sustainable Development of Arid Lands. The Center will go far in establishing New Mexico as a national and international magnet for arid lands science and provide Extension agronomy and horticulture specialists with contemporary technology—remote sensing, computing systems, laboratory facilities and geographic information systems—that will assist farmers and ranchers with current and future ecosystem science.

New Mexicans may wish to question many of our state's rankings on the nation's social statistical scales. New Mexico shows up near the bottom in categories related to wealth and near the top in categories that signal trouble. We can argue that much of New Mexico's population places higher values on matters of the family and home than matters of wealth. Many have consciously chosen less lucrative, but familiar, paths in their homeland, whether it be on their reservations, ranches, or in their small towns or neighborhoods.

Still, no one can be happy about rankings that show our children to be at greater risk of suicides, accidents related to alcohol, or other dangers. It is ironic that in a state with cultures that place such value on the family, we have so many at-risk young people. The Cooperative Extension Service's departments of family and consumer sciences and 4-H youth development are using an integrated family approach to human needs. In a state that reflects tremendous family values, this approach is our best hope for the future. Examples include an age-paced monthly newsletter for new parents, limited resource audience nutrition education, child care provider certification training, financial planning for women and teens, specially targeted generational 4-H groups at Native American sites, and youth diabetes education and screening.

The people of New Mexico do not take agriculture for granted. They expect the Cooperative Extension Service's attention, as they should. However, the tremendous downsizing of government has created a new set of problems, and many of our clients forget that their land-grant institution is affected by that trend; they often do not remember that more than 75% of the New Mexico Cooperative Extension Service's funds comes from state and local tax revenues. The New Mexico Cooperative Extension Service has managed to offset much of the downsizing by receiving more restricted funds, which means we accept increasing amounts of money through grants and contracts that can only be spent in restricted ways. A challenge that emerges from less public monies and more private monies is the ability for the Cooperative Extension Service to be flexible and address agriculture's needs in the way people

remember we did a generation ago. There also is the huge issue of maintaining a strong and flexible infrastructure that we will be dealing with for several years to come. We are working to encourage New Mexicans at all levels and industry sectors to agree that the need for a solid base in agricultural research and technology transfer will be important for us all today and in the future.

### **Mission of the College of Agriculture and Home Economics**

The College of Agriculture and Home Economics at New Mexico State University is the land grant college that provides comprehensive programs to New Mexicans in agriculture, home economics, natural resources, and hospitality and tourism industries. These programs are delivered through statewide, integrated efforts in teaching, research, and Extension.

### **Agricultural Experiment Station**

The Agricultural Experiment Station is the research arm of the College. The Agricultural Experiment Station interacts with all academic and Extension departments of the College by supporting the fundamental and applied research programs of the College faculty and graduate students. The Agricultural Experiment Station also cooperates with other research units at NMSU and with various state and federal agencies to provide opportunities for research that will benefit New Mexico's citizens.

The Agricultural Experiment Station is made up of scientists on the main campus and at agricultural science centers and research centers throughout New Mexico. The off-campus centers support fundamental and applied research under New Mexico's varied environmental conditions to meet the agricultural and natural resource management needs of communities in every part of the state.

### **Cooperative Extension**

The mission of the Cooperative Extension Service is to help people use research-based knowledge to improve the quality of their lives. The Cooperative Extension Service performs the organized service function of the land-grant institution by providing the state- and community-based outreach and educational activities of the College. The Cooperative Extension Service is a partnership between federal, state, county and local community governments; each partner contributes financial support to Extension programs. All Cooperative Extension Service personnel, including county agents and state specialists, are faculty and staff of NMSU.

Some Cooperative Extension Service faculty hold joint appointments in the Agricultural Experiment Station and Academic Programs, strengthening cooperation and collaboration among the units. All college faculty, including state and county faculty, work closely together to bring research-based information to the people of New Mexico in communities where they live and work.

### **Plan of Work**

This plan of work is a statement of the College of Agriculture and Home Economics' intended research and Extension activities for the next five years, as required by the Agricultural Research, Extension, and Education Reform Act of 1998 (AREERA). This plan is based on the College's current strategic plan.

### Points of Contact

Correspondence regarding this plan should be directed to:

#### *For Research:*

Dr. LeRoy Daugherty

Interim Associate Director

New Mexico Agricultural Experiment Station

New Mexico State University

Box 30003, MSC 3BF

Las Cruces, NM 88003

Voice: 505/646-3125

Fax: 505/646-5975

e-mail: ldaugh@nmsu.edu

Dr. Steven J. Loring, plan coordinator

Voice: 505/646-1464

e-mail: sloring@nmsu.edu

#### *For Extension:*

Mr. Billy Dictson

Interim Associate Dean and Director

New Mexico Cooperative Extension Service

New Mexico State University

Box 30003, MSC 3AE

Las Cruces, NM 88003

Voice: 505/646-3015

Fax: 505/646-5975

e-mail: bdictson@nmsu.edu

Dr. Wendy V. Hamilton, plan coordinator

Voice: 505/646-5284

e-mail: whamilto@nmsu.edu

### Adoptions by Reference

1. We adopt by reference the national Coordinated Multi-State Research Framework for fulfillment of our obligations to the AREERA's multi-state, multi-disciplinary, and integrated activities (see <http://www.agnr.umd.edu/users/NERA/workshop/RPAFramework.html>). Accomplishment reporting on research multi-state, multi-disciplinary, and integrated activities for the Agricultural Experiment Station will be through the annual Western Region impact statements and the results reported through AD-421 CRIS forms. Financial statements on Agricultural Experiment Station expenditures will come directly from the Agricultural Experiment Station as AD-419 CRIS forms.

2. We adopt by reference New Mexico State University's procedures for reporting Civil Rights compliance and Equal Employment Opportunity requirements.

## **ADDRESSING AGRICULTURAL ISSUES IN NEW MEXICO**

Short-, intermediate-, and long-term agricultural issues can be defined in various ways: application, process, and research. For the purposes of this plan of work, the New Mexico Agricultural Experiment Station defines short term to mean one year or less; intermediate term to mean one to five years; and long term to mean longer than five years. The New Mexico Cooperative Extension Service defines short term to mean one year or less; intermediate term to mean one to three years; and long term to mean four to five years.

An agricultural issue might be a short-term phenomenon, but the projected time until a solution can be ready for application might be decades. An agricultural issue might involve a process that will take decades to fully understand, but the applications might be short-term in nature.

### **Stakeholder Input to the College of Agriculture and Home Economics**

During 1996, the New Mexico State University College of Agriculture and Home Economics revised its strategic plan. As with the earlier strategic plan, town meetings were held across the state to receive comments and advice about what the College should be doing in research, Extension, and education to serve the citizens of New Mexico. Input was received from support groups and advisory boards, agricultural producers and processors, research and Extension faculty and staff, students, and concerned citizens. Their comments were instrumental in shaping the final revised College strategic plan and direction of research and Extension activities.

The College of Agriculture and Home Economics meets regularly with the New Mexico Extension Support Council, which gives guidance about research needs as well as Extension programs. The College also meets regularly with interim state legislative committees and hosts field days for state legislators, at which time the College receives input about both research and Extension needs.

New Mexico State University is a Department of Education-designated Hispanic Serving Institution. In 1999, 40% of the undergraduate student population was minority, which mirrors the general state ethnic composition.

In addition, research projects and Extension state major programs are listed and described on the World Wide Web on the College's reporting database *New Mexico Resource Returns* (<http://www.cahe.nmsu.edu/nmrr/>). Anyone can view the projects and submit comments to the College regarding their utility. When this plan of work is approved, it also will be put on the World Wide Web.

### ***New Mexico Agricultural Experiment Station***

Each off-campus agricultural science center has an advisory board comprising area producers, research scientists, Extension state specialists, and Extension county agents. The advisory boards recommend areas of research to benefit the region's agricultural needs. The advisory boards include people

regardless of ethnic/racial background, representative of the region the agricultural science center serves. For example, the Farmington Agricultural Science Center advisory board has representatives from the Navajo Nation, as well as Hispanic and Anglo members; the Alcalde Sustainable Agriculture Science Center advisory board primarily has Hispanic members, reflecting the ethnic composition of the region it serves. The advisory boards include non-producers (such as bankers) and representatives from state and federal agencies, in addition to agricultural producers, to better represent and serve the interests of the local region.

The Agricultural Experiment Station has a close working relationship with the Cooperative Extension Service. Not only do county Extension agents and state specialists serve on advisory boards for the agricultural science centers, the New Mexico Extension Support Council provides input to the Agricultural Experiment Station about research needs in the state.

The Agricultural Experiment Station also receives input from the following advisory boards and commissions about agricultural research needs.

Alfalfa Advisory Commission

Chile Pepper Institute Advisory Board

Consortium for Cattle Feeding and Environmental Science (includes Texas A&M, Texas A&M - Canyon, Texas Cattle Feeders Association, and USDA - Agricultural Research Service)

Cotton Commission

Cotton Advisory Committee

Elephant Butte Irrigation District

International Arid Lands Consortium (includes University of Arizona, University of Illinois, South Dakota State University, Texas A&M University - Kingsville, U.S. Forest Service, Jewish National Fund)

National Cotton Council (The Cotton Foundation)

New Mexico Extension Support Council

New Mexico Council on Agricultural Research, Extension, and Support Council (CARET) delegates

New Mexico Crop Production Association Board

New Mexico Crop Improvement Association

New Mexico Chile Commission

New Mexico Chile Task Force

New Mexico Wool Growers

New Mexico Dairy Association

New Mexico Cattle Growers Association

New Mexico Alfalfa Research Advisory Board

New Mexico Hay Association

New Mexico Dry Onion Commission

New Mexico Cotton Growers

New Mexico Hay Growers

New Mexico Beef Council



New Mexico Sheep and Goat Commission  
New Mexico Apple Commission  
New Mexico Apple Growers  
New Mexico Wine Growers Association  
New Mexico Wine and Vine Society  
New Mexico Cotton Ginners Association  
New Mexico Farmer's Market Association  
New Mexico Quarter Horse Association  
New Mexico Organic Commodity Commission  
New Mexico Ostrich Association  
New Mexico Ratite Association  
New Mexico Ostrich Council  
New Mexico Beekeeper's Association  
New Mexico Mining Commission  
New Mexico Association of Conservation Districts  
New Mexico Cattle Board  
New Mexico Resource Conservation and Development committees  
New Mexico Soil and Water Conservation Commission  
New Mexico Pistachio Growers Association  
Southwestern Pecan Growers  
State Land Office of New Mexico  
Texas Cattle Feeders Association (includes producers from New Mexico, Oklahoma, and Texas)

### ***New Mexico Cooperative Extension Service***

The Cooperative Extension Service must be flexible to adapt to changing conditions and issues. This means maintaining our recognized base programs while addressing emerging concerns of stakeholders. Flexibility also means addressing educational issues of an increasingly indirect agricultural audience. Extension works daily to build bridges and connections between or among our well-known traditional programs and 21<sup>st</sup> century programs that will challenge our families and neighbors in significant new ways.

A large and diverse group of stakeholders are regularly involved in helping the Cooperative Extension Service plan for the future. Across the state, more than 1,500 people serve on local county advisory committees, over fifty people serve on the statewide Extension Support Council and over five hundred producers, commodity group members, and community organizations contribute directly to the Cooperative Extension Services' planned program directions.

In addition to organized networks for program planning and input, Extension's lobbyist and administrators meet frequently to carry forth funding proposals. Agents and specialists serve in a variety of elected positions in commodity groups and professional associations helping to maintain community perspectives. College student ambassadors meet frequently with our state governor, congressmen,

representatives, and legislators to discuss issues of community and youth concern. Family Community Educators and 4-H volunteers serve as teachers and eyes and ears for family issues and program generation.

The New Mexico State University Board of Regents regularly receives reports from Extension about community impacts and educational efforts. In turn, Regents communicate frequently with Extension clientele in their communities returning valuable feedback. Our federal Extension partner provides avenues for keeping us abreast of national concerns that influence local citizenry and provides faculty with training opportunities. With a state population of just over 1.7 million, the majority of students at New Mexico State University are not only New Mexicans but representative of over 40% of minority families in the state. Through Agricultural Experiment Station field days, local community student recruitment parties, campus based youth events and parent days, the Extension Service weekly receives visits from former, current, and future Extension clientele.

Input for this plan of work also included specialists' efforts to involve many statewide or regional groups who were not necessarily involved in individual or cluster county programs. Input from these stakeholders represented a more informal information gathering process, but served as a valued means for idea sharing and program generation.

In this plan of work traditional Extension programs such as profitable livestock production, brush and weed control, family financial planning, and leadership development are still priorities to clientele. However, in addition, broader multi state and multi-agency issues such as water quality, wildlife management, food industry development, and at risk youth are of equal importance.

The New Mexico Cooperative Extension Service has maintained a strong grass - roots contingency for many years. Extension programs across New Mexico are developed by local citizenry combined with agent and specialist interpretations of needs and resources. Advisory committees comprising local stakeholders are involved in the identification of critical issues. Critical issues include agriculture, home economics, community economic development, animal science, and 4-H youth development concerns. Advisory committees provide guidance in the development of research projects and Extension programs targeted to address and solve problems.

Advisory committee participation does more than ensure local Cooperative Extension Service program focus and problem solving. Involvement in local program planning also creates the opportunity for personal growth by advisory committee members. They learn leadership and problem solving skills. Each county advisory committee becomes a means for local citizenry to sort out objectives and set goals related to community concerns and life skill development.

The New Mexico Cooperative Extension Service is sensitive to maintaining advisory committees that represent a cross section of each county's population, as well as a cross section of the economic community. Typically, an advisory committee is comprised of citizens representing families, business, agriculture, schools, youth, commodity groups, community services, and local government. Cooperative Extension Service faculty are sensitive to including membership representative of their local clientele regardless of ethnic or racial background. Examples include Alamogordo, where a large School for the Visually Impaired serves New Mexico. A member of the advisory committee is a member of the school. In McKinley County, 70% of the county is comprised of Native Americans. Their advisory committee has a majority contingent of Native American representation.

Advisory committees have, on average, 10 to 25 members in each county who generally meet two to four times a year. Membership is on a rotation basis. County Extension faculty work with advisory committees to agree on functions, faculty roles in relation to the committee, membership, and expectations of committee members.

The primary purpose of each county advisory committee is program development and program prioritizing. However, some committees choose to carry out multiple services, including county situation analysis, communication with various publics, program evaluation, facilitating inter-agency cooperation, and developing spokespersons for Extension.

County advisory committee members are asked on a regular basis to provide stakeholder input to Extension faculty. The process begins with Extension subject matter specialists providing pertinent data and technical information in each of the five New Mexico Extension program areas. County faculty provide the committee with updated local demographic information including agricultural statistics. Extension administration provides committees with an overview of recent past programs, available resources and projects. A uniform stakeholder feedback tool is provided to each advisory committee to document program suggestions, projects and research for the coming year.

Advisory committees are guided to review all available information, discuss needs and come to a consensus making recommendations for programs and research. Extension agents, specialists, and department heads study suggested issues/programs and develop plans of work to address grassroots concerns.

Criteria used to assess advisory committee input include asking: is the issue consistent with the mission and resource base of the Cooperative Extension Service; is it an area in which resources (time, knowledge and materials) are available; is it an area in which the Cooperative Extension Service can make a unique educational contribution; is it an area in which the Cooperative Extension Service can retain and/or develop existing or potential support bases consistent with its mission?

During the 1998–1999 year, Extension stakeholders identified issues under the following topic areas. Specific concerns were expressed that have evolved into Extension's plans of work for the 1999–2004 period.

**Plant Science**

Sustainable Agriculture  
Water Quality  
Integrated Pest Management  
Urban Horticulture  
Pesticide Applicator Training  
Loco Weed Research  
Weed & Brush Control

**Animal and Range Science**

Profitable Livestock  
Rangeland Education  
Water Quality  
Wildlife Damage  
Conservation  
Wildlife Management

**4-H Youth Development**

Developing Life Skills  
Volunteer Leadership

**Community Economic Development**

Small Business Support  
Financial & Tax Planning  
Food Processing  
Rural Based Tourism  
Rural Economic Development

**Home Economics**

Diet, Nutrition, & Health  
Parenting Education  
Financial Management  
Food Safety  
Food Technology

**RESEARCH AND Extension PROGRAMS**

Note: Program goals are equivalent to outcome indicators in this plan.

***Research***

All Hatch proposals are peer-reviewed internally by committees approved by the Director or Associate Director of the New Mexico Agricultural Experiment Station. If the Director deems it necessary, reviewers are recruited from outside the College of Agriculture and Home Economics. After revision based on review, the proposal is reviewed and approved by the department head, then reviewed and approved by the Director or Associate Director of the Agricultural Experiment Station before submission to USDA CSREES for their review and approval. Hatch multistate (regional) projects are reviewed by the various participating members of the project, then reviewed by the regional Agricultural Experiment Station directors.

The New Mexico Agricultural Experiment Station has 34.18 research FTEs. In FY99, federal appropriated funds total \$1.7 million (Hatch = \$1.149 million), while state appropriated funds total

\$10.013 million. Total federal appropriated funds represent 10.1% (Hatch = 6.8%) of the Agricultural Experiment Station FY99 budget, excluding miscellaneous income; state appropriated funds account for 59.5%, and grants and contracts account for 30.7% of the Agricultural Experiment Station budget.

### ***Extension***

The New Mexico Cooperative Extension Service has a lengthy process of merit evaluation for state and county major program plans. The process begins with stakeholders input at the county level. County advisory committees make formal recommendations for programs. These recommendations alert county faculty to localized program needs; recommendations are aggregated at the state level and examined for major trends and statewide program needs.

State faculty study these trends and statewide issues and draft program plans that address stakeholder issues. County faculty receive these drafts for review. County faculty meet together to decide which state major program plans address stakeholder needs in their county. They then write county major program plans that complement state plans.

State specialists, department heads, and the Director of the New Mexico Cooperative Extension Service review the combined county and state plans, further refine objectives, make evaluation and resource allocation decisions, and confirm that plans address the College of Agriculture and Home Economics' strategic goals.

Specialists and county faculty are assembled in program teams to carry out programs. The Office of Resource and Organizational Development works with county and state faculty to facilitate teamwork and design, implement evaluation schedules, and compile reports of accomplishment.

The New Mexico Cooperative Extension Service has 136.51 faculty FTEs. In FY99, federal appropriated funds total \$2.6 million, while state appropriated funds total \$7.803 million. Federal appropriated funds represent 19% of the total Cooperative Extension Service FY99 budget; state appropriations account for nearly 44%, county funding accounts for about 13%, and grants and contracts account for nearly 25% of the FY99 budget.

## **AGRICULTURAL ECONOMIC ANALYSIS (CSREES Goals 1, 5)**

### **Agricultural Experiment Station** (12 Hatch projects)

*Short-term goals:* analysis of New Mexico's crop production and costs.

*Intermediate-term goals:* improved understanding of New Mexico's agricultural economy and business infrastructure relationships.

*Long-term goals:* agricultural profitability; economic and community development in New Mexico.

### **Cooperative Extension Service** (10 state plans of work)

*Short-term goals:* increased understanding of new technologies related to crop production practices and costs.

*Intermediate-term goals:* improved understanding of New Mexico's agricultural economy and business infrastructure.

*Long-term goals:* agricultural profitability, economic and community development in New Mexico.

## **ANIMAL IMPROVEMENT AND MANAGEMENT (CSREES Goal 1)**

### **Agricultural Experiment Station (18 Hatch projects)**

*Short-term goals:* increased understanding of animal nutrition and reproductive physiology in beef cattle, dairy cattle, horses, and sheep.

*Intermediate-term goals:* increased beef cattle, dairy, sheep, and horse production, with improved health.

*Long-term goals:* technological innovation and technology transfer to enhance profitability of New Mexico agriculture while maintaining the natural resource base.

### **Cooperative Extension Service (3 state plans of work)**

*Short-term goals:* increased the understanding of livestock production practices, alternative production techniques and improvement plans in beef, cattle, dairy cattle, horses, sheep and minor small species.

*Intermediate-term goals:* increased health and production of beef, cattle, dairy cattle, horses, sheep and minor small species.

*Long-term goals:* technological innovation and technology transfer to enhance profitability of New Mexico agriculture while maintaining the natural resource base and expanding programs on environmental issues and natural resource management.

## **CHILD DEVELOPMENT AND FAMILY LIFE PROGRAMS (CSREES Goal 5)**

### **Agricultural Experiment Station (3 Hatch projects)**

*Short-term goals:* improved understanding of family and interpersonal dynamics.

*Intermediate-term goals:* improved recommendations for parenting and family relationships.

*Long-term goals:* improved quality of life for the people of New Mexico.

### **Cooperative Extension Service (2 state plans of work)**

*Short-term goals:* increased understanding of child development and parenting skills.

*Intermediate-term goals:* improved quality of child care services and respite care.

*Long-term goals:* enhanced quality of life for the people of New Mexico.

## **CLOTHING/FASHION MERCHANDISING (CSREES Goal 5)**

### **Agricultural Experiment Station (1 Hatch project)**

*Short-term goals:* improved understanding of textiles marketing and social implications of dress.

*Intermediate-term goals:* improved recommendations about fashion merchandising.

*Long-term goals:* increased economic development in New Mexico.

## **CONSUMER EDUCATION (CSREES Goal 5)**

### **Cooperative Extension Service (1 state plan of work)**

*Short-term goals:* increased understanding of consumer and financial management skills, the importance of debt reduction, financial planning for retirement, and consumer decision making related to indoor air quality.

*Intermediate-term goals:* improved consumer decision making and financial planning skills.

*Long-term goals:* improved quality of life for the people of New Mexico.

## **ECONOMIC PROFITABILITY (CSREES Goals 1, 5)**

### **Cooperative Extension Service (1 state plan of work)**

*Short-term goals:* increased understanding of financial statements and the economics of the global marketplace.

*Intermediate-term goals:* improved financial management techniques by clientele.

*Long-term goals:* increased support for economic and community development.

## **FOOD TECHNOLOGY AND SAFETY (CSREES Goal 2)**

### **Cooperative Extension Service (1 state plan of work)**

*Short-term goals:* increased understanding of product development, processing methods, safe food handling practices, nutrition labeling and marketing strategies.

*Intermediate-term goals:* increased number of accurate New Mexico food product labels.

*Long-term goals:* improved quality of life for the people of New Mexico.

## **HOSPITALITY AND TOURISM INDUSTRIES DEVELOPMENT AND IMPACT (CSREES Goal 5)**

### **Agricultural Experiment Station (4 Hatch projects)**

*Short-term goals:* improved understanding of the impact of tourism on the economy and natural resources of New Mexico.

*Intermediate-term goals:* improved understanding of the hospitality and tourism industries in New Mexico.

*Long-term goals:* economic and community development in New Mexico.

### **Cooperative Extension Service (1 state plan of work)**

*Short-term goals:* increased understanding by county tourism councils of project planning, implementing and evaluating.

*Intermediate-term goals:* increased agricultural, cultural, and heritage tourism opportunities.

*Long-term goals:* improved quality of life for the people of New Mexico.

## **HUMAN NUTRITION (CSREES Goals 2, 3)**

### **Agricultural Experiment Station (3 Hatch projects)**

*Short-term goals:* increased understanding of human physiology and nutrition.

*Intermediate-term goals:* improved recommendations regarding nutrition.

*Long-term goals:* improved quality of life for the people of New Mexico.

### **Cooperative Extension Service (5 state plans of work)**

*Short-term goals:* increased understanding by limited resource audiences of meal planning, food resource management, and healthy lifestyle alternatives.

*Intermediate-term goals:* adoption of healthy nutrition practices.

*Long-term goals:* improved quality of life for the people of New Mexico.

## **INTEGRATED PEST MANAGEMENT (CSREES Goals 1, 4)**

### **Agricultural Experiment Station (6 Hatch projects)**

*Short-term goals:* increased understanding of predator-prey interactions among nematodes, insects, and other arthropods.

*Intermediate-term goals:* profitable crop production with reduced use of pesticides and increased reliance on biological controls.

*Long-term goal:* technological innovation and technology transfer to enhance profitability of New Mexico agriculture while maintaining the natural resource base; environmental issues and natural resource management.

### **Cooperative Extension Service (2 state plans of work)**

*Short-term goals:* increased understanding of the principles of pest management and control options.

*Intermediate-term goals:* profitable crop production, reduced home and garden problems and increased reliance on biological controls.

*Long-term goals:* technological innovation and technology transfer to enhance profitability of New Mexico agriculture while maintaining the natural resource base and expanding programs on environmental issues and natural resource management.

## **LEADERSHIP (CSREES Goal 5)**

### **Agricultural Experiment Station (1 Hatch project)**

*Short-term goals:* investigate problems related to agricultural and natural resources/environmental education.

*Intermediate-term goals:* improved critical thinking skills of agriculture students and consumers.

*Long-term goals:* improved quality of life for the people of New Mexico.

### **Cooperative Extension Service (2 state plans of work)**



*Short-term goals:* increased knowledge by newly elected county officials on duties and responsibilities.

*Intermediate-term goals:* well-trained elected county officials.

*Long-term goals:* enhanced quality of life for the people of New Mexico.

## **PLANT IMPROVEMENT AND MANAGEMENT (CSREES Goal 1, 4)**

### **Agricultural Experiment Station (16 Hatch projects)**

*Short-term goals:* increased understanding of plant physiology; improved resistance to diseases and pests; development of improved trees for reforestation projects; tree varieties with increased marketability.

*Intermediate-term goals:* development of plant varieties with increased production, disease and pest resistance, and improved water-use efficiency.

*Long-term goals:* technological innovation and technology transfer to enhance profitability of New Mexico agriculture while maintaining the natural resource base; environmental issues and natural resource management.

### **Cooperative Extension Service (2 state plans of work)**

*Short-term goals:* increased understanding of noxious weeds prevention, new crop varieties, crop production practices and emerging sustainable agriculture issues, fertility management, insect and plant disease control, seasonal crop problems, product marketing, orchard management practices, plant disorder diagnosis, plant pathogen and abiotic effects, environmental influences on plant disease development, integrated pest management, water conservation and best management landscaping practices.

*Intermediate-term goals:* improved water use and conservation and increased crop and landscape management.

*Long-term goals:* technological innovation and technology transfer to enhance profitability of New Mexico agriculture while maintaining the natural resource base.

## **RANGE MANAGEMENT (CSREES Goals 1, 4)**

### **Agricultural Experiment Station (4 Hatch projects)**

*Short-term goals:* increased understanding of noxious weed ecology.

*Intermediate-term goals:* increased understanding of ecosystem ecology functions of semi - arid rangelands.

*Long-term goals:* technological innovation and technology transfer to enhance profitability of New Mexico agriculture while maintaining the natural resource base; environmental issues and natural resource management.

### **Cooperative Extension Service (2 state plans of work)**

*Short-term goals:* increased understanding of range management monitoring strategies.

*Intermediate-term goals:* rancher initiated monitoring systems.

*Long-term goals:* expanded programs on environmental issues and natural resources management.

## **SOIL FORMATION, FERTILITY, AND CONSERVATION (CSREES Goals 1, 4)**

### **Agricultural Experiment Station (3 Hatch projects)**

*Short-term goals:* increased understanding of interactions between climate and soil formation; microbiological processes that affect soil fertility.

*Intermediate-term goals:* improved understanding of processes affecting soil fertility and conservation.

*Long-term goals:* technological innovation and technology transfer to enhance profitability of New Mexico agriculture while maintaining the natural resource base; environmental issues and natural resource management.

## **VOLUNTEER AND YOUTH DEVELOPMENT (CSREES Goal 5)**

### **Cooperative Extension Service (5 state plans of work)**

*Short-term goals:* increased understanding of volunteer recruitment, volunteer job satisfaction and leadership opportunities.

*Intermediate-term goals:* increased volunteer and minority youth participation and youth leadership involvement.

*Long-term goals:* improved quality of life for the people of New Mexico.

## **WATER MANAGEMENT (CSREES Goals 1, 4)**

### **Agricultural Experiment Station (3 Hatch projects)**

*Short-term goals:* improved understanding of water interactions in semi-arid areas.

*Intermediate-term goals:* improved water use and conservation.

*Long-term goals:* technological innovation and technology transfer to enhance profitability of New Mexico agriculture while maintaining the natural resource base; environmental issues and natural resource management.

## **WILDLIFE AND NATURAL RESOURCES MANAGEMENT (CSREES Goal 4)**

### **Agricultural Experiment Station (4 Hatch projects)**

*Short-term goals:* increased understanding of wildlife-domestic animal interactions on rangeland; gap analysis of habitat usage.

*Intermediate-term goals:* improved recommendations regarding wildlife habitat use.

*Long-term goals:* improved understanding of environmental issues and natural resource management.

### **Cooperative Extension Service (3 state plans of work)**

*Short-term goals:* increased understanding of vertebrate pest control methods.

*Intermediate-term goals:* new methods introduced to control wildlife damage.

*Long-term goals:* expanded programs on environmental issues and natural resources management.

## **New Mexico Agricultural Experiment Station New Mexico Multistate (Regional) Hatch Research Projects**

The New Mexico Agricultural Experiment Station, through its formal participation on the following Multistate (Regional) projects, National Research Special Projects, and Western Region Coordinating Committees, cooperates with researchers from the following 41 states and four territories, as well as the USDA Cooperative State Research, Education, and Extension Service (CSREES), Agricultural Research Service (ARS), Economic Research Service (ERS), Animal and Plant Health Inspection Service (APHIS), Natural Resources Conservation Service (NRCS), U.S. Forest Service (USFS), U.S. Bureau of Reclamation (USBR), Bureau of Land Management (BLM), U.S. Department of Labor (DOL), various state Cooperative Extension Services, and the nations of Australia and Canada:

Alabama, Alaska, American Samoa, Arkansas, Arizona, California, Colorado, Connecticut, Florida, Georgia, Guam, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Massachusetts, Michigan, Micronesia, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Northern Marianas, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, West Virginia

### ***Multistate (Regional) Projects***

#### Plant Genetic Resource Conservation and Utilization (W-006)

AK, AZ, CA, CO, ID, MT, OR, UT, WA, WY; ARS, USFS

#### Environmental Transformation, Exposure, and Effects of Pesticide Residues (W-045)

AZ, CA, FL, HI, MT, NV, NY, OR, WA; ARS

#### Multistate Research Coordination (W-106)

AK, AS, AZ, CA, CO, FM, GU, HI, ID, MP, MT, NV, OR, UT, WA, WY; ARS, ERS, USFS

#### Reproductive Performance in Domestic Ruminants (W-112)

CA, HI, ID, KS, MI, MN, MO, MT, NE, NV, OH, TX, UT, WA; ARS

#### Microirrigation: Management Practices to Sustain Water Quality and Agricultural Productivity (W-128)

AZ, CA, CO, FL, GU, HI, IA, ID, KS, MI, MN, OR, TX, VA, WA, WY; ARS

#### Benefits and Costs of Resource Policies Affecting Public and Private Land (W-133)

AZ, CA, CT, CO, GA, KY, IA, ID, MI, MT, ND, NH, NJ, NV, OH, PA, TN, UT, WA, WV

#### Nutrient Bioavailability: A Key to Human Nutrition (W-143)

CA, CO, IN, MA, MI, MO, NE, OR, UT, WA, WY

Family and Work Linkages (W-167)

CA, CO, ID, MT, NV, OR, SD, UT, WA, WY

Enhancing the Global Competitiveness of U.S. Red Meat (W-177)

AZ, CA, CO, IA, ID, KS, NE, NV, SD, TX, UT, VA, WA, WY; ARS, ERS

Biological Control in Pest Management Systems of Plants (W-185)

AS, AZ, CA, GU, HI, IA, KS, MT, OR, UT, WA, WY; ARS, APHIS, USFS

Genetic Variability in the Cyst and Root-Knot Nematodes (W-186)

AR, AZ, CA, GA, HI, MI, NC, NE, OR, UT, WA

Water Conservation, Competition and Quality in Western Irrigated Agriculture (W-190)

AZ, CA, CO, HI, ID, IN, NE, NV, OK, OR, TX, WA; ARS, ERS

Factors Influencing the Intake of Calcium Rich Food among Adolescents (W-191)

AZ, CA, CO, HI, ID, IN, MT, NV, UT, WA

Rural Communities and Public Lands in the West: Impacts and Alternatives (W-192)

NV, OR, UT, WA

Management Systems for Improved Decision Making and Profitability of Dairy Herds (NC-119)

AL, AZ, CA, GA, FL, IA, IL, IN, KS, MI, MN, MO, NE, NH, NY, OH, PA, SD, TN, TX, UT, VA, WA, WI

Forage Protein Characterization and Utilization for Cattle (NC-189)

AR, IA, IL, IN, KS, MI, MN, MO, ND, NE, NY, OH, OK, SD, WI

Improved Systems of Management for Pecan Insect and Mite Pests (S-220)

AL, FL, GA, LA, OK, TX

Utilizing Potassium Buffering Capacity to Predict Cotton Yield Response to Potassium Fertilizer (S-270)

AL, FL, LA, MS, NC, TN, VA

Integrated Management of Arthropod Pests of Livestock and Poultry (S-274)

AL, AR, FL, GA, IA, IL, IN, KY, KS, LA, MN, MO, NC, NE, NH, NY, OK, PA, TN, TX

***National Research Special Projects***

NRSP-004 A National Agricultural Program: Clearances of Chemicals and Biologics for Minor or Special Uses

AK, AZ, CA, CO, FL, GU, HI, ID, MT, NV, OR, UT, WA, WY; ARS

***Western Region Coordinating Committees***

WCC-001 Beef Cattle Breeding Research in Western Region

AZ, CO, IA, MT, TX, WA, WY; ARS, Canada

WCC-011 Turfgrass Research

AR, AZ, CA, CO, GU, MT, NE, NV, OR, TX, UT, WA; CES-CA, CES-NV

WCC-021 Revegetation and Stabilization of Deteriorated and Altered Lands

CA, CO, TU, WA, WY; ARS, BLM, USFS, NRCS

WCC-027 Potato Variety Development

CO, ID, MT, OR, WA

WCC-039 Coordination of Sheep and Goat Research and Education Programs for the Western States

AZ, CA, CO, MT, ND, NV, OR, TX, UT, WY; ARS

WCC-040 Rangeland Ecological Research and Assessment

CA, CO, ID, MT, ND, OR, TX, UT, WA, WY

WCC-055 Rangeland Resource Economics and Policy

CA, CO, ID, MO, NV, OR, SD, TX, UT, WY

WCC-067 Coordination and Support for Sustainable Agriculture Research and Education in the Western Region

CO, GU, ID, MT, NV, OR, WA, WY

WCC-069 Coordination of Integrated Pest Management. Research & Extension Programs for the Western United States

AZ, CA, CO, HI, MA, MP, MT, OR, UT, WA, WY; ARS, CES-AK, CES-CA, CES-CO, CES-GU, CES-HI, CES-ID, CES-MT, CES-NM, CES-NV, CES-UT, CES-WA, CES-WY

WCC-072 Agribusiness Research Emphasizing Competitiveness

AZ, CO, ID, IL, IN, KS, MI, MS, ND, NE, OR, PA, TX, WA, WY

WCC-076 The Impact of Immigration on Rural America

CA, CO, FL, IA, MI, NY, WA; CSREES, ERS, DOL

WCC-077 Biology and Control of Winter Annual Grass Weeds in Winter Wheat

CO, ID, KS, MT, NE, OK, OR, UT, WA, WY; ARS, Canada

WCC-087 Fundamental Biology and Management of the Bemisia tabaci Species Complex  
AZ, CA, HI, TX; ARS

WCC-091 Improving Stress Resistance of Forages in the Western United States  
AZ, CA, CO, HI, MT, NV, OR, UT, WA, WY; ARS

WCC-092 Beef Cattle Energetics  
CA, CO, ID, MT, NE, SD, TX, UT, WA

WCC-093 Western Region Soil Survey and Inventory  
AK, AZ, CA, CO, HI, ID, MT, OR, UT, WA, WY; USFS, NRCS

WCC-094 Research and Administrative Coordination in Animal Science  
AK, AZ, CA, CO, ID, MT, NV, UT, WY

WCC-102 Climatic Data and Analyses for Applications in Agriculture and Natural Resources  
AZ, CA, CO, ID, NV, OR, TX, UT, WA; ARS, BLM, USBR, USFS, NRCS

WCC-103 Soil, Water and Plant Analysis for Improved Nutrient Management and Water Quality  
AK, AZ, CA, CO, HI, ID, MT, NV, OR, UT, WA, WY; ARS, USFS, CES-AK

WCC-108 Protecting the Safety of Food  
CA, GU, HI, ID, WA, WY

## **New Mexico Cooperative Extension Service Multi-State Programming**

**Multi-state projects include cooperation with the following 4 states and 1 country:**

Arizona, Colorado, Texas, Utah, and Mexico

**Invasive/Noxious Weeds:**

AZ, CO, TX, UT

**Native American Programming:**

AZ, UT, CO

**Tri-State Extension Border Project:**

TX, Chihuahua (Mexico)

**Multi-state 4-H Efforts** (National 4-H Impact Assessment Project, National 4-H Congress Design Team, national 4-H Livestock Judging Management Committee, National 4-H Wildlife Management Committee, National 4-H Pasture and Rangement Committee, and National 4-H Conference):

Numerous states

## **Internal and External Linkages**

The New Mexico Cooperative Extension Service is known throughout the state as the educational outreach arm of New Mexico State University. As such, we are frequently called upon to facilitate collaboration, strategic planning, and community planning among local or statewide organizations. It would not be stretching the truth to say that Extension faculty have probably worked with some branch of every organization in the state, from the teen court in Moriarty to the governor's office in Santa Fe. An incomplete list of collaborating agencies and organizations follows. This list comprises only agencies that are currently written into New Mexico Cooperative Extension Service state major program plans. The list consists of both internal and external linkages. However, for purposes of definition, internal linkages are interdisciplinary university collaborators. External linkages include government agencies, school systems, social service agencies, not-for-profit groups, and commodity groups.

### **Collaborating Institutions and Agencies**

Agency on Aging

Agricultural Producers

Association for Family and Community Education

Bernalillo County Environmental Health Department

Better Business Bureau  
Brush and Weed Control Education Program  
Bureau of Reclamation  
Bureau of Land Management  
Caregiving Resources, Inc  
Carlsbad Irrigation District  
City of Albuquerque Environmental Health Department  
Consumer Credit Counseling Service of New Mexico  
Environmental Protection Agency  
Farm Bureau  
Farm Services Agency  
Headstart  
Home Schools New Mexico  
National Cattleman's Beef Association  
National Marketing Council  
Natural Resource Conservation Service  
New Mexico Department of Children, Youth, and Families  
New Mexico Department of Economic Development  
New Mexico Radon and Air Quality Task Force  
New Mexico Department of Education  
New Mexico Department of Finance and Administration  
New Mexico Cooperative Association of Counties  
New Mexico Family and Nutrition Bureau  
New Mexico Department of Health  
New Mexico Energy Minerals and Natural Resource Department  
New Mexico Environment Department  
New Mexico Food Stamp Program  
New Mexico Forestry Division  
New Mexico Livestock Board  
New Mexico Child Care Bureau  
New Mexico Cooperative Fish and Wildlife Research Unit  
New Mexico Restaurant Association  
New Mexico Schools and After School Programs  
New Mexico Small Business Development Center  
New Mexico Cattle Grower's Association  
New Mexico Department of Vital Statistics  
New Mexico State FFA Office  
New Mexico State International Programs  
New Mexico State University Agricultural Science Centers  
New Mexico State University Hotel, Restaurant & Tourism Management Department  
New Mexico State University Range Improvement Task Force  
New Mexico Veterinary Medical Association



New Mexico Wool Growers, Inc.  
New Mexico Attorney General's Office  
New Mexico Association of Family and Consumer Sciences  
New Mexico Agricultural Statistics Department  
New Mexico Department of Game and Fish  
New Mexico Department of Health, Diabetes Control Program  
New Mexico Beef Council  
New Mexico Office of Child Development  
New Mexico Income Support Division  
New Mexico Department of Agriculture  
New Mexico Soil and Conservation Districts  
New Mexico State Parks Bureau  
NMSU Department of Biology  
NMSU Department of Civil, Agricultural, and Geological Engineering  
NMSU Waste-Management Education and Research Consortium  
NMSU Department of Chemistry and Biochemistry  
North Central New Mexico Small Farm Task Force  
Northern New Mexico Community College  
Nutrition Management Education Program  
Resource Conservation Service  
United States Postal Service  
United States Fish and Wildlife Services  
United States Department of Agriculture  
United States Forest Service  
USDA ARS Jornada Experimental Range  
USDA Poisonous Plant Lab  
USDA APHIS Wildlife Services  
USDA Cotton Ginning Research Research Lab  
USDA Fishery & Wildlife Services Cooperative Unit  
USDA - Agricultural Research Service  
USDA - Animal and Plant Health Inspection Service (APHIS)  
Western Regional Aquaculture Center  
Women, Infants, and Children Program

# **APPENDICES**

## **Federal Plan of Work Checklist Extension and Research Federal Funds**

The following checklist was taken from the Proposed Guidelines for State Plans of Work, published in the Federal Register on April 19, 1999. It is intended to aid the reader in locating sections of the Plan of Work (POW) that address the various issues.

**Are short, intermediate, and long-term project goals are identified?** See pages 11–16.

**Are POW project outcomes and impacts identified for each project?** Outcomes and impacts are identified in the goal statements, pages 11–16.

**Is there a plan for reporting outcomes impacts?** Yes, outcomes will be reported in yearly reports of accomplishment (New Mexico Resource Returns reports available to anyone on the world wide web).

**Are critical issues identified through current or planned research projects? Are emerging issues being addressed through research projects? Are critical issues identified through current or planned Extension programming?** Stakeholders have identified New Mexico’s critical issues agenda as described in the Stakeholder section of this report, pages 5–9.

**Was stakeholder input process fair and open to all including under served audiences? Did stakeholder process involve identification of critical agricultural issues in the state and did stakeholders provide input in the use of funds? How were critical agriculture issues determined? Do planned programs address these issues?** See Stakeholder section of this report, page 5.

**Does the stakeholder process include documentation of collaboration with other appropriate entities?** See Internal and External Linkages section of this report, page 21.

**What plans does Extension have to convey research results through multi-county efforts?** Extension regularly holds public meetings, demonstrations, field days, workshops, seminars, and trainings to convey research data. The media is used quite heavily throughout the state to report research findings. The College of Agriculture and Home Economics publishes a quarterly magazine to share studies, findings, and projects in progress. There are at least five weekly columns written by Extension faculty that have broad appeal. The College’s website hosts a variety of question and answer sections, accomplishment reports, publications and specific faculty available to respond with research results.

**Describe Extension’s merit review process for plans of work. Describe research’s peer review process for research programs. Describe research’s scientific review process for Hatch multi-state Research Funds.** See pages 10–11.

**Identify which research and Extension programs are multi-state, multi-disciplinary, multi-institutional and integrated.** See Multi-State Programming and Internal and External Linkages sections of this report, pages 17–21.

**Are required funding level percentages met in the state? Are funding levels for multi-state activities met?** Deferred pending clarification from USDA CSREES.

**Does the plan of work indicate the level of Federal formula funds indicate the proportion to all other funds available at the director or administrative level?** Deferred pending clarification from USDA CSREES.

**How are research and Extension efforts coordinated?** The College of Agriculture and Home Economics is a comparatively small college with state faculty housed in close proximity to one another. The majority of faculty projects and programs are coordinated among and between research and Extension faculty. See pages 10–20.

**What level of human and fiscal resources are provided to address critical agriculture issues?** 85% of the Cooperative Extension Services's resources and 100% of the Agricultural Experiment Station's resources address some segment of agricultural issues.

**Are federal formula funds being leveraged?** State and local funds account for 76% of Extension's budget. See page 11.

**Is there sufficient detail to assess program content involved in each POW?** Plans of work are outlined in terms of short, intermediate and long term goals. Yearly accomplishment reports will be available on line at our College web site as New Mexico Resource Returns documents.

**Do other appropriate states identify NMSU as being a project partner?** Arizona, Colorado, Utah, and Chihuahua, Mexico, are direct multi-state partners and are indicated as such in the Multi-State section of this report. Other states are formally identified as participating members of Multistate (Regional) Hatch projects or as members of Western Coordinating Committees approved by USDA CSREES.

## **College of Agriculture and Home Economics Strategic Plan Goals and Objectives**

During 1996, the New Mexico State University College of Agriculture and Home Economics revised its strategic plan. As with the earlier strategic plan, town meetings were held across the state to receive comments and advice about what the College should be doing in research, Extension, and education to serve the citizens of New Mexico. Input was received from support groups and advisory boards, agricultural producers and processors, research and Extension faculty and staff, students, and concerned citizens. Their comments were instrumental in shaping the final revised College strategic plan and direction of research and Extension activities. The College of Agriculture and Home Economics develops its research and Extension programs to meet its own strategic goals and objectives, listed below.

### **1. Foster technological innovation and technology transfer to enhance profitability of New Mexico agriculture while maintaining the natural resource base.**

- 1.1 Increase interdisciplinary and integrated management approaches in planning and implementing research and Extension programs, emphasizing both applied and fundamental methods for development of comprehensive solutions to important issues.
- 1.2 Continue water-related research, teaching, and Extension programs that generate technological innovation and transfer to enhance agricultural profitability and maintenance of water quality.
- 1.3 Maintain comprehensive, in-depth programs in animal and range management. Emphasis should continue on rangeland improvement; livestock fertility, nutrition, and endocrinology; and control of toxic plants. Programs in molecular biology, nutritional toxicology, and microbiology should be strengthened.
- 1.4 Maintain strong research programs in plant science, with significant emphasis on genetic improvement of crop plants. Plant breeding and molecular genetics research programs should be strengthened and coordinated.
- 1.5 Give priority to integrated approaches to pest management that combine cultural and biological approaches with stringent use of pesticides when necessary. Promote the safe use of pesticides.
- 1.6 Develop information and strategies to market products more efficiently and profitably.
- 1.7 Enhance urban horticulture programs to assist in small agricultural efforts, gardens, landscaping, and nurseries.
- 1.8 Encourage strategies for value-added programs in food processing and food technology.
- 1.9 Identify new economically-viable uses for various plant and animal species.

1.10 Continue to prepare students for careers as professional educators in agriculture, technology, and related disciplines.

**2. Increase the support by the College for economic and community development.**

2.1 Assess the actual and potential impact of College programs on economic development.

2.2 Continue support of New Mexico business development and management.

2.3 Facilitate community and business planning activities, including ranches and farms.

2.4 Emphasize existing programs and encourage the development of new programs that lead to the use of natural and human resources in a manner that provides greatest economic benefits, taking into ecological, biological, social, and cultural values.

2.5 Increase efforts to inform the public and members of government about the College's economic development activities.

2.6 Develop more extensive programs in value-added agriculture, including

2.6.1 Increased emphasis on food science, food technology, and post-harvest handling and processing of agricultural products.

2.6.2 Increased emphasis on practical aspects of agricultural marketing, to help identify marketing and promotional opportunities for specific agricultural products, and to include team approaches to solving marketing problems.

2.7 Provide support for farmers to pursue alternative crops and enterprises.

**3. Expand programs on environmental issues and natural resources management.**

3.1 Continue to identify the physical and economic trade-offs that would result from modifying existing resource management practices, and develop teaching and Extension programs to disseminate the findings to managers.

3.2 Emphasize programs that provide decision makers with information that assists in policy formation. Continue developing teaching, research, and Extension programs that address multiple uses of land. Investigate alternative enterprises based on utilization of natural resources.

3.3 Determine the effects of recreational and tourism activities on natural resources.

- 3.4 Develop natural resource management practices to ensure that socially and environmentally optimal resource uses are achieved.
- 3.5 Develop research, academic, and Extension programs that address the impact of urbanization on the environment.
- 3.6 Emphasize teaching, research, and Extension programs that address water quality issues.
- 3.7 Address soil and food contamination, waste management, watershed, and erosion problems.
- 3.8 Provide data and other information to the public, government agencies, and legislators on environmental issues.
- 3.9 Continue an environmental studies curriculum that educates students in natural resources and environmental management.
- 3.10 Emphasize agriculture's contribution to environmental quality and ambience.
- 3.11 Study cultural and social issues related to demographic shifts and agricultural transformation.
- 3.12 Encourage research and Extension efforts regarding policies resulting from influx of new residents.
- 3.13 Formalize integrated and coordinated relationships with other research entities, such as NMSU's Geography Department, Biology Department, Chemistry Department, and Physical Science Laboratory, and the USDA Jornada Experimental Range.
- 3.14 Assist land management agencies in developing standards and guidelines for land use and conservation. Educate users of public lands about land use standards and the monitoring of land condition.
- 3.15 Develop teaching, research, and Extension programs that address needs of forest and rangeland managers and users.
- 3.16 Continue teaching, research, and Extension programs that address wildlife habitat needs, economic value of wildlife, and biodiversity.
- 3.17 Encourage the development of teaching, research, and Extension programs that address the information and technology needs of resource managers.
- 3.18 Emphasize those efforts that identify efficient uses of existing water resources.
- 3.19 Provide programs that address the effectiveness of recreational hospitality and tourism practices.

**4. Enhance the quality of life for the people of New Mexico.**

- 4.1 Encourage partnerships and networks between the College; private organizations; county, state, and federal agencies; and tribal governments.
- 4.2 Develop academic and Extension programs to meet the educational needs of a social, economic, and culturally-diverse citizenry. Develop programs that address coping strategies, decision-making skills, communication skills, and consumer behavior.
- 4.3 Emphasize research on strengthening the family system. Develop comprehensive research programs to further our understanding of the language, customs, and values of New Mexico's diverse citizenry. Pursue research in the family and other institutions in society.
- 4.4 Continue programs to teach family resource management skills to the citizens of New Mexico.
- 4.5 Increase research and instructional programs in consumer and tourism services to enhance the socioeconomic well-being of New Mexicans.
- 4.6 Continue programs that help young people acquire knowledge, develop life skills, and form attitudes that enable them to become self-directing, productive, and contributing members of society.

**5. Continue a targeted involvement in international programs.**

- 5.1 Encourage and continue the internationalization of the College's courses of study.
- 5.2 Participate with the University in its effort to internationalize its courses of study.
- 5.3 Incorporate international objectives in Agricultural Experiment Station projects when appropriate.
- 5.4 Communicate the importance of international activities to New Mexico citizenry and legislators.
- 5.5 Work with industry to develop an international trade center or related institution to enhance the value of New Mexico products for export.
- 5.6 Work with industry to develop educational, work-related opportunities for students.
- 5.7 Continue to recruit international students, especially from Mexico and Latin America.