

**2001 OVERVIEW**  
**NORTH MISSISSIPPI RESEARCH AND EXTENSION CENTER**  
**Reuben Moore, Head**

The North Mississippi Research and Extension Center (NMREC) faculty and staff experienced another outstanding year in 2001. We had an increase in research projects, publications, grants funded and extension programs conducted. There were several new extension programs established and numerous others were expanded and updated. The faculty and support staff of NMREC have worked hard to provide quality research and extension programs for our clientele. This has been done in an environment of budget cuts causing significant purchasing restrictions.

The present physical properties of NMREC and their primary mission are as follows:

- Central Office, Verona, MS—Department Headquarters, District Extension Offices, Extension Specialist offices and MAFES faculty offices for Horticulture Unit and Northeast Mississippi Branch Experiment Station.
- Horticulture Research Unit, Verona, MS—Ornamental, Turf, Vegetable and Medicinal Herb Research.
- North Mississippi Branch Experiment Station, Holly Springs, MS—Canola, Cotton, Dairy, Wildlife, and Erosion Control Research.
- Northeast Mississippi Branch Experiment Station, Verona, MS—Soybeans, Cotton, Corn and Conservation Tillage Production Systems
- Pontotoc Ridge-Flatwoods Branch, Pontotoc, MS—Sweetpotatoes, Corn, Cotton, Fruits, Forestry and GPS Technology.
- Prairie Research Unit, Prairie, MS—Beef, Canola, Corn, Forages, and Soybean Research.
- Wiley L. Bean Swine Demonstration Unit, Pontotoc, MS

The following describes some of the activities of the above units along with staff and facility changes.

**Central Office**

Our extension and research faculty have worked together on numerous projects during 2001. Some of these include our Fall Garden Day and the MSU Pizza Farm at Verona, the Artificial Insemination Shortcourse at Prairie, our Producer Advisory Council and many more activities. We have plans for more of these types of activities during 2002.

There were no faculty changes at our central office during 2001. Support staff changes included the retirement of Mrs. Barbara Briscoe, longtime executive secretary of NMREC. We were pleased that Mrs. Ann Hinds, who was a secretary for the Northeast Extension District, accepted this position. Mrs. Susan Travis is the newest secretary for the Northeast District office. Another exciting development during 2001 was the opening of the North Mississippi Extension Horticulture Center. The facilities of our old office complex are being used to house this Center. The mission and activities of this center are explained in the extension section of this annual report.

**Horticulture Research Unit**

Consumer demand for horticulture research and education activities grows larger each year. Ornamental plant evaluations continue to provide information on plants adapted to Mississippi landscapes. A new research project evaluating the potential for commercial production of fresh cut flowers was initiated this past year. Initial trials revealed several flower species with production potential and market acceptability. Expansion of the trial will include economic analyses of commercial flower production.

Development of the Magnolia Botanical Gardens continues with the planting of over 100 trees this year. This planting was funded by a grant from the Mississippi Forestry Commission and the Mississippi Department of Transportation. Continued development is planned as funding becomes available.

The medicinal herb project continues to produce some very worthwhile data. This is a joint project with the National Center for Natural Products Research (NCNPR) at the University of Mississippi. Work is continuing with the initial research plant, Mayapple but we are now conducting work with other species such as Black Cohosh and Echinacea. Several discoveries on propagation and mulching techniques of Mayapple show great promise.

### **North Mississippi Branch Experiment Station**

The tunnel ventilation research facility is complete. The first of many planned projects was completed in early fall. As indicated in the project summary, this method of environmental control seems to be very effective. This is the only known research facility of its kind and we are proud it is located at one of the units in this department. Our research with cotton continues to contribute to the needs of hill cotton producers in the area. One of the newer projects there, evaluating the use of poultry litter as a nutrient source in the production of cotton, has shown that this is a viable use of this product. Our work with the Sedimentation Lab at Oxford continues. This is another of our cooperative efforts that is very successful.

### **Northeast Branch Experiment Station**

In 2001 there were over 40 agronomic row crop research studies at Verona. These involved several scientists from other departments. New areas of research in 2001 involved cotton nitrogen management within the field, petiole nitrogen analysis, skip-row cotton, reduced cotton seeding rates, narrow row corn and evaluation of bio-engineered (Roundup resistant and corn borer resistant) corn hybrids. We land formed approximately 30 acres for improved surface drainage and plot data uniformity. We also initiated a cooperative remote sensing research project in Pontotoc County. This research involves several scientists from other MSU departments.

### **Pontotoc Ridge-Flatwoods Branch**

The faculty at Pontotoc has really expanded research efforts. This is due in part to some great success in obtaining grant funding for some of the projects there. Several new projects involving GPS, GIS, and remote sensing in sweet potato and traditional agronomic crops were conducted on station and at producer locations. Research efforts have also been focused on integrating agricultural biotechnology into no-tillage systems. Ongoing sweetpotato research includes breeding for variety development and improved production efficiency through optimum fertilization and pest control. Scientists at the Pontotoc Branch have been very successful in working with other departments on campus such as Plant and Soil Sciences, Forestry, Entomology, Ag and Bio Engineering, and the Remote Sensing Technology Center. Collaborative research also involves other universities and companies focused on precision agricultural practices. Loyd Berry joined our staff at Pontotoc during 2001 as Facilities Coordinator and Trevor Garrett was hired as research assistant. These additions are contributing well to the mission of our station there. A very successful crop of Foundation Sweetpotatoes was recently harvested and will be sold to local producers for 2002 production.

### **Prairie Research Unit**

There have been significant changes at the Prairie Research Unit during 2001. Our longtime agronomist, Dr. Roscoe Ivy retired and left a tremendous gap in forage research. He has served our organization and the State of Mississippi well. We are continuing a few of his projects such as fescue evaluations and some work with other forage species. John Huston joined the Prairie staff as Facilities Coordinator early in 2001 and has done a good job of supporting our scientists. Due to timely rains, 2001 was a good forage year as evidenced by the large amount of grazing and available stored forage. Results from the studies with TASC0 continue to indicate great potential for increasing the efficiency of beef production. There are also several new projects being conducted at Prairie, which we will report later. Our new working facility with lab and classroom space is almost complete and will be ready for use early in 2002.

Our department was again recognized by the MAFES "Outstanding Facility and Grounds Maintenance and Overall Image" committee. The Northeast Branch Station and Horticulture Unit won first in the competition and the North Mississippi Branch Station won the most improved award. It shows that our faculty and support staff are working hard to keep our facilities ready for clientele visits at all times.

The contents of the following document give only a brief overview of our 2001 activities. More detail can be found at our web site, which is [www.msstate.edu/dept/nmrec](http://www.msstate.edu/dept/nmrec).

It is our sincere desire to provide extraordinary service to our clientele. We value your comments and suggestions for our continued improvement. It is our goal to become the research and extension center recognized throughout the Southeast for its outstanding research and extension programs in all commodities where programs exist in this center. Please allow us to fill a need in your area of interest in 2002!