Red River Research Station Profile

Report to Stakeholders **April 2010**

About the LSU AgCenter

The LSU AgCenter is dedicated to providing innovative research, information and education to improve people's lives. Working in a unique statewide network of parish extension offices, research stations and academic departments, the LSU AgCenter helps Louisiana citizens make the best use of natural resources, protect the environment, enhance agricultural enterprises and develop human and community resources.

Research Highlights

Agronomy/Soil Fertility

The station is the site of one of the longest continuous studies in the United States. Since 1959, different winter cover crops have been rotated with cotton to determine long-term benefits on chemical and physical characteristics of the soil and on cotton production. Variety evaluation trials for cotton, feed grain, and soybean are conducted annually.

Entomology

The program focuses on the integrated pest management of cotton insect pests and includes the evaluation of insecticides, both commercial and experimental, and transgenic cotton varieties for control of the major and secondary insect pests of cotton. In the early 1990s, the station was one of the first agricultural stations in the country to evaluate Bt cotton and helped bring about the first commercial release of Bt cotton in 1996.

Horticulture

Horticulture research focuses on the production of greenhouse tomatoes for high yield and premium quality through cultivar evaluation and proper fertilization. Greenhouse tomato yields have doubled over the last 10 years and costs have been reduced by practices such as recycling planting media and redirecting heat to the root zone.

Plant Breeding

Soybean breeding is aimed at developing high-yielding, disease-resistant soybean varieties adapted Louisiana and the Gulf Coast region. The LSU AgCenter's southernpea breeding program is the only program in the United States developing varieties adapted to mechanical harvest for fresh-market. 'Quickpick Pinkeye', a pinkeye purple hull variety released by the AgCenter, is grown throughout the southern United States.

Water Quality

Since 1998, the Red River Research Station has been conducting research to identify practices that minimize the impact of agricultural production on the quality of runoff water. The constructed wetland has demonstrated the ability to improve water quality runoff from nearly 400 acres of farm land prior to flowing into a nearby river.

Red River Research Station Office

Address: 226 Research Station Dr., Bossier City, LA 71112
Location: The station is located in southern Bossier City on Highway 71S approximately 3 miles south of the Jimmie Davis Bridge.
Phone: 318-741-7430
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Email:
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Web site:
LSUAgCenter.com/
RedRiverStation

Office Hours:
7:30 a.m.- 4:30 p.m.
Monday-Friday

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Research Station
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Size: 573 acres, including 260 in cropland and 190 acres in pasture. There are five greenhouses for tomato research totaling 14,400 sq. ft. and two greenhouses for pest management research totaling 2700 sq. ft.

Research focus:

Cotton, soybeans, feed grains
Soil fertility
Variety evaluation
Pest Management
Soybean breeding

Greenhouse Tomatoes
Cultivar evaluation
Growth media effects
Production efficiency

Southernpea
Breeding

Significance of Research

- Greenhouse tomato research has provided techniques for reducing the costs of greenhouse production systems.
- Variety trials provide important information on varieties that are best adapted to Northwest Louisiana.
- Resistance monitoring has been critical in the development of resistance management plans for several insect pests of cotton.
- Disease resistant soybeans adapted to the Louisiana will improve yields and reduce disease management costs.
- Research to improve quality of water runoff from agricultural land will reduce the environmental impact of farming practices.

2009 Industry Facts

- 34 million bushels of soybeans were produced on 1 million acres
- 82 million bushels of feed grains (corn, sorghum, and oats) were produced on 700 thousand acres
- 162 million pounds of cotton were produced on 225, 000 acres
- 630 thousand pounds of greenhouse tomatoes were produced on 141 thousand square feet.
- 212 thousand bushels of southern peas were produced on 2000 acres.

Data from the Louisiana Ag Summary Web site: LSUAgCenter.com/agsummary

Future Plans

Agronomy/Soil Fertility

The application of alternative N fertilizers, including poultry litter, and N additives to improve nitrogen efficiency for agronomic crops will be researched. Research on sweet sorghum and other plant species as a potential source for biofuel will be initiated.

Entomology

Research will continue on the efficacy of commercial and experimental insecticides, and on the evaluation of transgenic cotton varieties. Work with other entomologists across the Cotton Belt will focus on thrips and spider mite management. Soybean research will expand to include insecticidal efficacy and management trials for soybean pests.

Horticulture

Research will be conducted on the profitability of grafting to improve yields and to extend the cropping season through the summer months. Additional research will be conducted on identifying cost effective root media.

Plant Breeding

The soybean breeding program will continue to develop high yielding, germplasm with emphasis on identifying and incorporating resistance to Cercospora leaf blight disease. In addition to breeding new varieties for fresh market, the southern pea breeding program is developing new varieties for wildlife forage.

Weed Science

Recognizing the significant contribution of cattle production to Northwest Louisiana's economy, scientists at the Red River Research Station will initiate a pasture weed control program to identify herbicides that are effective in controlling weeds common to local pastures.

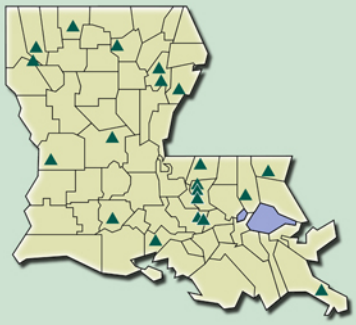
Visit our Web site: www.LSUAgCenter.com
Louisiana State University Agricultural Center: William B. Richardson, Chancellor. **Louisiana Agricultural Experiment Station:** David J. Boethel, Vice Chancellor and Director. **Louisiana Cooperative Extension Service:** Paul D. Coreil, Vice Chancellor and Director
The LSU AgCenter provides equal opportunities in programs and employment.

Louisiana Agricultural Experiment Station

Louisiana's unique combination of crops — ranging from corn, cotton, rice and sugarcane to extensive forestry, poultry, cattle and fisheries industries — presents challenges for providing research-based information to ensure sustainable agricultural production systems.

To address the needs of these industries, the Louisiana Agricultural Experiment Station operates 11 departments shared by the LSU AgCenter and the LSU College of Agriculture, as well as 20 research locations across the state. To fund the basic and applied research, scientists compete for federal and state grants and checkoff dollars provided by some farmers' groups, along with state and federal dollars. Many of the facilities also sustain their research operations through the sale of agricultural commodities produced on the stations.

The LSU AgCenter has the most successful record of commercialization of intellectual property in the LSU System. Since 2000, nine new companies have been started based on licensed technology from LSU AgCenter. The income is distributed among the LSU System, the inventors and more research.



LSU AgCenter Research & Extension

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