

## Livestock and Poultry

The total value of livestock and poultry production in Louisiana in 2008 exceeds \$2.3 billion. Of this amount, poultry accounted for \$1.2 billion. In Louisiana, there are 12,000 beef cattle ranches, 180 Grade A dairy herds and 48,000 horse owners. The LSU AgCenter conducts a wide variety of research and extension programs to support the wide variety of livestock enterprises in the state.

## Aquaculture

Aquaculture is a \$350 million business in Louisiana, with 2,300 aquaculture farming operations in the state and 190,000 acres in production. The LSU AgCenter Aquaculture Research Station is a state-of-the-art facility and one of the largest in the country. Research and extension activities which support and enhance the state's aquaculture industry include best management production practices, marketing and value-added strategies, enhancing competitiveness in the face of imported products and the environmental compatibility of aquaculture practices

## Important Programs for 4-H Youth & Families

With offices in all 64 parishes and 20 research stations located across the state, the LSU AgCenter is positioned to deliver research-based information that improves the

lives of families and youth. Programs include valuable information on nutrition and health, family financial management, housing, hurricane preparedness, disaster recovery, parenting and early childhood development. All of these programs contribute to a healthier workforce and help contribute to both rural and urban community and economic development. Over 243,000 Louisiana youth from all 64 parishes participate in 4-H programs and activities offered by the LSU AgCenter. Primary program areas of 4-H include: (1) science, engineering and technology; (2) healthy living; (3) character education; and (4) citizenship. Louisiana 4-H offers a variety of programs to promote healthy living among youth of all ages. Healthy Living programming includes: Smart Bodies, Smart Choices, Food and Fitness Board, Food and Fitness Camp, School Gardening among others. Louisiana 4-H also offers educational opportunities for youth through a week-long summer camping program that includes over 4,000 youth from all Louisiana parishes. All 4-H youth educational programs teach life skills that help young people with career orientation and gives them the skills to enter the workforce with a good character, excellent work ethic, valuable communications skills and with a commitment to making a positive contribution to improved community quality of life.



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05/09

The LSU AgCenter provides equal opportunities in programs and employment.

# Economic Importance of Agricultural Research and Extension to Louisiana



## Public Investment in the LSU AgCenter Yields Substantial Economic Returns and Benefits to the Citizens of Louisiana



## LSU AgCenter Research and Extension Produce Far-reaching Results Across Louisiana

The LSU AgCenter is the state's only educational institution dedicated solely to research and outreach on day-to-day matters that affect the living standards of our citizens. From food and fiber production to nutrition, health and food safety, water conservation, economic development and character education for youth, the LSU AgCenter provides individuals, families, businesses, industries and local governments with valuable information to improve economic conditions and quality of life.

Agriculture in Louisiana is big business. Over the past few years, Louisiana businesses have generated more than \$25 billion annually in food and fiber products and services. In 2008, the crop, livestock, poultry, forestry, aquaculture and fisheries sectors contributed nearly \$9.5 billion to the state's economy, employing thousands of people and providing many of the products we use every day. The LSU AgCenter, which includes both the Louisiana Agricultural Experiment Station and the Louisiana Cooperative Extension Service, plays a vital role in contributing to the long-term economic viability of the Louisiana agricultural sector and benefits citizens across the state.

The Agricultural Experiment Station's mission is to enhance the quality of life for citizens in Louisiana through basic and applied research. This research is conducted by 13 academic departments and 20 off-campus research stations throughout the state.

The Louisiana Cooperative Extension Service provides educational outreach in all 64 parishes. These educational resources support agricultural industries, help to improve the environment and provide a vast array of services through its family, community, 4-H and agricultural programs.

## Effect of Food and Fiber System on Local and Parish Economies

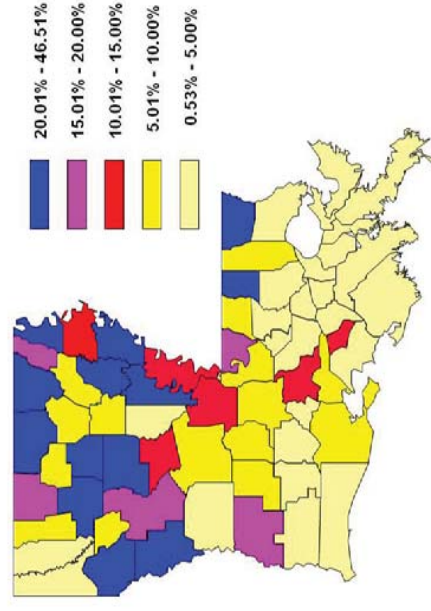
While the LSU AgCenter's annual state appropriation is less than 1 percent of the state's budget, it provides

research and extension programs that support a total of more than \$9 billion dollars worth of value in food and fiber output to the state's economy, approximately 4.26 percent of the total state economy. The value of the LSU AgCenter's support becomes even more apparent when we recognize that 17 of the state's parishes have 15 percent or more of their local economies dependent on food and fiber product sectors and more than one-third of all parishes are more than twice as dependent as the state average on food and fiber product and service industries.

## Economic Returns to Agricultural Research and Extension Are a Key Driver of Economic Growth

There is a strong link between investments in agricultural research and the productive efficiency of the food and fiber system and the resulting effects on national, state and local economies. Public investments in agricultural research have a direct impact not only at the farm level but also at the consumer level. A recent report that evaluated 35 studies of economic returns from public expenditures on agricultural research reported a median annual rate of economic return of about 45 percent.<sup>1</sup> In other words, every dollar invested in agricultural research generates approximately 2.5 times that amount in direct added income to the agricultural sector, not counting the additional indirect economic benefits to supporting services and sectors in the state's economy. Although the rate of economic return may vary from region to region, virtually all studies have agreed that economic returns from public investment in agricultural research are substantial and long lasting.

### Louisiana Food and Fiber System Contribution to Parish GDP



<sup>1</sup> Economic Returns to Public Agricultural Research, Economic Research Service, USDA, Eco. Brief No. 10, Sept. 2007.

## Commercialization of Intellectual Property

The LSU AgCenter has the most successful record of commercialization of intellectual property within the LSU System and, in fact, within higher education in Louisiana. The successful commercialization of intellectual property is the result of the AgCenter's focus on applied research — research conducted with practical implications for clientele in the state. Since 2000, nine new companies have been started based on licensed technology from the AgCenter. Royalties from these companies and from other licensing agreements have generated more than \$29 million since 1999. Royalty income per dollar of research expenditure in the LSU AgCenter is greater than that of Tulane, Harvard, MIT, Georgia Tech and Johns Hopkins Universities in 2007.

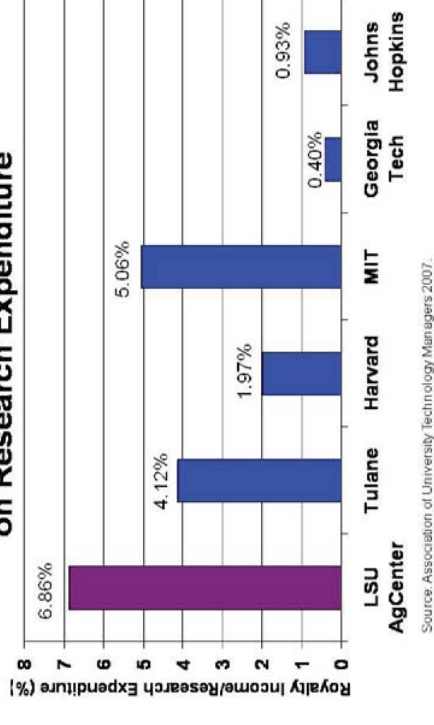
## Crops

The total value of agricultural crops produced in Louisiana in 2008 was \$2.94 billion. LSU AgCenter research and extension activities help sustain the economic viability of commercial agricultural production of a wide variety of major crops in the state including sweet potatoes, rice, sugarcane, corn, cotton, soybeans and wheat. As an example, since the Louisiana Agricultural Experiment Station assumed responsibility from USDA for the rice variety development research program in 1981, rice varieties released since that time have increased the total market value of rice production in Louisiana by \$1.313 billion, with a total impact on the state's economy in the range of \$2.6 to \$3.9 billion over the 28-year period.

## Forestry

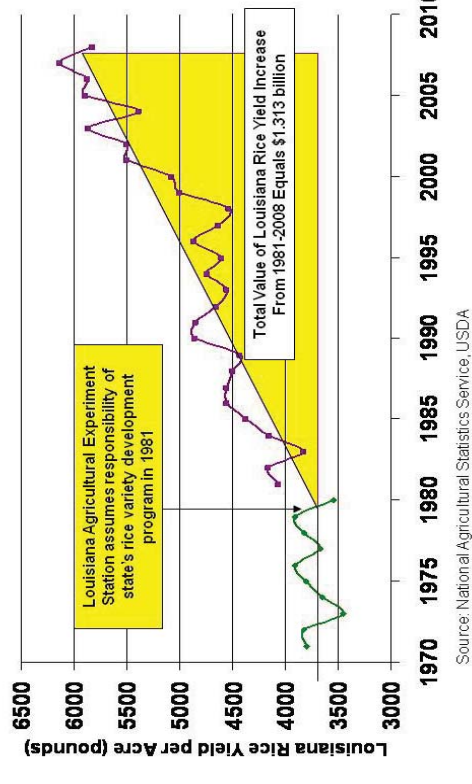
Forestry is the leading agricultural commodity sector in Louisiana in terms of annual value of market output. In 2008, the value of forestry sector output produced in the state was nearly \$3.3 billion. Over the past 10 years, income from timber harvests has contributed millions of dollars to the economies of many parishes across Louisiana. The LSU AgCenter has a strong commitment of research and extension activities which promote and enhance economic, conservation and other aspects of our state's natural resources.

## LSU AgCenter Royalty Income Return on Research Expenditure



Source: Association of University Technology Managers 2007.

## LSU AgCenter Rice Research has Generated Over \$1 Billion in Increased Market Returns



Source: National Agricultural Statistics Service, USDA

## Parish Level Farm Value of Louisiana Timber Harvests, 1999-2008

