## **Plan of Work Extension**

# Agricultural Research Programs Purdue University

Federal Fiscal Years 2005 to 2006

Submission and Certification by:

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March 31, 2004

#### I. Preface

This Plan of Work is a two year extension for the years 2005 to 2006 of the original projected Research program for 2000 to 2004 submitted by Agricultural Research Programs (ARP) at Purdue University, West Lafayette, Indiana, as mandated by the Agricultural Research, Extension, and Education Reform Act (AREERA) of 1998. Request for the two-year extension for FY 2005 – FY 2006 was posted in the Federal Register, Vol. 69, No. 27, Tuesday, February 10, 2004, pp 6247.

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### II. Program/Goals

Agricultural Research Programs intends to maintain its commitment to the five key goals outlined in the original 5-year Plan of Work. This will cover a wide array of research efforts ranging from production technology, efficiency, and profitability to nutrition and food safety to environmental enhancements to improving the quality of life for individuals and communities. Several areas that will receive additional attention include bioterrorism and food safety, food and health, reduction in emissions from livestock operations to improve air and water quality, biomass and biobased products, genomic and proteomic research for crop, livestock, and forestry applications, and nanotechnology for the development of biosensors.

#### III. Peer Review

The Office of Agricultural Research Programs manages the research portfolios on the principle of one research project per investigator in most cases. However, multi-investigator research projects are considered on a case by case basis where multidisciplinary teams are appropriate. All Hatch, Animal Health, and McIntyre-Stennis projects are subject to a peer review prior to submission to USDA-CSREES. The Office of Agricultural Research Programs is responsible for the oversight and conducts the peer reviews. ARP selects the reviewers in consultation with Department Heads. Every Review Panel consists of a minimum of three scientists that includes faculty from at least two different disciplines. Written comments are requested that

address the following: objectives, approach and methods, feasibility, relevance, building upon previous research, scientific and technical merit. A face-to-face meeting is scheduled with the three reviewers, the PI(s), the Department Head, and an ARP Administrator. Research collaboration among faculty across departments, schools, and universities in other states is strongly encouraged.

#### IV. Multi-State Research Activities

Purdue University scientists are actively involved in more than one hundred multistate research projects. While most are in the North Central region there are participants and leaders in projects throughout the United States. ARP Administrators are serving as Administrative Advisors (AAs) for 12 multi-state projects. The Associate Director is currently the Chair of the North Central Multi-State Committee.

Virtually all Purdue University faculty have a dual appointment involving some combination of research, extension, and/or teaching. Faculty in ARP holding joint research/extension appointments have complimentary, integrated research and extension appointments. As indicated in our original Plan of Work about 1/3 the faculty have joint research/extension appointments and based on FTEs are engaged in integrated research and extension activity. Hence, ARP will continue to exceed the 25 percent integrated research and extension activity reporting requirements.

#### V. Stakeholders

Engaging stakeholders is a priority for Purdue University. A Purdue University Strategic Plan, approved by the Board of Trustees in November 2001, makes it very clear that engagement with local, state, national, and world audiences is one of the primary missions of everyone at Purdue University. The Schools of Agriculture, Consumer and Family Sciences, and Veterinary Medicine, and all the departments in these schools, have approved strategic plans consistent with the goals of the University plan, plus a process of collecting and analyzing on a regular basis various metrics that are benchmarked to a cluster of highly ranked national institutions of higher education.

Purdue University faculty and staff engage stakeholders on a daily basis through activities occurring both within the university setting and across the state and Nation. Several of Purdue University's Centers and Institutes that conduct research have external advisory boards which provide input and guidance on the vision for and needs of various sectors of agriculture, including agribusinesses, food processors, state agricultural organizations, and government agencies.

The School of Agriculture convenes annual meetings of several stakeholder groups to solicit input. Examples include: The Purdue Council for Agricultural Research, Extension, and Teaching (PCARET), the Dean's Advisory Council, Indiana Crop Improvement Association, the Indiana Plant Food and Agricultural Chemical

Association, Indiana Soybean Association, Indiana Corn Growers Association, Indiana Pork Producers, Indiana Wine and Grape Council, Indiana Farmers Union, and the Indiana Farm Bureau.

In Indiana, most state regulatory functions are located on the West Lafayette campus, e.g., Animal Disease Diagnostic Laboratory and the State Chemists Office. The Lt. Governor serves as the Commissioner of Agriculture. The Dean of Agriculture, Director of Agricultural Research Programs, and other administrators have frequent contact with the Lt. Governor's Office and other state officials.

ARP plans to continue the development of close relationship with this wide array of stakeholders to report our research and engagement activities and seek counsel to adjust for efforts.

#### VI. Under Served

Purdue University continues to reach out to underserved populations. Special attention is being given to the Hispanic Community. Many farmers and agricultural processing facilities are relying on a Hispanic work force. Research and Extension faculty are developing and delivering educational programs to meet these needs. We are experiencing a significant increase in the hiring of minority faculty and staff. Indiana has a relatively large Amish community. Special research and educational programs are underway to reduce the number of farm accidents, especially to children.

The New Ventures Team composed of faculty primarily from agricultural economics and food science is working with Extension field staff to identify opportunities to add-value to commodities, and generate employment and income in rural communities. They are also working in collaboration with the Ag Innovation Center, funded by USDA, to develop and promote value added products.

Several research programs are underway at our Purdue Agricultural Centers to study alternative farming practices such as organic fruit and vegetable production and notill and strip-till systems to reduce soil erosion. These are especially important for smaller scale farmers or areas of the state with large scale commercial agriculture may be less concentrated due to topography or high density population centers.

The School of Agriculture continues to offer summer fellowships for minority high school students with college potential. One example is Science Bound in Indianapolis that works with minority students from the 7<sup>th</sup> grade through high school. Students who complete the program with an acceptable grade average are offer university scholarships.

VII. Program Expenditures and Projections

Year				Goals		
		1	2	3	4	5
				%		
2004	\$	71.6	4.0	3.9	13.5	7.0
	SY	71.6 73.3	5.5	1.9	13.5	6.0
2005	\$	68.0	6.0	6.0	15.0	5.0
	SY	70.0		4.0	15.0	6.0
2006	\$	63.0	7.0	8.0	17.0	5.0
	SY	65.0	6.0	6.0	17.0	6.0