Research

Our international research activities contribute to global science and to the welfare of people around the world, including people right here in Indiana. During the past year, with administrative support from International Programs in Agriculture, Purdue’s School of Agriculture has been actively involved in several research activities whose objectives serve these goals.

**Biodiversity workshop in Egypt:** IPIA provided support for the organization of an international workshop entitled “Strategies and Technologies for Conservation and Sustainable Use of Biodiversity in Large West Asian and North African Landscapes” that met in Egypt in March 1999. Dr. Dennis LeMaster, Head of the Department of Forestry and Natural Resources, provided leadership in the planning for this event. Nearly 100 scientists from 15 countries participated. Sponsors, in addition to Purdue/Agriculture, included several UN agencies, international research organizations, and our sister institution, Ain Shams University in Cairo.

**International collaborative research:** Faculty continue to be actively engaged with the USAID-funded Collaborative Research Support Program (CRSP). Our involvement has now expanded to include roles in five of the nine global programs, collaborating with counterparts in 16 countries around the world. Eighteen faculty and staff from seven departments across two schools (Agriculture, and Consumer & Family Sciences) are significantly engaged.

**CRSP Highlights:**

- The Purdue-led International Sorghum and Millet (INTSORMIL)/Niger program organized a West Africa Regional Workshop on Hybrid Seed in Niamey, Niger which drew 43 regional scientists. This workshop, co-sponsored by the Niger Institut National de Recherches Agronomiques (INRAN) and the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), was funded with support from the McKnight and Rockefeller Foundations.

- The Purdue component of the Bean/Cowpea CRSP recently signed a Memorandum of Understanding with the Food and Agricultural Organization (FAO) in Harare, Zimbabwe to foster the dissemination of CRSP-developed cowpea technologies in southern and eastern Africa. Memoranda of Understanding have been signed with the Institut d’Economie Rural in Mali and INRAN in Niger to expand collaboration in those countries.

- Faculty members in Food Science and Foods and Nutrition continue important research in association with the Bean/Cowpea CRSP. Studies focusing on the use of beans as a weaning food have shown that fermenting the beans reduces the oligosaccharide levels, which will reduce problems of flatulence and discomfort for small children. The effect of various processing steps on the vitamin content (B6 and folate) of fermented beans is being studied, and a weaning food made of corn and fermented beans will be tested in Central America where corn and beans are dietary staples.
• The Purdue component of the Peanut CRSP has made considerable progress in studies on the health effects of peanut consumption. Recent studies with collaborators in Ghana have shown that peanut consumption suppresses hunger and promotes diets that reduce the risk of cardiovascular disease. Related studies showed that peanuts in a healthful diet result in a significant reduction in blood fat and do not promote weight gain.

• More than 200 individuals from industry and government attended the Third Annual Integrated Pest Management (IPM) Regional Workshop for Central America in October 1998. The workshop, which focused on IPM research in the non-traditional export crop sector, was organized by Purdue IPM CRSP collaborators and met in Guatemala City.

• The Sustainable Agriculture and Natural Resources Management (SANREM) CRSP Principal Investigator continues to work with scientists in the Philippines to integrate a set of biophysical and economic findings from previous and ongoing research in the Lantapan watershed. The goal is to create a computer-based decision-support tool for natural resources management and planning.

• Purdue plays a major leadership role in the InterCRSP natural resources management (NRM) project. The InterCRSP has the goal of extending CRSP-generated NRM technology across West Africa.

• A Purdue-organized CRSP Symposium was a highlight of the national meeting of the American Society of Agronomy in Baltimore in October 1998.

Extension

The development and application of extension methodology in the international arena is increasingly a focus of IPIA, the Cooperative Extension Service, and partner countries around the world. In addition, IPIA has initiated work through the Extension Service to educate local citizenry about the important stake that Indiana has in the global economy.

New position created in IPIA: A formal position of International Extension Coordinator has been created in IPIA. The goal is to identify, facilitate, and lead the development of an appropriate international dimension in Purdue Agriculture’s Extension and outreach mission. Activities this year have included: 1) informational sessions on Extension methodologies for visiting Extension professionals from Japan, China, and Russia; and 2) collaboration with Krakow Agricultural University (Poland) to assist the Slovak Agricultural University in Nitra in building its institutional capacity in Extension.

Academic Programs

Globalization of agriculture puts demands on our School to provide international experiences for our students. Purdue agriculture students can now choose from 19 study abroad and internship programs in 14 countries, including new sites at the University of Queensland (Australia) and the University of Wales (Aberystwyth). Student participants in these programs gain an edge with employers who increasingly seek employees with international experience. Partial support for these programs comes from an endowment established by former Dean Bob Thompson and Karin Thompson. Additional support is provided by the Agricultural Alumni Association and Elanco Animal Health.
Record numbers study abroad: During the past year, 90 students participated in a study abroad program, a new record for the School. Several programs experienced especially large increases in participation: 22 students studied for a full semester in Sweden, 13 studied for the summer in France, and 12 participated in the summer Honduras program. Approximately 11% of Agriculture graduates in 1998-99 completed an overseas program prior to graduation. During this same period, 12 students completed requirements for the International Studies Minor.

Purdue/Poland student exchange: The Andrew W. Mellon Foundation has announced a gift of $15,500 to help support another exchange of agriculture students between Purdue and the Agricultural University of Krakow (AUK) in the spring of 2000. Eight undergraduate agriculture students will be exchanged each direction. Purdue students will study Polish language and culture, as well as the Polish agricultural system and environmental issues. Phillip and Martha Smith have provided additional support for this program.

Russia program expands: The U.S. Department of Education awarded the School of Agriculture another two-year contract to continue working in the Novgorod region of Russia. The project permitted ten agriculture students to complete courses in Russian agribusiness and marketing and study Business Russian at Novgorod State University in the summer of 1999. The grant also sent six junior faculty members to Russia in the summer of 1999 for the purpose of interacting with their Russian counterparts and increasing their competence on Russian-related topics in their respective disciplines. The project will also permit Purdue faculty to compete for grants to increase the international component of Purdue’s curriculum.

The U.S. Department of Agriculture awarded funds to IPIA to send an additional ten students to study at Novgorod during the summer of 2000. These students have already been selected and are currently enrolled in Russian language and Russia-related courses in preparation for their study abroad.

Host family participation: A total of 23 Indiana families hosted international exchange students from Japan, Mexico, and Australia. Host families provided room and board, an environment for cultural exchange, and an opportunity for students to strengthen their English skills.

Other News from IPIA

D. Woods Thomas Memorial Scholarship in International Studies: The School of Agriculture (through IPIA) awarded the first “D. Woods Thomas Memorial Scholarship in International Studies” in 1999 to Ms. Lisa Davis, Department of Food Science, to support her Ph.D. research in Honduras on infant food formulation. The award, made possible by an endowment in honor of Dr. Thomas (former Director of IPIA), supports graduate student scholarly activity in a developing country.

Partnership with FFA: IPIA joined international programs of National FFA and International Programs at Indiana University to write a successful proposal entitled: “Global Leadership Through Agricultural Development: A 21st Century Solution for Youth.” The USAID-funded activity will support collaborative efforts to develop an innovative CD-ROM based interactive educational program targeted at high school agriculture students. The curriculum will focus on global-local linkages that affect the lives of students and their families. It is anticipated that the curriculum will be disseminated across the United States at the completion of the project.
China programs continue to grow: IPIA-led programs in China, supported by a gift from Professor emeritus John Tse, are flourishing. Resources have been used to leverage two externally-funded activities: a Chinese supermarket managers’ inventory control training program (funded by USDA) and a three-year swine technology training program (funded by the U.S. Grains Council). Additional activities are in various stages of planning. In addition, planning for a study abroad program in China has started. The fund has permitted the School of Agriculture to formalize a unique alliance with Winrock International, a private sector international development group, to provide a continuing Purdue/Agriculture presence in Beijing.

U.S. Information Agency (USIA) curriculum project: Staff from the Department of Agronomy, with administrative support from IPIA, completed a USIA-funded international curriculum project in 1999. In collaboration with colleagues at the American University of Beirut (Lebanon) and the Jordan University of Science and Technology, the group developed eight case studies focused on environmental and land use issues based on both U.S. and Middle Eastern problems. A close-of-project workshop for a pan-Arab audience met in Beirut in May 1999.

University partnership programs: IPIA is currently administering two USAID-funded projects designed to link Purdue University/School of Agriculture with higher education institutions in other parts of the world in pursuit of development objectives. Our linkages under this program are in Russia (with Novgorod State University) and Honduras (with the Panamerican School of Agriculture/Zamorano). The Russia project, which partners us with the University of Maryland, is focused on the development of a model graduate and undergraduate environmental science and policy curriculum at Novgorod State University that can be replicated at other Russian institutions. The Honduras project, joint with Cornell University, is designed to strengthen the capacity of the linked institutions in rural development assistance activities. Together, the two projects involve nearly two dozen Purdue faculty.

IPIA international seminar series: IPIA supported 12 international seminars featuring speakers from on and off campus on a diversity of topics during the past year. Included among the off-campus speakers were individuals from three Russian agricultural universities, a senior manager from Deere and Company (Illinois), a scientist from the World Bank (Washington), and an individual from the National Research Foundation (Washington).

IPIA guest apartment in campus International Center: Thirteen guests from 12 countries were housed in the IPIA guest apartment on campus this year. The apartment is provided at low cost as an IPIA service to help departments host their international visitors.

School of Agriculture visitors: IPIA hosted 97 visitors from 21 countries during 1998-99.