

## **International Commitment in Agronomy**

### **Introduction**

The Department of Agronomy has a strong commitment to international involvement. Agronomy faculty have made substantial contributions to the strengthening of institutions of higher learning and agricultural research in several developing countries. Several of our faculty members have lived and worked for long periods in host countries. We have hosted numerous scientists from around the world in short and long-term visits and collaborative research programs. Graduates of our department hold key positions in national and international research and educational institutions of many countries.

Agronomy faculty have provided significant leadership in campus-wide efforts that have led to the globalization of the programs and mission of Purdue University by engaging in international teaching, research, and collaborative efforts.

The following are excerpts from our annual reports that describe some of our international activities each year from 2005 to 2008:

### **Annual Highlights 2005-2006**

#### **Joseph Anderson**

- Co-hosted Norman Borlaug International Science and Technology Fellows.

#### **Cale Bigelow**

- Co-presented papers at the 10th International Turfgrass Society Research Conference in Wales.

#### **Sylvie Brouder**

- Gave the keynote address "New Directions in Potassium Research" at the Potoz'05, the Second Workshop on Potassium in Australian Agriculture.

#### **Melba Crawford**

- Participated in the plenary and presented two technical papers at the IEEE Geoscience and Remote Sensing Society (IGARSS) meeting in Seoul, Korea.
- As VP for Conferences for the IEEE GRSS Society, traveled to S. Africa.
- As Director of LARS, met faculty in KU Leuven, Belgium, regarding the joint Purdue-KU Leuven Earth Observation Master's program and the Belgian-South African satellite remote sensing program.

**Kevin Gurney**

- Attended the UN negotiating session in Montreal Canada to improve and expand the Kyoto Protocol.

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**Scott Jackson**

- Presented at the International Rice Genetics meeting in Manila, Philippines.
- Teaching collaboration for CATIE in Costa Rica.
- Presented at the 3rd International Conference on Legume Genetics and Genomics, Brisbane, Australia.

**Robert Nielsen**

- Visited New Zealand and Australia to participate in two national maize conferences.

**Dev Niyogi**

- Involved in collaborative projects with the Indian Institute of Technology- Delhi, the Indian Institute of Technology – Kharagpur, and the Indian Institute of Tropical Meteorology at Pune.
- Dr. Niyogi is part of the Indo-US Forum on Science and Technology and participated in invited meetings at Boulder, CO on regional climate modeling.
- Dev Niyogi has collaborative projects in Western Africa, particularly Senegal.
- A collaborative project is underway with Kings College – London using satellite data to map land use.
- Received an Asian Initiative Project grant from Purdue and developed a project with the Indian Institute of Tropical Meteorology for water resources and climate.

**Gilbert Rochon**

- Appointed Adjunct Professor, School of Science, Natural Resources and Environmental Management at Mae Fah Luang University, Chiang Rai, Thailand.
- Served as a Fulbright Senior Specialist - Environmental Science for two weeks in Thailand.
- Gave Presentations in Istanbul, Turkey, at the World Summit on HIV/AIDS in Accra, Ghana. Paper, in Khartoum, Sudan, in Addis Ababa, Ethiopia, in Nairobi, Kenya, and in Madagascar.

**Jeff Volenec**

- Hosted Dr. Carlos Cangiano, a forage researcher from INTA in Argentina (their equivalent of USDA).

**International Highlights for 2006-2007****Cale Bigelow**

- Led a spring-break trip to Ireland for 34 students from across the college of Ag.

**Craig Beyroudy**

- Represented Purdue at the GCHERA meetings in Costa Rica,
- Visited EARTH University to initiate discussions with their President, Jose Zaglul, and the Dean of the College of Agriculture at the American Institute of Beirut, Nahla Hwalla, about opportunities for institutional collaboration.

**Laura Bowling**

- Hosted a visit to Purdue for Dr. Ashad Khan, Director of the Global Climate Impacts Study Center in Islamabad, Pakistan in February 2006.
- Involved in two joint research projects as part of the Northern Eurasia Earth Science partnership Initiative with Russian scientists from the Institute of Evolution and Ecology Problems of Russian Academy of Sciences and the State Hydrological Institute.

**Melba Crawford**

- Appointed to international advisory committee for Belgian/S Africa hyperspectral satellite mission.
- Invited to Universidad Tecnica Federico Santa Maria in Santiato, Chile, for collaborative research meeting and developed joint proposal on remote sensing.
- Presented on Remote Sensing of Urban Systems at the IEEE Urban Conference in Paris France.
- Developed collaborative research initiative in remote sensing of coastal environments with K.U. Leuven.

**Gebisa Ejeta**

- Organized a symposium entitled “Integrating New Technologies for Striga Control: Towards Ending the Witch-hunt”, held in Addis Ababa, Ethiopia for over 75 participants from 20 countries. Supported by USAID through a grant to INTSORMIL and EIAR.

**John Graveel**

- With George Van Scoyoc and Janet Beckerman, co-hosted two visitors from Kabul University in Afghanistan.

**Scott Jackson**

- Elected chair of the International Soybean Genome Consortium organized in Japan. Includes: China, Japan, Brazil, Korea and the US.
- Presented at the International Rice Functional Genomics Symposium in France.
- Presented at the International Legume Genomics and Genetics Conference in Australia.
- Together with Jianxin Ma, established a letter of cooperation with the Chinese Academy of Agricultural Sciences on the use of soybean germplasm.
- Presented at the International Conference on Heterosis, Polyploidy and Epigenetics in China.
- Presented at CIAT in Cali, Colombia.
- Presented at CIFN-UNAM in Cuernavaca, Mexico.

**Yiwei Jiang**

- Presented at the 2nd International ISHS Conference on Turfgrass Science & Management for Sport Fields in Beijing, China.

**Eileen Kladvko**

- Presented at the International Soil tillage Research Organization conference in Kiel, Germany.

**Jianxin Ma**

- Presented "Utilization of transposon-based genomics tools for crop improvement" to the Chinese Academy of Agricultural Sciences, Beijing.

**Dev Niyogi**

- Traveled to Goa, India to meet with the project investigators for the Asian Initiative Grant.
- Presented at the Mesoscale Processes Conference at the Indian Institute of Technology in Delhi. Conducted joint research with Dr. Mohanty at the Indian Institute of Technology.
- In Senegal interacted with meteorologists to complete a climate atlas for the country.

**Phillip Owens**

- Visited St. Istvan University, Hungary with Dr. William McFee to establish cooperation in soil studies.

**Jeff Volenec**

- Hosted Dr. Carlos Cangiano, a forage researcher from the Argentinean national research organization, INTA, and his graduate student Leandro Ventroni.
- A joint research project has been initiated with Drs. Danny Donaghy and Richard Rawnsley, and Keith Pembleton, from the University of Tasmania.

**Tony Vyn**

- Presented at the International Soil tillage Research Organization, Kiel, Germany.
- Hosted Jongho Seo, a crop physiologist from the National Institute of Crop Science in Suwon, Republic of Korea
- Presented at the Southwest Agricultural Conference, Ontario, Canada.
- Hosted the Dean of Agriculture, the Deputy Dean of International Programs, and two professors from Szent Istvan University in Godollo, Hungary.

**Cliff Weil**

- Co-organizer of the 1st EMBO Workshop on Plant DNA Repair and Recombination in Giens, France.
- Joint research projects underway with Christopher West, Wanda Waterworth and Susan Armstrong (Univ. of Leeds, and Univ. of Manchester, UK), with Tom Gerats (Radboud Univ., Netherlands), and with Avi Levy (Weizmann Institute, Israel).

**International Activities 2007- 2008****Cale Bigelow**

- Went on an exploratory mission to Southern India to determine the feasibility of an Agriculture study abroad course.
- Attended and presented papers at the 1st European Turfgrass Research Meeting in Pisa, Italy.

**Melba Crawford**

- Member of a delegation from the Office of the Science and Technology Adviser to the Secretary at the U.S. State Department that participated in an initiative on Global Dialogues in Emerging Science and Technology (GDEST) which focused on Geospatial Sciences for Sustainable Development in Africa.

**John Graveel**

- Participated in a cooperative project with Brigham Young University (BYU) to collect soil samples of Mayan ruins in the Yucatan Peninsula.

**Scott Jackson**

- Co-organizer of a Legume Genomics Conference in Puerto Vallarta, Mexico.
- Invited speaker at International Crop Science Meeting in Jeju Island, Japan.
- Invited to participate in proposal with Seoul National University, Korea.
- Visiting Faculty at University of Perpignan in Perpignan, France.
- Presented at Plant Genetics Series at Max Planck Institute in Cologne, Germany.
- Co-organizer of Rice Genome meeting in Narbonne, France.
- Appointed board member of CGIAR's Generation Challenge Program.
- Invited speaker at Plant Genome European Meeting in Varna, Bulgaria.

**Brad Lee**

- Presented at the 2nd International Workshop on Criminal and Environmental Forensics, Edinburgh, Scotland.

**Jianxin Ma**

- Organized the Transposable Elements Workshop in the International Plant and Animal Genome XVI Conference, San Diego, CA.
- Visited the soybean genetics and genomics laboratories at Chinese Academy of Agricultural Sciences, Beijing, China.

**Dev Niyogi**

- Initiated an India Climate Portal as a media content provider working with a media group - Mediasphere Pvt. Ltd. in Pune, India.
- Cohosted a postdoctoral visitor from Indian Institute of Technology (Delhi) jointly with National Center for Atmospheric Research and National Weather Service International programs.
- Invited participant for the Gates Foundation sponsored NRC Committee to Study Technologies to Benefit Farmers in Sub-Saharan Africa and South Asia.
- Visited Senegal and Taiwan, respectively to develop collaborations with local climate institutions.

**Herbert W. Ohm**

- Presented papers at the North American Wheat Workers Conference, Saskatoon, Sask., at Shandong University, at the 2<sup>nd</sup> International Conference on Plant Molecular Breeding, Sanya City, and P.R. China and at the Ss. and Methodius University, Skopje.

**Gilbert L. Rochon and colleagues**

- Presented papers at conferences in Brussels, Belgium: North Atlantic Treaty Organization (NATO) Headquarters, Berlin, Germany, Cairo, Egypt, at Mae Fah Luang University Chiang Rai, Thailand, Ouagadougou, Burkina Faso, at the Barcelona Supercomputing Center, Barcelona, Spain, Porto, Portugal, Owerri, Nigeria, Abuja, Nigeria, and in the Uttradit, Thaton, Mae Hiya, Mae Phoon, and Maeai Districts, Thailand.

**Darrell Schulze**

- An invited lecturer at the International Summer School on Forest Soils and Global Change at the University of Molise, Campo Basso, Italy.
- Participated in the Alliance for a Green Revolution in Africa Soil Health Stakeholder Workshop in Nairobi Kenya.
- Attended a meeting with the McKnight Collaborative Crop Improvement Project in Eldoret, Kenya and sampled soils on farms in Uganda and Tanzania.

**Lori Unruh Snyder**

- Discussed creation of a consortium based at EARTH University in Costa Rica to focus on sustainable agriculture with 10 other universities.
- Was awarded a grant for study abroad and international learning to visit both Honduras and Costa Rica.
- Organized a study abroad to the Honduras.
- Visited EARTH University in Costa Rica to prepare a Maymester course for 2009.

**Mitch Tuinstra**

- Presented at the Health, Research and Entrepreneurship: Sorghum Food for Celiac Patients conference in Naples, Italy.
- Participated in the INTSORMIL West Africa Regional Program Workshop in Bamako, Mali
- Interdisciplinary research project coordinator to develop improved sorghum varieties with adaptation in West Africa.

**Jeffrey J. Volenec**

- Visited Taiwan for a week-long stay focused on program improvement and international cooperation and presented two invited lectures.

**Qianlai Zhuang**

- Hosted Professor Guangsheng Zhou, a prominent ecosystem scientist from the Chinese Academy of Sciences for three months.