

2008
Annual Report

**Office of International Programs
in Agriculture**

College of Food, Agricultural, and Environmental Sciences



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University of Iceland ~ Iceland

2008 Annual Report

Office of International Programs in Agriculture

Mission

The Mission of the Office of International Programs is to incorporate an international dimension into the student learning, discovery and engagement dimensions of the college so that (a) our graduates understand, contribute to, and effectively compete in the global environment of which agriculture and natural resource management are integral components; (b) our research and engagement programs have access to the best ideas and technologies regardless of where they are generated or developed; (c) our outreach programs positively impact the livelihoods of agriculturalists and those engaged in utilizing and managing natural resources around the world; and (d) the above strengthen U.S. international competitiveness within a sustainable global agricultural and natural resource system.

Introduction

In this report, we provide an overview of activities undertaken by the IPA Office during the calendar year 2008 that are consistent with its Mission. The office continued to provide important support services relating to the three major operational dimensions of the College of Food, Agricultural and Environmental Sciences (CFAES), namely, student learning, discovery and outreach to students, faculty, staff and stakeholders. The office continues to benefit from support given to it during 2008 by the Ohio Agricultural Research and Development Center, OSU Extension, and the College Office of Academic Affairs. It also benefited greatly from inputs provided by other collaborators on the OSU campus, in particular, the Office of International Affairs and its affiliated Area Studies Centers, the OSU Research Foundation, and other Colleges to which it has programmatic ties, including the Colleges of Veterinary Medicine, Fisher College of Business and Biological Sciences.

The Mission of the IPA Office is consistent with the broader University vision of promoting Ohio State's eminence in research and teaching on a global scale. It recognizes that if OSU is to be a world class university then it must be engaged globally. It recognizes that we have a responsibility to provide our graduates

and stakeholders with a global perspective if they are to work and compete in a world that is culturally more diverse and increasingly more interconnected and interdependent. CFAES has been engaged in global research and training efforts since 1955 and, as this report hopes to make clear, continues to promote global engagement and leadership through a wide array of activities and partnerships.

Office Transitions

Calendar year 2008 has been a year of transition for the IPA Office. In August of 2008, Professor David O. Hansen retired from his position as Associate Dean and Director of the IPA Office. He had held this position for over two decades. Dave's legacy will be that he provided important leadership and vision for the globalization/international dimension of our college and university as well as for the U.S. international agriculture community. Thus, he helped improve the stature and visibility of the OSU brand both nationally and internationally.

IPA staff hosted a reception honoring Dave on August 6. His wife, Aida, and his daughter, Vanessa, and her children from Germany, joined Dr. Archie Haller who has remained his mentor since Dave's graduate school days at University of Wisconsin-Madison, his OSU colleagues and friends at the Fawcett Center.



Dave Hansen showing off gift clubs to Mark Erbaugh and Mike Chrisman

Gifts, including a certificate for a set of custom design golf clubs made by OSU Professional Golf Management students under the direction of Chris Walsh, were presented to Dave. Since October he has taken on a new challenge in Washington, DC, working as a Senior Fellow at the Association of Public and Land-grant Universities, in addition to continuing to contribute to CFAES international programs.

Dr. Mark Erbaugh presently serves as the Interim Director of the IPA Office. Mark has been affiliated with the IPA Office in varying capacities since 1984, most recently serving as the Associate Director of the office.

Active Projects during 2008

The Office of International Programs in Agriculture had the following sponsored active grants and contracts during the year.

Project Title	Total Award	Award Dates
EARTH University/OSU Collaborative Program on Environmental Research in Humid Tropics	\$771,000	6/04-5/08
Strengthening Capacity of East African Faculties of Agriculture to Improve Small Holder Productivity (HEPAD)	\$799,651	1/05-2/08
University Partnership to Build Rural & Micro-Finance Capacity in Mexico	\$499,956	9/05-9/09
Regional Integrated Pest Management (IPM) Program in East Africa: Kenya, Tanzania, and Uganda (IPM CRSP)	\$801,269	10/05-9/09
On-farm Water Management for Rain Fed Agriculture on Benchmark Watershed in Five Diverse Eco-regions of India	\$59,405	9/06-8/10
Norman E. Borlaug International Fellowship - India, Food Processing Scientists	\$99,526	9/06-9/09
Market Development in Support of Sorghum and Millet Farmers' Income in Tanzania and Zambia (INTSORMIL CRSP)	\$180,000	7/07-9/09
Faculty Exchange Program - SPS Africa Faculty	\$145,377	7/07 - 7/11
Building Human Capacity for Microfinance Institutions in Order to Increase Competitiveness and Reduce Rural Poverty in Mexico	\$249,978	8/07-8/09
Norman E. Borlaug International Fellowship - Macedonia, Kosovo, & Serbia	\$109,971	9/07-9/09
Norman E. Borlaug International Fellowship - Kazakhstan	\$14,997	9/07-9/09
Supplemental Funding for Higher Education for African Development	\$90,963	8/08-2/09
Korean Rural Development Association Training Program	\$25,277	6/22-27/08
TOTAL	\$3,076,370	

Visiting Scientists Sponsored/Hosted during 2008

- ◆ Fernando Manzo Ramos, Colegio de Postgraduados, Texcoco, Mexico
- ◆ Charles Hozza, Tanzanian Chamber of Commerce, Industry and Agriculture, Tanga Region, Tanzania
- ◆ Sigmund Sher, Chongqing Abundance Farming Science and Technology Co. Ltd., Chongqing, China,
- ◆ Samuel Kyamanywa, Dean, Faculty of Agriculture, Makerere University, Uganda

- ◆ Ricardo Shirota, University of Sao Paulo, Brazil
- ◆ Esteban Martinez-Dajui, Colegio de Postgraduados, Texcoco, Mexico
- ◆ Mofusi Guy, PEER Africa Ltd., Johannesburg, South Africa
- ◆ Burhan Ozigan, Department of Agricultural Economics, Akdeniz University, Turkey
- ◆ Bindu Jaganath, Central Institute of Fisheries Technology Research Institute, Cochin, India, visiting Borlaug Scholar
- ◆ Kairat Turgenbayev, Institute for Livestock and Veterinary Research, Almaty, Kazakhstan, visiting Borlaug Scholar
- ◆ Slobodan Lilic, Institute of Meat Hygiene and Technology, Belgrade, Serbia, visiting Borlaug Scholar
- ◆ Papa Madiallacke Diedhiou, University of Thies, Senegal
- ◆ Kofi Jakpasu Afun, Faculty of Agriculture, Kwame Nkrumah University, Kumasi, Ghana
- ◆ Kenneth Shenge, Department of Crop Protection, University of Zaria, Nigeria
- ◆ 22 Extension Officers, Korean Rural Development Association, for 6 day training program on Community Development
- ◆ Peter Mulamba, HEPAD student in FABE
- ◆ Ithinji Gicuru, Supplemental HEPAD, AEDE
- ◆ Jeremia Makindara, Supplemental HEPAD, AEDE
- ◆ Robert Gesimba, HEPAD student, HCS
- ◆ Professor Jose Francisco Warth, Brazil, visiting Fulbright Scholar
- ◆ Professor Zlatko Pejkovski, Macedonia, visiting Fulbright Scholar

Faculty Undertaking International Leave during 2008

Faculty Professional Leave

Robert Agunga, January 08-November 08, Malawi, Africa

Sheryl Barringer, SU Qtr 08-AU Qtr 08, Christchurch, New Zealand

Gonul Kaletunc, AU Qtr 08-WI Qtr 09, Massy, France

Special Research Assignments

Amanda Rodewald, AU Qtr 08, Venezuela

Yael Vodovotz, June 08-August 08, Israel

Private Sector Representatives Involved Overseas in Programs Related to IPA Programs

- ◆ Dave & Bonnie York, Shelby County, Catholic Church Program in Haiti
- ◆ Dublin-Worthington Rotary members Frank White and David Kittredge visited the city of Santiago de los Caballeros in the Dominican Republic. They interacted with the CFAES Winter study abroad group at OSU's partner, Universidad ISA, and worked with ISA on the installation of a laboratory to test water quality which is part of a larger program of household potable water sponsored by Rotary International.

INTERNATIONAL LEARNING

Study Abroad

The College of Food, Agricultural, and Environmental Sciences currently sponsors 18 study abroad programs. During the 2007-2008 academic year 102 students with majors in the college studied abroad. The largest increase in study abroad this past year occurred during the December break as 74 students traveled on newly developed short term programs: 47 students traveled to Ireland for the



Students in Ireland

Department of Animal Sciences Human and Animal Interaction program with Dr. Steven Moeller, Dr. Keith Irvin, Kelly George and Jeanne Osbourne; 14 first quarter freshmen traveled to Mexico with Associate Dean Dr. Linda Martin and Kelly Koren; and 13 students traveled to Chile as part of the Horticulture and Crop Sciences program focusing on Agroecosystems.

Kelly Koren, director of FAES Study Abroad, is located with the undergraduate academic programs staff in the Dean's Office and shares her appointment with the Office of International Affairs. In this capacity, she reports directly to the Associate Dean for Academic Affairs and the University Director of Study Abroad. The Office of Study Abroad reports directly to the OSU Office of International Affairs. It has been directly involved with the coordination of programs initiated by the College of Food, Agricultural, and Environmental Sciences, including short-term experiences. We remain very grateful to Director Grace Johnson and Program Coordinators Jeannie Simmons and Jenny Bickley for their excellent collaboration.



Kelly Koren, Director, with students in the Czech Republic

Resident directors for the 2008 study abroad programs were:

- Australia - Steven Loerch, Animal Sciences
- Brazil - Jim Connors, Human and Community Resource Development and Jill Pfister, Assistant Dean
- Chile - Doug Doohan, Horticulture and Crop Sciences
- China - Melissa Krygier, Associate Vice President
- Costa Rica - Paul Heimberger, Academic Programs Office
- Czech Republic - Kelly Koren, Academic Programs Office

- Dominican Republic - Joe Bonnell, Environment and Natural Resources
- England - Laura Burchfield and Matt Williams, Horticulture & Crop Sciences
- England - Dr. Gary Anderson and Dr. Debra Powell, Agricultural Technical Institute
- Ghana - Dee Elder & Linda Houston, Agricultural Technical Institute
- Ireland - Keith Irvin, Steven Moeller, Kelly George and Jeanne Osborne, Animal Sciences



Linda Martin and Kelly Koren, Directors, with students in Mexico

- Mexico Freshmen Experience - Linda Martin, Associate Dean & Kelly Koren, Academic Programs Office
- South Africa - Andy Ward, Agricultural, Environmental & Biological Engineering
- Uganda - David Kraybill, Agricultural, Environmental, & Development Economics

CFAES study abroad students benefited from partial scholarships that were generated from endowments established by former faculty members and staff of the college as well as other sources.

The Ohio Internship Program

The Ohio Program had an eventful year adjusting to visa and regulatory issues. The slowing economy made the placement of our 400 interns a challenge. We also had historical transitions within the office as staff with a combined 28 years of service left our office for other opportunities out of state/country including Gabriella Pearse-Danker, Aline Fae, and Petra Pohankova.

Greg Lecki assumed responsibility for horticulture placements, John Beardmore for health and accident insurance processing, and Anna Matwijow and Rodrigo Lass are now responsible for orientations, data entry, and interviewing candidates. We also have focused staff/applicants on our electronic application form (designed by Greg Lecki) which has given us a productivity boost. We have obtained efficiencies in orientation programming, changing our database, and obtaining support from international partners in complying with new J-1 visa regulations. All of these changes have improved our overall ability to comply with the changing global economy.

Highlights

John Beardmore, Mike O’Keeffe, and Rodrigo Lass co-organized the 14th International Turfgrass Short Course held in October at Sea Pines Resort, South Carolina. Fifty-six turf interns from ten foreign countries, OSU faculty members Drs. K. Danneberger, D. Shetlar, and J. DePolo, and other presenters from as far away as Asia and Europe came together for the annual event.



2008 Turfgrass Short Course Participants



Mike O’Keeffe with the Mark Woodward (CEO), Scott Woodhead, and Gina Putnam of the GCSA

Seven industry representatives attended with turf machinery and turf analysis displays. Companies providing financial support were Syngenta, Jacobsen, Dupont, and The Golf Course Superintendents Association (GCSA).

Mr. Jack Nicklaus’ support of our program is evident as well in the many past interns who are working on Nicklaus Design projects around the world and the numerous students he has hosted at Muirfield Village under Superintendent Paul

Latshaw. An internship at Muirfield can almost guarantee employment back home.

Attending the short course this year was Beatrice Franceschi from Italy, a trainee with Mr. Nicklaus at his design office in Palm Beach Florida.

In the spring 2008, Greg Lecki met with Prof Andrzej Rabczenko of the Polish Embassy to discuss plans to organize a collaborative exchange program with assistance from the Polish Embassy and Polish Ministry of Education.



Beatrice Franceschi, Italy, working with Jack Nicklaus on a design

Yining Zhang traveled to Switzerland for the International Agricultural Exchange Grow Abroad World Conference in August 2008 and also to China/Inner Mongolia in September where he visited 5 universities and golf organizations.

Yining has taken over placement of increasing numbers of Chinese students in a number of interest areas. He also organized academic programs for Winter Quarter 2008 for 13 intern students who excelled and set a high standard for interns on campus.



Yining Zhang is honored by the Ag College of Ningxia University in October



Yining Zhang at the International Ag Exchange Grow Abroad World Conference in August '08

To continue to recruit students from 32 countries, the staff of the OSU Intern Program must show a presence in these key countries. Yearly Mike O'Keeffe makes over 100 presentations in various countries and brings the presence of OSU to the trade show floor at key events around the world. Contacts at the booth often include past students, business people from John Deere to Syngenta, and future interns and trainees.

The Ohio Program hosted a group from Myerscough College in Lancashire England. Pictured (*left to right*) are Dr. Steve Neal (ATI Associate Director), Gary Wilkinson, Anne Turner, Dr. Steve Nameth, ATI Director, Anne Jones, Chairperson of Myerscough Board of Directors, Rhonda Billman, ATI Assistant Director, and ATI



Mike O'Keeffe with Greg Ollis and Peter Fitzgerald from Werribee TAFE College at the Australian Turfgrass Conference in Melbourne



Myerscough College, England, and ATI, Wooster, representatives

Farm Director Gary Wortman. Myerscough and ATI continue to host student exchanges as a direct result of bridges built by the Ohio Program.



Inspectors from the Irish Training Authority

The Ohio program is the sole provider of training for all Agricultural & Horticultural College students who seek internships in the United States from Ireland. Inspectors Ciaran Walsh and Padraig Gray from the Irish Training Authority (TEAGASC) visited over 30 students placed by The Ohio Program around the United States. They were extremely pleased with the level of training and responsibility given to their students.

Every year, the Ohio Intern Program places Americans on farms, golf courses and nurseries overseas. This past year we started placing students at high profile football stadiums in the United Kingdom. One such person is John Torres. John did so well at Arsenal FC that the head grounds man has invited him to come start his post college career at a new project at Real Madrid FC in Spain. It helps that John speaks fluent Spanish.



John on "The Emirates Club" grounds in London

All Ohio State intern hosts try to expose their students to more than just hands-on training while in the United



States. One such host is Scott Furlong, Superintendent at Robert Trent Jones Golf Course in Manassas VA. Scott takes his interns in to help with routine maintenance and upkeep of the one and only golf green at the White House. On one such occasion, British intern Peter Moore had the opportunity to chat with President George Bush while he waited for his helicopter and to get an autographed photo which Peter proudly displays at his home on The Isle of White.

To Peter Moore
With best wishes 

The Ohio State Intern Program received media promotion from past participants who were spotlighted in ten articles on three different continents. In one article, a young man from England who interned in Ohio at the Double Eagle Golf Club said, *"I was here with six other interns from four different continents. Each intern was from the Ohio State intern program. Every one of us went away with great experience and knowledge to succeed in this industry."*

An Irish intern who now has a successful career in Sweden said in another article. *"I think the program that Mike and the Ohio State University provide is a great stepping-stone for aspiring greenskeepers from Ireland and other countries wishing to go see how some of the best golf courses in the world are managed. Without the help of the intern program, I feel that my career and the things I have achieved would have been a lot more difficult."*

The Ohio Program continues to work closely with many agricultural colleges and universities around the world. One of these is the Salesian Agricultural College, Pallaskenry, Ireland. Each year, John Beardmore places ten to fifteen of their students on eight month internships in the U.S.



Mr. & Mrs. Clifford presenting award to intern, John Kelly

In 1998 one of these students was Thomas Clifford. Regrettably, Tom was killed in a car accident in Ireland in 2002. In 2005 his parents established an award in his name to recognize the best student intern from the College undertaking an internship through The Ohio Program. The award is based on performance and evaluations during the internship. Pictured here with Mr. & Mrs. Clifford is the 2008 award recipient, John Kelly.

In addition to his duties in the office, John Beardmore represents the international Programs in Agriculture on the College of Food and Environmental Sciences Staff Advisory Council.



John Beardmore, SAC Rep, discusses college policy with Dr. Moser and Dr. Hansen

Peace Corps

The IPA office has hosted the Peace Corps representative on the OSU campus since the position was established in 1974. Peace Corps volunteers make a commitment of 27 months under a government paid program to provide technical assistance in one of over 72 different countries in a variety of fields including agriculture, natural resources, animal production, business development, community outreach, health and education. Over the years, the IPA office has provided opportunities for and enabled hundreds of students to gain field experience by participating in Peace Corps programs upon graduation from The Ohio State University.

It was announced by the Peace Corps Regional Office in Chicago that:

Ohio State returned to the Peace Corps' top 25 list of large schools nationwide producing volunteers and is ranked 12th with 57 alumni currently serving as Peace Corps volunteers, compared with 38 volunteers the previous year. Ohio State is also ranked first in the state for volunteers this year. Since its inception, 1,504 OSU alumni have served in the Peace Corps, making it the No. 10 all-time producer of volunteers among universities.

Katrina Busick, the current campus recruiter, was a Peace Corps volunteer in The Kingdom of Tonga prior to assuming this position. The office advertises Peace Corps opportunities and works closely with the Office of International Affairs and the Peace Corps Regional Office in Chicago to identify potential candidates and to interview and select them for programs overseas.



DISCOVERY THROUGH RESEARCH

During 2008, the IPA Office continued to support, and in some cases lead, programs that facilitate active participation by Ohio State University research scientists in the global agricultural research network. These programs represent important contributions to the overall research output of scientists in the college. Most of these programs provide financial support for research and access to global networks in which to carry it out. Most of these programs are funded by U.S. Government agencies, especially USAID and USDA.

International Sorghum & Millet Collaborative Research Support Program

The CFAES collaboration with the INTSORMIL CRSP was renewed for another 4 years. Don Larson, AEDE and Mark Erbaugh, IPA, who are co-PIs on this effort titled, “*Market Development in Support of Sorghum and Millet Farmers in Tanzania and Zambia,*” collaborate with social scientists at the University of Zambia and Sokoine University of Agriculture in Tanzania. Major achievements of the past year were completion of technology adoption studies in both countries and manuscript submissions to journals; initiation of studies of clear beer supply chain; conducting baseline farm household surveys in high potential sorghum growing areas; initiating the collection of information on seasonal price variability; completion of Jeremia Makindara’s dissertation study on Sorghum Clear Beer Value Chain; and selection and placement of Joseph Mgaya, Tanzania, on an M.S. degree training program at OSU. Larson and Erbaugh also presented a paper on preliminary research results at the INTSORMIL organized Horn of Africa regional workshop held in Nairobi, Kenya in September. Erbaugh attended the INTSORMIL Board of Directors meeting in place of Dave Hansen, held at Purdue University in August. Larson participated in a workshop on Sorghum Utilization held in Botswana in October.



Don Larson at Ilonga Agricultural Institute, Kilosa, Tanzania

Integrated Pest Management Collaborative Research Support Program

OSU/CFAES engagement with the Integrated Pest Management Collaborative Research Support Program (IPM CRSP) continues with two main programs. The Regional IPM Program for East Africa is coordinated by Mark Erbaugh, IPA, and partners with Makerere University and the National Agricultural Research

Organization (NARO) in Uganda, the Kenya Agricultural Research Institute (KARI), and Sokoine University of Agriculture (SUA), Tanzania, and other co-PIs from Virginia Tech University, the University of Wisconsin and the Asian Vegetable Research Center.

The focus of this effort is to design effective IPM systems for higher-value horticultural crops in East Africa. The activities of the Regional IPM Program for East Africa (RP/EA) continue to focus on Uganda, Kenya, and Tanzania. The two main complementary objectives are to develop a regional model of collaborative IPM research, training, and knowledge dissemination that focuses on improving the productivity of higher-value marketed horticultural crops. Regional collaboration is fostered through the Regional Technical Committee (RTC) which is composed of one person from each country, the Regional Coordinator (Samuel Kyamanywa, Makerere University), the Site Chairperson (Mark Erbaugh, OSU) and USA-based technical experts from OSU and Virginia Tech. OSU collaborating scientists are Sally Miller, Plant Pathology, Joseph Kovach, Entomology, and Matt Klienhentz, Horticulture and Crop Science.



Joseph Kovach and Sally Miller on farm in Uganda.



Mark Erbaugh with tomato growers in Uganda

The RTC met twice over the past year at a meeting held in Marangu, Tanzania and at an annual planning meeting held in Nanyuki, Kenya. As part of these meetings, research updates from the three countries were presented and critiqued, in-country research sites were visited, activity progress reports were presented by each country, and management issues were discussed. Additional activities that fostered regional collaboration included: the updating of the regional program website portal; completion and write-up of socioeconomic baseline studies; completion of biological monitoring activities on tomato in all three countries and coffee in Uganda and Tanzania, and disease incidence surveys of passion fruit conducted in Kenya and Tanzania; continuation of on-farm/station trials in all three countries; completion of training programs for regional graduate students and graduate students in the United States; application of the regional modular IPM program to farmer/extension agent

training at KARI/Thika; and implementation of a Pesticide Safety and Usage Program with KARI at the Mwea research site in Kenya.

Three co-PIs from East Africa participated in the IPM CRSP annual meeting held in Manila, Philippines. Three regional scientists participated in Dr. Miller's intensive two-week short course at OARDC on *Pest and Disease Diagnostics for International Trade and Food Security*. By the end of next year ('09), 12 students from the region will have completed M.S. and/or PhD degrees funded entirely or partially by the IPM CRSP and seven undergraduate research programs will have been completed. Research outputs this year included seven presentations and nine posters presented at various international scientific meetings by East African co-PIs; six regional scientific training programs conducted; and training programs in the region in which 468 farmers participated. Seven research papers were published or appeared in conference proceedings and nine others were submitted to journals for publication.

IPDN – Regional Diagnostic Laboratories Global Theme

Another IPM CRSP affiliated program is **The Regional Diagnostic Laboratories Global Theme** which is coordinated by Sally Miller, Plant Pathology. This program builds capacity at three regional hub-site locations in Central America (hub lab in Guatemala; AgroExpertos, lead), East Africa (hub lab in Kenya; KARI NARL, lead) and West Africa (hub lab in Benin, IITA, lead). All of the laboratories have access to the Clinic Information Management System/Digital Distance Identification System (CIMS/DDIS) internet portal. An important objective of the IPDN is training diagnosticians in basic and advanced diagnostic methodologies. The IPDN conducted training programs in basic and advanced disease diagnostics in each region and conducted a 2-week short course in basic and advanced disease diagnostics at The Ohio State University. Additional regional training took place in Uganda and involved 25 participants from East and Southern Africa. A similar program will take place in Benin for West African participants in February 2009. Both of these programs were supported by IPM CRSP with additional funds provided by USAID through the USDA Foreign Agriculture Service. A major objective of this program is to develop or adapt diagnostic assays for important plant diseases. We have already developed a PCR assay for banana xanthomonas wilt (BXW), which has been tested in East Africa; surveyed several tomato growing regions in Kenya and Uganda for geminiviruses, and surveyed *Ralstonia solanacearum* in Benin (Sikirou et al 2009, *Plant Disease*, in press). We are also working closely with another IPM CRSP project on insect transmitted diseases to evaluate inexpensive assays for virus diagnosis.

Iceland Collaborative Research on Carbon Sequestration

Collaborative activities forged under the partnership with Iceland established the previous year continued through 2008. Dr. Gudrun Gisladdottir returned to The Ohio State University to continue her collaborative research with Rattan Lal and other members of the Climate, Water and Carbon program housed in the School of Environment and Natural Resources. In addition, Prof. Ann Bau, of the Soil Conservation Society of Iceland spent two months on campus interacting with members of this group. She was accompanied by her husband. In August, President Olafur Ragnar Grímsson, President of Iceland, participated in the *International Symposium on Climate Change and Food Security in South Asia*. Several other representatives from Iceland also participated in this symposium, notably, Sveinn Runolfsson, Director of the Soil Conservation Society of Iceland. Discussions at the symposium included consideration of research on the melting of the Himalayan glaciers. This research would provide a comparative perspective on this phenomenon and its impact on soils. Much research has been done on the same phenomenon in Iceland.

India/U.S. Knowledge Initiative in Agriculture

Activities under the India-U.S. Knowledge Initiative in Agriculture continued during 2008. David Hansen traveled to Punjab Agricultural University in January to work with partners at that site on their field research. This research is being conducted by faculty members at PAU including K.S. Khera, Department of Soil Science, and R.S. Sharma, Director of the Kandi Research Station, located in the foothills of the Himalayas. In April, Hansen represented Dean Bobby Moser at a meeting of the AKI Board of Directors held at the headquarters of the Indian Council of Agricultural Research in New Delhi. At the conclusion of this meeting he traveled to Ludhiana in the company of Dr. Mortimer Neufville, AKI Board Member and Vice President of NASULGC, to meet with Dr. Manjit Kang, Vice Chancellor of Punjab Agricultural University. They discussed the possibility of PAU hosting a workshop on agribusiness later in the year. This workshop was subsequently postponed until 2009 at the suggestion of the Indian Council of Agricultural Research.

As part of this program, OSU Agricultural Educators Susie Whittington, Robert Birkenholz, and Pat Whittington organized a three week visit to OSU for scholars from three Indian universities and Dr. Bharat Sontakki from the National Academy of Agricultural Research Management (NAARM) in Hyderabad. Members of the university delegations were:

- J. Muker, J.K. Gulati, N.S. Bains, S. Kapur, V. K. Dilawari, and V. Randhawa, *Punjab Agricultural University*
- L.M. Garnayak and S.K. Dash, *Orissa University of Agriculture & Technology*

- M. Srivastava, and S.K. Biswas, *Chandra Shekhar Azad University of Agriculture & Technology*

The objectives of the program were to:

- 1) Engage in student-centered learning to improve college teaching.
- 2) Explore change in higher education administration.
- 3) Observe student-centered, student-led leadership development through undergraduate student organizations.
- 4) Explore undergraduate career development, internships and placement at the BS level.

While at OSU they maintained a very active learning program that included special classes, opportunities to work with colleagues on topics of specific interest, and numerous field trips. Plans were also laid for the workshops in which they would be participating later in the year.

In August, three OSU Agricultural Education faculty traveled to India to conduct several workshops on new student centered learning practices. These workshops were coordinated with V.K. Dilawari, Punjab Agricultural University, and represented the second part of the AKI education technology project originally approved in 2006 to develop communities of scholars at local universities. The workshops were held at Punjab Agricultural University, the Chandra Shekhar Azad University of Agriculture & Technology, Kanpur, and the Orissa University of Agriculture & Technology, Bhubaneswar.

Rural Micro-Credit Anti-Poverty in Mexico Program with CPG

Jerry Ladman continued as the principal investigator for this project which was awarded by Higher Education for Development. OSU's major partner is the Colegio de Postgraduados (CPG) in Montecillo, Mexico. The Mexican PI is Fernando Manzo. A number of significant events were held during the past year. In February, Bobby Moser, Dean of CFAES, and David Hansen traveled to Mexico to participate in an opening conference. While there they met with Felix Gonzalez, the Director General of CPG and they signed a Memorandum of Understanding. Other OSU faculty participating in the conference were Claudio Gonzalez, who gave the keynote presentation, Jerry Ladman, and Richard Meyer. The Conference was attended by over 40 representatives of micro-finance organizations ranging from policy makers to intermediary finance representatives to representatives of government entities that provide financial services.

In September, Isai Guizar-Mateos initiated a PhD program at The Ohio State University in micro-finance. He will be expected to provide leadership to an active micro and rural finance program at CPG upon his return. From

September 18-20, Fernando Manzo attended a micro credit forum in Bergamo, Italy entitled “Boulder-Bergamo Forum on Access to Financial Services: Expanding the Rural Frontiers,” which provided an opportunity to expand linkages with other service providers around the world.

A program in micro-finance consisting of a series of short-course modules organized around weekends was planned. Major consumers of this course are representatives of the micro-finance sector, with a particular emphasis on rural sectors. This course will continue into 2009 and participants will receive a diploma. OSU faculty who participated in the program include Claudio Gonzalez, who provided two of the opening lectures, and Jerry Ladman.

India Natural Resources Management Project

OSU initiated its active participation in a follow up project with the M.S. Swaminathan Research Foundation dealing with the conservation and management of soil and water resources in India entitled, “Bio-fuels and Integrated Watershed Management.” Rattan Lal, School of Environment and Natural Resources, continued as principal investigator for this project. Funded by the Sir Jamsetji Tata Trust Fund in India, it involves research at five sites in India – two close to Chennai, one in Orissa, one in Madya Pradesh, and one in Punjab. University research scientists from local universities continue to be engaged in conducting the actual field work at the Madya Pradesh and Punjab sites. This project is focused on the use of existing watershed resources to increase rural income generation while conserving the natural resource base. OSU’s inputs are focused on research related to changes in micro watershed balances in water and changes in soil and water quality as a consequence of specific interventions introduced through the project, such as the application of minimum and no tillage practices.

David Hansen presented the anticipated contributions of OSU to the project at a workshop in Chennai at the M.S. Swaminathan Research Foundation in January. During August, a team from OSU visited the Foundation and several of the watersheds involved in the project. The team consisted of:

- Rattan Lal, OSU Project Director, and Brian Slater, OSU School of Environment and Natural Resources
- Larry Brown, OSU Food, Agricultural & Biological Engineering
- Martin Shipitalo, USDA/ARS Coshocton Field Site

In addition to advising on the activities being undertaken at individual sites, the team also presented recommendations to the M.S. Swaminathan Research Foundation after completing the site visits. Rattan Lal also visited Tamil Nadu Agricultural University where he gave a presentation on natural resource

conservation and management issues in India. The team was hosted by principal counterparts at the M.S. Swaminathan Research Foundation, Sudha Nair and Sudip Mitra.

EARTH University Collaborative Research Project, Costa Rica

This project was realized over the span of the four years. It focused on collaborative field research involving partners from EARTH and OSU, and provided opportunity for graduate students to engage in work foundational to their dissertations.

OSU faculty and their *graduate students* conducting the research included:

- Michael Ellis, Plant Pathology, Wooster
- David Hansen, Rural Sociology, *Melanie Miller, Matt Mariola*
- Rattan Lal, School of Environment & Natural Resources, *Juan Jimenez (post-doc)*
- Jay Martin, Food, Agricultural and Biological Engineering, *Stephanie Lansing*
- Kendra McSweeney, Geography, *David Lansing*
- William J. Mitsch, School of Environment & Natural Resources, *Amanda Nahlik, Blanca Bernal*
- Roger Williams, Entomology, Wooster, *Diego Inclan, Nuris Acosta*

The principal activity undertaken in 2008 was preparation of the publication of a special edition of the journal Ecological Engineering, *Ecological Management and Sustainable Development in the Humid Tropics of Costa Rica*. Volume 34, Issue 4, pages 253-382, edited by Bert Kohlmann and William J. Mitsch.

Articles in the edition are:

Preface, José Zaglul

Ecological management and sustainable development in the humid tropics of Costa Rica, Bert Kohlmann, William J. Mitsch, David O. Hansen

Comparison of two sampling methods for biomonitoring, using aquatic macro invertebrates in the Dos Novillos River, Costa Rica, Heide Stein, Monika Springer, Bert Kohlmann

Tropical wetlands for climate change research, water quality management and conservation education on a university campus in Costa Rica, William J. Mitsch, Julio Tejada, Amanda Nahlik, Bert Kohlmann, Blanca Bernal, Carlos E. Hernández

The soil C pool in different agroecosystems derived from the dry tropical forest of Guanacaste, Costa Rica, Juan J. Jiménez, Rattan Lal, Humberto A. Leblanc, Ricardo O. Russo, Yogendra Raut

The soil organic carbon in particle-size separates under different regrowth forest stands of north eastern Costa Rica, Juan J. Jiménez, Rattan Lal, Ricardo O. Russo, Humberto A. Leblanc

A comparison of soil carbon pools and profiles in wetlands in Costa Rica and Ohio, Blanca Bernal, William J. Mitsch

Evaluation of an organic treatment for post-harvest control of crown rot of banana, C. Demerutis, L. Quirós, A. Martinuz, E. Alvarado, R.N. Williams, M.A. Ellis

*Comparison of biological and conventional insecticide treatments for the management of the pineapple fruit borer, *Strymon megarus* (Lepidoptera: Lycaenidae) in Costa Rica, Diego J. Inclán, Felipe J. Bermúdez, Edgar Alvarado, Mike Ellis, Roger N. Williams, Nuris Acosta*

Quantifying electricity generation and waste transformations in a low-cost, plug-flow anaerobic digestion system, Stephanie Lansing, Joaquín Viquez, Helen Martínez

EARTH to farmers: Extension and the adoption of environmental technologies in the humid tropics of Costa Rica, Melanie J. Miller, Matthew J. Mariola, David O. Hansen

Placing the plantation in smallholder agriculture: Evidence from Costa Rica, David Lansing

Determination of the competitiveness linkages through the agricultural associative enterprises: The case of the communities on the Parismina River basin in Costa Rica, I. Alvarado, K. Molina

Mexican Rural Financial Markets Program with CIDE

The rural and micro-finance project which was initiated in 2005 continued during the year. This project is central to the HED-managed TIES program with Mexico. Claudio Gonzalez, AEDE, is the principal investigator for this project and David Hansen is co-principal investigator on the OSU side. The principal co-investigator at CIDE is Gustavo del Angel. Malena Svarch, Ariadna Martinez-Gonzalez and Marisol Garcia de la Cruz completed their graduate degree programs in 2008 and returned to Mexico to begin employment in the micro finance sector: Ariadna returned to the Banco Central (Central Bank of Mexico where she works on rural finance issues. Marisol has become the Assistant Director of PATMIR, the principal agricultural credit program of the Ministry of Agriculture. Malena initiated a PhD program at Ohio State University in finance. Another student, Carolina Castillo, continued her PhD studies as well.

OSU hosted three visiting scholars under the program. They were Carolina Conde, National University of Mexico (UNAM), Mariano Rojas, University of the Americas – Puebla (UDLA), and Fausto Hernandez, CIDE. While at OSU, the visitors presented seminars, consulted with faculty in the rural finance program, and advised students on research and study related to their graduate degree programs.

OSU faculty made several visits to Mexico to participate in workshops and otherwise present lectures and interact with CIDE faculty and Mexico micro-finance policy makers. Mario Miranda presented lectures on risk management and finance. Claudio Gonzalez participated in several policy workshops held under the auspices of the program and several action oriented workshops supported by AFIRMA, consulted with Mexican policy makers, and collaborated with CIDE faculty.

CIDE began several significant activities under the auspices of the program.

- It initiated a geospatial analysis of financial systems in Mexico under the leadership of Gustavo del Angel with the assistance of several CIDE graduate students.

- It launched the competitive grants program together with the Study of Economic Progress and Sustainability of the Mexican Agro-System Program (PRECESAM).
- It updated the website for the program. Included on it are a network of micro-finance practitioners and a virtual center for the dissemination of information about micro-finance activities (<http://cide-osu.cide.edu>).

Higher Education Partnerships for African Development (HEPAD): Long-term Training for Regional Agricultural Development in East Africa: Kenya, Tanzania and Uganda



Dean Mateete Bekunda, Makerere University, Uganda; Dean Isaac Koskey, Egerton University, Kenya; Eric Crawford, MSU; Dean Ntengua Mdoe, Sokoine University, Tanzania; Mark Erbaugh, OSU

This project was funded by USAID through the Higher Education for Development (HED) program. The Ohio State University, the lead institution, is partnered with Michigan State University. Mark Erbaugh, IPA, was the partnership Director. Partner universities in East Africa are Egerton University (Kenya), Sokoine University of Agriculture (Tanzania), and Makerere University (Uganda). Activities in the region were coordinated by the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) which is coordinated by OSU alumni

Professor Adipala Ekwamu. The main goal of the HEPAD project was to strengthen the Faculties of Agriculture (FOA) at these three East African universities. Specific project objectives were to provide long-term graduate degree training and short-term faculty development opportunities in areas of critical need in order to strengthen the capacity of the three FOAs to improve smallholder agricultural productivity through research, training, and outreach activities.

The project used the “sandwich training” approach, combining one year of training in the U.S. with field research in the home country. Twelve one-year scholarships were provided to 3 M.Sc. and 9 Ph.D. trainees (6 each at OSU and MSU) from the regional Faculties of Agriculture. At OSU, these students were advised by Mark Bennett and Dan Struve from Horticulture and Crop



Mark Bennett, OSU Advisor; Hossea Mtui, Sokoine University, Tanzania; unidentified research assistant

Science; Larry Brown, FABE; Joe Ottobre, Animal Science; and Dave Kraybill and Don Larson, AEDE. All 12 students completed their U.S. course work and returned home. Ten have completed their degree programs. Three students were granted Fellowships by the OSU Graduate School. Robert Gesimba, HCS, Sadat Walusimbi, AnSci, and Peter Mulamba, FABE were provided with OSU departmental assistantships. They returned to the OSU campus to complete their programs and to receive their degrees. Hossea Mtui received additional support from the IPM CRSP project to return to OSU and complete his degree.

Three major staff development workshops were conducted and twelve seminars were led by visiting U.S. faculty members. Participants included over 500 faculty and post-graduate students. Dave Kraybill, AEDE, developed a program for *Policy-Relevant Econometrics for sub-Saharan Africa: Econometrics Applications for Use in Graduate-Level Teaching in African Universities*. Twenty-four MBA



Agribusiness students were placed in two-month internships with local agribusiness firms. Mark Erbaugh, Don Larson, and Dave Kraybill worked with regional agribusiness faculty to develop agribusiness case studies and then used them in the classroom with students and staff to demonstrate an active learning pedagogy. Eight OSU faculty traveled to the region to advise graduate students on their research and to provide Departmental Seminars. These faculty were

Rich Pratt, Mark Bennett, Matt Kleinhenz, Dan Struve, Don Larson, Larry Brown, Doug Doohan and Dave Kraybill. Over the course of the project, 584 faculty and students from the three campuses participated in these seminars, workshops, internships, and non-degree training programs.

In March, project director Mark Erbaugh and co-director Eric Crawford (MSU) were invited by HED to present a full report and analysis of the HEPAD experience to 14 people from USAID.

Supplemental Funding for Higher Education Partnerships for African Development (HEPAD)

Additional funding support was offered to OSU by HED because of the success of the HEPAD project. This support targeted additional activities related to HEPAD. The funding became available in August and continues into 2009 with Mark Erbaugh, IPA, managing the project. Supported activities included: additional trials on passion fruit rootstocks conducted by Robert Gesimba (Kenya), Dan Struve, Joseph Scheerens and grad students (HCS); Jeremia Makindara's (Tanzania) return to OSU to write a draft of his dissertation with

advisor Don Larson (AEDE); Ithinji Gicuru's (Kenya) return to OSU to write a draft of his dissertation with David Kraybill (AEDE); Herman Lyimo's (Tanzania) conduct of additional field trials on Gray Leaf Spot and Maize supervised by Richard Pratt (HCS); Hossea Mtui's (Tanzania) completion of his Ph.D. proposal; and a two day workshop conducted by Mark Erbaugh and Don Larson with RUFORUM Director Adipala Ekwamu on *Improving Linkages between Faculties of Agriculture and the Private Sector Agribusiness* with 24 agribusiness faculty, grad students, and private sector reps from four Eastern and Southern Africa countries.

OSU Alumni Receive International Alumni Award

In March of 2008, two alumni of CFAES with collaborative ties to IPA were honored by the CFAES Alumni Society with the reception of the International Alumni Award.



(l to r) Denis Kyetere, Bernard Bashaasha

Denis Kyetere (Ph.D., Agronomy, 1995), Entebbe, Uganda, Director General of the National Agricultural Research Organization (NARO) which is a position equivalent to the head of the U.S. Department of Agriculture, was honored as a nationally and internationally recognized leader in agricultural research systems. Bernard Bashaasha (Ph.D., Agricultural Economics, 1998), Makerere University, Kampala, Uganda, was recognized for his academic accomplishments as Chair of the Department of Agricultural Economics and his leadership in

developing collaborative higher education programs in agriculture for 16 universities in eastern, central and southern Africa.

"To go from a mere science officer to director general of Africa's leading agricultural organization following my educational experiences at Ohio State University is a great achievement," said Kyetere. "The education I received at Ohio State University was very difficult, but it was useful and enlightening," said Bashaasha. "It provided the foundation for my career."

As director general of NARO, Kyetere is also chairperson of the Forum for Agricultural Research in Africa, an umbrella organization that brings together stakeholders in agricultural research and development in Africa.

Kyetere has fostered collaboration with African academic institutions in all areas with research centers and farmers to generate and promote the development of new agricultural technologies. He also led a revitalization of the Coffee

Research Institute and provided leadership for research on plant diseases, such as coffee wilt.

Bashaasha was originally a lecturer in agricultural economics at Makerere University in Uganda. He received support from the USAID funded Agricultural Research and Training Project for graduate studies at Ohio State. Upon his return to Uganda, he was catapulted to senior lecturer and head of his department. He subsequently went about rebuilding the department, launching programs in business management and agribusiness and supporting Ph.D. programs that have produced ten graduates, with another five soon to be completed.

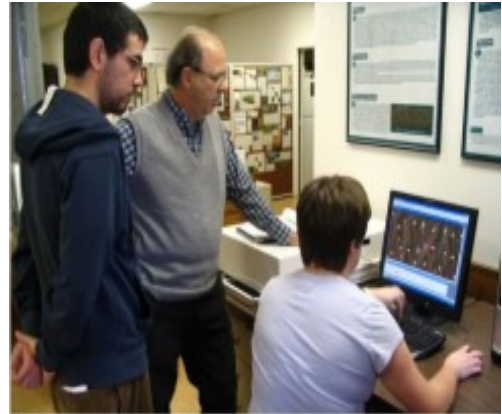
Dr. Bashaasha still collaborates with his Ohio State advisor, Dr. David Kraybill, on a variety of projects including curriculum design and programs involving the education system in Uganda. "My relationship with Ohio State University has not diminished since I graduated," said Bashaasha. "Program development roars on. It benefits agriculture, the economy and the environment. It's important for Uganda."

OUTREACH AND ENGAGEMENT

Over this past year, IPA staff have received 495 international visitors/scholars/interns from fifty-six different countries.

International Seed Biology Project

The International Seed Biology Project continued to advance its distance education platform under the auspices of the Consortium for International Seed Technology Training (<http://www.seedconsortium.org/>). In 2008, an International Seed Production course was co-taught by faculty members from OSU, University of California Davis, Lincoln University (in the U.S.), Escola Superior Agricultura “Luiz de Queiroz” (ESALQ) in Brazil, and the Pontificia Universidad Católica (PUC) in Chile. Over 50 graduate/undergraduate students from the five institutions participated.



The course material was placed on the consortium website under the links for Activities and Courses and Workshop. Present are the text lectures, PowerPoint presentations and podcasts that can be accessed over the web for each lecture. A similar presentation format was also developed for the International Seed Physiology course which is taught on an alternating year basis. Formal websites were completed for the consortium and five member institutions.

Other teaching materials completed in 2008 included DVDs on seed testing and maize, tropical forage grass, coffee and sunflower seed production. These DVDs can be purchased from the Society of Commercial Seed Technologists at <http://www.seedtechnology.net/DVDs.htm>. Short snippets of the DVDs can be viewed at this location for content.



Dr. Stela Viega Rosa from EMBRAPA (Brazilian Agricultural Research Corporation) completed her 18 month stay in the laboratory focusing on research associated with coffee seeds. Graduate student Samuel Contreras completed his Ph.D. research studying the production of lettuce seeds and has returned to the Catholic University of Chile as a faculty member. Undergraduate students Felipe Vilela and Cibele Teixeira (from the University of Lavras, Brazil), and Francisco Junio and Vitor Mondo (ESALQ) also conducted research on seed vigor and priming mechanisms of various crops. An active OSU participant in

the International Seed Biology project, Miller McDonald, retired and will continue as Emeritus Professor. Other consortium faculty from OSU, UC-Davis, ESALQ, PUC and Lincoln University will share future leadership for various project efforts.

Korean Rural Development Administration

A five day training program for 22 Extension Officers affiliated with the Korean Rural Development Administration was held June 22–June 27, 2008. The purpose of this program was to expose members of the Korean Rural Development Administration to the methods and practices used by the Ohio State University Extension (OSUE) to implement community based development activities. This program was organized by Mark Erbaugh in the IPA Office in cooperation with Ken Martin, OSUE.

Mark Erbaugh initially welcomed them and presented an overview of the program. Don Breece, Assistant Director, Agriculture & Natural Resources, presented an overview of OSU Extension/Strategic Plan and the Battelle Report. Dean Bobby Moser gave a welcome from the College. Program modules were provided by Jeff King, Bob Furbee, Kathy Cox, Robin Green, John Conglose, Don Breece, Tom Archer and Debby Lewis. Field trips were taken to the Jacquemin and Cackler Farms to see first hand agratainment and value added marketing.



Korean Delegation on field trip

The visitors were also provided with an opportunity to study Extension's regional perspective and urban program strategies which were presented by Jack Kerrigan, Marie Barni and Morgan Taggart at the Regional Extension Office in Wooster. They were also able to visit the Hartzler Dairy Farm and participate in sessions on polyculture and greenhouse engineering at the Ohio Agricultural Research & Development Center with Joe Kovach and Peter Ling.

The group visited the South Center in Piketon where they met with Director Tom Worley, Julie Fox, Dave Boulay, Damon Hartley, Rafiq Islam, Becky Nesbitt, Wayne Lewis, Brad Bergesford, Shawn Wright, Maurus Brown, Paul O'Bryant and Dean Rapp. Topics explored were entrepreneurship and marketing, direct marketing and tourism development, forest utilization and marketing, soil and water programs, philanthropy, horticulture plots and aquaculture programs.

Exchange Program with Ataturk University

Dr. Kenan Barik, Assistant Professor of Soil Physics, Department of Soil Science, Faculty of Agriculture, University of Ataturk at Erzurum, Turkey was an international visiting scholar hosted by faculty in the Soil and Water Resources program of the Ohio State University South Centers at Piketon. Dr. Barik's research specialization is Soil Physics, Soil Mechanics and Technology, and Soil-Plant-Water Relationships. He teaches undergraduate and graduate classes on Soil Physics. He has published a number of peer-reviewed articles in national and international journals. Presently, he is actively involved in conducting research on soil structure, carbon sequestration, and soil management practices.



Agricultural and Food Safety: Establishment of US (Ohio State University) - China Linkages

During April 2008, scientists from The Ohio State University College of Food Agriculture and Environmental Science used funding from USDA to visit Chinese institutions and agencies involved in research, education and regulation of agricultural and food safety risks. The purpose of this exchange was to develop professional relationships with Chinese scientists working in related disciplines and to promote technology transfer and expertise sharing. The team developed a better understanding of food safety and pest management issues of significance to bilateral trade.

Team members from Ohio State University included Dr. Doug Doohan and Mr. Linjian Jiang from the Department of Horticulture & Crop Science, and Drs. Jeff LeJeune, Chang Won Lee and Yifan Zhang from the Food Animal Health Research Program. The team arrived in Beijing and met with faculty teams from China Agricultural University (CAU). The team also met with CAU faculty in Shandong Province, China Academy of Science and China Center for Disease Control, the US Agricultural Attache Mark Petrie, X'ian Medical College, Nanjing Agricultural University, Zhejiang University, and Shanghai Jiatong University and Shanghai Veterinary Research Institute. The Ministry of Agriculture portion of the exchange concluded in Shanghai. Team members Doohan and LeJeune continued to Kunming to visit with faculty at the Yunan University of Finance & Economics Center for Social and Economic Behavior Studies. Doohan and LeJeune concluded their independent portion of the exchange with a visit to the Schezwan Center for Disease Control in Chengdu.

Team members made academic presentations at most of the institutions visited. Presentations focused on the team's current research on agricultural risk analysis.

USDA SPS Program with Veterinary Medicine

From July 28th to August 8th the Department of Veterinary Preventive Medicine, College of Veterinary Medicine taught the training course *Practical Approaches to Veterinary Epidemiology and Infectious Disease Surveillance*. This training, sponsored by the USDA-APHIS-International Services, was specifically designed for official veterinarians from Venezuela.

The main goal was to provide basic and applied knowledge in the epidemiology field to these veterinarians to help them in the prevention, control, and eradication of Foot-and-Mouth Disease in Latin-America. Venezuela is currently one of the active areas of the disease. The first week the course included various topics such as basic concepts and quantitative veterinary epidemiology, surveillance principles in livestock populations, U.S. approach to livestock disease control and eradication, and animal health economics. Also, computer statistical software basic training in EpiInfo and GIS (Geographical Information Systems) was provided.



Attendees with Dr. Armando Hoet during the introductory class, Veterinary Epidemiology and Surveillance



Last day of the training with Dr. Thomas Wittum in front of Sisson Hall, Vet Med Complex



Visit of Venezuelan official veterinarians to the Ohio Department of Agriculture Animal Division. Hosts were State Veterinarians Dr. Tony Forshey and Dr. Leah Dorman

During the second week, Dr Thomas Wittum and Dr Armando Hoet worked with the participants to develop a customized surveillance plan which is currently in place and being used in Venezuela. The trainees also visited and met with officials from federal (USDA-APHIS) and state (Ohio Department of Agriculture) regulatory agencies, including the State Veterinarian, to become familiar with

U.S. legislation and infrastructure. The course was rated “outstanding” by the attendees, with excellent comments in the exit evaluation.

Participants included:

- ♦ Dr. Jorge León, USDA/APHIS/IS
- ♦ Dr. Adalberto Pérez and Ing. Xiomara Yrausquin, Secretary of Agriculture Development, Government of Zulia, Venezuela
- ♦ Dr. Nohely Añez and Dr. Leonardo Boscán, Infectious Diseases Diagnostic Laboratory, Universidad del Zulia, Venezuela
- ♦ Dr. Julio Boscán and Dr. Disney Pino, Universidad del Zulia, Venezuela, Universidad del Zulia, Venezuela

Visiting Borlaug Scholars



Scientists Bindu Jaganath, B. Meenakumari, Bala Balasubramaniam, and T.K. Srinivasa Gopal, Head of Fish Processing Division

V.M. “Bala” Balasubramaniam, Associate Professor, Food Engineering, Department of Food Science and Technology, hosted USDA Borlaug scholar Bindu Jaganath, a Research Scientist from the Central Fisheries Technology Research Institute (CIFT), Cochin, India, March 7-April 19, 2008. Ms. Jaganath received training on the application of high pressure food processing technologies for preserving fish products.

Bala's high pressure laboratory also hosted USDA Borlaug scholar Rajan Sharma, National Dairy Research Institute, Haryana, India, April 21-24, 2008. Dr. Bala discussed potential application of high pressure processing in dairy processing.

In December Bala made a reciprocal visit to CIFT which is part of the Indian Council of Agricultural Research and India's National Centre for fish processing related activities. Dr. Meenakumari, CIFT Director and Ms. Bindu Jaganath, CIFT Scientist/Borlaug scholar, hosted the visit. Bala provided an overview lecture on high pressure processing with emphasis on potential application for sea food processing. About 35 scientists and staff members from CIFT attended. He also met with scientists from various CIFT divisions (processing, microbiology, biochemistry, extension etc) to learn about ongoing activities. CIFT plans to investigate the opportunities for high pressure



T.K. Srinivasa Gopal, Bala Balasubramaniam, P.T. Mathew, P.K. Vijayan, & Bindu Jaganath

processing of local sea food items for export markets in Europe and the Middle East).

Dr. Bala also made a presentation during the 6th International Food Convention in Mysore, India (December 15th-19th). Organized as a part of the Indian Food Technologists Annual Meeting, this conference had approximately 1600 people in attendance. Dr. Bala presented the current emerging technologies of high pressure food processing to 120 attendees.

Mo Saif, OARDC Food Animal Health Research Program, Wooster, hosted Dr. Kairat Turgenbayev, Deputy Director of the Institute for Livestock and Veterinary Research in Almaty, Kazakhstan, September 15-October 24, 2008. In addition to his work in the lab, Turgenbayev also traveled to Des Moines, Iowa to participate in the 2008 World Food Prize event and the Norman E. Borlaug International Symposium entitled, *Confronting Crisis - Agriculture and Global Development: The Next 50 Years*.

Dr. Slobodan Lilic from the Institute of Meat Hygiene and Technology in Belgrade, Serbia, was a Borlaug Scholar hosted by Lynn Knipe and Herb Ockerman, Department of Animal Sciences, from September 28–November 1, 2008. Dr. Lilic's research interest is in exploring the decrease of sodium chloride and the partial substitution of potassium chloride in the production processing of dried and cured meats. He also participated in the World Food Prize Symposium in Des Moines.

USDA SPS Faculty Exchange Program



Kenneth Shenge, Nigeria; (back) Robert Gesimba, HEPAD, Kenya; Kofi Afun, Ghana; Papa Mediallacke, Senegal

The African Sanitary and Phytosanitary (SPS) USDA/FAS/ICD Faculty Exchange Program increased the capacity of African plant health authorities to implement effective programs and policies dealing with sanitary and phytosanitary trade issues. The project was managed by Mark Erbaugh, IPA, with specialized interactive training provided by Mike Boehm and Sally Miller, Plant Pathology, and Celeste Welty and Luis Canas, Entomology. The three faculty from Africa who participated in this five month program were Dr. Kenneth Shenge, Plant Pathology, Amadu Bello University, Nigeria; Dr. Kofi Afun, Entomology, Kwame Nkrumah University of Science and Technology, Ghana; and Dr. Papa Madiallacke Diedhiou, Plant Pathology, University of Thies, Senegal.

They spent the first month of their program at OARDC, Wooster, where they were hosted by Sally Miller and Luis Canas. While in Wooster, Drs. Shenge, Afun and Madiallacke participated in an intensive two-week short course on *Pest and Disease Diagnostics for International Trade and Food Security*. Upon their return to the Columbus Campus, Mike Boehm and Celeste Welty provided a program that exposed them to aspects of plant disease characterization and management and insect pest management. They also participated in a two-week SPS related issues course at Texas A&M provided by APHIS.



Papa Mediallacke, Senegal; Mike Boehm, & Sarah Ellis, OSU Plant Path; Kenneth Shenge, Nigeria

Bangladesh Symposium on Climate Change and Food Security

IPA office staff helped organize and host a major “*International Symposium on Climate Change and Food Security in South Asia*” held August 25-30 in Dhaka, Bangladesh. The event was a major outcome of the 2007 visit by Hon. Iajuddin Ahmed, President of Bangladesh, to Ohio State University, an activity initiated by CFAES. The Symposium was co-sponsored by the University of Dhaka, the World Meteorological Organization, the Asia and Pacific Food and Agricultural Organization (FAO/UN), and the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP).

OSU participation in this event was organized around the OSU *Climate, Water and Carbon Targeted Investment in Excellence* and included representatives of three campus units involved in this program. Participants from OSU included,

- Rattan Lal (Co-organizer of the event) and Richard Dick, School of Environment & Natural Resources
- Song Liang, Sultana Nahar, and Chris Rea, College of Public Health
- C.K. Shum and Rashid Harunur, Management Advancement for Public Service (MAPS)
- Harold Keener, OARDC, Wooster, and Jay Martin, Columbus, CFAES Food, Agricultural & Biological Engineering
- Rafiq Islam, CFAES Piketon Center (OSU logistics coordinator)
- Bill Ravlin, CFAES OARDC Entomology & College of Biological Sciences
- David Hansen, CFAES International Programs in Agriculture

While in Dhaka, the OSU contingency was invited to a dinner at the residence of the President, Hon. Iajuddin Ahmed. This event included substantive discussion

of follow up collaboration. Discussions about research on the melting of glaciers in the Himalayas included active participation by representatives from Iceland, since the science community of Iceland has been studying similar events in the North Atlantic region.



OSU and other U.S. delegation members with Iajuddin Ahmed, President of Bangladesh, Mrs. Ahmed, and government officials

The Symposium resulted in a Dhaka declaration which received considerable attention from the press. It emphasized the impacts of climate change on natural resources in Bangladesh and other nations of South Asia and their impact on the ability of the region to produce sufficient food for their populations. The Symposium also resulted in a series of recommendations for future actions to address the problem.

Hunan Agricultural University Collaboration

Guo-liang Wang, Plant Pathology, is leading an initiative to develop close collaboration between CFAES and the Hunan Agricultural University (HAU). During 2008 he visited HAU twice to discuss developing possible collaborative projects with faculty members and hosted Zejun Huang, a Postdoctoral student, and Jinling Liu, an MS student, who worked in his lab on rice genomics and disease resistance. In addition, he began making arrangements for a delegation headed by HAU's Party Secretary General and a vice president to visit CFAES in May 2009.

World Food Day Celebration

Mark Erbaugh hosted the 25th Annual World Food Day Teleconference, *Choices for a Warm and Hungry Planet*, on October 16, 2008. The program was a follow-up to the 2007 program. It focused on the most critical global impacts of climate change and global warming, how and why the poor are especially

affected by them, the challenges they pose, and the diversity of approaches that will be required by the academic community and civil society to respond to them.

USDA Cochran Horticulture/Floriculture Short Course

Four agribusiness representatives from Serbia and one from Montenegro from the floriculture and nursery production sectors were hosted by Claudio Pasian from August 4th to August 15th. The objective of their visit was to introduce them to in U.S. floriculture in general and Ohio floriculture in particular. They met with OSU faculty, USDA researchers and greenhouse and nursery growers. These meetings and field trips allowed the visitors to observe first-hand research and extension work in Ohio. This enabled them to make important contacts that may be of help to them in their own future business activities. During their free time, the visitors experienced Columbus and enjoyed a visit to the State Fair.



Michelle Jones and Cochran scholars in greenhouse

Fulbright Scholars

Herbert Ockerman and Lynn Knipe, Animal Science Department, hosted two Fulbright visiting professors in 2008. These were Professor Jose Francisco Warth from Brazil and Professor Zlatko Pejkovski and his family from Macedonia. They both participated in Animal Science classes, attended short courses conducted for the meat industry, wrote scientific papers, and interacted socially with both faculty and students, mutually exchanging insights into each other's country and food industry.

Delegation Visit from the University of Ghana-Legon

Professor Benjamin Kwadjo Ahunu, Provost, and Professor Samuel Kwame Offei, Dean, School of Agriculture, University of Ghana-Legon, College of Agriculture and Consumer Sciences, visited CFAES in August to meet and discuss administrative and research topics with Robert Birkenholz and Robert Agunga, HCRD; Keith Smith and Brian McClain, OSU Extension; Melissa Krygier, Assistant Vice President for Agricultural Administration; Bobby Moser, Vice President for Agricultural Administration and Dean of the College of Food, Agricultural and Environmental Sciences; Steve Slack, Associate Dean for Research, Director of Ohio Agricultural Research and Development Center; and Steven Nameth, Director and Associate Dean of the Agricultural Technical Institute. The program was designed and led by Mark Erbaugh, IPA.

Delegation Visit from the University of Bayero, Kano, Nigeria

OSU received four visitors from the University of Bayero as part of the Society for Research Administration's grant from the John D. and Catherine T. MacArthur Foundation which is designed to promote and establish research partnerships. The four were Dr. Attahiru Jega, Vice Chancellor; Dr. Kabiru Ahmed, Deputy Vice Chancellor; Dr. Abdul Rashid Garba, Dean, Faculty of Agriculture; and Dr. Ado Danlsa, MacArthur Grant Liaison Officer. While at the CFAES they met with Dean Bobby Moser, and were then taken to OARDC Wooster by Mark Erbaugh, IPA, to meet with Associate Dean Steven Slack, Bill Grunkemeyer, OSUE, Fred Michel, FABE, and Richard Pratt, HCS.

Delegation Visit from Selçuk University, Turkey

Eleven visitors from Selcuk University in Turkey, including the Dean of the College of Agriculture, Dr. Mustafa Onder, visited the OSU campus to discuss precision agriculture. Dr. Erdal Oskan, FABE, planned and led the program with the IPA office helping to plan activities and host the group. While at OSU the group met with Mark Erbaugh, IPA, David Gobey, ATECH, Larry Brown, FABE, Marvin Batte, AEDE, Dean Moser, John Barker and Greg LaBarge, OSUE, Robert Mullen, SNR.



The delegation included:

- Prof. Dr. Mustafa ONDER, Dean, College of Agriculture
- Prof. Dr. Ali TOPAL, Associate Dean, College of Agriculture
- Prof. Dr. Fatih BOTSALI, General Manager, TEKNOKENT-Industrial Technology Park
- Prof. Dr. Bayram SADE, Department of Crop Science, College of Agriculture
- Prof. Dr. Tahir BALEVİ, College of Veterinary
- Prof. Dr. Özdemir ALAOGLU, Department of Crop Protection, College of Agriculture
- Assoc. Prof. Dr. Kenan PEKER, Department of Economics, College of Agriculture

- Assoc. Prof. Dr. Suleyman SOYLU, Department of Crop Science, College of Agric.
- Assoc. Prof. Dr. Sedat CALISIR, Department of Machinery, College of Agriculture
- Assist. Prof. Dr. Yusuf YILMAZ, Department of Machinery, College of Engineering and Architecture
- Assist. Prof. Dr. Mehmet ZENGIN, Department of Soil Science, College of Agriculture

Public Outreach

Kiwanis International Presentation

Mark Erbaugh spoke to the Northwest KIWANIS Club about the IPA office at OSU and its role in international development efforts around the world.

Dayton Rotary

Mark Erbaugh met with the Dayton Rotary International sub-committee about their goals, objectives, and outcomes of working with Maji Musuri (MM) farm for homeless children. They are contributing funds to the 19 acre farm southwest of Nairobi near Kiserian.

Publicity

Op-ed piece written by Candace Pollock and Mark Erbaugh titled, *“Agricultural Research/Investment Should Be at the Forefront of Global Food Crisis,”* was picked up by 3 Ohio newspapers.

A photo by David Kraybill received Honorable Mention in the Higher Education for Development's 2008 Photo Competition. HED partners submitted a broad range of images representing program activities in all regions and sector areas. This picture was taken as part of the Higher Education Partnership for African Development (HEPAD) project which focused on strengthening the capacity of several Faculties of Agriculture in East Africa. The picture shows agribusiness masters students in a breakout session following a case study presentation provided by Mark Erbaugh at Egerton University, Kenya. The group of about 25 students was split into five groups to define the primary business problem and solutions. The case was on Kerenge Tea Estates in Kenya.



Agribusiness Masters Students at Egerton University, Kenya

NEW AGREEMENTS

Several new agreements were signed between CFAES and counterpart institutions around the world during 2008. They are designed to facilitate additional program development.

Colegio de Postgraduados ~ Mexico

Federal University of Lavras ~ Brazil

Hanoi University of Agriculture ~ Viet Nam

University of Gaston Berger ~ Senegal

University of Iceland ~ Iceland