Tranel Hosting Student from Italy in Weed Science

Dr. Patrick Tranel, Professor of Molecular Weed Science, is hosting a Ph.D. exchange student from Italy this semester. Silvia Panozzo, who graduated in biotechnology and works in plant molecular biology, expressed an interest in learning more about the acetolactate synthase (ALS) gene in weeds that is responsible for resistance to herbicides—more specifically, within the barnyardgrass species that is becoming a problem in Italy. Tranel, who specializes in weed adaptation via herbicide resistance, saw this as a great opportunity to expand his research abroad. “This gives me an opportunity to learn more about this particular species and how it has evolved herbicide resistance,” Tranel said.

Silvia has determined that there are likely three genes that encode the ALS enzyme in barnyardgrass. Which of these genes is responsible for herbicide resistance is currently unknown. To explore the nature of this problem, Panozzo is extracting ALS enzymes from the barnyardgrass to confirm resistance is due to an overexpression or to a modified conformation of one of these genes. She is also cloning these ALS genes and sequencing them to determine the mutation(s) in the gene that confers resistance. Panozzo, who works in the Department of Environmental Agronomy at the University of Padova says she is very grateful for the opportunity to work with Tranel in his area of expertise at the University of Illinois.

“The fact that barnyardgrass is not viewed as a major problem weed in the Midwestern U.S., but it is in Italy, means that Silvia’s project provides an opportunity to study a species for which a need would not otherwise exist in Illinois,” said Tranel.

Students and Faculty Helping Sierra Leone

Dr. Paul McNamara, Associate Professor of Agricultural and Consumer Economics (ACE), and a group of eight U of I students, traveled to Sierra Leone for two weeks in January to teach a short course on Agribusiness for Food Development in Food Security. They engaged in a rapid assessment of issues facing small-holder farmers in the palm oil sector in Sierra Leone for the USAID-funded ACDI-VOCA PAGE project. “We look for students who are keen on doing something off the beaten track for a study abroad experience,” McNamara said. “This is more of a service-oriented trip.” Seventy-five attendees participated in the four-day course, which included professors, staff, and students from Njala University. The Minister of Agriculture, Dr. Sam Sesay, who is interested in ensuring the development of agribusiness opportunities for Sierra Leone, was also present. Dr. Peter Goldsmith (ACE) was the featured speaker at the conference. He spoke on the concepts and theories of agribusiness and their practical applications. “These are areas that we know a lot about, and we can’t sit by and watch people go hungry,” Goldsmith said. “It’s more of a moral obligation of the college to address this, so you do this as much as you can.”

A civil war in the 1990s brought Sierra Leone’s economy to a halt. Many farmers fled for the safety of the cities, damaging the agricultural industry. Since then, food security has been one of the top priorities. Anne Gilot, a junior in Agri-finance, said that she will be forever grateful for this experience. “My favorite part was meeting the Sierra Leoneans,” said Gilot. “I have learned that true happiness does not come from money.”

Illinois had a contract with USAID in the 1960s to help build Njala University from 1964-1973. “We are trying to grow our partnership with Njala University through collaborations such as these,” McNamara said.
National Soybean Research Laboratory Making a Difference in Central America

Just over a year ago, the earthquake in Haiti killed, injured, or left homeless more than 2.5 million people. Throughout Central America, 49 percent of children under the age of five-years-old are malnourished. While the road to recovery remains long, the use of Illinois soy and the work of the National Soybean Research Laboratory (NSRL) and its partners are making a difference.

“Soy protein has been especially important to hundreds of Haitian school children and others this past year,” says Bridget Owen, associate director, NSRL. “The future for soy protein use in Haiti grows even stronger as they rebuild their economy and improve the nutrition for their eight million people.”

Illinois soybean farmers have supported work done by NSRL and the World Initiative for Soy in Human Health (WISHH) through checkoff dollar funding. The Illinois Soybean Association (ISA), NSRL, and WISHH have supported activities in Haiti for more than five years and have included seminars, media interaction, school lunch programs, and local product development. NSRL is also working with the State University of Haiti and Ministry of Health to develop a soy dairy training center. These efforts have provided the foundation for soy to benefit the Haitian people during crises and partnerships have strengthened as Haiti works to use soy protein to create economic growth.

In response to the need for nutrition solutions in Central America and for corporate social responsibility, Cargill, CentraRSE, the World Soy Foundation, and ISA in conjunction with the WISHH and NSRL have organized a two-day conference beginning February 22, 2011 in Guatemala to address the challenges of malnutrition and the opportunities for success. Attendees will include government officials, private voluntary organizations, the business community, representatives from higher education, non-government agencies, and corporations with an interest in Honduras, Guatemala, and Nicaragua.

“We hope to start the discussion and increase momentum regarding nutrition solutions,” said Courtney Tamimie, NSRL project coordinator.

Faculty Feature: Dr. Kathy Baylis
Assistant Professor, Agricultural and Consumer Economics

Q: What is your research focus?
A: I work in the area of agriculture and conservation policy, usually with an international focus.

Q: What international ties do you have?
A: Being Canadian, I started to study Canadian agriculture and conservation policy. Because Canada has a relatively small population, it relies a lot on trade, so you cannot look at domestic policy in isolation. Much of my early work looked at Canadian policy in an international context, often making comparisons with similar policies in the United States and European Union. Since coming to U of I, I have had the opportunity to take insights from my earlier work and apply them to research on agriculture and conservation policy in developing countries. Currently, I have projects in China, India, and Mexico that look at agriculture and forest conservation. The Mexico project came out of talking with a U of I graduate student who used to manage a conservation project in Mexico that protects the overwintering site of the Monarch butterfly. With the help of an International Seed Grant, we met with a physical geographer at UNAM-Morelia who has put together some amazingly-detailed satellite imagery data on 15 years of forest with coverage both inside and outside the project area. The three of us have analyzed the data and found that the conservation project seems to be helping protect the forest ecosystem, despite continued illegal logging in the region. We also have found indications that community governance is playing a large role in determining where the project is successful and where it is failing.

Q: What is the end goal of your project?
A: The next step of the Mexico project is to further explore this interaction between community governance and conservation. What attributes of a community lead to better conservation outcomes? Are there institutions that can facilitate better conservation outcomes without leading to undue hardship for community members? I would like to ask these similar questions across several countries, to determine what attributes of this relationship between community institutions and conservation are common across countries and what are unique to the local context. By better understanding this relationship, we hope to better design policy to meet the joint needs of environmental stewardship and rural poverty reduction.

Iraqi Fellows at U of I to Study Dairy Management

The Office of International Programs welcomed two USDA Foreign Agricultural Service (FAS) Iraqi Fellows to Illinois on February 4, 2011. They will be staying for eight weeks to study dairy production management practices with mentors Dr. Mike Hutjens, Mr. Jim Baltz, and Mr. Travis Michel.

Mark Your Calendars for the Mar. 17 Spring ‘ACES International Lecture’

Dr. Prabhu Pingali, Deputy Director of the Agriculture Development Program for the Bill and Melinda Gates Foundation, will present a lecture entitled “Feeding the World—the Role of the Bill and Melinda Gates Foundation” on Thursday, March 17, 2011 at 4 p.m. in the Monsanto Room of the ACES Library, Information and Alumni Center. A reception will follow in the Heritage Room in the same building.