

A Global Thesis

Grad Students Make Valuable International Connections

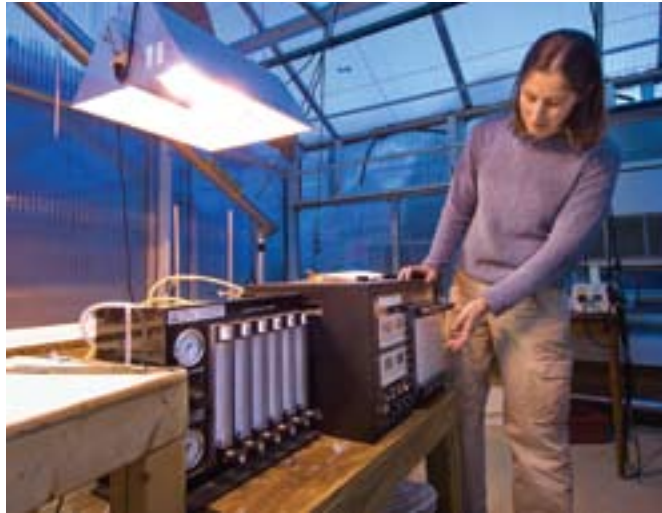
“Broaden your world,” exhorts the Future Students Web site as it encourages prospective undergraduates to consider enrolling in the College of Agricultural Sciences. “Today’s workplace requires employees who are familiar with other cultures and understand the global context of their decisions. Penn State students have more than 150 study-abroad opportunities to choose from.”

The college has had great success in increasing the number of undergraduates traveling overseas. In 1999, only 0.5 percent of students in the College of Agricultural Sciences had an international experience during their undergraduate careers. By 2006, about 12 percent had studied abroad.

However, the numbers are not so significant for graduate students, at Penn State and elsewhere. A recent report published by the Institute of International Education indicated that of the nearly 242,000 American students studying abroad in 2006–07, only about 6 percent were master’s or doctoral students.

Deanna Behring is working with faculty in the college to change that. “When academic institutions talk about going global, they’re usually referring to undergraduate programs or research,” says Behring, the college’s director of international programs. “Grad students often are left out of the conversation, and that’s unfortunate.”

The obstacles for graduate students to study abroad can be daunting, Behring explains. “Grad students may have trouble finding funds to support overseas travel,” she says, “or they may find it difficult to take time away from an intense, rigorous program. It takes student motivation and faculty flexibility and creativity to help make it happen, but the potential



Postdoctoral scholar Jennifer Dean still uses many of the valuable scientific techniques she learned while doing doctoral research in Belgium.

benefits are great, for both the student and the institution.”

Behring’s efforts date back to 2003, when the federal Department of Education provided support for the Sustainable Crop Protection in Agriculture (SUSPROT) program, which involved Penn State and several top universities in Europe. “There was a concerted effort to focus on graduate education, giving students an opportunity to study and train with some of the foremost faculty researchers in Western Europe,” she says.

The program was geared to the field of chemical ecology—the chemically mediated interaction among plants and insects—which holds promise for sustainable and environmentally friendly pest management. Not coincidentally, the College of Agricultural Sciences has one of the leading chemical ecology research groups in the world.

Most graduate programs don’t send students overseas, notes Gary Felton, head of Penn State’s entomology department, which houses the Center for Chemical Ecology. “After the 9/11 terrorist attacks, the United States became more insulated, and the number of international graduate students applying here also declined,” he says. “But the recent economic crisis illustrates the global nature of the

scientific and social challenges we all face, and we believe it’s important to enhance the international diversity of our research and graduate education programs.”

Felton says the SUSPROT program initially attracted few students, but upon returning from Europe, those who participated started selling the benefits of overseas study to others. Partly as a result, about one-third of the department’s graduate students now complete an international experience before graduating. Grad students in other departments, such as Crop and Soil Sciences and Plant Pathology, also participated in SUSPROT.

Tim Leslie parlayed his Penn State doctorate in Entomology and his SUSPROT experience at Wageningen University in the Netherlands into a faculty position in biology at Long Island University’s Brooklyn campus. “SUSPROT was an extremely valuable experience for me,” he says. “I have a manuscript on aphid population dynamics that is being published in *Agricultural and Forest Entomology* based on work I did at Wageningen. I’m still in touch with all of my international collaborators, who work at institutions in the Netherlands, the Czech Republic, and Australia. We plan on doing future research together.”

Jennifer Dean, a postdoctoral

scholar in entomology, did part of her doctoral research at Gembloux Agricultural University in Belgium under SUSPROT. “I am still incorporating many of the techniques I learned there into my research,” she says. “I also have kept in touch with my mentors and some of the students at Gembloux, many of whom have come to Penn State since my trip—it’s always great to see familiar faces from around the world.” She also credits her SUSPROT experience, in part, for her selection to attend a National Science Foundation workshop on tropical chemical biology in Peru designed to encourage early career scientists in North and South America to engage in collaborative projects.

As SUSPROT funding ended, Behring, Felton, and others were determined to sustain the momentum gained from the program. As a result, a new agreement with France’s AgroParisTech—the most renowned French institution in agronomy, life sciences, food science, and environment—was born. Supported by the Partner University Fund, which is financed by a private French donor and sponsored by the French government, the new program will focus on chemical ecology, crop protection, and food science, possibly culminating in a joint graduate program. Department of Education funding also was secured for a new program in Brazil, and future plans may include collaborations in Asia.

Meanwhile, the Department of Entomology is reaping rewards from this renewed emphasis on international graduate education. “Internationalizing our graduate curriculum has resulted in faculty making new associations with labs and researchers in several countries,” Felton says. “And we’ve seen an increase in graduate applications and enrollment. Although the connection is hard to quantify, students have told us they came here because of the graduate study-abroad programs we offer.”

—Chuck Gill