K-State plant pathologists develop online teaching modules used globally

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Managing plant diseases that threaten the food supply and economy is a challenge for agriculturalists around the world.

Sparsely stocked libraries, scarce and expensive software, and even a lack of materials in students' native languages are barriers to training plant pathologists in resource-poor regions.

But the work of a Kansas State University professor and her colleagues is bridging that gap. One project is making online teaching modules available to the developing world, while an offshoot project established a statistics workshop offered in early July in Bolivia.

Karen Garrett, K-State associate professor of plant pathology, and Lorena Gomez, a master's student in plant pathology at K-State, and their Bolivian collaborators received the American Phytopathological Society's 2009 Global Experience Award for a workshop on statistics in plant disease epidemiology and agriculture. The award also went to their workshop collaborators, Antonio Gandarillas of the Bolivia-based Fundacion PROINPA and Jorge Cusicanqui Giles of Universidad Mayor de San Andres in La Paz, Bolivia.

Through the workshop, the researchers further developed online teaching modules for students in Bolivia by adding new material and translating materials into Spanish.

The workshop is part of a larger joint project funded by the U.S. Agency

for International Development's [Sustainable Agriculture](#) and Natural Resources Management Collaborative Research Support Program. The project includes a multidisciplinary team of scientists in the United States, Bolivia and Peru, led by Corinne Valdivia of the University of Missouri. This project works with farmers to increase their capacity to adapt to change and build resilient livelihood systems in the Andean Highlands of South America.

Garrett, her colleagues and students at K-State are developing online training modules that are free to anyone with Internet access. Garrett said so far more than 30,000 visitors from more than 100 countries have accessed these modules. Because these training modules are free, Garrett said that they are particularly valuable to students in remote areas with fewer local resources.

The modules are designed to teach principles of modeling and statistics that help scientists and agriculturists understand disease epidemics. Garrett said that this type of modeling could help policymakers understand how climate change can affect a particular plant disease, prompting a change in the strategies countries use to deal with the disease.

The first modules were published in 2007 and then in 2008 in the journal the Plant Health Instructor. The training modules are available at: [www.apsnet.org/education/Advan … Modules/default.html](#) .

Source: Kansas State University ([news](#) : [web](#))