



Breeding Scientific Innovations, Harvesting Global Commercial Breakthroughs
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FOR IMMEDIATE RELEASE

Newest Tools in Plant Genetics Will Lead to Faster Commercialization, Longer-Term Disease Resistant Crops, Ag Innovation Showcase Experts Forecast

ST. LOUIS (May 24, 2011) -- Among the exciting new technologies that could revolutionize plant science is a process that will make crops disease resistant year after year, plant science experts said at the Ag Innovation Showcase (www.agshowcase.com), a global agriculture science and business event in St. Louis, MO.

A new process that allows scientists to sequence plant genes in a targeted way to enable plants or crops to resist disease over multiple growing seasons, known as durable disease resistance, is a highly promising development, said Eric Ward, president of the nonprofit 2 Blades Foundation (www.2blades.org), said during the panel discussion "New Frontiers in Ag Research: Tools to Drive Discovery."

"The next challenge is how to implement those genes in a precise way so that they do exactly what we want them to do every time we use them. Think about how attractive it would be to have a technology that allows you to place a gene exactly where you want it every time. What we are really doing is genetic tinkering," Ward said.

Based on DNA protein work done at the University of Halle in Germany, Ward said he is excited about the plant biotechnology uses for this technology.

"This technology revolution makes it possible to go into exotic species, cull out traits and put them together in plants that we haven't had a cost-effective way of doing before. This technology is coming, and we are hopeful it will be available to everybody," he told an international audience at the Donald Danforth Plant Science Center (www.danforthcenter.org), the world's largest independent plant science institute.

Another promising tool is synthetic biology, which allows scientists to place traits from one plant onto another that would never normally carry them, said Mat Muller, ag biotech business development for Pioneer Hi-Bred International Inc. Technology (www.pioneer.com) could allow fast-growing plants to be vehicles for desirable traits such as plant oils that can be converted into biofuels, explained James Carrington, president of the Danforth Plant Science Center.

“Instead of putting a seed in the ground, letting it grow and seeing the result, we have to be able to predict what will happen,” Muller said.

Agricultural science leaders also had some crucial advice for the coming generation of scientists and entrepreneurs: biotechnology graduates must be able to work across multiple disciplines to be competitive in today’s research environment.

“Don’t give me somebody who knows a little bit about everything; give me someone who is good at two things such as a biomathematics and biochemistry,” Carrington said. “Do you want a utility infielder or an Albert Pujols?”

About the Ag Innovation Showcase

Established in 2009, the Ag Innovation Showcase is the leading annual global event for agriculture’s industry leaders, entrepreneurs, venture capitalists and investors. It promotes emerging technologies in ag-bio, food and nutrition, biofuels, sustainable materials, clean-tech, information technology and animal health. Held at the Donald Danforth Plant Science Center in St. Louis, MO, the largest independent plant science research institute in the world, the Ag Innovation Showcase is a joint effort of BRDG (“bridge”) Park at the Danforth Plant Science Center and the Larta Institute, as well as a number of sponsors. More information is available at www.agshowcase.com