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**Armed with US\$40 million, global research team to fight Ug99;
Wind-borne wheat pathogen endangers food security worldwide**

*With grant from DFID and Gates Foundation, Cornell University and partners
will ramp up surveillance; provide farmers with resistant wheat varieties*

Note to editors: For more information on the trajectory of stem rust and the countries most at risk, please go to www.globalrust.org.

ITHACA, NY (27 February 2011)—The United Kingdom’s Department of International Development (DFID) and the Bill & Melinda Gates Foundation today announced they will invest US\$40 million in a global project led by Cornell University to combat deadly strains of Ug99, an evolving wheat pathogen that poses a dangerous threat to global food security, particularly in the poorest nations of the developing world.

The five-year grant, made to the Durable Rust Resistance in Wheat (DRRW) project at Cornell will support efforts to identify new stem rust resistant genes in wheat, improve surveillance, and multiply and distribute rust-resistant wheat seed to farmers and their families.

“We cannot overstate the importance of this announcement on the part of two of the most important funders of solutions for addressing the causes of poverty, hunger and disease in the developing world,” said Ronnie Coffman, Cornell professor of plant breeding and genetics and director of the DRRW. “Against the backdrop of rising food prices, and wheat in particular, researchers worldwide will be able to play an increasingly vital role in protecting wheat fields from dangerous new forms of stem rust, particularly in countries whose people can ill afford the economic impact of damage to this vital crop.”

First discovered in 1998 in Uganda, the original Ug99 has also been found in Kenya, Ethiopia, Sudan, Yemen and Iran. A Global Cereal Rust Monitoring System, housed at the U.N.’s Food and Agriculture Organization (FAO), suggests strains of Ug99 are on the march, threatening major wheat-growing areas of Southern and Eastern Africa, the Central Asian Republics, the Caucasus, the Indian subcontinent, South America, Australia and North America.

“We applaud DFID for taking a leadership role in supporting agricultural research,” said Sylvia Mathews Burwell, president of the Global Development Program at the Bill & Melinda Gates Foundation. “We hope other governments in both the developed and developing world and donors will follow the UK’s lead and increase investments to provide small-scale farmers with the tools they need to improve their yields so they can feed their families and overcome poverty.”

The new grant will allow Cornell to build on international efforts to combat stem rust—particularly Ug99 and its variants. Among the university’s partners are national research centers in Kenya and Ethiopia, and scientists at two international agricultural research centers that focus on wheat, the Mexico-based International Maize and Wheat Improvement Center (known by its Spanish acronym as CIMMYT), and the International Center for Agricultural Research in the Dry Areas (ICARDA), in Syria. The FAO and advanced research laboratories in the United States, Canada, China, Australia, Denmark and South Africa also collaborate on the project. The DRRW project now involves more than 20 leading universities and research institutes throughout the world, and scientists and farmers from more than 40 countries.

As part of the agreement, DFID will contribute approximately \$15M and the foundation \$25M to the DRRW over the next five years.

“It is important that public and private institutions work together to develop long-term, sustainable and effective solutions to make life better for the world in which we live,” said David J. Skorton, president of Cornell University

In the 1950s, a fatal strain of wheat stem rust invaded North America and ruined 40 percent of the spring wheat crop. The late Norman Borlaug, winner of the Nobel Peace Prize and renowned plant breeder, led a team of scientists who developed high-yield rust-resistant varieties that helped launch the Green Revolution. But 50 years later, virulent new strains of the pathogen emerged unexpectedly in Uganda, putting at risk most of the wheat planted in farmers’ fields worldwide.

Two other rusts pose threats to wheat, leaf and stripe, or yellow rust. Stem rust, of which Ug99 is a variant, is the most feared because it can quickly lead to the loss of an entire harvest.

Since 2008, when the DRRW project was first funded with US\$26.8 million from the foundation, researchers have distributed new resistant wheat varieties for testing and evaluation in 40 countries; strengthened nurseries in Kenya and Ethiopia for screening wheat for vulnerability to rusts; and distributed nearly five tons of Ug99-resistant seed for planting in the at-risk nations of Ethiopia, Kenya, Egypt, Pakistan, Afghanistan, Bangladesh and Nepal.

“Wheat is one of Kenya’s most important crops, second only to maize. Our people depend upon it for food security,” said Ruth Wanyera, a plant pathologist with the Kenya Agricultural Research Institute in Njoro. “We hope this important investment on the part of the Gates Foundation and DFID will prompt other funders and policy makers in the industrialized and developing worlds to support efforts to protect our global wheat supply.”

Initially called to arms by Nobel Prize winner Norman Borlaug, the DRRW works closely with the Borlaug Global Rust Initiative (BGRI) on a global strategy to avert agricultural disaster for wheat.

“This is a major and much-welcomed investment,” said Jeanie Borlaug, daughter of the late Norman Borlaug, and chair of the BGRI. “My Dad used to say, ‘rust never sleeps.’ The world’s leaders are waking up to this threat.”

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