Chinese researchers edit genes to make fungal-resistant wheat

Advanced genome-editing techniques have been used to create a strain of wheat resistant to a destructive fungal pathogen—called powdery mildew—that is a major bane to the world's top food source, according to scientists at one of China's leading centers for agricultural research.

To stop the mildew, researchers at the Chinese Academy of Sciences deleted genes that encode proteins that repress defenses against the mildew. The work promises to someday make wheat more resistant to the disease, which is typically controlled through the heavy use of fungicides. It also represents an important achievement in using genome editing tools to engineer food crops without inserting foreign genes—a flashpoint for opposition to genetically modified crops.

Caixia Gao, who heads a gene-editing research group at the State Key Laboratory of Plant Cell and Chromosome Engineering at the Institute of Genetics and Developmental Biology in Beijing, says that gene editing can provide very efficient tools for basic research and crop improvement, including in complex organisms like wheat. "And it can be without the controversy," she says.

Read the full, original article: Chinese researchers stop wheat disease with gene editing