Genetic tweak doubles yields of sorghum, globally important food source, in new study

Plant scientists at Cold Spring Harbor Laboratory (CSHL) and USDA's Agricultural Research Service (ARS), in their search for solutions to global food production challenges, have doubled the amount of grains that a sorghum plant can yield.

Sorghum, one of the world's most important sources of food, animal feed, and biofuel, is considered a model crop for research because it has a high tolerance to drought, heat, and high-salt conditions. Increasing the grain yield has become even more important to plant breeders, farmers, and researchers as they try to address and overcome food security issues related to climate change, growing populations, and land and water shortages.

[T]he research team identified novel genetic variations that occurred in sorghum's MSD2 gene, increasing the grain yield 200 percent. MSD2 is part of a gene line that boosts flower fertility by lowering the amount of jasmonic acid, a hormone that controls the development of seeds and flowers.
"When this hormone is decreased, you have a release of development that does not normally occur," said Nicholas Gladman, a postdoctoral fellow in Ware's lab and first author on the study, recently published in *The International Journal of Molecular Sciences*.

Read full, original article: Researchers double sorghum grain yield to improve food supply