Gene tweaks could lead to improved corn and sorghum yields

Researchers at the Enterprise Rent-A-Car Institute for Renewable Fuels at the Donald Danforth Plant Science Center have discovered a gene that influences grain yield in grasses related to food crops. Four mutations were identified that could impact candidate crops for producing renewable and sustainable fuels.

"We have identified four recessive mutants that lead to reduced and uneven flower clusters," said Pu Huang, Ph.D., the lead author of the paper. "By ultimately identifying the gene in green foxtail we identified a new determinant in the control of grain yield that could be crucial to improving food crops like maize."

"Identifying this new player in panicle architecture may enable the design of plants with either enhanced or reduced panicle structures," stated Brutnell. "For instance, maize breeding has selected for reduced male panicles, also known as tassels, to reduce shading in the field while still producing sufficient pollen. However, grain yields in sorghum are directly related to the architecture of the panicle. By showing that this gene influences panicle architecture in Setaria and maize, we have expanded the tool box for breeders."

[Read the full study here.]

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: <u>DANFORTH CENTER SCIENTISTS DISCOVER GENE THAT</u> INFLUENCES GRAIN YIELD

For more background on the Genetic Literacy Project, read GLP on Wikipedia