Fragrant sorghum? Chinese researchers deploy gene editing to develop aromatic version of cereal grain popular in Asia

Aroma is an important quality in food. Jasmine rice, for instance, is popular with consumers for its aroma and, and it fetches a higher price accordingly.

Previous studies have found that a volatile aroma compound named 2-AP contributes to the fragrance of rice. A gene called BADH2 can regulate the accumulation of 2-AP, generating odor in crops.

Follow the latest news and policy debates on sustainable agriculture, biomedicine, and other 'disruptive' innovations. Subscribe to our newsletter. SIGN UP

Researchers from the Institute of Genetics and Developmental Biology of the Chinese Academy of Sciences used CRISPR/Cas9 gene-editing technology to knock out the SbBADH2 gene in sorghum, the BADH2 variant regulating the sorghum aroma.

According to the <u>study published in the Journal of Integrative Plant Biology</u>, the seeds and leaves of geneedited sorghum have a significantly higher accumulation of 2-AP and smell floral and sweet.

The researchers dried the leaves of wild sorghum and the gene-edited plant, grounded them into powder, and mixed them with rabbit food. The rabbits were more attracted to the feed with the fragrant sorghum and ate more. The research team is upbeat that the gene-edited variety can support animal husbandry.

Sorghum is widely used in wine and vinegar brewing in China. In experiments to improve the flavor and quality of liquor, the research team has also launched brewing experiments using fragrant sorghum.

This is an excerpt. Read the original post here.