CRISPR Editing Produces Undesired Results

Scientists from Australia and China recently released a study examining the effectiveness of CRISPR gene editing in rice plants. The developers involved in the project attempted to approve the yield of already high-yield rice by disrupting a semi-dwarfing gene in the plant (SD1). While the scientists used small gene inserts and deletions in the genome to accomplish this, analysis in the study published in the Journal of Genetics and Genomics found large insertions, deletions, and rearrangements in the rice's DNA.

> *Given these findings, the likelihood of unpredictable changes in multiple gene functions leading to altered biochemistry in gene-edited food plants, with consequent health risks (toxicity, allergenicity) is very real."*
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> *Dr. Michael Antoniou, molecular geneticist at King's College London*

In addition to the large and unpredicted insertions and deletions, the CRISPR rice did not show an increased yield. The plants were reduced in height, but scientists were not able to achieve their second goal.