In hopes to cut pesticide use Switzerland edges closer to legalizing crop gene editing

Just a stone’s throw from a sleepy suburban neighbourhood outside Zurich, barley is being grown under high security. Because this is no ordinary barley — it’s a gene-edited variety that’s pitting science and the need to boost food production against opponents of genetically engineered crops.

The Golden Promise variety is the star of the first ever field trial in Switzerland of a crop whose genes have been edited using CRISPR/Cas9 “genetic scissors” technology.

In the case of the Swiss barley trial, the goal is to disable the \( CKX2 \) gene that regulates seed formation using CRISPR/Cas9 genome editing. Japanese researchers have already used this process successfully to increase the yield of rice. Scientists from the Swiss agricultural institute Agroscope, in partnership with the Freie Universität Berlin, are hoping for the same results with barley.

However, in March 2023, the Swiss parliament asked the government to prepare a draft act for consultation with the aim of introducing a risk-based approval system for plants and seeds developed using CRISPR technology. This will give an exemption to the GMO ban, permitting trials of plants that have been subjected to genetic engineering techniques, that do not contain foreign genes and that offer added value for agriculture, the environment and consumers. The draft act is expected to be presented by the government for consultation in the second half of the year, most likely in September.

This is an excerpt. read the original post here