

[Chinese Scientists' Genome-Edited Wheat to Help Control Weeds](#)

A close relative of [wheat](#), jointed goatgrass (*Aegilops tauschii*) has been worsening the problems of Chinese [farmers](#). Mesosulfuron is the only wheat-registered foliar-applied herbicide that provides control of jointed goatgrass in [China](#), but using it damages wheat crops. Non-transgenic wheat varieties tolerant to imidazolinone (IMI) herbicides can help solve these problems, but IMI herbicides remain in the soil and severely damage sensitive crops planted months and even years later.

Researchers at the Institute of Genetics and Developmental Biology of the Chinese Academy of Sciences (IGDB, CAS) and China Agricultural University (CAU) generated several herbicide-tolerant wheat germplasms using base editing to facilitate weed control in wheat fields. The wheat germplasms harboring [herbicide tolerance](#) mutations confer tolerance to sulfonylurea-, imidazolinone- and aryloxyphenoxy propionate-type herbicides by base editing the acetolactate synthase (ALS) and acetyl-coenzyme A carboxylase [genes](#) of commercial wheat cultivar Kenong199...

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