India’s commercial rollout of newly-approved insect-resistant Bt mustard could help the country achieve self-sufficient edible oil — unless activist disinformation scuttles it

Hunger problems arise from multiple reasons—lack of purchasing power and low food availability. India is self-sufficient in cereal grains but has a major deficit of legumes and edible oils. Increasing crop productivity with conventional breeding is not possible. GM technology could be of value in breeding crops with desirable characteristics to increase productivity.

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The Indian gene pool of mustard is very narrow, so productivity is too low. GM DMH-11 is a hybrid between an Indian and an East European line. Its pollination control system provides hybrid seeds with high purity with the help of three transgenes – barnase, barstar and bar. Hybrids with higher yield than DMH-11 are already in the pipeline.

The Centre for Genetic Manipulation of Crop Plants, Delhi University applied to the GEAC (Genetic Engineering Appraisal Committee), India’s regulatory body, on September 15, 2015, for environmental release. A 3,251-page dossier reporting all the biosafety studies was submitted to GEAC. Only after detailed review, the GEAC gave approval in 2022.

Time and again, activists have said that hybrid DMH-11 has no yield advantage, it has wrong comparators, varieties out-yield GM hybrid, trials were not conducted properly, and so on. All these allegations were investigated by a committee of the National Academy of Agricultural Sciences (NAAS) and all were found to be mischievous and false.

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