Chinese researchers find ‘secret weapon’ of weed

Scientists from eastern China’s Zhejiang Province have used genomic analysis to uncover how weeds suppress the growth of other plants.

The research, headed by professor Fan Longjiang with the College of Agriculture and Biotechnology of Zhejiang University, was published in the journal Nature Communications last week.

“Allelopathy through the release of chemical compounds in the rhizosphere is one of the most important features of weeds,” Fan wrote in the report.

From a species of weed in the paddy field, they have in the genome identified three copies of gene clusters involved in production of an allelochemical used against rice and one copy of a phytoalexin gene cluster used against blast disease.

“Beyond purely academic interests, uncovering how weeds evolve is crucial for their management and the protection of the global food supply,” said the professor.

He noted that allelopathy could be an alternative weed management strategy with a lower environmental cost.