

Getting plants to rid themselves of pesticide residues

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Scientists have discovered that a naturally occurring plant hormone helps plants rid themselves of certain pesticide residues. Credit: USDA Agricultural Research Service

Scientists in China are reporting the "intriguing" discovery that a natural plant hormone, applied to crops, can help plants eliminate residues of certain pesticides. The study is scheduled for the Sept. 23 issue of ACS' *Journal of Agricultural and Food Chemistry*.

Jing Quan Yu and colleagues note that pesticides are essential for sustaining [food](#) production for the world's growing population. Farmers worldwide use about 2.5 million tons of pesticides each year. Scientists have been seeking new ways of minimizing pesticide residues that remain in food crops after harvest — with little success. Previous

research suggested that plant hormones called brassinosteroids (BRs) might be an answer to the problem.

The scientists treated cucumber plants with one type of BR then treated the plants with various pesticides, including chlorpyrifos (CPF), a broad-spectrum commercial insecticide. BR significantly reduced their toxicity and residues in the plants, they say. BRs may be "promising, environmentally friendly, natural substances suitable for wide application to reduce the risks of human and environmental exposure to pesticides," the scientists note. The substances do not appear to be harmful to people or other animals, they add.

More information: "Brassinosteroids Promote Metabolism of [Pesticides in Cucumber](#)", [Journal of Agricultural and Food Chemistry](#)

Source: American Chemical Society ([news](#) : [web](#))

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