Microbial “sensors” signal hidden plant stress

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Video Byte

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Abstract

Researchers are using plant microbes as microsensors of plant health. In recent experiments, they irrigated tomato and lettuce with either fresh water or treated wastewater and used DNA analysis to examine how microbes in the plants' roots responded. They found that microbes expressed genes associated with different forms of environmental stress such as high salt levels, high pH, and low oxygen. These stress signals can't always be detected in plants alone making this genetic profiling of plant microbes a useful method for detecting hidden stressors.