

Bacteria surrenders plant war secrets

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U.S. scientists say they've discovered the secret weapon of bacteria -- the way they secure a foothold in plants to launch an invasion.

The Michigan State University study focused on the bacterial pathogen *Pseudomonas syringae*, better known as the disease agent of bacterial speck. The pathogen attacks tomatoes, causing serious crop loss.

Michigan State biology Professor Sheng Yang used *P. syringae* in the laboratory plant *Arabidopsis* to obtain a better understanding of how bacteria establishes itself and destroys a plant's ability to fight infection.

The secret weapon: a bacterium's protein that targets a plant protein serving as a line of defense against illness, said researcher Kinya Nomura, the study's first author.

"The bacteria targets and disables a plant's defense protein, so they can get in and multiply," Nomura said. "It's a very nice strategy for bacteria, very clever."

The research project is described in the journal *Science*.

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