



By Maura Maxwell

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FDA announces Salmonella breakthrough



A study has identified a naturally occurring microbe that inhibits the spread of the disease when added to tomatoes

Scientists in the US says they may have made a breakthrough in controlling the spread of Salmonella on raw tomatoes. The team, from the Food and Drug Administration (FDA), pinpointed a benign bacterium, *Paenibacillus alvie*, that significantly reduced the concentration of Salmonella on contaminated tomato plants compared to controls during a field study. The results are due to be published in the journal *Applied and Environmental Microbiology*.

Outbreaks of Salmonella are fairly common in the US, affected almost 2,000 people and killing three between 2000 and 2010.

"The conditions in which tomatoes thrive are also the conditions in which Salmonella thrives," said the FDA's Eric Brown, who co-authored the study with Jie Zheng. "But we knew that if we could block Salmonella from infecting the tomato plant, we could reduce its risk of infecting the person who eats the tomato."

Zheng said that while microbes have long been used to prevent plant diseases, this development provided an opportunity to add a naturally occurring microbe to a crop in the field with the aim of preventing human disease. "Our ambitions are now

to extend this microbial approach to Cantaloupes, leafy greens and other crops that have lately been responsible for outbreaks of foodborne Salmonella and *E. coli*," he said.