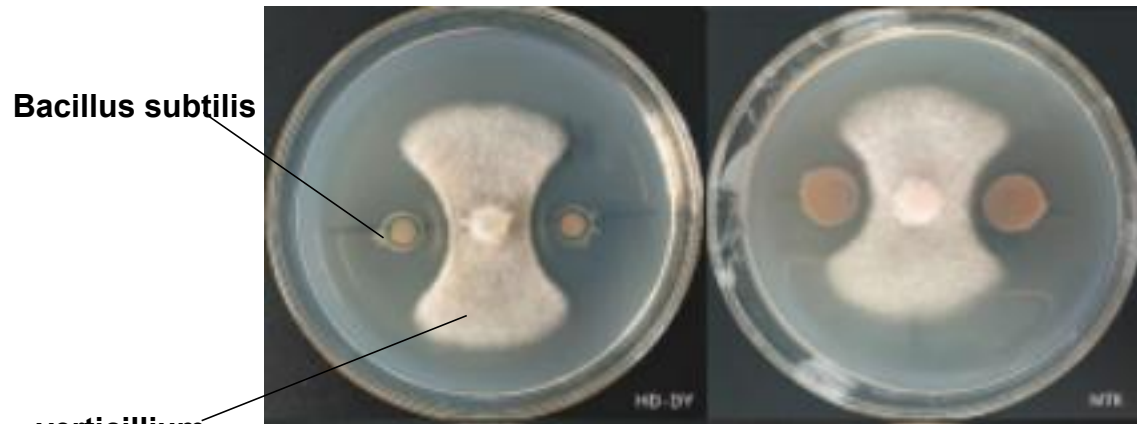


Inhibitory effect of *Bacillus subtilis* on mycelial growth of Verticillium Wilt

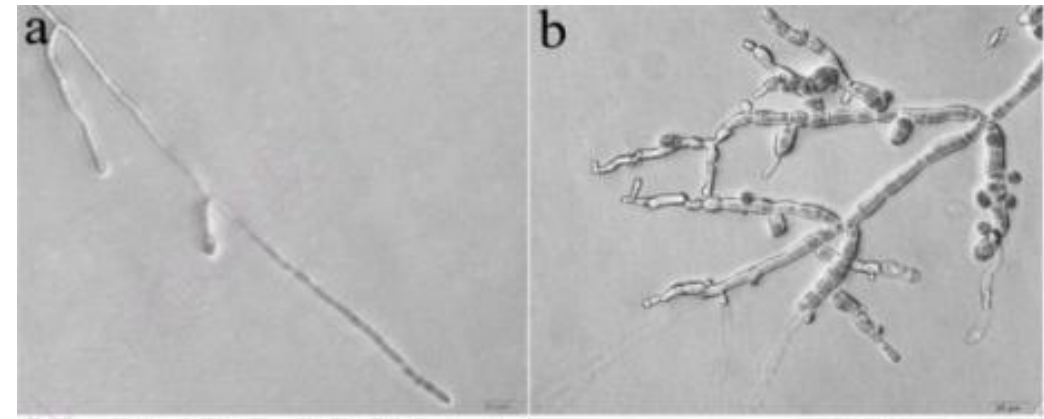
The inhibitory effect of *Bacillus subtilis* on pathogenic bacteria was tested by confrontation culture



Bacillus subtilis

verticillium dahliae

Confrontation culture effect chart



Teratogenic effect of *Bacillus subtilis* on hyphal morphology of *Verticillium Wilt*

A: control, normal hypha morphology; B: hyphae expanded and shortened

The results of the confrontation culture test showed that the antimicrobial metabolites produced by *Bacillus subtilis* during the growth process could significantly inhibit the growth of the hypha of *Verticillium wilt*, and the inhibition rate of the hypha growth on the plate reached 75% ~ 80%. At the same time, they affected the morphology of the hypha, formed abnormal states such as enlargement and cell shortening, weakened the infectious ability of the pathogenic bacteria, and alleviated the occurrence of diseases.

Inhibitory effect of fermentation broth of *Bacillus subtilis* on mycelial growth of *Verticillium* Wilt

The inhibitory effect of *Bacillus subtilis* fermentation filtrate on pathogenic bacteria was detected by colony growth rate method



Inhibitory effect of different concentration of *Bacillus subtilis* fermentation filtrate on the mycelial growth of *Verticillium* Wilt

From left to right, it is **20 times, 50 times, 100 times, 200 times, 1000 times and control**

The results showed that the metabolites produced by *Bacillus subtilis* had a significant effect on the mycelia growth of *Verticillium* wilt after dilution of 20 times, 50 times and 100 times, with inhibition rates of 85.2%, 70.6% and 45.3% respectively, reducing the occurrence of diseases.