

Streptomyces microflavus

Introduction

Streptomyces microflavus is a plants growth-promoting actinomycete, Its metabolites contain auxin, phenylacetic acid, succinic acid and cytokinins, which are the growth regulator components needed for crop growth, and can transform nitrogen, phosphorus, and potassium in the soil. It commonly used in agriculture to prevent diseases and protect seedlings and stimulating crop growth.



Composition

Bacteria count 3×10^9 CFU/g

Fineness: 80-200 mesh screen

Moisture: 8%

Packing: 1 kg or 25 kg / bag or as customize packaging

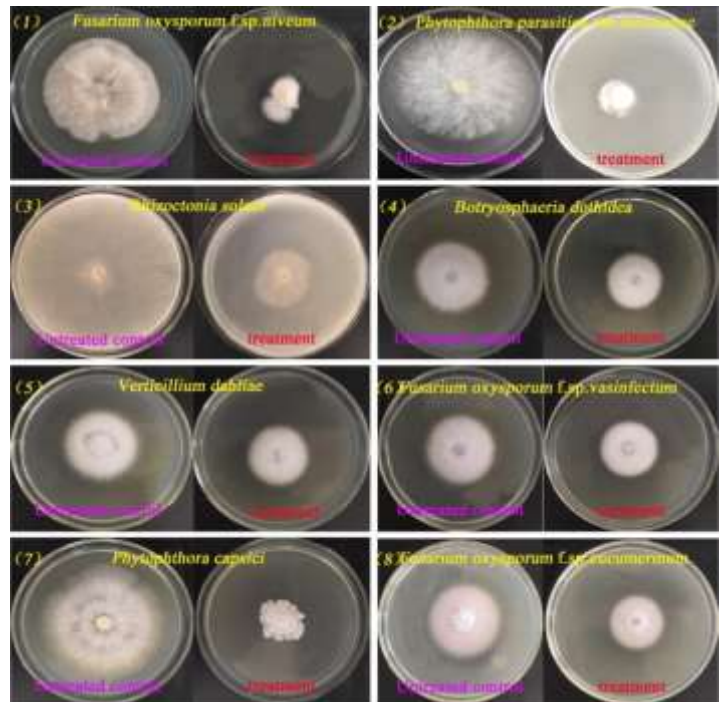
Application

Agriculture, Biofertilizer, Soil Treatment, Crop Protection, Foliar Spray,

Antagonistic activity

Inhibitory activities of antifungal metabolites produced by *Streptomyces microflavus* on the growth of pathogenic fungi.

- (a) *Fusarium oxysporum* f.sp. *niveum*
- (b) *Phytophthora parasitica*
- (b) *Rhizoctonia Solani*
- (c) *Botryosphaeria dothidea*
- (d) *Verticillium dahlia*
- (e) *Fusarium oxysporum* f.sp. *vasinfectum*
- (f) *Phytophthora capsici*
- (g) *Fusarium oxysporum* f.sp. *cucumerinum*



Mode of action

Streptomyces microflavus secretes metabolites such as succinic acid, gibberellin and zeatin have the same effect as the endogenous hormones of crops and promote crop growth and health.

Streptomyces microflavus secretes metabolites such as indole acetic acid and naphthalene acetic acid for crop roots promoter

Streptomyces microflavus colonize at rhizosphere of plants, transform the nutrients from soil and improves the fertilizer utilization

Benefit

- ✓ Promote the growth of root system
- ✓ Enhance the effect of nutrients uptake
- ✓ Increase crop potential yield and quality
- ✓ Retrieves soil quality and fertility
- ✓ Ameliorate abiotic stress by enzymatic and hormonal regulation
- ✓ Inhibit spreading of antibiotic resistance gene and transposons

Dosage & Method

- Apply 3 kg per acre, before sowing/planting
- Or apply 1.5 kg +1.5 kg per acre before and after sowing/planting

- Reapply 1 kg per acre at 4 weeks interval for season-long control
- Can be applied via drench, drip-irrigation, or by spray while sowing to the cultivation medium

Packing and shelf life

2 year shelf life, 1 kg per foil bag, 10 kg per carton, 25 kg per drum.

Storage

Store in cool, dry location, keep out of direct sunshine and moisture.

Keep out of reach of children.

In vivo antifungal ability of *Streptomyces microflavus* on maize seedlings

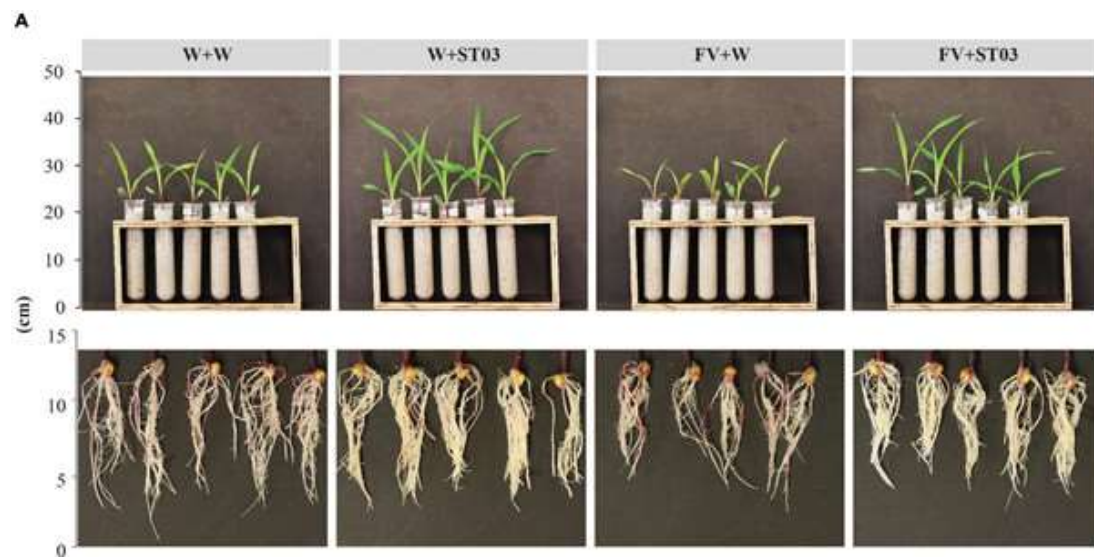


Figure 1. Plants and roots at 14 days after inoculation. *F. verticillioides*-infected maize seeds were planted in soil pre-inoculated with the *Streptomyces microflavus* (FV + ST03) and planted in soil mock-inoculated with sterile water (FV + W); *F. verticillioides* non-infected maize seeds were planted in soil pre-inoculated with the *Streptomyces microflavus* (W + ST03) and planted in mock soil (W + W).