

## Bacillus Methylophilus

5x 10<sup>10</sup> cfu/g B. Methylophilus supply

### Introduction

B. Methylophilus is a cost-effective and environmentally friendly technique used in agricultural production, effective against mycelial growth and conidial germination of numerous plant pathogenic fungi, including Botryosphaeria dothidea, Phyllosticta ampelicide, Valsa ceratosperma, and Botrytis cinerea, and can promote growth of plants in both greenhouse and field settings.



### Specification

Bacteria count : 5 x 10<sup>10</sup> cfu/g ,

Fineness: 80-200 mesh screen

Moisture: 8%

20 kg / bag or as per customers request

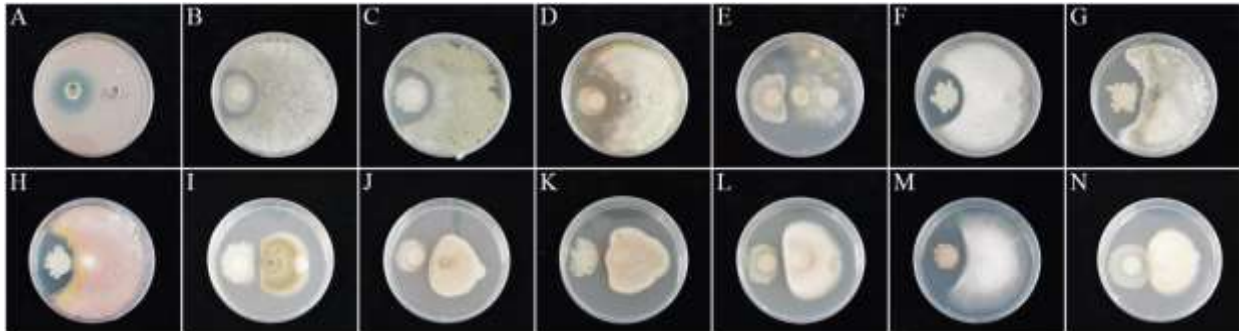
### Pathogens Control

- |                            |                         |                        |
|----------------------------|-------------------------|------------------------|
| ✓ Sclerotinia sclerotiorum | ✓ Eutypa lata           | ✓ Rhizoctonia solani   |
| ✓ Fusarium oxysporum       | ✓ Botrytis cinerea      | ✓ Pyricularia oryzae,  |
| ✓ Verticillium sp.         | ✓ Penicillium digitatum | ✓ Gloeosporium capsici |

## Antagonistic activity

Bacillus Methylophilus inhibits some pathogenic fungal diseases:

- |                             |                               |                          |
|-----------------------------|-------------------------------|--------------------------|
| (A) Rhodotorula rubra       | (F) Pyricularia oryzae        | (J) Fulvia fulva         |
| (B) Botryosphaeria dothid   | (G) Gloeosporium capsici      | (K) Alternaria alternata |
| (C) Phyllosticta ampelicide | (H) Fusarium graminearum      | (M) Rhizoctonia cerealis |
| (D) Valsa ceratosperma      | (I) Colletotrichum lagenarium | (N) Fusarium oxysporum   |
| (E) Botrytis cinerea        |                               |                          |



## Principle

- ✓ Colonize plant roots, interact with plant roots and can influence plant growth by scavenging reactive oxygen species, hydrogen peroxide, and volatile compounds.
- ✓ Inhibit pathogen growth via exudation of antibiotics, inhibition of phytopathogens, induced systemic resistance, parasitism of phytopathogens, and out-competing phytopathogens for space and nutrients

## Benefit

- ✓ Protect soil health and improve nutrient retention long-term,
- ✓ Effective biocontrol the pathogens including Sclerotinia sclerotiorum , Fusarium oxysporum , Verticillium sp., Eutypa lata, Botrytis cinerea, Penicillium digitatum and Rhizoctonia solani, both in vitro and in vivo.
- ✓ Promote the crop growth of plant, increase crops potential yield
- ✓ Can be rapidly colonized and propagated in the roots of crops to adjust the soil microecological balance
- ✓ Avoid the soil problem by continuous cropping, improve the utilization ratio of fertilizer

## Dosage & Method

**Soil treatment:**

- Apply 3 kg per acre, as early as possible to the crop for optimal effect.
- Reapply after 4~8 weeks for season-long control
- Can be applied via drench, drip-irrigation, or by spray while sowing to the cultivation medium

## Caution

Do not mix use with bleach, caustics, disinfectants or other chemicals

## Packing and shelf life

2 year shelf life, 1 kg per foil bag, 25 kg per bag

## Storage

Store in cool, dry location, keep out of direct sunshine and moisture. Once opened, should be use it within 30 days to prevent activation. Keep out of reach of children.

***Bacillus methylotrophicus* promotes the growth and development of strawberry plants.**

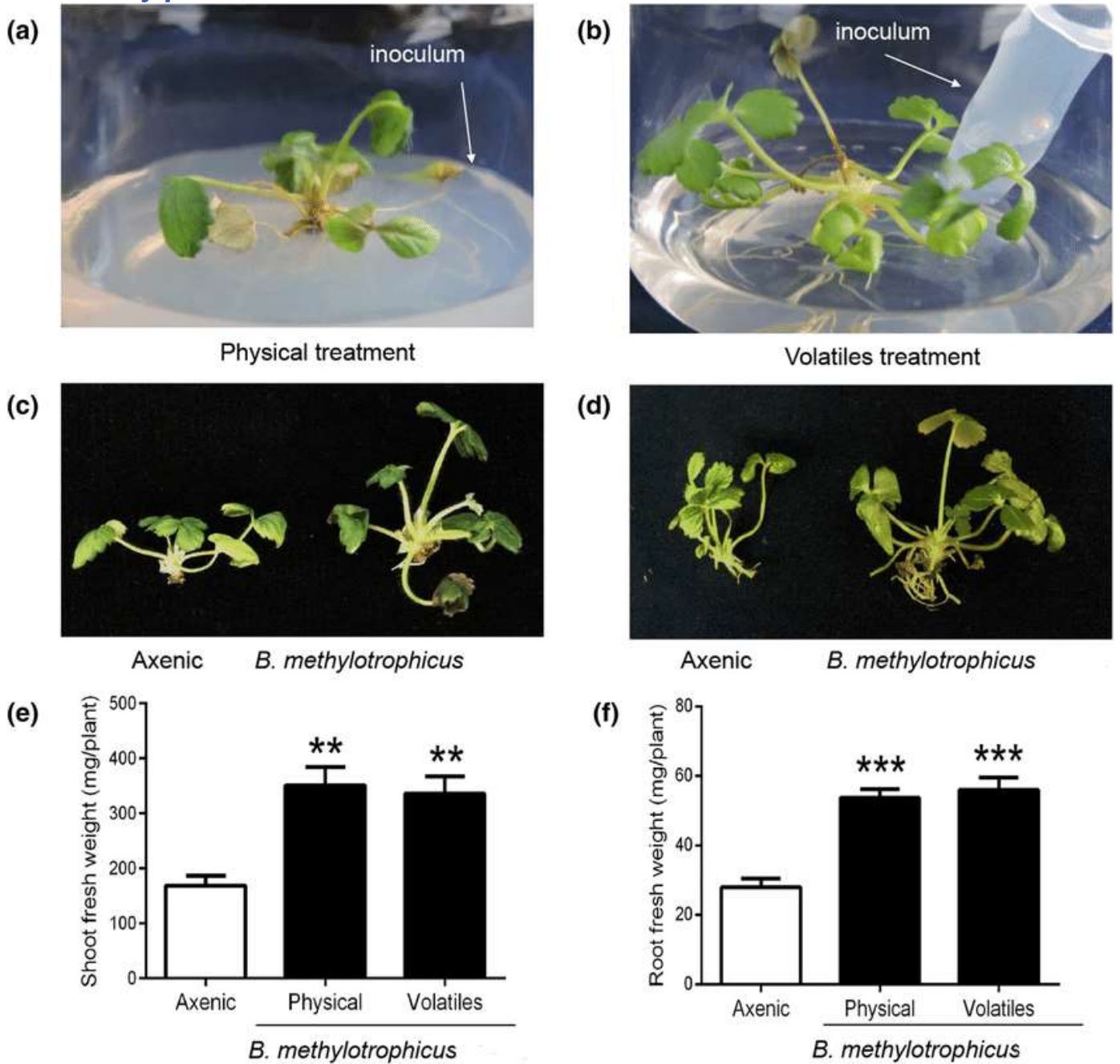


Figure 1: *Bacillus methylotrophicus* promotes the growth and development of strawberry plants. Two treatments were included a physical treatment, and b volatiles treatment. c Effects of the M4-96 strain on strawberry plants under the physical and d volatiles treatments compared to axenic control plants. e and f Shoot and root fresh weights of axenic control plants and of plants during interactions with bacterial compounds. The plant-bacterial interaction lasted 8 days. Bars represent the mean value per treatment  $\pm$  standard error (n = 9). The experiments were independently replicated three times.