

- Specification Sheet -

Bactilis-S

Bactilis-S is a soil activator - organic fertilizer in the form of water soluble powder containing beneficial soil bacteria of the genus *Bacillus* in a lyophilized form. **Bactilis-S** contains bacteria of the species:

- i. *Bacillus pumilus*
- ii. *Bacillus amyloliquefaciens*
- iii. *Bacillus subtilis*
- iv. and also the bacterial strain *Bacillus subtilis* **GB03**.

PROPERTIES AND USES:

- Improves the rooting. **Bactilis-S** stimulates the cell divisions in the root and thereby it promotes the elongation and the expansion of the root.
- Promotes the plant growth since its beneficial bacteria secrete substances that promote both the plant's growth and the plant's health (Plant Growth Promoting Rhizobacteria: PGPR).
- Prevents the invasion and the establishment of the soil pathogens on the plants' root because *Bacillus subtilis*, *Bacillus pumilus*, *Bacillus subtilis* **GB03** and *Bacillus amyloliquefaciens* secrete substances that create an adverse environment for the growth of the soil pathogens.
- Creates a protective shield for the root because the beneficial bacteria of **Bactilis-S** compete with the soil pathogens for space and nutrients, inhibiting their installation and proliferation on the plants' root.
- Reinforces the defence mechanisms of vegetables, lawn, ornamentals, herbs and trees, since *Bacillus subtilis* **GB03** in cooperation with *Bacillus pumilus* trigger the defence mechanisms of the plants.
- Fortifies the resistance of the plants against the environmental stress factors due to substances (e.g. salicylic acid) that are secreted by *Bacillus pumilus*.

APPLICATION:

Bactilis-S is recommended for soil applications through fertigation - irrigation system after it has been diluted in an appropriate bacterial growth solution (e.g. BACTA-FOOD) in order to activate the microbial population that it contains. Dilute 20g Bactilis-S in 1 liter liquid bacterial growth solution BACTA-FOOD and keep it for 2 hours in normal room temperature 20 - 25 °C agitating periodically. Then, apply the solution in the tank and water.

Application Rate: Generally it is applied at the following application rate.

Soil application: 50 -200 g/ha

STANDARD ANALYSIS

Beneficial microorganisms	0.1%
<i>Bacillus subtilis</i>	1×10^{10}
<i>Bacillus subtilis</i> GB03	5×10^9
<i>Bacillus pumilus</i>	5×10^9
Inert material	99%

PHYSICAL PROPERTIES:

Appearance:	Yellow powder
Solubility:	100% water soluble
Odour:	Odourless
pH (in solution 10%) :	6-7