Technical Data Sheet

Bacillus thuringiensis

Beneficial Bacteria for Input Diversification & Ecological Farming

Bacillus thuringiensis is a spore-forming soil bacterium used in sustainable agriculture to support microbial diversity, soil health, and input flexibility. As a trusted crop health bacteria known for its formulation stability and longstanding role in custom microbial inoculants, Bt is a resilient component in organic, regenerative, and transitional crop programs. Its spore-based structure ensures long shelf life and compatibility with composts, teas, microbial consortia, and biological fertilizer programs.

- Durable, spore-forming agricultural bacteria with broad formulation compatibility for soil and foliar inputs
- Integrates easily into compost teas, biological formulations, and regenerative soil management systems
- Contributes to biologically diverse soil ecosystems and supports rhizosphere microbial community resilience
- Consistent performance across variable cropping environments, with strong historical use in sustainable agriculture

Technical Data

Concentration (CFU/g):
- 10 billion (1.0×10^{10}) CFU/g dry powder
- Custom concentrations available upon request

Particle Size (Mesh):
- Passes through 100 mesh sieve

Packaging Options:
- 22 lb (10 kg) pails
- 44 lb (20 kg) pails
- 340 lb (155 kg) drums
- Smaller custom packaging available on request

Shelf-life:
- 1 year at room temperature
- 2 years refrigerated

Storage Recommendations:
- Store in a cool, dry location away from direct sunlight.
- Reseal container tightly after each use.

Application Rates

Foliar Spray

Dosage:

- 700 - 1800 grams per acre (1,800–4,500 grams per hectare)

Frequency:

- Begin at vegetative or pre-flowering stages
- Reapply every 3–5 days or 7-10 days, depending on crop needs

Application Method:

1. Apply in the early morning or evening to reduce UV exposure
2. Use a non-ionic surfactant or wetting agent for improved adhesion
3. Ensure thorough coverage of foliage, including undersides of leaves
4. Agitate spray solution continuously during application

Soil Application (Drip, Drench, or Fertigation)

Dosage:

- 50–100 grams per acre (125–250 grams per hectare)

Frequency:

- Apply during early root establishment or transplanting
- Reapply every 2–4 weeks during active growth stages as needed

Application Method:

1. Dissolve thoroughly in water (use enough water to reach the root zone)
2. Use an agitation tank or manual stirring to maintain microbial suspension
3. Apply through drip irrigation lines, micro-sprayers, or fertigation systems, positioning flow as close to the root zone as possible
4. Flush the system after application to prevent clogging or residue buildup

Do not tank mix with herbicides, fungicides, bactericides, or chemical pesticides.