

# Bacillus Thuringiensis

## BT 32000 WP

### Introduction

*Bacillus thuringiensis* is a microbial insecticide to provide biological control of caterpillars and various borer species. This biopesticide works by introducing bacterial spores and toxins into the body of the insect larvae as it feeds on foliage. These toxins quickly disrupt, and soon completely stop, normal digestive functions of the pest insect. The infected larvae will cease eating within minutes and fully succumb to the effects of the BTK and die within 2-5 days. Its 4 hour reentry interval (REI) makes Thuricide ideal for use on edible crops and in nurseries for control of common pest larvae like gypsy moths, armyworm, inchworms, canker-worms, tent caterpillars, cabbage looper, tomato hornworm, etc



### Specification

Product Model : BT 32000 WP / BT 16000 WP

Strains: *Bacillus Thuringiensis* Kurstaki / *Bacillus Thuringiensis* Aizawai

Fineness: 80-200 mesh screen

Moisture: 8%

25 kg / bag or as per customers request

## Application

- Lepidoptera.
- Orthoptera
- Coleoptera
- Diptera
- Hymenoptera
- pine caterpillar



Beet armyworm



Plutella xylostella



Helicoverpa armigera



Tetranychus urticae Koch



Jacobiasca formosana



Trialeurodes vaporariorum

## Principle

- ✓ This product is a type of crystal-producing Bacillus including many varieties. It can be used to control various pests of the order Orthoptera, Coleoptera, Diptera, Hymenoptera, especially Lepidoptera.
- ✓ *Bacillus thuringiensis* can produce two major toxoids: endotoxin (ie parasporal crystals) and exotoxin ( $\alpha$ ,  $\beta$ , and  $\gamma$  exotoxin). Parasporal crystals are the main toxins.
- ✓ In the basic gastrointestinal tract of insects, the intestine can be paralyzed within minutes, the insects stop feeding, and quickly destroy the intestinal lining, causing the vegetative cells of the bacteria to easily invade and penetrate the intestinal lining. Hemolymph, eventually insects die from starvation and sepsis.
- ✓ Exotoxin has a slow effect, and it has obvious effects during molting and metamorphosis. These two periods are the peak periods of RNA synthesis. Exotoxin can inhibit DNA-dependent RNA polymerase.

- ✓ The effect of this drug is slow, and the effect can only be seen in about 2 days after the pest is fed, so it should be used 2 ~ 3 days earlier than conventional chemical agents, and the effect is better in the early age of the pest.

## Benefit

- ✓ biological insecticide for moth larvae (caterpillar) control
- ✓ Consistent performance
- ✓ Easy to Mix Wettable powder
- ✓ Safe to predator insects and environment
- ✓ Non-chemical resistance
- ✓ Can be applied up to day of harvest

## Dosage & Method

- ✓ Apply 0.75-1.5 kg per ha at first sign of egg-laying or newly-hatched worms (1st instar larvae).
- ✓ Early morning or evening application when air is calm,
- ✓ Easy to apply - Product instantly mixes with water, Read and use according to application sheet
- ✓ Spray leaf surfaces thoroughly, top and bottom for complete control.

## Application instructions

- ✓ Do not apply through any kind of irrigation system.
- ✓ BT must be ingested by susceptible larvae to be effective, so thorough coverage of target foliage where larvae are feeding is essential.
- ✓ Apply when larvae are small, newly hatched and actively feeding.
- ✓ Repeat applications, according to economic threshold, as necessary to maintain control.
- ✓ To improve wetting and distribution on difficult to wet foliage (e.g. crucifers), the addition of a wetting agent is recommended.
- ✓ After ingestion, larvae cease feeding within a few hours and death occurs in 2-5 days.

## 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.