

Bacillus thuringiensis

Bacillus thuringiensis (or **Bt**) is a soil-dwelling bacterium, the most commonly used biological pesticide worldwide. It is used to control a wide variety of beetles, caterpillars, and moths that spend part of their life cycle in the soil.

Controlling pests with Bt is dependent on its active ingredient, a crystal protein, which paralyzes the digestive system of the insect. The infected insect stops feeding and starves to death.

Bt has become a marvelous tool for eliminating certain insect species from both the commercial and home garden. Its use helps reduce the amount of chemical insecticides in our environment and is harmless when eaten by beneficial insects and animals. Study after study has shown that using Bt in the garden is perfectly safe in its application and ingestion by humans.

First and foremost, read the label. You don't need to use Bt in the garden if you don't have the pests it eliminates. *Bacillus thuringiensis* products are very specific in the insects they will or won't kill.

Bacillus thuringiensis products are highly susceptible to degradation by sunlight, so the best time to spray your garden is early morning or evening. Most of these products adhere to the foliage for less than a week following application and the period shortens with rain or overhead watering.



<https://www.gardeningknowhow.com/plant-problems/pests/pesticides/using-bacillus-thuringiensis.htm>

<http://npic.orst.edu/factsheets/btgen.html>