



Actual name *Bacillus thuringiensis* sub. sp. *Kurstaki* (*Btk*)

Type of product Biological pesticide, a type of pesticide derived from natural materials such as plants or bacteria. *Bt* is a naturally occurring soil bacteria.

How Btk works Gypsy moth caterpillars must eat *Btk* for it to be effective because it interferes with digestion. The active ingredient is a protein toxin formed by the bacteria. The alkaline gut and enzymes that only caterpillars have activate the toxin, stopping the caterpillar from feeding and they die within hours.

How Btk is made *Btk* is cultured using water and nutrients such as sugars and starches, in a fermenting process similar to brewing beer. The final product contains almost all water, the leftover growth medium, carbohydrates, inert ingredients that are approved as food additives, and the active ingredient.

What Btk affects Different strains of *Bt* affect different insects. The *Btk* strain affects gypsy moth caterpillars and tent caterpillars. We do not use *Btk* where there are threatened or endangered species of moths and butterflies. *Btk* is not harmful to humans, pets, birds, fish or other wildlife.

Application rate 2 quarts/acre

Application timing

- Most effective when caterpillars are newly hatched
- Mid- to late-May
- Two applications 7-10 days apart assure that late hatches are killed

Why we use Btk

- Breaks down in sunlight within 2-3 days
- Highly effective; nearly 100% mortality of gypsy moth caterpillars in treated areas
- Highly effective with high caterpillar populations
- Readily available
- Not harmful to humans, pets, fish, birds