



Type of product

- Biological pesticide that only infects gypsy moth caterpillars
- Manufactured by the US Forest Service and used by government agencies

Active ingredient

- Gypsy moth nucleopolyhedrovirus virus (NPV)
- Virus occurs naturally wherever gypsy moth is present

How NPV works

- Product is sprayed onto tree leaves
- The caterpillars ingest the virus when they eat the leaves
- Kills the caterpillar by infecting its internal organs, caterpillar stops eating
- Dead and dying caterpillars become soft and limp, which is why the viral disease is known as "wilt."
- Approximately 75% of caterpillars become infected soon after spraying and die within 10-14 days
- A second wave of caterpillar mortality occurs when dead caterpillars release virus particles that infect other caterpillars

How NPV is made

- Many caterpillars are reared in a laboratory and infected with the virus
- Dead and diseased caterpillars are processed into a gray powder that contains caterpillar body parts and virus particles
- Between 500 and 1,000 caterpillars are needed to produce enough NPV to treat one acre
- Unfortunately, NPV is costly therefore is used on a limited number of acres

Application method

- NPV is mixed with a non-toxic liquid carrier and then applied using low-flying aircraft at a rate of approximately 1 gallon per acre
- The liquid carrier contains starches, sugars and tree cellulose

Application timing

- One application in mid- or late-May
- Total virus levels are a fraction of what would be present at the end of a gypsy moth outbreak
- NPV is highly effective against newly hatched gypsy moth caterpillars

Health effects

- NPV presents no known risks to humans, pets, birds or other wildlife
- The virus does not infect the caterpillars of endangered or threatened butterflies or moths

Why we use NPV

- Specific to gypsy moth caterpillars
- Effective with high caterpillar populations
- Can be used in areas where endangered or threatened species of butterflies and moths are feeding during the spray season

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For more information, call 1-800-642-MOTH