

Met52[®]

The bioinsecticide for black vine weevil control

Controls harmful soil dwelling insects

Met52[®] is a bioinsecticide that provides annual plant protection and powerful control of black vine weevil (BVW) for the nursery and greenhouse industry. Met52 delivers a number of significant benefits, including outstanding plant protection, a new and very broad mode of action for resistance management, one-year residual activity, and just a four-hour re-entry interval (REI).

Met52 is a granular formulation based on sterile rice, containing the *Metarhizium anisopliae* fungus. These grains of rice are incorporated into the mix for potted stock, or into the soil for field crops to combat the eggs and larvae of black vine weevil. Once incorporated, the insect comes into contact with the fungal spores, is infected, and dies.

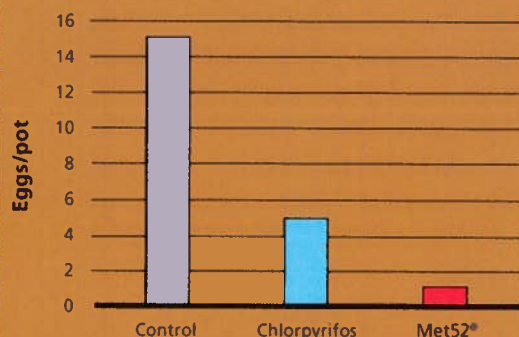
Met52 is registered for commercial non-food use on ornamental tree nursery crops, perennials, flowers, and potted plants in Canada.

Novel mode of action

Met52 is a soil-applied, contact bioinsecticide – control is not dependent on ingestion. The fungal spores in Met52 attach to the black vine weevil larva, where they germinate and penetrate the exoskeleton. The fungus grows rapidly inside the larva and kills it. Larvae are completely mummified by the *Metarhizium* fungi.

Effects of *Metarhizium anisopliae* on black vine weevil have been extensively tested, both in detailed tests as well as in the field, and published extensively in peer reviewed journals by independent researchers in universities and government agencies.

Met52[®] reduces black vine weevil eggs



Source: Bayer CropScience, Netherlands.



PLANTPRODUCTS[®]

(800) 387-2449

Met52[®] – The bioinsecticide for black vine weevil control



Black vine weevil adult



Black vine weevil larva



Black vine weevil larva mummified by Met52.

Use instructions

- Apply Met52 prior to, or during planting by thoroughly mixing into the growing medium, ensuring even distribution
- Apply at a rate of 0.68 to 1.36 kilograms per cubic yard of growing medium. Use higher rates when larval pressure is expected to be high
- Met52 will be most active above 15 °C, resulting in faster pest or larva mortality. Below this temperature the larvae will die more slowly, but their feeding will also be reduced
- Met52 is most effective when applied at temperatures and soil moisture that guarantee optimum growth for the plant
- Met52 should be mixed in the potting media when plants are started to ensure that all of the soil within developing root balls is treated

Generally speaking, when plants are growing well, so is the Met52 fungus. If plants are repotted and the old ball of soil around the roots has not been treated with Met52, the resulting control can be disappointing. It is preferable to shake the roots when repotting, and to use the treated potting mix to replace old soil.

Storage

Met52 consists of living beneficial microorganisms. Opened packages should be closed tightly, stored in a cool, dry place, and used as quickly as possible (within one month maximum). Do not freeze or store product at temperatures above 21 °C. Cool and dry storage conditions will maximize product shelf life.

For complete use and storage instructions, please refer to the product label.

Summary

- Met52 is a soil-applied bioinsecticide based on the *Metarhizium anisopliae* fungus, which kills black vine weevil larvae
- Thanks to the unique and broad mode of action, there is no known resistance to Met52
- There are over 100 different host plants of the BWV including azalea, barberry, begonia, boxwood, box elder, camellia, cotoneaster, cyclamen, euonymus, gardenia, geranium, ground covers, hemlock, holly, hosta, impatiens, juniper, laurel, lilac, lilies, ivy, peony, rhododendron, spirea, taxus, tsuga, and wisteria

**For more information on Met52, please contact
Novozymes Biologicals, BioAg Group at 1-888-744-5662 | www.bioag.novozymes.com**

Novozymes is the world leader in bioinnovation. Together with customers across a broad array of industries we create tomorrow's industrial biosolutions, improving our customers' business, and the use of our planet's resources. Read more at www.novozymes.com.

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