

## Sprayer Guide

# beetleGONE!® tlc



### Recommended Rate: 3 oz (1/2 cup loosely packed) per Gallon per 1,000 sqft

For all applications we recommend a rate of 2 - 4 oz (about 3/8 - 3/4 cups) of beetleGONE! per gallon of water which will allow you to treat 1,000 sqft. Generally, if you are **treating for beetles on foliage we recommend using manual pump sprayers** which allow you to easily control the amount of product delivered to the foliage of the plant; your favorite one in the shed will probably work just fine. **To treat for grubs feeding on the roots of your turf or garden, BOTH manual pump sprayers and hose end sprayers will work;** although, hose end sprayers may be preferred (see below section 'For Ground Spraying Applications').

### For Application to Trees, Ornamentals, Fruits & Vegetables (Adult Beetles)

For foliar application, we recommend the use of handheld pump sprayers. Hose end sprayers often do not deliver enough product and due to increased flow of water, considerable amounts of product may end up on the ground. **With pump sprayers, getting the right mix of beetleGONE! is easy; simply mix 2 - 4 oz (3/8 - 3/4 cups) of beetleGONE! per gallon of water.** Depending on the sprayer, and the size of the tank opening, it may be easier to mix the beetleGONE! with water in a separate bucket before transferring the mixture to the sprayer. Once inside the sprayer, tighten the lid and **shake vigorously to ensure the solution is well mixed.** Continue to gently mix the solution while working to keep the beetleGONE! suspended in water. We prefer a mist setting during application which provides uniform coverage on the foliage while limiting product run off. **For best results, do not allow irrigation or rain to wash beetleGONE! off the leaves after application.**

### Sticker-Spreaders and IPM (Integrated Pest Management):

For foliar applications, we recommend adding a sticker-spreader at label rates to the beetleGONE!-water mix. A sticker-spreader is typically used by growers, farmers and foresters in their applications of microbial products to the foliage of plants to enhance adhesion when light rain or morning dew is forecast. Based on customer feedback, PBC recommends three products that are working well with beetleGONE! These products will maintain organic status.

**Miller Chemical's Nu Film® P** is a superior spreader sticker adjuvant with non-ionic properties designed to improve the contact, wetting and adhesion of pesticides onto the plant surface. Nu Film P forms a soft film, which polymerizes. This film reduces the effects of rainfall erosion, volatility and ultraviolet (UV) degradation on pesticide spray deposits. **NOP (EPA National Organic Program) and OMRI compliant for use on organic crops.**

Our customers have also reported success in using **Neptune's Harvest Rose & Flowering 2-6-4 32 oz. (1 qt.) Organic Fertilizer** which is a rose & flowering fertilizer. This product was uniquely formulated for flowering plants to increase their vigor during flowering and to increase the volume and density of buds that produce healthy, vibrant flowers. Made with fresh fish, molasses, yucca extract, seaweed and humic acids Neptune's Rose & Flowering formula will ensure that your plants are healthy and happy, produce lush foliage and maximize their flowering ability.

For an extremely bad infestation of Japanese Beetles, one can also add 1 cup of a **kaolin clay-based product (Surround WP)** per gallon of beetleGONE! / water mixture. The kaolin clay will work with beetleGONE! to control the beetles. This kaolin clay product will, however, leave a light white film on the foliage of the plant.



### For Ground Spraying Applications (Grub Larvae)

beetleGONE! may be used as a ground spray in order to control grubs feeding beneath the surface of your lawn or garden bed. Manual pump sprayers can be used, but may be inefficient if a large area needs to be treated. For treating large areas a hose end sprayer is preferred. **The use of a hose end sprayer will require you to make a concentrated solution of beetleGONE!** by mixing 2 - 4 oz (3/8 to 3/4 cup)\* of beetleGONE! with 16 fl oz of water. Add the concentrated solution to the sprayer tank, tighten the lid and shake vigorously to ensure a uniform mixture with no clumps. Deliver the concentrated solution over 1,000 sqft. **Whichever type of sprayer you use, make sure 2 - 4 oz of beetleGONE! is used per 1,000 sqft and irrigate the product into the root zone of the soil where grubs are feeding.**

# Sprayer Guide | Phyllom beetleGONE!® tlc

**\*NOTE: Various hose end sprayers deliver the concentrated beetleGONE! solution at different rates; please see sprayer recommendations below. For foliar application with a hose end sprayer, consider mixing 1 cup of beetleGONE! per 16 fl oz of water.**

Manual (Pump) Sprayers	Application		Rate
	Foliar	Ground	
Scotts® Multi Use 1 Gallon Sprayer	Yes	Yes	Mix 2 - 4 oz (3/8 - 3/4 cups) of beetleGONE! per gallon of water.
Chapin® Pump Sprayer Model #1002	Yes	No	Mix 2 - 4 oz (3/8 - 3/4 cups) of beetleGONE! per gallon of water.
Zep® Professional Sprayer	Yes	No	Mix 2 - 4 oz (3/8 - 3/4 cups) of beetleGONE! per gallon of water.
Other Pump Sprayers Tested: Flow Master® Model 56HD - Uneven application. Likely due to design of sprayer Chapin® Mister Model 5002 - Uneven application. Likely due to design of sprayer			
Hose End Sprayers	Foliar	Ground	Rate
Hudson® Hose End Sprayer Model 2204   Ace® Hardware Model 2204   Chapman® Wet or Dry Hose Sprayer	Yes	Yes	Using the 'Acid Loving Plant' Setting: Mix 1/2 - 1 cup of beetleGONE! with 16 fl oz of water to deliver 2 - 4 oz of beetleGONE! per gallon.
Chameleon® Hose End Sprayer	No	Yes	Using the 8 oz Setting: Mix 1 cup of beetleGONE! with 16 fl oz of water to deliver 1 oz of beetleGONE! per gallon. Multiple passes required.
Other Hose End Sprayers Tested: Chapin® Hose End Sprayer Model G362D - Does not deliver at the desired rate Ortho® Dial N Spray Multi Use Hose End Sprayer - Does not deliver at the desired rate			

## Application to Trees, Ornamentals, Fruits & Vegetables (Adult Beetles)

### Zep® Professional Sprayer (Spray Bottle)

Mix beetleGONE! at a rate 2 - 4 oz (approx. 3/8 to 3/4 cups) per gallon of water. Set adjustable nozzle to almost closed (mist) position and make 2-3 passes over foliage to ensure uniform coverage without allowing beetleGONE! mixture to drip off leaves. Recommended for treating small areas of foliage. Sprayer delivers a light mist which provides uniform application.

### Scotts® Multi Use 1 Gallon Sprayer

Mix beetleGONE! at a rate 2 - 4 oz (approx. 3/8 to 3/4 cups) per gallon of water. Adjustable cone nozzle: Set to fully closed (mist) position and make 2-3 passes over foliage to ensure uniform coverage without allowing beetleGONE! mixture to drip off leaves. Optional Multi nozzle: Set to 'Fan' or 'Cone' setting and make 2-3 passes over foliage to ensure uniform coverage without allowing beetleGONE! mixture to drip off leaves. Recommended for treating small to large areas as a foliar application or small to medium areas as a ground spray. Sprayer delivers a medium spray which provides a uniform application without excess product run off. **For ground spray applications you will need to irrigate the product into the root zone where grubs feed.**

### Chapin® Pump Sprayer Model #1002

Mix beetleGONE! at a rate 2 - 4 oz (approx. 3/8 to 3/4 cups) per gallon of water. Set adjustable nozzle to fully closed (mist) position and make 2-3 passes over foliage to ensure uniform coverage without allowing beetleGONE! mixture to drip off leaves. Recommended for treating small to medium areas of foliage. Pump sprayer delivers a light mist which provides uniform application.



## For Ground Spraying (Root Zone) Applications (Grub Larvae)

### Hudson® Hose End Sprayer Model 2204 | Ace Hardware® Model 2204 | Chapin® Wet or Dry Hose Sprayer

Mix 1/2 - 1 cup of beetleGONE! with 16 fl oz of water to create 20 fl oz of concentrated beetleGONE! solution. Leave the sprayer supply tube attached and set the sprayer to the 'Acid Loving Plants' setting. Sprayer output will be approx. 2 - 4 oz of beetleGONE! per gallon, allowing you to cover 1,500 sqft. This sprayer is an excellent choice to control turf grubs feeding on the roots of your turf or garden - make sure product gets irrigated into the root zone. For foliar application this product will deliver at the high label rates; however, be advised that considerable amounts of the sprayed solution will end up on the ground. For foliar application we recommend the higher concentrated rate of 1 cup beetleGONE! to 16 fl oz of water.



### Chameleon® Hose End Sprayer

Mix 1 cup of beetleGONE! with 16 fl oz of water to create 20 fl oz of concentrated beetleGONE! solution. Set sprayer to the 8 oz setting. Sprayer output will be about 1.5 oz of beetleGONE! per gallon. Make multiple passes to achieve desired rate of application. This sprayer is a good choice to deliver the low label rate (1-2 passes) or high rate (multiple passes) of beetleGONE! to turf or garden beds. Make sure product gets irrigated into the root zone. For foliar application this product will deliver at the low label rates; however, be advised that considerable amounts of the sprayed solution will end up on the ground. For this reason, we only recommend this sprayer for ground spraying.



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