SUPPRESSION OF DROSOPHILID FRUIT FLIES INFESTING CANEBERRIES IN CALIFORNIA

General Information

GENERAL INFORMATION

GF-120 NF Naturalyte Fruit Fly Bait insecticidal bait attracts and controls multiple species of tephritid fruit flies infesting any tree, fruit, nut, vine, vegetable or food crop and ornamentals, and on vegetation which may serve as resting sites for adult flies. Aerial or ground applications in production agriculture or directed ground applications to individual plants are permitted. Do not make aerial applications in immediate proximity of residential, commercial, government, institutional or other structures where people may be present including homes, apartments, offices, churches, schools, and businesses. Aerial applicators should evaluate conditions existing at the time of application and make appropriate adjustments to reduce drift. In urban areas, however, use is limited to directed ground applications.

There is no preharvest interval when GF-120 NF is applied to any tree, fruit, nut, vine, vegetable or any other food crop and ornamentals to control multiple species of tephritid fruit flies. Do not enter or allow worker entry into treated areas during the restricted entry interval of 4 hours except as allowed under the Agricultural Use Requirements section when the specified PPE is worn.

Chemigation: Do not apply through any type of irrigation equipment.

INSECTICIDE RESISTANCE MANAGEMENT (IRM)

GF-120 NF Naturalyte Fruit Fly Bait contains spinosad, a Group 5 insecticide. Insect/mite biotypes with acquired resistance to Group 5 insecticides may eventually dominate the insect/mite population if Group 5 insecticides are used repeatedly in the same field or area, or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by GF-120 NF Naturalyte Fruit Fly Bait or other Group 5 insecticides. Currently, only spinetoram and spinosad active ingredients are classified as Group 5 insecticides. These two insecticide active ingredients share a common mode of action and must not be rotated with each other for control of pests listed on the
label. Spinetoram and spinosad may be rotated with all other labeled insecticide active ingredients.

To delay development of insecticide resistance, the following practices are recommended:

- Carefully follow the specific label guidelines within the use directions sections of the label.

- Avoid use of the same active ingredient or mode of action (same insecticide group) on consecutive generations of insects. However, multiple applications to reduce a single generation are acceptable. Treat the next generation with a different active ingredient that has a different mode of action or use no treatment for the next generation.

- Avoid using less than labeled rates of any insecticide when applied alone or in tank mixtures.

- Applications should be targeted against early insect developmental stages whenever possible.

- Monitor treated insect populations in the field for loss of effectiveness.

- Contact your local extension specialist, certified crop advisor, and/or manufacturer for insecticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.

- For further information or to report suspected resistance, you may contact your local Dow AgroSciences representative or by calling 800-258-3033

Mixing Directions

Dilute GF-120 NF, a bait concentrate, with water. The most effective dilution for aerial and most other applications is a 1:1.5 (GF-120 NF:water) dilution (e.g., to make 10 liters of spray solution, add 6 liters of water to 4 liters of GF-120 NF). For ground applications and applications in low relative humidity, dilutions of up to 1:5 (GF-120 NF:water) can be made. First add water (one-half of the volume to be mixed) to the spray tank or premixing tank and start the agitation system. Then add the full amount of GF-120 NF followed by an equal amount of water. If a full
container of GF-120 NF is used, triple rinse the empty container by filling it one-third full with water, shake well and add the rinsate to the spray tank. Repeat two more times so the container is triple rinsed and then complete filling the spray tank until the proper dilution is obtained. Maintain constant agitation of the spray solution to ensure uniformity of spray mixture. Allow agitation system to operate for at least 5 minutes before applying. Once diluted, use GF-120 NF within 24 hours. Concentrated GF-120 NF will not settle and does not need to be shaken before mixing.

APPLICATION DIRECTIONS

Proper application techniques help ensure adequate coverage and correct dosage necessary to obtain optimum control of insect pests. Use a large spray droplet size of 4000 to 6000 µm (4 to 6 mm) to optimize length of bait attractiveness and longevity in the field. Fruit flies can detect the bait from several yards away. When aerially applying use ULV applications but with coarse nozzles that will produce the desired droplet size and target 20 to 80 droplets per square meter. By ground, spot or strip spray several areas on the inner canopy of fruiting plants. Avoid weather conditions that could result in drift to nontarget areas. Direct spray application to bottoms of leaves and leaves inside the foliage canopy to reduce direct exposure to sun and rain. This product resists wash off, but will lose effectiveness if exposed to rain and overhead irrigation. When possible, consider potential for rain or irrigation schedules when planning applications. Begin applications as soon as monitoring traps indicate flies are present or 2 to 3 weeks before fruit begins to ripen. Repeat applications every 7 to 14 days, shortening the application interval during rainy periods and as fruit ripens. Remove fruit as soon as ripe, particularly any overly ripe fruit on the tree or ground.

Refer to the Supplemental Label for the application information in the State of Florida.

Limitations, Restrictions, and Exceptions

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GF-120 NF can be used as part of an integrated program to manage drosophilid fruit flies infesting caneberrries. This use is limited to directed ground applications.
The most effective dilution for this application is a 1:1.5 (GF-120 NF:water) dilution. For example, to make 10 gallons of spray solution, use 6 gallons of water plus 4 gallons of GF-120 NF. First add water (one-half of the volume to be mixed) to the spray tank or premixing tank and start the agitation system. Then add the GF-120 NF, followed by the rest of the water.

Use 10 to 20 fl oz of GF-120 NF per acre (broadcast basis). Adult drosophilid flies can detect the bait from several yards away. It is not necessary to spray the fruit. See the Application section on the label affixed to the container of GF-120 NF for information on droplet size and placement, and for a table with the amount of final spray solution for different rates and dilution ratios.

Method
Broadcast/Foliar Ground
Rates
field_rates 0

Restricted Entry Interval
4 hours

Timings
N. A.