

CITRUS FRUIT, STONE FRUIT AND TREE NUTS - PROGRAM 2 - POSTEMERGENCE WEED CONTROL

General Information

PRODUCT INFORMATION

Broadworks Herbicide is a systemic preemergence and postemergence herbicide for the selective contact and residual control of broadleaf weeds in listed crops. When used preemergence, weeds take up the product through the soil during emergence. Dry conditions following application may reduce the preemergence activity of Broadworks Herbicide. If an activating rain (0.25 inches) is not received within 7-10 days after a preemergence application, where appropriate, rotary hoeing is suggested to activate the herbicide. When used postemergence, susceptible weeds take up the herbicide through the treated foliage and cease growth soon after application. Complete death of the weeds may take up to 2 weeks.

The product is absorbed through the soil and/or by the foliage of emerged weeds.

Broadworks Herbicide is not effective for the control of most grass weeds. Preemergence grass herbicides or postemergence grass herbicides can be tank mixed with Broadworks Herbicide to provide broad spectrum weed control (see appropriate section of label for this information).

WEED RESISTANCE MANAGEMENT

Naturally occurring biotypes of certain broadleaf weed species with resistance to triazines, glyphosate, PPO, HPPD and ALS inhibiting herbicides are known to exist. Performance of Broadworks Herbicide is not affected by the presence of biotypes resistant to triazines, glyphosate, PPO or ALS inhibiting herbicides.

To prevent the risk of weeds developing resistance to Broadworks Herbicide, always use full labeled rates. If additional herbicide must be applied, it is recommended that a different mode of action be used, i.e., other than an HPPD inhibitor (Group 27 Herbicide). Broadworks Herbicide must be applied at full label rates to help prevent selection for, or population shifts toward, marginally resistant weed species and/or species biotypes.

Principles of Herbicide Resistant Weed Management

Scout and know your field

- Know weed species present in the field to be treated through scouting and field history. An understanding of weed biology is useful in designing a resistance management strategy. Ensure the weed management program will control all weeds present.
- Fields should be scouted prior to application to determine species present and growth stage. Always apply this herbicide at the full labeled rate and correct timing for the weeds present in the field.

Utilize non-herbicidal practices to add diversity

- Use diversified management tactics such as cover crops, mechanical weed control, harvest weed seed control, and crop rotation as appropriate.

Use good agronomic practices, start clean and stay clean

- Use good agronomic practices that enhance crop competitiveness.
- Plant into weed-free fields utilizing tillage or an effective burndown herbicide for control of emerged weeds.
- Sanitize farm equipment to avoid spreading seed or vegetative propagules prior to leaving fields.

Difficult to control weeds

- Fields with difficult to control weeds should be planted in rotation with crops that allow the use of herbicides with an alternative mode of action or different

management practices.

- Difficult to control weeds may require sequential applications, such as a broad spectrum preemergence herbicide followed by one or more postemergence herbicide applications. Utilize herbicides containing different modes of action effective on the target weeds in sequential applications.

Do not overuse the technology

- Do not use more than two applications of this or any other herbicide with the same mode of action in a single growing season unless mixed with an herbicide with a different mode of action which provides overlapping spectrum for the difficult to control weeds.

Scout and inspect fields following application

- Prevent an influx of weeds into the field by controlling weeds in field borders.
- Scout fields after application to verify that the treatment was effective.
- Suspected- herbicide resistant weeds may be identified by these indicators
- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and - Surviving plants mixed with controlled individuals of the same species.
- Report non-performance of this product to your Syngenta retailer, Syngenta representative, or call 1-866-Syngenta (866-796-4368). If resistance is suspected ensure weed escapes are controlled using an herbicide with an effective mode of action and/or use non-chemical means to prevent further seed production.

Prevent weed escapes before, during, and after harvest

- Do not allow weed escapes to produce seed or vegetative structures such as tubers or stolons which contribute to spread and survival. Consider harvest weed seed management and control weeds post-harvest to prevent seed production.

Resistant weeds

- Contact your local Syngenta representative, retailer, crop advisor or extension

agent to determine if weeds resistant to this mode of action are present in your area. If resistant biotypes have been reported, use the full labeled rate of this product, apply at the labeled timing, and tank-mix with a different mode of action product so there are multiple effective modes of application for each suspected resistant weed.

USE RESTRICTIONS

Do not apply this product through any type of irrigation system unless specified otherwise under the specific crop section on the label.

Do not apply this product with suspension fertilizers as the carrier.

Do not use aerial application to apply Broadworks Herbicide.

USE PRECAUTIONS

When weeds are stressed due to drought, heat, lack of fertility, flooding, or prolonged cool temperatures, control can be reduced or delayed since the weeds are not actively growing.

Weed escapes or regrowth may occur when application is made under prolonged stress conditions.

Optimum weed control will be obtained if an application of Broadworks Herbicide is made following label directions when weeds are actively growing.

APPLICATION INFORMATION

PREEMERGENCE GROUND APPLICATION

Apply Broadworks Herbicide preemergence with a carrier volume of 10-60 gal/A.

Spray nozzles must be uniformly spaced, the same size and type, and must provide accurate and uniform application. Use spray nozzles that provide medium to coarse droplet size to provide good coverage and avoid drift. Apply in a spray volume of 10-60 gal/A using water or liquid fertilizer (excluding suspension fertilizers) as the carrier. Use a pump that can maintain a pressure of at least 35-40 psi at the nozzles and provide proper agitation within the tank to keep the product dispersed. Lower pressures may be used with extended range or drift reduction nozzles.

Always ensure that agitation is maintained until spraying is completed, even if stopped for brief periods of time. If the agitation is stopped for more than 5

minutes, resuspend the spray solution by running on full agitation prior to spraying.

POSTEMERGENCE GROUND APPLICATION

Spray nozzles must be uniformly spaced, the same size and type, and must provide accurate and uniform application. Use spray nozzles that provide medium to coarse droplet size to provide good coverage and avoid drift. Good weed coverage is essential for optimum weed control. Boom height for broadcast over-the-top applications must be based on the height of the crop – at least 15 inches above the crop canopy.

Apply in a spray volume of 10-30 gal/A using water as a carrier. Use a pump that can maintain a pressure of at least 35-40 psi at the nozzles and provide proper agitation within the tank to keep the product dispersed. Lower pressures may be used with extended range or drift reduction nozzles. When weed foliage is dense, use a minimum of 20 gal.

Flat fan nozzles of 80° or 110° are recommended for optimum postemergence coverage.

Do not use floodjet nozzles or controlled droplet application equipment for postemergence applications.

Nozzles may be angled forward 45° to enhance penetration of the crop and provide better coverage. Ensure that all in-line strainer and nozzle screens in the sprayer are 50-mesh or coarser.

Always ensure that agitation is maintained until spraying is completed, even if stopped for brief periods of time. If the agitation is stopped for more than 5 minutes, resuspend the spray solution by running on full agitation prior to spraying.

SPRAY ADDITIVES

POSTEMERGENCE ADJUVANTS

When an adjuvant is to be used with this product, the use of an adjuvant that meets the standards of the Chemical Producers and Distributors Association (CPDA) adjuvant certification program is recommended.

Refer to the use directions section of each crop section for specific adjuvant

recommendations.

WEEDS CONTROLLED

Broadworks Herbicide applied as directed in this label will control or partially control the weeds listed in Tables 1 and 2.

Where reference is made to weeds partially controlled, partial control can either mean erratic control (good to poor) or consistent control at a level below that generally considered acceptable for commercial weed control.

For best postemergence results, apply Broadworks Herbicide to actively growing weeds. Dry weather following preemergence application of Broadworks Herbicide may reduce residual weed control effectiveness. If irrigation is available, apply 1/2 to 1 inch of water after preemergence application. If irrigation is not available, a uniform shallow cultivation is recommended as soon as weeds emerge.

Broadworks Herbicide applied alone will not provide consistent or effective control of weeds identified as resistant to postemergence HPPD inhibiting herbicides.

ROTATIONAL CROPS

When Broadworks Herbicide is applied as directed on this label, follow the crop rotation intervals in Table 3. If Broadworks Herbicide is tank mixed with other products, follow the most restrictive product's crop rotation interval. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Limitations, Restrictions, and Exceptions

CITRUS FRUIT, STONE FRUIT AND TREE NUTS

Application Interval: 6 wk

Broadworks Herbicide may be used for postemergence and residual control of weeds listed in Tables 1 and 2 in the following crops.

Citrus fruit (citrus hybrids, grapefruit, lemon, lime, sour orange, sweet orange,

tangelo, tangerine (Mandarin), cultivars, varieties and/or hybrids of these)

Stone fruit (nectarine, plum, cultivars, varieties and/or hybrids of these)

Tree nuts (almond, hazelnut (filbert), pecan, pistachio, black walnut, English walnut, cultivars, varieties and/or hybrids of these)

Precautions

1. To avoid crop injury, apply the spray to the grove or orchard floor and to the weeds, avoiding contact with crop foliage, stems or fruit. Contact of Broadworks Herbicide with the crop may result in bleaching injury that is typically temporary. Use trunk guards to protect plants until adequate bark has developed.
2. Specified rates are based on broadcast treatment. For band applications around trees in fruit or nut plantings, reduce the broadcast rate of Broadworks Herbicide and carrier per acre in proportion to the area actually sprayed. (See Banded Applications Section.)
3. Application of Broadworks Herbicide in nectarine, plum or tree nuts grown in coarse soils may cause bleaching, especially when applied during time of heavy water use and root growth such as during bud break or rapid shoot expansion.

Restrictions

1. Broadworks Herbicide can only be applied in stone fruit and nut trees that have been established for one full growing season and are in good health and vigor. Broadworks Herbicide can be applied in citrus trees or citrus tree plantings that are less than 12 months old and are exhibiting normal growth and vigor.
2. Do not apply in orchards that are stressed due to poor weather or other abiotic factors.
3. Do not exceed a total of 12 fl oz per acre (0.376 lb ai/A) of Broadworks Herbicide per year or in a 12-month period.
4. Do not exceed 6 fl oz per acre (0.19 lb ai/A) of Broadworks Herbicide for the first application.
5. Do not exceed 3 applications per year or in a 12-month period.

6. Allow at least 12 weeks between applications of Broadworks Herbicide at 6 fl oz/A and at least 6 weeks between applications of 6 fl oz/A and subsequent applications of 3 fl oz/A.

(Applications must follow one of the three programs listed in Table 4 below.)

7. Do not harvest stone fruit or tree nuts within 30 days after application.

8. Do not harvest citrus fruit within 1 day after application.

9. Do not use on soils with greater than 20% gravel.

10. Do not apply Broadworks Herbicide through any type of irrigation system.

11. Do not apply Broadworks Herbicide by air.

Spray Additives

For application to emerged weeds, the use of crop oil concentrate (COC) type adjuvant at 1% v/v or non-ionic surfactant (NIS) at 0.25% v/v is recommended. Addition of ammonium sulfate or other nitrogen-based adjuvants will increase efficacy when used in combination with COC or NIS. For more information see Spray Additives section on this label.

Banded Applications

When applying a row or banded treatment of Broadworks Herbicide, the formula in the label may be used to calculate the amount per acre

Weed Control (Table 1 and 2)

Broadworks Herbicide provides both postemergence and preemergence control of susceptible weeds. Best control is obtained if postemergence applications are made before weeds reach 5 inches in height (Table 1) or before germination of seed for preemergence control (Table 2). Rainfall or irrigation soon after application will enhance preemergence activity.

Use Directions

Apply as a directed or shielded spray. Avoid contact with trunk surfaces, fruit or crop foliage.

Do not apply when nuts or fruits are on the ground at harvest. Ensure that the soil is

settled, firm and relatively free of debris at time of application. Also ensure that the soil is free of depressions around trees where rain or irrigation water can concentrate. Apply the first application of Broadworks Herbicide in late fall/early winter or spring and subsequent applications utilizing one of the programs noted in the Table 4.

For optimum postemergence weed control, apply Broadworks Herbicide to actively growing weeds in tank mixture with burndown herbicides such as: Gramoxone brands, glyphosate brands, Rely 280 or GoalTender before weeds exceed 5 inches in height.

For effective residual weed control, Broadworks Herbicide must be moved into the weed seed germination zone. For preemergence weed control, apply Broadworks Herbicide before rainfall or irrigation. For optimum residual control Broadworks Herbicide can be tank mixed with herbicides such as: Princep, Solicam, Matrix, GoalTender, Prowl, Karmex, Hyvar, Krovar or Alion, where approved for use.

Subsequent application(s) of Broadworks Herbicide can be made alone or in tank mixture, with the herbicides noted above, if weed emergence occurs.

Refer to individual product labels for precautionary statements, restrictions, rates, approved uses and a list of weeds controlled.

Apply Broadworks Herbicide in a spray volume of 10-40 gal/A.

Refer to individual product labels for precautionary statements, restrictions, rates, approved uses and a list of weeds controlled. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Method

[Broadcast/Foliar Ground](#)

[Directed](#)

[Shielded spray](#)

Pre-Harvest Interval

Fruit or Tree nuts: 30 days

Citrus fruit: 1 day

Restricted Entry Interval

12 hours

Timings

[Postemergence \(Weed\)](#)