

CANEBERRY (RASPBERRY AND BLACKBERRY)

General Information

PRODUCT INFORMATION

DuPont MATRIX SG herbicide must be used only in accordance with instructions on this label or in separate published DuPont labeling. DuPont will not be responsible for losses or damage resulting from use of this product in any manner not specifically instructed by DuPont. MATRIX SG herbicide is a water soluble granule formulation that selectively controls certain broadleaf weeds and grasses in pome fruit, citrus fruit, tree nut, stone fruit, and grape crops which have been established for at least one full growing season. MATRIX SG herbicide also selectively controls certain broadleaf weeds and grasses in potatoes, potatoes grown for seed, and field grown tomatoes (direct seeded and transplant).

The best control is obtained when MATRIX SG is applied to young, actively growing weeds. The degree and duration of control may depend on the following:

- weed spectrum and infestation intensity
 - weed size at application
 - environmental conditions at and following treatment
- MATRIX SG is registered for use in most states. Check with your state extension service or Department of Agriculture before use, to be certain MATRIX SG is registered in your state.

BIOLOGICAL ACTIVITY AND ENVIRONMENTAL CONDITIONS

DuPont MATRIX SG is absorbed through the roots and foliage of plants, rapidly inhibiting the growth of susceptible weeds. For Preemergence weed control, rainfall or sprinkler irrigation is needed to move MATRIX SG into the soil.

Weeds will generally not emerge from Preemergence applications. In some cases, susceptible weeds may germinate and emerge a few days after application, but growth then ceases and leaves become chlorotic three to five days after emergence. Death of leaf tissue and growing point will follow in some species, while others will remain green but stunted and noncompetitive.

One to three weeks after postemergence application to weeds, leaves of susceptible plants appear chlorotic, and the growing point subsequently dies. In warm, moist

conditions, the expression of herbicide symptoms is accelerated; in cold, dry conditions, expression of herbicide symptoms is delayed. Death of leaf tissue and growing point will follow in some species, while others will remain green but stunted and noncompetitive.

MATRIX SG provides the best control of weeds in vigorously growing crops that shade competitive weeds. Weed control in areas of thin crop stand or seeding skips may not provide satisfactory control. However, a crop canopy that is too dense at application can intercept spray and reduce weed control.

The herbicidal action of MATRIX SG may be less effective on weeds stressed from adverse environmental conditions (such as extreme temperatures or moisture), abnormal soil conditions, or cultural practices. In addition, weeds hardened off by drought stress are less susceptible to MATRIX SG.

Postemergence Weed control may be reduced if rainfall occurs soon after application. Several hours of dry weather are needed to allow MATRIX SG to be sufficiently absorbed by weed foliage (generally MATRIX SG is rainfast in 4 hours).

RESISTANCE

When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in the field. Adequate control to these resistant weed biotypes cannot be expected.

If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

To better manage herbicide resistance through delaying the proliferation and possible dominance of herbicide resistant weed biotypes, it may be necessary to change cultural practices within and between crop seasons such as using a combination of tillage, retreatment, tank-mix partners and/or sequential herbicide applications that have a different site of action. Weed escapes that are allowed to go to seed will promote the spread of resistant biotypes.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Consult

your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative cultural practices or herbicide usage available in your area.

Naturally occurring weed biotypes that are resistant to "Amber" herbicide, DuPont ALLY herbicide, DuPont GLEAN FC herbicide, DuPont EXPRESS herbicide, DuPont HARMONY EXTRA herbicide, or DuPont FINESSE herbicide will also be resistant to DuPont MATRIX SG.

INTEGRATED PEST MANAGEMENT

DuPont recommends the use of Integrated Pest Management (IPM) programs to control pests. This product may be used as part of an Integrated Pest Management (IPM) program, which can include biological, cultural, and genetic practices, aimed at preventing economic pest damage. Application of this product should be based on IPM principles and practices including field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop or site systems in your area.

PRECAUTIONS

- Potato and tomato varieties may differ in their response to various herbicides. DuPont recommends that you first consult your state experiment station, university, or extension agent as to sensitivity to any herbicide. If no information is available, limit the initial use to a small area.
- Preemergence use on soils containing more than 6% organic matter may not provide adequate soil residual weed control and may result in reduced weed control.
- Preemergence and Postemergence use on rill irrigated potatoes and tomatoes (furrow or gravity) may not provide adequate weed control in the absence of rainfall.
- If sprinklers are used for frost protection, delay the application of MATRIX SG until stress from environmental conditions have passed.
- Avoid spray drift to any adjacent crops or desirable plants as injury may occur.
- Crop injury may occur following an application of MATRIX SG if there is a prolonged period of cold weather and/or cold weather in conjunction with wet soils caused by poor drainage or excessive use of sprinkler irrigation for frost protection.

- Draining or flushing equipment on or near desirable trees or other plants, or in areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots may injure these plants. Trees or other desirable plants whose roots extend into a treated crop use area may be injured.
- Carefully observe sprayer cleanup instructions, as spray tank residue may damage other crops.
- For best results, maintain spray tank solution at pH 5 to 7.
- Do not apply to frozen or snow covered soil. Crop injury may occur from applications made to poorly drained soils.
- If the selected companion herbicide has a ground or surface water advisory, consider the advisory when using the companion herbicide.
- Tank mixing MATRIX SG with Organophosphate insecticides in tomatoes may result in crop injury.

RESTRICTIONS

- Injury to or loss of desirable trees or vegetation may result from failure to observe the following:
 - Do not apply, drain, or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
 - Do not use on lawns, walks, driveways, tennis courts, or similar areas. Prevent drift of spray to desirable plants.
 - Do not contaminate any body of water, including irrigation water that may be used on other crops.
 - Carefully observe sprayer cleanup instructions, as spray tank residue may damage crops other than potatoes or tomatoes.
 - Do not apply using Air Assisted (Air Blast) field crop sprayers.

Limitations, Restrictions, and Exceptions

APPLICATION INFORMATION

MATRIX SG is most effective when applied preemergence or early postemergence to actively growing weeds. If weeds have emerged at the time of application, use an adjuvant (non-ionic surfactant at 1 quart/100 gallons, or crop oil/methylated seed oil at 1 gallon per 100 gallons of spray mix) with MATRIX SG to improve foliar uptake

and translocation.

To optimize residual weed control, MATRIX SG must be moved into the soil via rainfall or overhead irrigation. The best residual control is obtained when at least 0.5 inches of rain or overhead irrigation comes within the first week after application.

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For broadcast applications, make a single application of MATRIX SG preemergence or early postemergence to actively growing weeds at 4 ounces per acre. Use a directed spray application adjusted to provide complete coverage of the weeds while minimizing the amount of spray coming into contact with the caneberry plants. When applied as a banded treatment (50% band or less), MATRIX SG may be applied twice per year. Allow a minimum of 30 days between applications.

Crop Age for Application

Apply MATRIX SG to raspberries that have been established for at least one growing season and are in good health and vigor. For blackberries apply after plantings have gone through at least two growing seasons and are in good health and vigor. See precautions.

Crop Grown Stage

For Every-year Bearing Crops:

To reduce the risk of injury to primocanes, apply before primocanes emerge in the spring, or wait until primocanes are approximately 3 feet tall or taller and make a directed application by adjusting the spray nozzles so that only the lower 12 inches of primocanes are exposed to the herbicide spray pattern. For blackberries that have trailing primocanes, apply before primocane emergence.

Alternate Year Bearing Crops:

Apply in the dormant period before canes start new growth or wait until new growth canes are several feet tall so that a directed application can be used. To avoid crop injury, do not apply over the top of canes once new growth had started. Once canes are approximately 3 feet tall or taller, a directed application can be used provided the spray nozzles are adjusted so that only lower 12 inches of canes are exposed to the herbicide spray pattern.

MATRIX SG may be applied in tank mixture with other herbicides registered for use in caneberries.

USE PRECAUTIONS:

If MATRIX SG is applied over the top of emerged primocanes, injury to the primocanes may occur in the form of chlorosis and/or stunting of primocane growth and in severe situations, individual primocanes may die. To avoid injury to primocanes, apply before primocane emergence or wait until they are at least 3 feet tall before making a directed spray so that only the bottom 12 inches of primocanes are exposed to the herbicide spray pattern.

MATRIX SG may cause damage to plants that are small and/or weak due to weed competition, poor soil conditions, disease, insect damage or other factors that can reduce plant health and vigor.

MATRIX SG may cause damage to plants growing in areas that are poorly drained, or areas that are subject to saturated or anaerobic soil conditions for an extended period of time.

USE RESTRICTIONS:

Do not apply by air. Use ground application equipment only.

Do not use on soils classified as Sand.

Do not apply within 21 days of first harvest.

When applied as a banded treatment (50% band or less), MATRIX SG may be applied twice per year.

Do not apply more than 4 ounces per acre per year.

Method

[Broadcast/Foliar Ground](#)

[Directed Spray](#)

[Broadcast/Foliar Ground](#)

[Directed Spray](#)

Pre-Harvest Interval

21 days

Rates

field_rates 0

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Restricted Entry Interval

4 hours

Timings

Preemergence (Weed)

Early Postemergence (Weed)