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SUPPLEMENTAL LABELING

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DuPont Agricultural Products

"..... A Growing Partnership With Nature"

MATRIX® HERBICIDE
TOMATO

ACCEPTED
DEC 12 2001
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under FPA Reg. No 352-556

MATRIX® HERBICIDE

EPA Reg. No. 352-556

FOR USE ON FIELD GROWN TOMATO

GENERAL INFORMATION

DuPont MATRIX® herbicide is for selective control of certain broadleaf weeds and grasses in field grown tomatoes (direct seeded and transplant). MATRIX® is noncorrosive to equipment, nonflammable, and nonvolatile. MATRIX® is rainfast in 4 hours.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with the terms of this label.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency in your State responsible for pesticide regulation.

APPLICATION RECOMMENDATION

Do not apply MATRIX® within 45 days of tomato harvest.

Do not apply MATRIX® by air.

Do not apply using Air Assisted (Air Blast) field crop sprayers.

The total application of MATRIX® should not exceed 4.0 oz. product per acre per year.

APPLICATION RATES AND TIMING - CALIFORNIA ONLY

PREEMERGENCE APPLICATIONS

For preemergence applications to the crop, apply MATRIX® after seeding at 2.0 oz. product per acre.

To activate MATRIX® in the soil, supply moisture by a single rainfall event, or apply sprinkler irrigation of 1/2 to 1" (sandy soils apply at least 1/2", sandy loams apply at least 1/2", silt soils apply at least 3/4", clay soils apply at least 1"), **within 5 days after application**, to move

MATRIX® 2 to 3" deep into the soil profile. Activating sprinkler irrigation is required regardless of the soil moisture level at planting, or the cumulative precipitation that occurs over the next 5 days (unless rainfall occurs in a single event and equals the activation moisture requirement). If rainfall or sprinkler activation cannot be managed, waiting for weeds to emerge and applying MATRIX® postemergence would result in better weed control.

If weeds are present prior to crop emergence, use a surfactant at a minimum rate of 0.5% V/V (4 pints/100 gallons of water).

POSTEMERGENCE APPLICATIONS

For postemergence applications, apply MATRIX® at 2.0 oz. product per acre to young, actively growing weeds after the crop has reached the cotyledon stage. Optimum performance is obtained when weeds are small (less than 1" in height or diameter)

Use a nonionic surfactant of 80% a.i. or higher with all applications. Use a surfactant at a minimum rate of 0.25% V/V (2 pints/100 gallons of water).

The use of crop oil concentrate, methylated seed oils, nitrogen fertilizer solution or nonionic surfactant rates above 0.25% V/V may result in temporary crop chlorosis (lime green color). Symptoms usually disappear within 5 to 15 days.

Under growing conditions that promote crop stress (such as drought, frost, cold temperatures, high temperatures, extreme temperature variations or saturated or water-logged soils), temporary crop chlorosis (lime green color)may occur after application of MATRIX®. Symptoms usually disappear within 5 to 15 days.

For best results with MATRIX® postemergence, rainfall or sprinkler irrigation of 1/2 to 1 " (sandy soils apply at least 1/2", sandy loams apply at least 1/2", silt soils apply at least 3/4", clay soils apply at least 1"), **no sooner than 4 hours, but not more than 5 days after application**, will activate MATRIX® in the soil and help provide control of subsequent flushes of annual weeds.

Postemergence applications of MATRIX® should be made after the tomatoes reach the cotyledon stage.

SEQUENTIAL APPLICATIONS

Annual weeds at times may have multiple flushes of seedlings, or treated perennials may sometimes regrow from underground stems or roots, depending upon rainfall and other environmental conditions. To maximize control of such weeds, it may be necessary to use sequential applications of DuPont MATRIX®.

Preemergence followed by Postemergence

Applications of MATRIX® may be applied Preemergence at 2.0 oz. product per acre followed by single or multiple applications Postemergence.

Postemergence followed by Postemergence

Multiple applications of MATRIX® may be applied postemergence at 2.0 oz. product per acre to the crop. Optimum control is seen when the first application is made to small actively growing weeds, followed by a second application 7 to 14 days later.

Note : For sequential applications the total amount of MATRIX® will not exceed 4.0 oz. product per acre per year.

BAND APPLICATIONS

MATRIX® can be applied preemergence and postemergence as a banded application. Use proportionally less spray mixture based on the soil area actually sprayed. See Preemergence Applications, and Postemergence Applications sections for additional details on the use of MATRIX®.

APPLICATION RATES AND TIMING - DELAWARE, INDIANA, MARYLAND, MICHIGAN, NEW JERSEY, NORTH CAROLINA, OHIO, PENNSYLVANIA, SOUTH CAROLINA AND VIRGINIA

POSTEMERGENCE APPLICATIONS ONLY

Apply a single application of MATRIX® at 2.0 oz product per acre to young, actively growing red root pigweeds* or smooth pigweeds*, after the crop has reached the 2 leaf stage. Optimum performance is obtained when the weeds are small (less than 1" in height or diameter).

Use a nonionic surfactant of 80% a.i. or higher with all applications. Use a surfactant at a minimum rate of 0.25% V/V (2 pints/100 gallons of water).

The use of crop oil concentrate, methylated seed oils, nitrogen fertilizer solution or nonionic surfactant rates above 0.25% V/V may result in temporary crop chlorosis (lime green color). Symptoms usually disappear within 5 to 15 days.

Under growing conditions that promote crop stress (such as drought, frost, cold temperatures, high temperatures, extreme temperature variations or saturated or water-logged soils), temporary crop chlorosis (lime green color)may occur after application of MATRIX®. Symptoms usually disappear within 5 to 15 days.

*Except ALS-herbicide resistant weeds.

For best results with MATRIX® postemergence, rainfall or sprinkler irrigation of 1/2 to 1 " (sandy soils apply at least 1/2", sandy loams apply at least 1/2", silt soils apply at least 3/4", clay soils apply at least 1"), **no sooner than 4 hours, but not more than 5 days after application,** will activate MATRIX® in the soil and help provide control of subsequent flushes of annual weeds.

Postemergence applications of MATRIX® should be made after the tomatoes 2nd true leaf has emerged. Applications made prior to the 2nd leaf stage may result in temporary chlorosis (lime green color) and stunting.

BAND APPLICATIONS

MATRIX® can be applied postemergence as a banded application. Use proportionally less spray mixture based on the soil area actually sprayed.

CULTIVATION

A timely cultivation may be necessary to control suppressed weeds, weeds that were beyond the maximum size at application, or weeds that emerge after an application of MATRIX®.

- Cultivation up to 7 days before the postemergence application of MATRIX® may decrease weed control by pruning weed roots, placing the weeds under stress, or covering the weeds with soil and preventing coverage by MATRIX®.
- To allow MATRIX® to fully control treated weeds, cultivation is not recommended for 7 days after application.
- Optimum timing for cultivation is 7 - 14 days after a postemergence application of MATRIX®.

CHEMIGATION

Do not apply this product through any type of irrigation system.

WEEDS CONTROLLED (CALIF. ONLY)

PREEMERGENCE CONTROL

Grasses

Barnyardgrass	(Echinochloa crus-galli)
Foxtail, Giant	(Setaria faberi)
Foxtail, Green	(Setaria viridis)
Foxtail, Yellow	(Setaria glauca)
Wheat, Volunteer	(Triticum aestivum)

Broadleaves

Filaree, Redstem	(Erodium cicutarium)
Henbit	(Lamium amplexicaule)
Kochia	(Kochia scoparia)
Mustard, Black	(Brassica nigra)
Pigweed, Redroot	(Amaranthus retroflexus)
Pigweed, Smooth	(Amaranthus hybridus)
Purslane, Common	(Portulaca oleracea)

PREEMERGENCE (Weeds Suppressed‡)

Grasses

Crabgrass	(Digitaria spp.)
Wild Oat	(Avena fatua)

Broadleaves

Cocklebur	(Xanthium spp.)
Lambsquarters, Common	(Chenopodium album)
Nightshade*, Black	(Solanum nigrum)
Nightshade, Hairy	(Solanum sarrachoides)
Pigweed, Prostrate	(Amaranthus blitoides)
Ragweed, Common	(Ambrosia artemisiifolia)
Velvetleaf	(Abutilon theophrasti)

* Nightshade, Eastern Black (Solanum ptycanthum) is NOT Controlled or suppressed

POSTEMERGENCE CONTROL (Weeds Not to Exceed 1" in Height)

Grasses

Barley, Volunteer	(Hordeum vulgare)
Barnyardgrass	(Echinochloa crus-galli)
Bluegrass, Annual	(Poa annua)
Crabgrass	(Digitaria spp.)
Foxtail, Bristly	(Setaria verticillata)
Foxtail, Giant	(Setaria faberi)
Foxtail, Green	(Setaria viridis)
Foxtail, Yellow	(Setaria glauca)
Panicum, Fall	(Panicum dichotomislorum)
Wheat, Volunteer	(Triticum aestivum)

Broadleaves

Chickweed, Common	(Stellaria media)
Henbit	(Lamium amplexicaule)
Kochia	(Kochia scoparia)
Mustard, Black	(Brassica nigra)
Mustard, Wild	(Sinapis arvensis)
Pigweed, Redroot	(Amaranthus retroflexus)
Pigweed, Smooth	(Amaranthus hybridus)
Shepherd's-purse	(Capsella bursa-pastoris)
Wild Radish	(Raphanus raphanistrum)

POSTEMERGENCE (Weeds Suppressed‡)

Grasses

Johnsongrass	(Sorghum halepense)
Millet, Prosso	(Panicum miliaceum)
Quackgrass	(Agropyron repens)
Stinkgrass	(Eragrostis cilianensis)
Wild Oat	(Avena fatua)
Yellow Nutsedge	(Cyperus esculentus)

Broadleaves

Thistle, Canada	(Cirsium arvense)
Cocklebur	(Xanthium spp.)
Lambsquarters, Common	(Chenopodium album)
Morningglory, Ivyleaf	(Ipomoea hederacea)
Nightshade, Hairy	(Solanum sarrachoides)
Nightshade*†, Black (cotyledon stage only)	(Solanum nigrum)
Pigweed, Prostrate	(Amaranthus blitoides)
Purslane, Common	(Portulaca, oleracea)
Ragweed, Common	(Ambrosia artemisiifolia)
Smartweed, Pennsylvania	(Polygonum pensylvanicum)
Velvetleaf	(Abutilon theophrasti)

* Nightshade, Eastern Black (Solanum ptycanthum) is NOT Controlled or suppressed

‡Weed suppression is a reduction in weed competition (reduced population and/or vigor) as visually compared to an untreated area. The degree of suppression varies with the rate used, the size of the weeds, and the environmental conditions following treatment.

† See Specific Weed Problems

SPECIFIC WEED PROBLEMS (CALIF. ONLY)

Black Nightshade: For best results, apply DuPont MATRIX® preemergence at 2 oz per acre followed by a postemergence application at 1 to 2 oz per acre to small actively growing Nightshade.

ROTATIONAL CROP GUIDELINES

Planting prior to the interval shown may result in crop injury when using MATRIX®. Rotation intervals may need to be extended to 12 months if drought conditions prevail after application and before the rotational crop is planted, unless supplemental sprinkler irrigation has been applied and totals greater than 15 " during the tomato growing season. For tank mixtures, follow the most restrictive rotational crop guideline.

In California, the rotational crops listed may be planted at the indicated intervals providing the fields are plowed or deep disked prior to planting the rotational crop.

MATRIX®
ROTATIONAL CROP GUIDELINE

Rotation Crop	*Interval in Months*
Beans, Dry	10
Corn, Field	Anytime
Corn, Sweet	10
Cotton	10
Garlic	6
Potatoes	Anytime
Soybeans	10
Tomatoes	Anytime
Wheat, Winter	4
Crops Not Listed	12

EQUIPMENT-SPRAY VOLUMES

For optimum spray distribution and thorough coverage, apply uniformly by ground with a properly calibrated low pressure (20-40 psi) stabilized boom equipped with either even flat fan, Twinjet, or under leaf banding nozzles. Use 10-40 GPA with ground spray equipment.

Continuous agitation in the spray tank is required to keep the material in suspension. Avoid overlapping, and shut off spray booms while starting, turning, slowing, or stopping, or injury to the crop may result.

Do not use equipment and/or spray volumes that will cause spray to drift onto nontarget sites. Do not make applications during weather conditions which cause spray to drift onto nontarget sites.

For band applications, use proportionally less spray mixture based on the soil area actually sprayed.

PRECAUTIONS

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.

Tank mixing DuPont MATRIX® with Organophosphate insecticides may result in crop injury.

Pre-emergence use on furrow irrigated tomatoes may not provide adequate weed control in the absence of rainfall.

Avoid spray drift to any adjacent crops as injury may occur.

If sprinklers are used for frost protection, delay the application of MATRIX® until stress from environmental conditions have passed.

Do not apply to tomatoes growing in Greenhouses, Cold Frames, Pot cultures, etc., apply only to tomatoes growing in fields.

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 tomatoes.

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