

	United States Environmental Protection Agency Office of Pesticide Programs (H75G5C) Washington, DC 20460	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number 240883
	Application for Pesticide:		

Section I

1. Company/Product Number 352-556	2. EPA Product Manager R. J. Taylor	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) DuPont Matrix™ Herbicide	PM# 25	
5. Name and Address of Applicant (Include ZIP Code) E. I. du Pont de Nemours & Co. Barley Mill Plaza, Walker's Mill B Bldg. 37 Wilmington, DE 19880-0038 Attn: Donald H. Drane, WM6-160 <input type="checkbox"/> Check if this is a new address		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____

Section II

<input type="checkbox"/> Amendment - Explain below	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Submission of notification of Section 3 label change regarding the Reduced Restricted Entry Interval for Matrix™ Herbicide pursuant to FR Notice 5/3/95.

Attachments: • Five (5) copies of final label, identified as SL-160-1 9055 12/15/94
 • One (1) copy of current label, identified as SL-160 9124 12/15/94
 • Two (2) copies of revised label with change highlighted, identified as SL-160-1 9055 12/15/94
 • Ref. letter from D. H. Drane to Document Processing Desk (WPS:95-1), dated 5/18/95

Section III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____	
* Certification must be submitted.		If "Yes," Unit Package wgt. _____ No. per container _____	If "Yes," Package wgt. _____ No. per container _____		
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) of Retail Container		5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner In Which Label Is Affixed To Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled				<input type="checkbox"/> Other (_____)	

Section IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Donald H. Drane	Title Product Registration Manager	Telephone No. (Include Area Code) (302) 992-6028
I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature 		
3. Title Product Registration Manager		
4. Typed Name Donald H. Drane		5. Date May 18, 1995

10/19
95-2 JH 7/2/95



Matrix™

HERBICIDE

DRY FLOWABLE

FOR WEED CONTROL IN POTATOES

ACTIVE INGREDIENT**BY WEIGHT**

Rimsulfuron

N-((4,6-dimethoxypyrimidin-2-yl)aminocarbonyl)-3-(ethylsulfonyl)-2-pyridinesulfonamide 25.0%

INERT INGREDIENTS 75.0%**TOTAL** 100.0%

EPA REG. NO. 352-556

U.S. Patent No. 5,102,444

KEEP OUT OF REACH OF CHILDREN**CAUTION****STATEMENT OF PRACTICAL TREATMENT**

In case of contact with eyes, immediately flush with plenty of water.

If on skin, wash with plenty of soap and water. Get medical attention if irritation persists.

For medical emergencies involving this product, call toll free 1-800-441-3637.

PRECAUTIONARY STATEMENTS**HAZARD TO HUMANS AND DOMESTIC ANIMALS****CAUTION!** Causes eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Avoid breathing dust or spray mist.**PERSONAL PROTECTIVE EQUIPMENT****Applicators and other handlers must wear:**

Long-sleeve shirt and long pants.

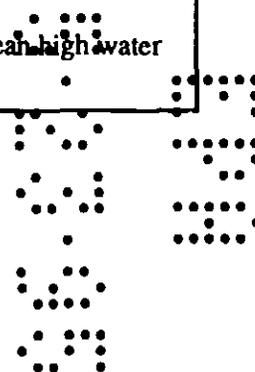
Waterproof gloves.

Shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS**USERS SHOULD:** Wash hands before eating, drinking, chewing gum, using tobacco or using toilet.**ENVIRONMENTAL HAZARDS**

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of wastes.



GENERAL INFORMATION

Du Pont Matrix™ herbicide is for selective control of certain broadleaf weeds and grasses in potatoes. MATRIX is noncorrosive to equipment, nonflammable, and nonvolatile.

BIOLOGICAL ACTIVITY

MATRIX rapidly inhibits growth of susceptible weeds. Best results are obtained when MATRIX is applied to actively growing weeds. The degree of control and duration of effect depends upon the rate used, sensitivity, and size of the target weed and environmental conditions at the time of and following application.

Typical symptoms of dying weeds (chlorosis or discoloration) are evident in 7 to 21 days after application. A vigorously growing crop with full vine canopy will aid weed control by shading and providing competition to weeds.

Naturally occurring weed biotypes that are resistant to other sulfonylurea herbicides (such as Du Pont "Harmony" Extra or Du Pont "Express") may also be resistant to MATRIX.

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.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls.
- Waterproof gloves.
- Shoes plus socks.

APPLICATION RECOMMENDATION

Do not apply MATRIX within 60 days of potato harvest.

Do not exceed MATRIX at 2.0 oz. product per acre during the same growing season.

Do not apply by air.

Do not use this product in the following counties of Colorado: Alamosa, Conejos, Costilla, Rio Grande, and Saguache.

SPRAY PREPARATION

Mix the proper amount of MATRIX into the necessary volume of water in the spray tank with the agitator running. Always mix MATRIX in water first, prior to adding other products in the same spray tank. Always add surfactant as the last ingredient to the spray tank. If tank mixing with another product, add the companion product after all the MATRIX is in suspension.

When adding MATRIX to a partially filled tank, add an appropriate amount of water to the tank before adding MATRIX.

Apply the MATRIX spray preparation within 48 hours after mixing or product degradation may occur.

EQUIPMENT-SPRAY VOLUMES

For optimum spray distribution and thorough coverage, apply with a properly calibrated low pressure (20 to 40 psi) boom sprayer equipped with flat fan or flood jet nozzles, and screens no finer than 50 mesh.

For flood nozzles, 100% overlapping of nozzle spray pattern is essential for optimum product performance. With ground application equipment, apply this product in enough water to deliver 10 to 40 gallons total spray per acre.

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 USE IN CHEMIGATION SYSTEMS

Apply this product only through sprinkler (including center pivot, hand lines, solid set, and wheel roll) irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

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CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment.

SPRINKLER CHEMIGATION

The sprinkler chemigation system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment.

Agitation is recommended in the pesticide spray tank. See "SPRAY PREPARATION" for specific details on agitation and spray preparation.

APPLICATION BY SPRINKLER IRRIGATION: Apply the specified dosage of MATRIX in 1/4 to 3/4 inch of water per acre (1/4 to 1/2 inch of water per acre on sandy soil) as a continuous injection in center pivot and self-propelled wheel-move systems. For best results, use the highest recommended rate and apply preemergence to early postemergence (less than 1") to the weeds.

For hand line and solid set sprinkler irrigation systems, inject the products at the beginning of the set and apply water for activation (1/4 to 3/4 inch).

Irrigation systems must be equipped with automatic shut-off devices which prevent back-flow to the water source. Maintain continuous agitation in the injection nurse tanks during application. Check irrigation system to insure uniform application of water to all areas. Failure to apply MATRIX uniformly may result in crop injury and/or poor weed control.

APPLICATION RATES AND TIMING

For optimum activation of MATRIX, best results are obtained if treatment is made to moist soil and moisture is supplied by rainfall or sprinkler irrigation (1/4 to 3/4 inch) as soon as possible after application but no later than one week after application.

PREEMERGENCE APPLICATIONS

For preemergence applications to the crop, apply MATRIX at 1 to 1 1/2 oz. product per acre. Apply after hilling or drag-off prior to potato emergence and before weeds emerge.

For activation, best results are obtained if treatment is made to moist soil and moisture is supplied by rainfall or sprinkler irrigation (1/4 to 3/4 inch) as soon as possible after application but no later than one week after application.

If weeds are present use a nonionic surfactant containing at least 80% active ingredients with ground applications. Use a surfactant at a rate of 0.125 to 0.25% V/V (1 to 2 pints/100 gallons of water).

TANK MIXTURES

MATRIX may be tank mixed with other suitable registered herbicides such as Eptam¹, Prowl², Dual³, and DuPont "Lexone" DF Herbicide. Read and follow all manufacturer's label recommendations for the companion herbicide. If these recommendations conflict with this MATRIX label, do not use as a tank mix with MATRIX. Should the selected companion herbicide carry a ground or surface water advisory, the user must take into consideration this advisory when using the companion herbicide.

MATRIX plus "Eptam"

A tankmix combination of MATRIX at 1 to 1 1/2 oz product per acre and "Eptam" at label rates can give better weed control for such weeds as black nightshade, hairy nightshade, and crabgrass. Read and follow the "Eptam" label. Apply before the potatoes and weeds emerge. Since the rates of "Eptam" vary by region, follow the recommendations for your region only.

MATRIX plus "Prowl"

A tankmix combination of MATRIX at 1 to 1 1/2 oz product per acre and "Prowl" at label rates may be applied after planting but before potatoes and weeds emerge or after drag-off where this operation is used. The tankmix can provide better control of such weeds as kochia, crabgrass and common lambsquarters. Read and follow the "Prowl" label for your area.

MATRIX plus "Dual"

A tankmix combination of MATRIX at 1 to 1 1/2 oz. product per acre and "Dual" at 1 1/2 to 3 pints product per acre may be applied after planting as a preemergence, delayed preemergence, after drag-off or hilling treatment, but before weeds and crop emerge. The tankmix can provide better control of such weeds as yellow nutsedge and black nightshade. Read and follow the "Dual" label for your area.

MATRIX plus "Lexone" DF

A tankmix combination of MATRIX at 1 to 1 1/2 oz. product per acre and "Lexone" DF at 1/3 to 3/4 pound product per acre may be applied after planting or after drag-off but before crop and weeds emerge. The tankmix can provide better control of such weeds as Kochia, Russian thistle and common lambsquarters. Read and follow the "Lexone" DF label for your area.

POSTEMERGENCE APPLICATIONS

For postemergence applications, apply MATRIX at 1 to 1 1/2 oz. product per acre to young, actively growing weeds after crop emergence but before the crop exceeds 14" height. Usually, small weeds (less than 1" in height or diameter) are most easily controlled. However, certain grasses (i.e., quackgrass) may be better controlled when they are larger (4-6") and actively growing.

Use a nonionic surfactant containing at least 80% active ingredients with ground applications. Use a surfactant at a rate of 0.125 to 0.25% V/V (1 to 2 pints/100 gallons of water).

The use of crop oil concentrate or nitrogen fertilizer solution may result in crop injury.

Under growing conditions that favor crop stress, temporary chlorosis (lime green color) may occur. Symptoms usually disappear within 5 to 15 days. Drought, frost, cold temperatures, high temperatures, or extreme temperature variations can be crop stress factors during, prior to, or after the application.

To minimize the potential for temporary chlorosis, it is recommended that MATRIX be applied only if there have been at least 3 successive days of sunny weather prior to application.

In addition to the postemergence contact activity, maximum product performance can be gained by applying to moist soil and by having moisture either rainfall or sprinkler irrigation (1/4 to 3/4 inch) 4 to 6 hours after application but no more than 7 days later.

Postemergence applications of MATRIX should be made prior to June 30.

TANK MIXTURES

MATRIX plus "Lexone DF"

A tankmix combination of MATRIX at 1 to 1 1/2 oz. product per acre and "Lexone DF" at 1/3 to 2/3 pounds per acre may be applied to potatoes for broader spectrum weed control on such weeds as Russian thistle, common lambsquarters and jimsonweed. Use a nonionic surfactant at a rate of 0.125 %V/V (1 pint/100 gallons of water). Read and follow both product labels for your area.

MATRIX plus "Eptam"

A tankmix combination of MATRIX at 1 to 1 1/2 oz. product per acre and "Eptam" may be applied to potatoes postemergence but before they exceed 4-6" height. Use a nonionic surfactant at a rate of 0.125 %V/V (1 pint/100 gallons of water). Read and follow both product labels for your area.

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 a sequential application of MATRIX in which the first application goes on early followed by a second application 14 to 28 days later. The combined dosage of the sequential applications can not exceed 2 oz. product per acre of MATRIX. The last application should be made prior to June 30.

CULTIVATION

In areas where cultivation is used, the ideal timing for cultivation is 10 to 14 days after the MATRIX application.

WEEDS CONTROLLED

PREEMERGENCE CONTROL

Grasses

Barnyardgrass	(<i>Echinochloa crus-galli</i>)
Bluegrass, Annual	(<i>Poa annua</i>)
Foxtail, Green	(<i>Setaria viridis</i>)
Foxtail, Yellow	(<i>Setaria glauca</i>)
Goosegrass	(<i>Eleusine indica</i>)
Stinkgrass	(<i>Eragrostis cilianensis</i>)
Wheat, Volunteer	(<i>Triticum aestivum</i>)

Broadleaves

Chickweed, Common	(<i>Stellaria media</i>)
Cocklebur	(<i>Xanthium spp.</i>)
Filaree, Redstem	(<i>Erodium cicutarium</i>)
Galinsoga	(<i>Galinsoga spp.</i>)
Henbit	(<i>Lamium amplexicaule</i>)
Kochia	(<i>Kochia scoparia</i>)
Ladysthumb	(<i>Polygonum persicaria</i>)
Mustard, Black	(<i>Brassica nigra</i>)
Mustard, Wild	(<i>Sinapis arvensis</i>)
Pigweed, Prostrate	(<i>Amaranthus blitoides</i>)
Pigweed, Redroot	(<i>Amaranthus retroflexus</i>)
Pigweed, Smooth	(<i>Amaranthus hybridus</i>)
Shepherdspurse	(<i>Capsella bursa-pastoris</i>)
Smartweed, Pennsylvania	(<i>Polygonum pennsylvanicum</i>)
Sunflower, Common	(<i>Helianthus annuus</i>)
Velvetleaf	(<i>Abutilon theophrasti</i>)

PREEMERGENCE (Partial control)

Grasses

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

Broadleaves

- Lambsquarters, Common (Chenopodium album)
- Nightshade, Hairy (Solanum sarrachoides)
- Purslane, Common (Portulaca oleracea)
- Ragweed, Common (Ambrosia artemisiifolia)
- Thistle, Russian (Salsola ibERICA)

POSTEMERGENCE CONTROL

Grasses

- Barley, Volunteer (Hordeum vulgare)
- Barnyardgrass (Echinochloa crus-galli)
- Bluegrass, Annual (Poa annua)
- Crabgrass (Digitaria spp.)
- Foxtail, Green (Setaria viridis)
- Foxtail, Yellow (Setaria glauca)
- Goosegrass (Eleusine indica)
- Johnsongrass (Sorghum halepense)
- Millet, ProssO (Panicum miliaceum)
- Sorghum, Volunteer (Sorghum bicolor)
- Stinkgrass (Eragrostis cilianensis)
- Quackgrass (Agropyron repens)
- Wheat, Volunteer (Triticum aestivum)

Broadleaves

- Chamomile, Mayweed (Anthemis cotula)
- Chickweed, Common (Stellaria media)
- Cocklebur (Xanthium spp.)
- Filaree, Redstem (Erodium cicutarium)
- Henbit (Lamium amplexicaule)
- Kale, Wild (Brassica campestris)
- Kochia (Kochia scoparia)
- Ladysthumb (Polygonum persicaria)
- Mustard, Black (Brassica nigra)
- Mustard, Wild (Sinapis arvensis)
- Pigweed, Prostrate (Amaranthus blitoides)
- Pigweed, Redroot (Amaranthus retroflexus)
- Pigweed, Smooth (Amaranthus hybridus)
- Shepherdspurse (Capsella bursa-pastoris)
- Smartweed, Pennsylvania (Polygonum pennsylvanicum)
- Sunflower, Common (Helianthus annus)
- Velvetleaf (Abutilon theophrasti)
- Wild Radish (Raphanus raphanistrum)

POSTEMERGENCE (Partial control)

Grasses

- Wild Oat (Avena fatua)
- Yellow Nutsedge (Cyperus esculentus)

Broadleaves

- Lambsquarters, Common (Chenopodium album)
- Morningglory, Ivyleaf (Ipomoea hederacea)
- Nightshade, Hairy (Solanum sarrachoides)
- Purslane, Common (Portulaca, oleracea)
- Ragweed, Common (Ambrosia artemisiifolia)
- Thistle, Canada (Cirsium arvense)

MATRIX ROTATIONAL CROP GUIDELINE

The following rotational intervals should be observed when using MATRIX:

Rotation Crop	Interval in Months
Barley, Spring	9
Beans, Dry	10
Beans, Succulent	10
Corn, Field	Anytime
Corn, Popcorn	10
Corn, Sweet	10
Cover Crops(erosion control)	4
Oats, Spring	9
Potatoes	Anytime
Sugar Beets	10
Sunflowers	10
Soybeans	10
Tomatoes	1
Wheat, Spring	9
Wheat, Winter	4
Crops Not Listed	12

SPRAYER TANK CLEANOUT

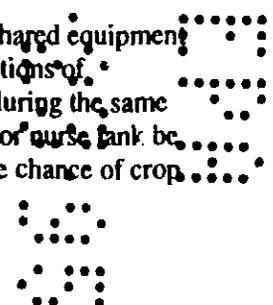
To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of MATRIX as follows:

1. Drain tank; thoroughly rinse spray tank, boom, and hoses with clean water. Loosen and physically remove any visible deposits.
2. Fill the tank with clean water and one gallon of household ammonia* (contains 3% ammonia) for every 100 gallons of water. Flush the hoses, boom, and nozzles with the cleaning solution. Then add more water to completely fill the tank. Circulate the cleaning solution through the tank and hoses for at least 15 minutes. Again flush the hoses, boom and nozzles with the cleaning solution and then drain the tank.
3. Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.
4. Repeat step 2.
5. Rinse the tank, boom, and hoses with clean water.
6. The rinsate may be disposed of on-site or at an approved disposal facility.

* Equivalent amount of an alternate strength ammonia solution or a Du Pont approved cleaner (see bulletin "A GUIDE TO APPLICATION EQUIPMENT CLEANOUT") can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions.

NOTES:

1. This procedure should be used for all injection nurse tanks used in chemigation with MATRIX.
2. In addition to this cleanout procedure, all precleanout guidelines on subsequently applied products should be followed as per the individual labels.
3. Where routine spraying practices include shared equipment frequently being switched between applications of MATRIX and applications to other crops during the same spray season, it is recommended a sprayer or nurse tank be dedicated to MATRIX to further reduce the chance of crop injury.



SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. **APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS!** See **Wind, Temperature and Humidity, and Temperature Inversions** sections of this label.

Controlling Droplet Size - General Techniques

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. **WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.**
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

BOOM HEIGHT

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

WIND

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. **AVOID GUSTY OR WINDLESS CONDITIONS.**

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and

often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

Note: Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

PRECAUTIONS

1. Potato varieties may differ in their response to various herbicides. When using MATRIX for the first time on a particular variety, limit the initial use to a small area. If no symptoms of crop injury occur 7 days after treatment, the balance of the acreage can be treated.
2. Preemergence use on soils containing more than 6% organic matter may result in reduced weed control.
3. Postemergence use on rill irrigated potatoes (furrow or gravity) may not provide adequate weed control in the absence of rainfall.
4. **Do not apply to sweet potatoes or yams.**
5. Avoid spray drift to any adjacent crops as injury may occur.
6. If sprinklers are used for frost protection, delay the application of MATRIX until stress from environmental conditions have passed.
7. Do not use MATRIX on potatoes grown for seed.
8. Do not apply MATRIX by air.

IMPORTANT INFORMATION

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.

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STORAGE AND DISPOSAL

STORAGE. Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food, or feed in storage.

PESTICIDE DISPOSAL: Do not contaminate water, food or feed by disposal. Waste resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Triple rinse (or equivalent) the container. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

NOTICE TO BUYER: Purchase of this material does not confer any rights under patents of countries outside of the United States.

NOTICE OF WARRANTY

Du Pont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Du Pont. In no case shall Du Pont be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer. **DU PONT MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

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