

# **POTATOES - PREEMERGENCE**

## General Information

### PRODUCT INFORMATION

Observe all use precautions and limitations on the labels of each product used in tank mixtures. Tank mixtures are permitted only in those states where the tank-mix partner is registered.

This product is a herbicide for use as a preplant surface applied, preplant incorporated, or preemergence treatment in water or fluid fertilizer for control of most annual grasses and certain broadleaf weeds in Cotton, Peanuts, Pod crops, Potatoes, Safflowers, Soybeans, and Tomatoes.

Note: Do not use in nurseries, turf, or landscape plantings. Do not apply under conditions which favor runoff or wind erosion of soil containing this product to non target areas.

To prevent off-site movement due to runoff or wind erosion:

- 1) Avoid treating powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
- 2) Do not apply to impervious substrates such as paved or highly compacted surfaces.
- 3) Do not use tailwater from the first flood or furrow irrigation of treated fields to treat non-target crops unless at least one-half inch of rainfall has occurred between application and the first irrigation.

Note: Certain states may have established rate limitations for atrazine within specific geographical areas. Consult your state lead pesticide control agency for additional information. It is a violation of the label to deviate from state use regulations. If this product is incorporated, any supplemental tillage before planting must not exceed the depth of incorporation. Dry weather following preemergence application of this product or a tank mixture may reduce effectiveness. Cultivate if weeds develop. Where reference is made to weeds partially controlled, partial control can either mean erratic control from good to poor, or consistent control at a

level below that generally considered acceptable for commercial weed control.

Use Precautions: Injury may occur following the use of this product under abnormally high soil moisture conditions during early development of the crop.

## RESISTANCE MANAGEMENT

This product is a Group 15 herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 15 herbicides. Weed species with acquired resistance to Group 15 may eventually dominate the weed population if Group 15 herbicides are used repeatedly in the same field or in successive years as primary method of control for targeted species. This may result in partial or total loss of control of those species by this product or other Group 15 herbicides.

To delay herbicide resistance, consider:

- Avoiding the consecutive use of this product or other target site of action Group 15 herbicides that have a similar target site of action on the same weed species.
- Using tank mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank mix or prepack rate on the weed(s) of concern.
- Basing herbicide use on a comprehensive IPM program.
- Monitoring treated weed populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

## SOIL TEXTURES AND HERBICIDE RATES

Within rate ranges in the rate tables and elsewhere on the label, use the lower rate on soils relatively coarse-textured or low in organic matter; use the higher rate on soils relatively fine-textured or high in organic matter.

Note: This product may be applied preemergence alone, or in combination with tank-mix partners specified on the label, following preplant incorporated herbicides when used according to their label recommendations, provided that such use is not prohibited on the respective labels.

Thoroughly clean sprayer or other application device before using. Dispose of cleaning solution and rinsate in a responsible manner. Do not use a sprayer or applicator contaminated with any other materials, or crop damage or clogging of the application device may result.

## APPLICATION PROCEDURES

Application Timing - This product alone or in some tank mixtures with other labeled herbicides may be applied for weed control in Field corn, Sweet corn, and Popcorn at various times. Refer to the specific crop section of the label to determine if application timings listed below are appropriate.

A) Preplant Surface-Applied: For minimum-tillage or no-tillage systems only, this product alone and some tank mixtures of this product may be applied up to 45 days before planting. Use only split applications for treatments made 30 to 45 days before planting, with two-thirds the specified broadcast rate for the crop and soil texture applied initially and the remaining one-third at planting. Treatments less than 30 days before planting may be made either as a split or a single application. If weeds are present at the time of treatment, apply in a tank-mixture combination with a contact herbicide (for example, Gramoxone Extra or Glyphosate). Observe directions for use, use precautions, and restrictions on the label of the contact herbicide. To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.

B) Preplant Incorporated: Apply this product to the soil and incorporate into the top 2 inches of soil within 14 days before planting, using a finishing disk, harrow, rolling cultivator, or similar implement capable of providing uniform 2-inch incorporation. Use a preplant incorporated application if furrow irrigation is used or when a period of dry weather after application is expected. If crop will be planted on beds, apply and incorporate this product after bed formation, unless specified otherwise.

C) Preemergence: Apply this product during planting (behind the planter) or after planting, but before weeds or crops emerge.

### 3) Special Application Procedures

A) Preplant Incorporated-CA Only (Safflowers, Pod crops): Broadcast this product to the soil and thoroughly incorporate with a disk or similar implement set to till 4 to 6

inches deep. For more thorough incorporation, till the soil in 2 different directions (cross-till). Crops may be planted on flat surface or on beds. Caution should be used when forming the beds that only soil from this product's treated zone is used (i.e., untreated soil should not be brought to soil surface). If the application is made to preformed beds, incorporate this product with a tillage implement set to till 2 to 4 inches deep. Care should be taken during tilling to keep the tilled (this product treated) soil on the beds.

B) Preemergence: Apply this product after planting. Water with sprinkler or flood irrigation within 7 to 10 days.

C) Fall Application (only in IA, MN, ND, SD, WI, North of Route 20 in the state of NE, and North of Route 136 in the state of IL): Do not apply to frozen ground. Use on medium and fine soils with greater than 2.5% organic matter that will be planted to Soybeans the next Spring. Ground may be tilled before or after application. Do not exceed a 2 to 3-inch incorporation depth if tilled after treatment.

Note: If a Spring application is made, the total rate of the Fall plus Spring applications must not exceed the maximum total rate for the specific crop, or illegal residues may result.

D) Ground Application: Apply this product alone or in tank mixtures by ground equipment in a minimum of 10 gals. of spray mixture per acre, unless otherwise specified.

Use sprayers that provide accurate and uniform application. For tank mixtures of this product with wettable powder or dry flowable formulations, screens and strainers should be no finer than 50-mesh. Rinse sprayer thoroughly with clean water immediately after use.

#### LOW CARRIER APPLICATION For Broadcast Ground Application Only

Use sprayers, such as Ag-Chem RoGator, Hagie, John Deere HiCycle, Melroe Sprague, Tyler Patriot, or Willmar Air Ride, that provide accurate and uniform application. Only water may be used as a carrier. Screens in suction and in-line strainers should be 50-mesh. Manufacturers may require that tip screens as fine as 100-mesh be used with some nozzles. Use a pump with capacity to: (1) maintain up to 35 to 40 psi at the nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension. Use a minimum of 5 gals. of spray mixture per acre.

Maximum recommended sprayer speed is 15 mph. Rinse sprayer thoroughly with clean water immediately after each use.

Note: Low pressure nozzles are recommended to reduce drift and increase application accuracy. Care should be taken when using automatic rate controlling devices to spray the material within the rated working pressure and flow ranges of the nozzles selected. Nozzle screens should be used when recommended by the manufacturer. All nozzles should be placed on 20-inch centers, except flooding types which should be placed on 40-inch centers. When Flat Fan-type nozzles are used, angles of 80° or 110° are recommended. Always read and follow the manufacturer's directions for optimum setup and performance of their nozzles or tips.

## AERIAL APPLICATION

Apply this product in water alone or in tank mixtures with Atrazine, or Linuron in a minimum total volume of 2 gals./A by aircraft. This product may also be applied by air in combination with Prowl. Avoid application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 feet, using low-drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply this product alone or this product + Atrazine by aircraft at a minimum upwind distance of 400 feet from sensitive plants, or apply this product + Linuron at a minimum upwind distance of 300 feet from sensitive plants.

Avoid application to humans or animals. Flagmen and loaders should avoid inhalation of spray mist and prolonged contact with skin.

Aerial Drift Management Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movements from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to

applications using dry formulations.

1. The distance of the outermost nozzles on the boom must not exceed three-fourths the length of the wingspan or rotor.

2. Nozzles must always point backwards parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information section.

#### WEEDS:

1. Italian ryegrass (*Lolium multiflorum*): For control of this weed, apply in the Fall using 1.67 pts. of this product on medium soils and 2 pts. of this product on fine soils after harvest of the previous crop but prior to emergence of this weed. Do not apply to frozen ground. A tillage operation may precede application of this product. A Fall and/or Spring tillage may follow application but incorporation depth must not exceed more than 2 to 3 inches. After emergence of this weed, apply this product in tank mix combination with other herbicides with use directions against this weed. Observe all use precautions and limitations on the labels of each product used in tank mixture. Tank mixtures are permitted only in those states where the tank mix partner is registered. Observe the specified maximum allowable rate of this product for a crop growing season.

2. Weeds Partially Controlled: See Product Information section. Control of these weeds can be erratic, due partially to variable weather conditions. Control may be improved by following these suggested procedures:

A) Thoroughly till moist soil to destroy germinating and emerged weeds. If this product is to be applied preplant incorporated, this tillage may be used to incorporate this product if uniform 2-inch incorporation is achieved as recommended under Application Procedures.

B) Plant crop into moist soil immediately after tillage. If this product is to be used preemergence, apply at planting or immediately after planting.

C) If available, sprinkler irrigate within 2 days after application. Apply one-half to 1 inch of water. Use lower water volume (one-half inch) on coarse-textured soils and higher volume (1 inch) on fine-textured soils. Also, refer to the section on Center

Pivot Irrigation Application for this method of applying this product.

D) If irrigation is not possible and rain does not occur within 2 days after planting and application, weed control may be decreased. Under these conditions, a uniform, shallow cultivation is recommended as soon as weeds emerge.

3. Florida beggarweed: For partial control of this weed, use a minimum of 2 pts./A and apply preemergence.

4. Texas panicum: For partial control of this weed, use a minimum of 2 pts./A and apply through a center pivot irrigation system.

Limitations, Restrictions, and Exceptions

#### POTATOES — THIS PRODUCT ALONE

Apply this product, either incorporated, preemergence, or after hilling/lay-by, according to directions specified below for control of weeds listed under the Product Information section. Within a rate range, use the lower rate on soils relatively coarse-textured or low in organic matter; use the higher rate on soils relatively fine-textured or high in organic matter. Effectiveness will be reduced if later cultural practices expose untreated soil.

Preemergence: Apply this product at 1 to 2 pts./A, either after planting as a preemergence, delayed preemergence, after drag-off or hilling treatment, but before weeds emerge. Up to 2.75 pts./A of this product alone may be used where soil organic matter is between 6% and 20%.

Use Precautions: (1) Do not use on muck or peat soils. If cool, wet soil conditions occur after application, this product may delay maturity and/or reduce yield of Superior and other early maturing Potato varieties. To avoid crop injury, (2) Do not use on Sweet potatoes or Yams; (3) Do not apply both as a preemergence and an incorporated treatment; and (4) Do not use in Kern County, CA.

Note: Potatoes treated with this product should not be harvested within 60 days after the at-planting to drag-off application, or within 40 days after a lay-by application, or illegal residues may result.

Method

[Soil incorporation](#)

Rates

[field\\_rates 0](#)

- 

Restricted Entry Interval

24 hours

Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

Timings

[After planting as a preemergence, delayed preemergence, after drag-off or hilling treatment, but before weeds emerge.](#)