

# **POTATOES - PREEMERGENCE**

## General Information

### PRODUCT INFORMATION

Observe all 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. Refer to and follow the label for each tank mix product used for precautionary statements, directions for use, geographic and other restrictions.

Medal EC is a selective herbicide that can be applied as a preplant surface-applied, preplant incorporated, preemergence, or postemergence treatment for control of most annual grasses and certain broadleaf weeds in corn (all types); cotton; grasses grown for seed; peanuts; beans, peas, and lentils; potatoes; safflowers; sugar beets; sunflowers; grain or forage sorghum; soybeans; soybean, immature seed; and tomatoes.

Use Site Restrictions: 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 nontarget areas.

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

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

Where directions specify a Medal EC tank mixture with AAtrex formulations, other brands of atrazine may be used. Follow all use rates and other use restrictions on the AAtrex or respective atrazine product label if other brands of atrazine are used.

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.

Precaution: Injury may occur following the use of Medal EC under abnormally high soil moisture conditions during early development of the crop.

## WEEDS CONTROLLED

Medal EC is taken up by the shoots and/or roots of emerging weeds. This uptake results in the inhibition of shoot and root tissue growth soon after weed germination. Because of this, Medal EC will not control emerged weeds. Control weeds that are present by another means, e.g., mechanical means or by another herbicide.

If Medal EC is incorporated, do not exceed a 2-3 inch depth. Any tillage after the Medal EC incorporation and before planting may not exceed 2-3 inches, or the depth of incorporation.

Dry weather following application of Medal EC may reduce weed control. 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. Control of these weeds can be erratic, due partially to variable weather conditions. The following procedures may improve the control of weeds listed:

- Thoroughly till soil to destroy germinating and emerged weeds.
- Plant crop into moist soil immediately after tillage. If Medal EC is to be used preemergence, apply at planting or immediately after planting.
- If available, sprinkler irrigate within 2 days after application. Apply 1/2-1 inch of

water. Use lower water volume (1/2 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 Medal EC.

- 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, make a uniform, shallow cultivation as soon as weeds emerge.

### Weed Resistance Management

S-metolachlor, the active ingredient in this product, is a Group 15 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population may contain plants naturally resistant to Group 15 herbicides. Such resistant weed plants may not be effectively managed using Group 15 herbicides but may be effectively managed utilizing another herbicide alone or in mixtures from a different group and/or by using cultural or mechanical practices. However, a herbicide mode of action classification by itself may not adequately address specific weeds that are resistant to specific herbicides. Consult your local company representative, state cooperative extension service, professional consultants or other qualified authorities to determine appropriate actions for treating specific resistant weeds.

### Best Management Practices

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is recommended. A diversified weed management program may include the use of multiple herbicides with different modes of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance. Scouting after a herbicide application is important because it can facilitate the early identification of weed shifts and/or weed resistance and thus provide direction on future weed management practices. One of the best ways to contain resistant populations is to implement measures to avoid allowing weeds to reproduce by seed or to proliferate vegetatively. Cleaning equipment between sites and avoiding movement of plant material between sites will greatly aid in retarding the spread of resistant weed seed.

## APPLICATION PROCEDURES

### Application Timing

Medal EC alone or in tank mixtures with other labeled herbicides may be applied for weed control in certain crops at various times. Refer to the crop-specific use directions section of the label to determine which of the following application timings listed below are allowed.

- Preplant Surface-Applied: For minimum-tillage or no-tillage systems only, Medal EC alone and some Medal EC tank mixtures may be applied up to 45 days before planting certain crops. Use only split applications for treatments made 30-45 days before planting, with 2/3 the listed broadcast rate for the crop and soil texture applied initially and the remaining 1/3 at planting. Treatments less than 30 days before planting may be made either as a split or a single application. Refer to individual crop-specific use directions section on the label to determine if early preplant surface application may be made for that crop. If weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide (for example, Gramoxone brands, Touchdown brands, or Roundup brands). Observe directions for 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.
- Preplant Incorporated: Apply Medal EC 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 Medal EC after bed formation, unless specified otherwise.
- Preemergence: Apply Medal EC during planting (behind the planter) or after planting, but before weeds or crops emerge.
- Postemergence: Medal EC will not control emerged weeds. Control weeds that are present by another means, e.g., mechanical means or by another herbicide.

### Special Application Procedures

- CA Only (Corn; Safflowers; Beans, Peas, and Lentils): Preplant Incorporated:

Broadcast Medal EC alone or with tank mix partners listed on the label to the soil and thoroughly incorporate with a disk or similar implement set to till 4-6 inches deep. For more thorough incorporation, till the soil in 2 different directions (cross-till). Crops may be planted on fl at surface or on beds. Use caution when forming the beds to ensure that only soil from the Medal EC treated zone is used (i.e., do not bring untreated soil to soil surface). If the application is made to preformed beds, incorporate Medal EC with a tillage implement set to till 2-4 inches deep. Use care during tilling to keep the tilled (Medal EC treated) soil on the beds. Preemergence: Apply Medal EC after planting. Water with sprinkler or flood irrigation within 7-10 days.

- Fall Application for Spring Weed Control (Only in IA, MN, ND, SD, WI, and portions of NE and IL - See specific instructions in the Corn; Soybeans; and Beans, Peas, and Lentils sections of the label for timing of application and other information): Do not apply to frozen ground. Use on medium and fine soils with greater than 2.5% organic matter that will be planted to corn or 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. 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.

- Fall Application for Italian Ryegrass Control (Corn, Cotton, Grain and Forage Sorghum, and Soybean Only - See specific instructions in the Corn, Cotton, Grain and Forage Sorghum, and Soybean sections of the label for timing of application and other information): Medal EC may be applied in the fall (September 1-December 1) for residual control of glyphosate-resistant Italian ryegrass (*Lolium multiflorum*). A tillage operation may precede the application. Do not incorporate to a depth greater than 2-3 inches if tillage follows the application of Medal EC. Restrictions: 1) Do not apply Medal EC to frozen ground. All crops on the Medal EC label may be planted the following spring after application. 2) If a spring application is made, the combined total amount of Medal EC applied in the fall plus the spring must not exceed the maximum seasonal S-metolachlor rate for the specific crop planted, or illegal residues may result. Refer to the crop sections on the label for specific directions.

Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.

## Limitations, Restrictions, and Exceptions

### POTATOES

Apply Medal EC, either incorporated, preemergence, or postemergence to potatoes after hilling/lay-by, according to directions specified 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. For applications by center pivot irrigation, see the Center Pivot Irrigation Application section of the label.

Preemergence: Apply Medal EC at 1.0-2.0 pt/A, either after planting as a preemergence, delayed preemergence, after drag-off or hilling treatment, but before weeds emerge. Up to 2.6 pt/A of Medal EC alone may be used where soil organic matter is between 6% and 20%.

Precautions: (1) If cool, wet soil conditions occur after application, Medal EC may delay maturity and/or reduce yield of Superior and other early maturing potato varieties. (2) These directions for use do not apply to sweet potatoes or yams.

Restrictions: (1) Preharvest interval: Do not harvest potatoes treated with Medal EC within 60 days after the at-planting to drag-off application, or within 40 days after a lay-by application. (2) Do not use on muck or peat soils. (3) Do not apply both as a preemergence and an incorporated treatment.

### Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

### Rates

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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

[Preemergence \(Crop\)](#)

[Preemergence \(Weed\)](#)

[Postplant](#)

[After drag-off or hilling treatment.](#)