

## **TOMATOES - COARSE - LESS THAN 3% ORGANIC MATTER**

### General Information

#### GROUND WATER ADVISORY

S-metolachlor is known to leach through soil into ground water under certain conditions as a result of label use. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

#### SURFACE WATER ADVISORY

The active ingredient in DuPont CINCH has the potential to contaminate surface water through ground spray drift. Under some conditions, the active ingredient may also have a high potential for runoff into surface water (primarily via dissolution in runoff water) for several months post-application. These include poorly drained or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

#### DIRECTIONS FOR USE

CINCH should be used only in accordance with recommendations on the label or in separately published EPA accepted supplemental labeling recommendations for the product. Do not apply the 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 responsible for pesticide regulation.

**SALE, USE AND DISTRIBUTION OF THE PRODUCT IN NASSAU AND SUFFOLK COUNTIES IN THE STATE OF NEW YORK IS PROHIBITED.**

#### 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. DuPont CINCH is a selective herbicide registered 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 beans, peas, and lentils; corn (all types); cotton; grasses grown for seed; peanuts; potatoes; safflowers; sweet, grain, or forage sorghum; soybeans; soybean, immature seed; sugar beets; sunflowers; and tomatoes.

Restrictions: Do not use in nurseries, turf, or landscape plantings.

Do not apply under conditions which favor runoff or wind erosion of soil containing the product to nontarget 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 nontarget crops, unless at least 1/2 inch of rainfall has occurred between application and the first irrigation.

Where directions specify a CINCH tank mixture with "AAtrex" formulations, other brands of atrazine may be used. Follow the rates, directions, and limitations 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.

If CINCH is incorporated, any supplemental tillage before planting must not exceed the depth of incorporation.

Dry weather following preemergence application of CINCH 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.

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

## RESISTANT WEED MANAGEMENT

CINCH herbicide contains the active ingredient S-metolachlor which inhibits the formation of very long chain fatty acids (VLCFA, Site of Action Group 15). Some naturally occurring weed populations have been identified as resistant to Group 15 herbicides. Selection of resistant biotypes, through repeated use of these herbicides or lower than recommended use rates in the same field, may result in weed control failures. A resistant biotype may be present where poor performance cannot be attributed to adverse environmental conditions or improper application methods. If resistance is suspected, contact your local DuPont representative and/or agricultural advisor for assistance.

General principles of herbicide resistant weed management:

Employ integrated weed management practices. Use multiple herbicide sites-of-action with overlapping weed spectrums in rotation, sequences, or mixtures.

Use the full recommended herbicide rate and proper application timing for the hardest to control weed species present in the field.

Scout fields after herbicide application to ensure control has been achieved. Avoid allowing weeds to reproduce by seed or to proliferate vegetatively.

Monitor site and clean equipment between sites.

Start with a clean field and control weeds early by using a burndown treatment or tillage in combination with a preemergence residual herbicide as appropriate.

Use cultural practices such as cultivation and crop rotation, where appropriate.

Use good agronomic principles that enhance crop competitiveness.

#### SOIL TEXTURES AND HERBICIDE RATES

Where rates are based on coarse-, medium-, or fine-textured soils, it is understood that soil textural classes are generally categorized as follows:

COARSE Sand, loamy sand, sandy loam

MEDIUM Loam, silt loam, silt

FINE Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay

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.

DuPont CINCH 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 directions, provided that such use is not prohibited on the respective labels.

Thoroughly clean sprayer or other application device before using. Dispose of cleaning solution 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.

#### CINCH APPLIED ALONE

CINCH 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, CINCH will not control emerged weeds and should be applied prior to weed emergence.

If CINCH is incorporated, do not exceed a 2- to 3-inch depth. Any tillage after the CINCH incorporation and before planting should not exceed 2-3 inches.

Dry weather following application of CINCH may reduce weed control. Cultivate if weeds develop.

#### Weeds Controlled

Grasses: Barnyardgrass (watergrass), Crabgrass (large, smooth), Crowfootgrass, Cupgrass (prairie, southwestern), Foxtail (bristly, giant, green, millet, yellow), Goosegrass, Panicum fall, Rice red, Ryegrass Italian, Signalgrass broadleaf, Witchgrass

Broadleaves: Amaranth (Palmer, Powell), Carpetweed, Galinsoga (hairy, smallflower), Nightshade eastern black, Pigweed (prostrate, redroot, smooth, tumble), Pusley Florida, Spiderwort tropical, Waterhemp (common, tall), Nutsedge yellow

#### Weeds Partially Controlled

Grasses: Cupgrass woolly, Johnsongrass (seedling), Millet wild-proso, Panicum Texas, Sandbur (field, southern), Shattercane, Sorghum (volunteer)

Broadleaves: Beggarweed Florida, Eclipta, Nightshade hairy, Purslane common

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 as partially controlled:

1. Thoroughly till soil to destroy germinating and emerged weeds.
2. Plant crop into moist soil immediately after tillage. If DuPont CINCH is to be used preemergence, apply at planting or immediately after planting.

3.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 CINCH.

4.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.

## APPLICATION PROCEDURES

### APPLICATION TIMING

CINCH alone or in some tank mixtures with other labeled herbicides may be applied for weed control in certain crops at various times. Refer to the given crop section of the label to determine if application timings listed below are recommended.

**Preplant Surface-Applied:** For minimum-tillage or no-tillage systems only, CINCH alone and some CINCH 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 specified 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 section on the label to determine if early preplant surface application is recommended. If weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide (for example, "Gramoxone" brands or glyphosate). 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 CINCH 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 CINCH after bed formation, unless specified otherwise.

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

Postemergence: CINCH will not control emerged weeds so it must be applied to a weed-free soil surface or in tank mixture with products that provide postemergence control of weeds present at the time of application. Refer to the individual crop section of the label if a postemergence application is recommended.

#### SPECIAL APPLICATION PROCEDURES

CA Only (Beans, Peas, and Lentils; Corn; Safflowers): Preplant Incorporated: Broadcast CINCH 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 flat surface or on beds. Use caution when forming the beds that only soil from the CINCH treated zone is used (i.e., untreated soil should not be brought to soil surface). If the application is made to preformed beds, incorporate CINCH with a tillage implement set to till 2- 4 inches deep. Care should be taken during tilling to keep the tilled (CINCH-treated) soil on the beds.

Preemergence: Apply CINCH 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 Beans, Peas, and Lentils; Corn; and Soybeans sections of the label for timing of application and other information): 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. Incorporation to a depth greater than 2-3 inches following the application of DuPont CINCH may result in reduced weed control.. 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.

Restriction: Do not apply to frozen ground.

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): CINCH 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. Incorporation to a depth greater than 2-3 inches following the application of CINCH may result in reduced weed control. All crops on the CINCH label may be planted the following spring after application. If a spring application is made, the combined total amount of CINCH 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. Restriction: Do not apply to frozen ground.

**Ground Application:** Apply CINCH 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 CINCH tank mixtures 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.

Calculate the amount of herbicide needed for band treatment by the formula on the label

For information on applying in lower volumes of carrier, see Low Carrier Application section.

For application by air or through center pivot systems, see Aerial Drift Management and Aerial Drift Reduction Advisory Information sections.

For information on impregnating dry fertilizer, see Dry Bulk Granular Fertilizer section.

For information on application using variable-rate technologies, see Variable-Rate Application section.

## SPRAY EQUIPMENT

## LOW CARRIER APPLICATION

For Broadcast Ground Application Only

Use sprayers that provide accurate and uniform application. Only water may be

used as a carrier. Screens in suction and inline 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 35-40 psi at the nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension. Use a minimum of 5.0 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 will reduce drift and increase application accuracy. Use care when using automatic rate controlling devices to spray the material within the rated working pressure and flow ranges of the nozzles selected. Use nozzle screens when instructed 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 CINCH in water alone or in tank mixtures with atrazine, DuPont BASIS Blend, DuPont LEADOFF, linuron, metribuzin, DuPont RESOLVE or RESOLVE Q in a minimum total volume of 2.0 gals./A by aircraft. CINCH may also be applied by air in combination with "Prowl" or "Treflan". 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 ft., 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 CINCH alone or CINCH + atrazine by aircraft at a minimum upwind distance of 400 ft. from sensitive plants, or apply CINCH + linuron or metribuzin at a minimum upwind distance of 300 ft. from sensitive plants.

Refer in the label regarding tank mix information.

Limitations, Restrictions, and Exceptions

## TOMATOES – CINCH ALONE

### Transplanted

CINCH may be applied preplant incorporated or preplant before transplanting. If the latter method is used, keep soil disturbance to a minimum during the transplanting operation.

Application may also be post-directed to transplants after the first settling rain or irrigation. When an application is made post-directed, apply in a minimum of 20 gallons of water per acre and minimize contact with tomato plants. CINCH will not control emerged weeds. In bedded transplanted tomatoes, apply CINCH preplant non-incorporated to the top of the pressed bed as the last step prior to laying plastic. CINCH may also be used to treat row-middles in bedded tomatoes, as long as the total amount of CINCH does not exceed the maximum allowed per crop.

### Seeded

CINCH may be applied post-directed to direct-seeded tomatoes. Tomato plants must be at least 4 inches tall at the time of application, and the product must be applied in a minimum of 20 gallons of water per acre. Minimize spray contact with tomato plants. CINCH will not control emerged weeds.

Precautions: (1) Do not apply to varieties or cultivars with unknown tolerance to CINCH. (2) CINCH may damage transplants that have been weakened by any cause. To prevent damage, plant only healthy transplants. Do not plant when wet, cool, or unfavorable growing conditions exist. (3) In transplanted tomatoes, if CINCH is applied preplant incorporated, incorporate to a depth less than the depth of transplanting, and use the lower end of the rate range for the given soil type, or damage may occur. (4) For row-middle applications where tomatoes are grown on sandy soils and where high soil moisture conditions can exist (e.g., low binding and high evaporation conditions), as may be found in the States of Florida, Georgia, Maryland, and Virginia, there is potential for crop injury in the form of leaf epinasty. The risk of this type of injury can be reduced by: a) incorporating the CINCH immediately following application, b) applying the CINCH seven or more days before transplanting (but only after the beds have been formed), c) minimizing the application of CINCH onto the plastic of the bed, or d) any combination of the above.

Restrictions: To avoid possible illegal residues: (1) Do not exceed the maximum label rate for the soil texture per year. (2) Apply only by ground application.

Restrictions:

90-Day PHI – If the single application rate of CINCH is greater than 1.33 pt./A (up to 2.0 pt./A), do not harvest tomatoes within 90 days of application.

30-Day PHI – If the application of CINCH does not exceed 1.33 pt./A, do not harvest tomatoes within 30 days of application.

When applying at 1.33 pt./A with a 30-day PHI, the following restrictions apply:

- Do not exceed two applications per growing season.
- The use of adjuvants is prohibited.
- Applications may be made using ground equipment, in concentrated spray volumes.
- Applications may be made as a foliar broadcast spray to the soil within 1 week of transplanting and again at blooming/fruiting to the row middles as a banded/directed application 38-77 days after the first treatment.

Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

Rates

[field\\_rates 0](#)

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Restricted Entry Interval

24 hours

Soils

[Coarse](#)

[Loamy Sand](#)

[Sandy Loam](#)

[Sand](#)

Timings

[Preplant Incorporated](#)

[Pretransplant](#)