

# **SUNFLOWERS - PREPLANT INCORPORATED (FALL) - COARSE SOIL TEXTURE (LESS THAN AND GREATER THAN 3% ORGANIC MATTER)**

## General Information

### GENERAL INFORMATION

Stealth Herbicide is a selective herbicide for controlling most annual grasses and certain broadleaf weeds as they germinate. Refer to Table 1 for a complete list of controlled weeds. Stealth Herbicide will not control established weeds.

Unusually cold, excessively wet, or hot and dry conditions that delay germination or extend germination over a long period of time can reduce weed control.

Overapplication can result in crop-stand loss, crop injury, or soil residues.

Uneven application or improper soil incorporation can decrease weed control or cause crop injury. Soil incorporation deeper than recommended can reduce weed control.

Seedling diseases, cold weather, excessive moisture, shallow or deep planting, low or high soil pH, high soil salt concentration, or drought can weaken seedlings and plants and increase the possibility of crop damage from Stealth Herbicide. Under these conditions, crop yields can be reduced.

### MODE OF ACTION

Stealth Herbicide is a meristematic inhibitor that interferes with the plant's cellular division or mitosis. This and/or other products with the meristematic inhibiting mode of action may not effectively control naturally occurring biotypes of some of the weeds listed on the label. A weed biotype is a naturally occurring plant within a given species that has a slightly different, but distinct, genetic makeup from other plants. Other herbicides with the meristematic inhibiting mode of action include other dinitroaniline herbicides, such as trifluralin. If naturally occurring meristematic inhibiting resistant biotypes are present in a field, Stealth Herbicide and/or any other meristematic inhibiting mode of action herbicide should be tank mixed or applied sequentially with an appropriate registered herbicide having a different

mode of action to ensure control.

## APPLICATION RATE

Use rates for Stealth Herbicide when used alone, in tank mix, or sequential applications are given in Crop-Specific Information. Use rates of this product vary by soil texture and organic matter.

Peat and Muck soils: Stealth Herbicide may be used on peat and muck soils, but weed control may be inconsistent and/or reduced. Use maximum labeled use rate allowed in the specific crop.

## APPLICATION TIMINGS

Stealth Herbicide will provide most effective weed control when applied by ground or aerial equipment and subsequently incorporated into soil within 7 days after application by rainfall, sprinkler irrigation, or mechanical tillage prior to weed seedling emergence from soil. Stealth Herbicide can also be applied through chemigation, including flooded basin irrigation systems. Stealth Herbicide is recommended for preplant surface, preplant incorporated, surface incorporated, preemergence, early postemergence, postemergence incorporated (CULTI-SPRAY) or layby treatment. See Crop-Specific Information for specific application directions by crop.

**Preplant Surface Applications:** For use in minimum tillage or no-tillage production systems, apply Stealth Herbicide alone or in tank mixes up to 45 days before planting. When making early preplant surface applications (15 to 45 days prior to planting), Stealth Herbicide should be tank mixed or followed by a postemergence herbicide application. Rainfall or sprinkler irrigation within 7 days after application is required to move this product into the upper soil surface where weed seeds germinate.

**Preplant Incorporated Applications:** Apply Stealth Herbicide and incorporate into the upper (1" to 2" ) soil surface up to 60 days before planting. Use an implement capable of giving uniform incorporation; two-pass incorporation usually results in a more consistent result.

**Surface Incorporated Applications:** Uniformly apply Stealth Herbicide as broadcast or banded treatment to soil surface underneath established trees and/or in ground

areas between trees rows. Within 7 days after application, incorporate into upper (1" to 2") soil surface using either rainfall, sprinkler irrigation, or shallow mechanical incorporation using an implement capable of giving uniform incorporation; two-pass mechanical incorporation usually results in a more consistent result.

**Preemergence Surface Applications:** Broadcast treatment uniformly to the soil surface at planting and up to 2 days after planting. Rainfall, sprinkler irrigation, or shallow mechanical incorporation within 7 days after application is required to move this product into the upper soil surface where weed seeds germinate. If adequate rainfall or irrigation does not occur and weed seedling emergence begins, a shallow cultivation or rotary hoeing will improve performance.

**Early Postemergence Applications:** Stealth Herbicide must be applied prior to weed seedling emergence or in a tank mix with products that control the emerged weeds. Refer to Crop- Specific Information for specific postemergence application recommendations by crop.

**Postemergence Incorporated Applications (CULTI-SPRAY):** Prior to application, crop must be cultivated in such a manner as to throw at least one inch of soil over the base of the crop plants. This will prevent direct contact of Stealth Herbicide and the zone of brace root formation. Stealth Herbicide must be applied broadcast with a ground sprayer when crop is at least 4 inches tall up to layby. Use drop nozzles if crop foliage will prevent uniform coverage of the soil surface within the rows. Thoroughly and uniformly incorporate Stealth Herbicide treatments into the soil with:

(1) a sweep-type or rolling cultivator set to provide thorough incorporation in the top 1 inch of soil, or

(2) adequate overhead irrigation water or rainfall. See Crop-Specific Information (Corn and Grain Sorghum) for more details on (CULTI-SPRAY) application.

**Layby Application:** Apply Stealth Herbicide directly to the soil between rows as a directed spray following the last normal cultivation (layby). See Crop-Specific Information for more details on layby application.

**Split Applications:** Stealth Herbicide may be applied preplant incorporated up to 60 days prior to planting and followed by a preemergence application at planting or up

to 2 days after planting. The total amount of Stealth Herbicide applied per acre per season cannot exceed the highest labeled rate for any given soil type. See Crop-Specific Information for more details on split applications.

Fall Applications: Stealth Herbicide may be used in fall application programs in certain crops. See Crop-Specific Information for details on fall application timing.

## SPRAYING INSTRUCTIONS

Stealth Herbicide may be applied using either water or sprayable fluid fertilizer (such as straight 32-0-0 or 28-0-0) as the spray carrier. Additionally, Stealth Herbicide may be impregnated on dry bulk fertilizer. Sprayable fluid fertilizer as a carrier is NOT recommended for use after crop emergence unless the typical fertilizer burn symptoms on the crop are acceptable.

### Aerial Applications

Uniformly apply in 5 or more gallons of water per acre. Exercise caution to minimize drift. DO NOT apply during periods of gusty winds or when wind conditions favor drifting. Spray drift can cause injury to sensitive crops. It is recommended that a flagman or an automatic mechanical flagging unit on the aircraft be used to avoid overlapping and possible crop injury.

### Ground Applications (Broadcast)

Uniformly apply with properly calibrated ground equipment in 10 or more gallons of water per acre or 20 or more gallons of liquid fertilizer per acre. Use sprayers equipped with appropriate nozzles that provide uniform and accurate spray distribution and minimize drift. Keep the bypass line on or near the bottom of the tank to minimize foaming. Nozzle and in-line screens must be no finer than 50 mesh. Application of Stealth Herbicide during periods of gusty winds may result in uneven applications. DO NOT apply Stealth Herbicide postemergence in liquid fertilizers.

If liquid fertilizer/herbicide(s) mixture separates in the spray tank, clogged equipment and uneven application can result. Always predetermine the compatibility of Stealth Herbicide alone or with other herbicides based on the following compatibility "jar test":

1. Add 1 pint of fertilizer to a quart jar.
2. Add 1 to 4 teaspoon(s) of the Dry Flowable (DF), Wettable Powder (WP), Aqueous Solution (AS), Flowable (F) or Liquid (L) formulation (depending on mixing ratio required) to the liquid fertilizer. The number of teaspoons of the formulation to add can be determined by the following formula:
3. Close the jar and agitate until the herbicide(s) are evenly dispersed in the liquid fertilizer. If the materials DO NOT disperse well, it may be necessary to slurry the chemicals in water before adding to the fertilizer.
4. After dispersing the materials, add appropriate number of teaspoons of Stealth Herbicide to the jar and shake well. Add water soluble concentrate herbicides to the mixture last and agitate. Let the mixture stand for 30 minutes and then observe the results. Look for signs of separation: an oily layer or globules, sludge, flakes or other precipitates.
5. Evaluate compatibility.
  - (a) If the herbicide(s) and liquid fertilizer mixture does not separate, use this mixture in your spray tank.
  - (b) If the mixture separates but mixes readily with shaking, the mixture can be used provided that good agitation is maintained in the spray tank.
  - (c) If separation of the mixture occurs and agitation does not correct this problem, a compatibility agent is needed.
6. If the need for a compatibility agent is demonstrated, the following procedure is recommended: Using a clean quart jar, repeat step 1 above and add  $\frac{1}{2}$  teaspoon of the compatibility agent to the liquid fertilizer. Mix well and repeat steps 2, 3 and 4. If separation or precipitation occurs with the compatibility agent, DO NOT use Stealth Herbicide with that specific liquid fertilizer.

#### Ground Applications (Dry Bulk Fertilizer)

Apply Stealth Herbicide/dry bulk fertilizer mixtures only with ground equipment. DO NOT impregnate Stealth Herbicide onto coated ammonium nitrate or limestone because these materials will not absorb the herbicide. Dry fertilizer blends

containing mixtures of ammonium nitrate or limestone may be impregnated with Stealth Herbicide. A minimum of 200 pounds of impregnated dry bulk fertilizer, excluding the weight of ammonium nitrate or limestone, must be applied per acre.

To impregnate Stealth Herbicide on bulk fertilizer, use a closed rotary-drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment. Spray nozzles must be placed to provide uniform coverage of Stealth Herbicide onto the fertilizer during mixing.

Apply the Stealth Herbicide/dry bulk fertilizer mixture with an accurately calibrated dry fertilizer spreader. The Stealth Herbicide/dry bulk fertilizer mixture must be spread uniformly on the soil surface.

#### RESTRICTIONS AND LIMITATIONS

- DO NOT exceed the maximum labeled rate for any soil type.
- Stealth Herbicide will not control established weeds. Destroy emerged weeds prior to application.
- Stealth Herbicide is most effective in controlling weeds mechanically incorporated or when incorporated into the weed germination zone by adequate rainfall or overhead irrigation after application.
- When using tank mixtures with Stealth Herbicide, always read the companion product label(s) to determine the specific use rates by soil types, weed species, and weed or crop growth stage. In addition, follow all precautions and restrictions including state and local use restrictions that may apply to specific products. Always follow the most restrictive label.
- In the event of a crop loss due to adverse weather conditions or other reasons, any crop registered for a preplant incorporated application of Stealth Herbicide can be replanted without adverse effects the same year (see Crop-Specific Information for exceptions). If replanting is necessary, DO NOT work the soil deeper than the treated zone.
- Refer to Crop-Specific Information for crop-specific preharvest intervals and feeding and grazing restrictions.

Refer to the label for the tank mix information.

## Limitations, Restrictions, and Exceptions

### SUNFLOWERS

Stealth Herbicide may be applied preplant incorporated in all states. Fall preplant incorporated applications may be made in North Dakota, South Dakota and Minnesota only. Stealth Herbicide may be applied preemergence in conventional tillage sunflowers, except in the state of California.

Plant sunflowers 1.5" to 2" deep and completely cover with soil.

#### Use Methods and Timings:

Preplant Incorporated (Fall applications in North Dakota, South Dakota and Minnesota) - Apply Stealth Herbicide and immediately incorporate in late fall prior to planting sunflowers the following spring. Apply Stealth Herbicide in the late fall when soil temperatures are 45° F or below but before the ground freezes. DO NOT apply when the air temperature is below 45° F.

Prior to sunflower planting in the spring, fields treated with Stealth Herbicide should receive at least one shallow additional incorporation. Spring incorporation should be at an angle to the last tillage operation.

#### Pests:

Canarygrass, Cheat, Downy brome, Hairy chess, Italian ryegrass, Japanese brome, Jointed goatgrass, Oat, wild, Shattercane, Signalgrass, Wild proso millet, Woolly cupgrass, Chickweed, common, London rocket, Shepherdspurse, Smartweed Pennsylvania, Velvetleaf: Suppression, but controlled when Stealth Herbicide use rate exceeds 4.8 pts/A.

Hairy chess, Japanese brome, Jointed goatgrass: Neither suppressed nor controlled in California.

Canarygrass, Cheat, Mustard, black: Not controlled in California.

Dodder: For optimum dodder control, use the highest labeled rate of Stealth Herbicide specified in the specific crop.

Morningglory: Suppression

Grass, Guinea: Not controlled in California.

Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

Rates

[field\\_rates 0](#)

[field\\_rates 1](#)

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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.

Soils

[Coarse](#)

[Loamy Sand](#)

[Sandy Loam](#)

[Sand](#)

Timings

[Preplant Incorporated](#)

[fall](#)