

# **MUSTARD SEED (NOT FOR USE IN CALIFORNIA) - ANNUAL GRASS**

## General Information

### APPLICATION INFORMATION

#### Timing of Applications

Apply Select Max Herbicide with Inside Technology postemergence to actively growing grasses according to rate table recommendations. Applications made to grass plants stressed by insufficient moisture, hot or cold temperatures, or to grass plants exceeding recommended growth stages may result in unsatisfactory control. Do not apply under these conditions.

In arid regions where irrigation is used to supplement limited rainfall, Select Max Herbicide with Inside Technology should be applied, as soon as possible, after an irrigation (within 7 days). In arid regions, a second application of Select Max Herbicide with Inside Technology will generally provide more effective control of perennial grass weeds than a single application. Make second application to actively growing grass 2 to 3 weeks after emergence of new growth.

Cultivation of treated grasses 7 days prior to or within 7 days after application of Select Max Herbicide with Inside Technology may reduce weed control.

#### Ground Application

Use of sufficient spray volumes and pressure is essential to ensure complete coverage. Use a minimum of 5 gals and a maximum of 40 gals of spray solution per acre. Under the following conditions a minimum of 10 gals per acre is required: ultra narrow row cotton, narrow row soybeans, broadleaf herbicide tank mixes, perennial grasses, volunteer corn, drought or stress conditions, heavy grass pressure or when grasses are at or near maximum height. Failure to use a minimum of 10 gals per acre under these conditions can result in poor coverage and reduced grass control requiring repeat applications.

Spray pressures should reflect a minimum of 30 psi and a maximum of 60 psi at the nozzle. Do not use flood nozzles.

Applications to onions (dry bulb), garlic or shallots (dry bulb) should be made in a minimum of 20 gals of spray solution per acre.

#### Air Application

Use a minimum of 3 gals of spray solution per acre unless otherwise directed in the label. Increase spray volumes up to 10 gals as grass or crop foliage becomes dense. For onions (dry bulbs), garlic or shallots (dry bulb): When applying by air do not exceed 16 fl oz/A in a single application. In California, air applications to onions, garlic or shallots should be made in a minimum of 20 gals of spray solution per acre. In states other than California, air application to onions, garlic or shallots should be made in a minimum of 10 gals of spray solution.

NOTE: Crop injury may occur when Select Max Herbicide with Inside Technology is applied to onions, garlic or shallots with aerial equipment.

#### Spot Treatment

When using hand sprayers or high volume sprayers utilizing hand guns, mix 1/3 to 2/3% (0.44 oz to 0.85 oz per gal) Select Max Herbicide with Inside Technology and treat to wet vegetation, while not allowing runoff of spray solution. For uses requiring crop oil concentrate, include crop oil concentrate at 1% (1.3 oz per gal) by volume. For uses requiring non-ionic surfactant, include non-ionic surfactant at 1/4% (0.33 oz per gal) by volume.

NOTE: If Select Max Herbicide with Inside Technology is applied as a spot treatment care should be taken to not exceed the maximum rate allowed on a "per acre" basis or crop injury may occur.

#### CHEMIGATION - ONIONS (Dry Bulb) AND GARLIC SPRINKLER IRRIGATION APPLICATION

- Do not apply Select Max Herbicide with Inside Technology by chemigation in the states of Idaho, Montana, Oregon and Washington.

Apply Select Max Herbicide with Inside Technology at the high rate recommended for annual grasses (32 fl oz/A) when the grass height is at the high end of the range (application to larger grasses may not provide adequate control). Add a crop oil concentrate containing at least 15% emulsifier at 1 quart per acre or non-ionic

surfactant with at least 80% active ingredient at 0.25% v/v of total spray solution. Apply Select Max Herbicide with Inside Technology in 0.1 to 0.2 acre inch of water either at the end of a regular irrigation set or as a separate application not associated with a regular irrigation using the least amount of water that provides proper distribution and coverage. Application of more than label recommended quantities of irrigation water per acre may result in decreased product performance by removing the chemical from the zone of effectiveness. Use a metering device to inject the Select Max Herbicide with Inside Technology into the irrigation water at a constant flow. Constant agitation must be maintained in the chemical supply tank during the entire period of herbicide application. Inject the product with a positive displacement pump into the main line ahead of a right angle turn to ensure adequate mixing. Allow time for all lines to flush the herbicide through all nozzles before turning off irrigation water.

To ensure the lines are flushed and free of remaining herbicide, a dye indicator may be injected into the lines to mark the end of the application period. It is not recommended that Select Max Herbicide with Inside Technology be applied through an irrigation system connected to a public water system.

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.

#### Use Precautions

1. Apply this product only through irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, travelers, big gun, solid set or hand move. Do not apply this product through any other type of irrigation system.
2. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop may result from nonuniform distribution of treated water.
3. If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
4. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the label-prescribed safety devices for public water supplies are in place.
5. A person knowledgeable of chemigation system and responsible for its operation or under supervision of the responsible person, shall shut the system down and

make necessary adjustments should the need arise.

6. The 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.

7. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

8. 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.

9. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

10. 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.

11. 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.

12. Do not apply when wind speed favors drift beyond the area intended for treatment.

## RESTRICTIONS AND LIMITATIONS

- Do not apply if rain is expected within 1 hour of application, as control may be unsatisfactory.

- Do not plant rotational crops until 30 days after application of Select Max Herbicide with Inside Technology unless crop is listed on Select Max Herbicide with Inside Technology label.

- Do not apply a postemergence broadleaf herbicide within one day following application of Select Max Herbicide with Inside Technology or reduced grass control may result.

- Select Max Herbicide with Inside Technology is not recommended for use on vegetable crops being grown for seed production unless specific use directions are provided.

- Do not apply under conditions of stress. Applying Select Max Herbicide with Inside

Technology under conditions that do not promote active grass growth will reduce herbicide effectiveness. These conditions include drought, excessive water, extremes in temperature, low humidity and grasses either partially controlled or stunted from prior pesticide applications. Grasses under these kinds of stressful conditions will not absorb and translocate Select Max Herbicide with Inside Technology effectively, and will be less susceptible to herbicide activity.

- Application on Long Island, New York, is restricted to no more than 32 fl oz of Select Max Herbicide with Inside Technology (0.25 lb ai) per acre, per season.

Optimal perennial grass control can be obtained if rhizomes or stolons are cut up by preplant tillage practices (discing, plowing, etc.) to stimulate maximum emergence of grass shoots. Cultural practices, such as continuous no-tillage in which the perennial grass rhizomes or stolons are not cut up, results in a very staggered, non-uniform weed emergence. Due to this non-uniform weed emergence, no fewer than two Select Max Herbicide with Inside Technology applications per season per year are recommended at the appropriate weed-growth stage rate under continuous no-till conditions. Grass crops such as corn, rice, small grains, sorghum or turf, etc. are highly sensitive to Select Max Herbicide with Inside Technology.

While all the vegetable crops on the label have been tested and are tolerant to Select Max Herbicide with Inside Technology, not all specialty varieties of these crops have been tested. It is advised that, before applying Select Max Herbicide with Inside Technology to specialty varieties of vegetable crops on the label, crop tolerance be investigated first using a small section of the field. It is possible that injury symptoms can occur. Symptoms may appear as leaf speckling or stunting.

Always read and follow the restrictions and limitations for all products whether used alone or in a tank mix. The most restrictive labeling of any product used applies in tank mixtures, including all crop rotational and other crop restrictions.

Tank mixes of Select Max Herbicide with Inside Technology and broadleaf herbicides may result in reduced grass control. If grass regrowth occurs, an additional application of Select Max Herbicide with Inside Technology may be necessary.

#### SPRAY DRIFT MANAGEMENT

Do not allow spray from ground or aerial equipment to drift onto adjacent land or crops. When drift may be a problem, do everything possible to reduce spray drift,

including:

- Do not apply when conditions are favorable for drift (high temperatures, drought and low relative humidity), especially when sensitive plants are located nearby.
- Do not spray if wind speed is 10 mph or greater. If sensitive crops or plants are downwind, extreme caution must be used under all conditions.
- Do not spray if winds are gusty.
- Do not apply when a temperature inversion exists. If inversion conditions are suspected, consult with local weather services before making an application.
- Do not allow Select Max Herbicide with Inside Technology to come in contact with desirable grass crops such as corn, rice, small grains, sorghum or turf, as these and other grass crops will be injured or killed.

Further reductions in drift can be obtained by:

1. Using large droplet size sprays. Do not use nozzles that produce small droplets. Orient nozzles downward and slightly backward as needed to reduce drift for ground applications.
2. Orienting nozzles straight back with the windstream, using straight stream orifices for aerial applications. Use the lowest number of nozzles practical with the largest possible orifice size to obtain the minimum 3 GPA volume. Application height and boom length should be set according to manufacturer's instructions to minimize drift.
3. Increasing the volume of spray mixture (for example a minimum of 10 GPA for ground applications) by using higher flow rate nozzles. Using lower pressure with the appropriate nozzle to obtain higher volumes will also reduce drift.
4. Applying as close to target plants as practical while maintaining a good spray pattern for adequate coverage.

Do not apply under conditions involving possible drift to food, forage or other plantings that might be damaged or the crops thereof rendered unfit for sale, use or consumption.

## RESISTANCE MANAGEMENT

Select Max Herbicide with Inside Technology is a Group 1 herbicide. Any weed population may contain or develop plants naturally resistant to Select Max Herbicide with Inside Technology and other Group 1 herbicides. Weed species with acquired resistance to Group 1 may eventually dominate the weed population if

Group 1 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by Select Max Herbicide with Inside Technology or other Group 1 herbicides. Repeated use of Select Max Herbicide with Inside Technology (or similar postemergence grass herbicide with the same mode of action) may lead to the selection of naturally occurring biotypes that are resistant to these products in some grass species.

If poor performance occurs and cannot be attributed to adverse weather or application conditions, a resistant biotype may be present. This is most likely to occur in fields where other control strategies such as crop rotation, mechanical removal and other classes of herbicides are not used from year to year.

To delay herbicide resistance consider:

- Avoiding the consecutive use of Select Max Herbicide with Inside Technology or other target site of action Group 1 herbicides that have 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.

Limitations, Restrictions, and Exceptions

#### MUSTARD SEED

(Not for use in California)

Rates higher than 16 fl oz/A may be applied in certain geographic areas, cropping situations or environmental conditions, where experience has shown that higher rates are needed for satisfactory control of annual grasses. In these situations, rates from 16 to 32 fl oz/A may be applied. Do not apply more than 16 fl oz/A of Select Max Herbicide with Inside Technology per application to the following crops: garden beets, broccoli, cabbage, carrot, cauliflower (and other head and stem brassica

vegetables), celery, cranberry, cucurbits, flax, fruiting vegetables (except tomato), leaf lettuce, radish (and other root vegetables), rhubarb (and other leaf petioles), strawberry and non-bearing food crops. Do not apply more than 12 fl oz/A of Select Max Herbicide with Inside Technology per application to canola or mustard seed.

#### Adjuvant Recommendation:

Non-ionic surfactant (NIS) in this case refers to an adjuvant containing at least 80% non-ionic surfactant. Crop oil concentrate in this case refers to both crop oil concentrate and crop oil concentrate blends. Acceptable crop oil concentrates would be those that contain a minimum of 80% oils and 15% emulsifier. Acceptable crop oil concentrate blends would be those that contain a minimum of 60% oils and 25-40% surfactants and emulsifiers. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils.

- NIS at 0.25% v/v

#### Ammonium Sulfate Recommendation:

(Use spray grade ammonium sulfate. The use of ammonium sulfate does not take the place of the required adjuvant.)

- None

#### Special Use Instructions And Restrictions:

- Do not apply after crop has begun bolting. Crop injury may occur when Select Max Herbicide with Inside Technology is applied during the bloom period.
- For repeat applications make on a minimum of a 14 day interval.

#### ANNUAL GRASSES (ALL CROPS)

- Apply only to actively growing grasses at recommended weed heights.
- Apply when the first grass weed species in a mixed grass weed population reaches the recommended growth stage for treatment.
- Use the high rate under heavy grass pressure and/or when grasses are at maximum height.
- Do not exceed the maximum per application rate listed in Table 1, CROP SPECIFIC USE DIRECTIONS, RESTRICTIONS AND LIMITATIONS FOR SELECT MAX HERBICIDE WITH INSIDE TECHNOLOGY.



Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

Pre-Harvest Interval

75 days

Rates

[field\\_rates 0](#)

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Restricted Entry Interval

24 hours

Timings

[Postemergence \(Weed\)](#)