

# **PREPLANT APPLICATION FOR BROADLEAF WEED AND WILD GARLIC CONTROL PRIOR TO PLANTING CORN, COTTON, RICE, GRAIN SORGHUM OR SOYBEANS**

General Information

## **PRODUCT INFORMATION**

This product is a dry flowable granule that is used for selective post-emergence weed control in wheat (including durum), barley, oat, triticale and fallow. The best control is obtained when this product is applied to young, actively growing weeds. The use rate will depend on weed spectrum and size of weed at time of application. The degree and duration of control may depend on the following:

- weed spectrum and infestation intensity
- weed size at application
- environmental conditions at and following treatment

This product is noncorrosive, nonflammable, nonvolatile, and does not freeze. This product should be mixed in water and applied as a uniform broadcast spray.

## **BIOLOGICAL ACTIVITY AND ENVIRONMENTAL CONDITIONS**

This product is absorbed primarily through the foliage of plants, rapidly inhibiting the growth of susceptible weeds. One to 3 weeks after application to weeds (2 to 5 weeks for wild garlic), leaves of susceptible plants appear chlorotic, and the growing point subsequently dies.

This product provides the best control in vigorously growing crops that shade competitive weeds. Weed control in areas of thin crop stand or seeding skips may not be as satisfactory. However, a crop canopy that is too dense at application can intercept spray and reduce weed control.

The herbicidal action of this product may be affected in crops stressed from adverse environmental conditions (such as extreme temperatures or moisture), abnormal soil conditions, cultural practices, or variations in crop variety. In warm, moist conditions, the expression of herbicide symptoms is accelerated; in cold, dry conditions, expression of herbicide symptoms is delayed. In addition, weeds hardened-off by drought stress are less susceptible to this product.

### Pre-Plant or At-Planting Burndown in Cotton, Field Corn, Grain Sorghum, Rice and Soybeans

Application of this product may be applied for burndown of emerged weeds before planting, or at planting, of cotton, field corn, grain sorghum, rice and soybeans. This product may be used as part of a pre-plant or at-planting burndown treatment, in combination with other suitable registered herbicides. Read and follow all manufacturers label recommendations for the companion herbicide. If those recommendations conflict with this label, do not tank mix the herbicide with this product.

In fields to be planted to cotton, apply this product at 0.3 to 0.5 ounce per acre. In fields to be planted to field corn, grain sorghum, rice, or soybeans, apply this product at 0.3 to 0.6 ounce per acre for control or partial control of the weeds listed on the EPA registered label. Allow at least 14 days between application and planting of cotton, corn, soybeans or grain sorghum. Include a nonionic surfactant, petroleum based crop oil concentrate, or vegetable-seed oil-based product (methylated seed oils are considered a vegetable seed-based oil).

- If another herbicide is tank mixed with this product to increase the broadleaf weed spectrum, select adjuvants based on the adjuvant limitations of the other companion herbicide.

### IMPORTANT PRECAUTIONS

Seedling disease, nematodes, cold weather, deep planting (more than 2"), excessive moisture, high salt concentration, and/or drought may weaken cotton seedlings and increase the possibility of crop injury. Cotton resumes normal growth once favorable growing conditions return.

### RESTRICTIONS

- DO NOT apply after planting field corn, grain sorghum, rice or soybeans.
- DO NOT apply later than 14 days before planting cotton, corn, soybeans or grain

sorghum.

- DO NOT allow livestock to graze on, or feed forage, hay or straw from treated soybean fields.
- DO NOT make more than one pre-plant or at-planting application of this product to field corn, rice, sorghum, or soybeans per growing season.
- DO NOT apply more than 0.6 oz. of this product to rice, field corn, sorghum, or soybeans pre-plant or at-planting.

#### GROUND APPLICATION - ALL USES

For optimum spray distribution and thorough coverage, use flat-fan or low-volume flood nozzles.

For flat-fan nozzles, use a spray volume of at least 5 gal per acre (GPA).

For flood nozzles on 30" spacings, use at least 10 GPA, flood nozzles no larger than TK10 (or the equivalent), and a pressure of at least 30 psi. For 40" nozzle spacings, use at least 13 GPA; for 60" spacings use at least 20 GPA. It is essential to overlap the nozzles 100% for all spacings.

Raindrop RA nozzles are not recommended for product applications, as weed control performance may be reduced. Use screens that are 50-mesh or larger.

#### AERIAL APPLICATION - ALL USES

Use nozzle types and arrangements that provide optimum spray distribution and maximum coverage at 2 to 5 GPA. Use at least 3 GPA in Idaho, Oregon, or Utah.

Do not apply this product by air in the state of New York. See the Spray Drift Management section of this label.

#### GRAZING

Do not graze livestock in treated areas. In addition, do not feed forage or hay from treated areas to livestock (harvested straw may be used for bedding and/or feed).

#### RESISTANCE

When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field.

Adequate control of these resistant weed biotypes cannot be expected. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

To better manage herbicide resistance through delaying the proliferation and possible dominance of herbicide resistant weed biotypes, it may be necessary to

change cultural practices within and between crop seasons such as using a combination of tillage, retreatment, tank-mix partners and/or sequential herbicide applications that have a different site of action. Weed escapes that are allowed to go to seed will promote the spread of resistant biotypes.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative cultural practices or herbicide recommendations available in your area.

## INTEGRATED PEST MANAGEMENT

This product may be used as part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

## RESTRICTIONS

- Do not apply, drain or flush equipment on or near desirable trees or other plants or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Do not use on lawns, walks, driveways, tennis courts, or similar areas. Prevent drift of spray to desirable plants.
- Do not graze treated fields or feed treated forage or hay. Harvested straw may be used for bedding and/or feed.
- Do not harvest sooner than 45 days after the last application of this product.
- Do not apply by air in the State of New York.
- Do not apply to wheat, barley, triticale or oat crops underseeded with another crop.
- This product is only registered on wheat, barley, oat, triticale and fallow. Do not use on any other crop.
- Do not exceed the total rate of this product for wheat (including durum), barley and triticale of 1.0 ounce product per acre applied to any one crop during one growing season.

- Do not exceed the total rate of this product for oat (spring and winter) of 0.4 ounces product per acre applied to any one crop during one growing season.

## PRECAUTIONS

- Take all necessary precautions to avoid all direct or indirect contact (such as spray drift) with non-target plants or areas.
- Carefully observe all sprayer cleanup instructions both prior to and after using this product, as spray tank residue may damage crops other than wheat, barley, triticale or oat.
- Dry, dusty field conditions may result in reduced control in wheel track areas.
- Varieties of wheat (including durum), barley and triticale may differ in their response to various herbicides. ALTITUDE CROP INNOVATIONS, LLC recommends that you first consult your state experiment station, university, or extension agent as to sensitivity to any herbicide. If no information is available, limit the initial use to a small area.
- Under certain conditions such as heavy rainfall, prolonged cold weather, or wide fluctuations in day/night temperatures prior to or soon after product application, temporary discoloration and/or crop injury may occur. To reduce the potential of crop injury, tank mix this product with 2,4-D (ester formulations perform best-see Tank Mixtures) and apply after the crop is in the tillering stage of growth.
- This product should not be applied to wheat, barley, triticale or oat that is stressed by severe weather conditions, drought, low fertility, water saturated soil, disease, or insect damage, as crop injury may result. Risk of injury is greatest when crop is in the 2 to 5- leaf stage. Severe winter stress, drought, disease, or insect damage following application also may result in crop injury.

## Limitations, Restrictions, and Exceptions

### PREPLANT APPLICATION FOR BROADLEAF WEED AND WILD GARLIC CONTROL PRIOR TO PLANTING

#### CORN, COTTON, RICE, GRAIN SORGHUM OR SOYBEANS

In the states of AL, AR, DE, GA, IA, IN, IL, KY, LA, MD, MO, MS, NC, OH, PA, SC, TN, TX and VA, this product may be applied prior to planting corn, cotton, rice, grain sorghum or soybeans for the control of certain broadleaf weeds and wild garlic. This product may be applied from late fall through early spring.

Do not apply within 45 days prior to planting the above listed crops. Do not use this product through any type of irrigation equipment.

## APPLICATION INFORMATION

This product provides postemergence activity for short term control or partial control of labeled weeds. Degree of control and duration of effect are dependent on rate used, sensitivity and size of target weed, environmental conditions at the time of and following application, and spray coverage.

Best results are obtained when this product is applied to young, actively growing weeds. The use rate will depend on weed spectrum and size of weed at time of application. However, typical symptoms of dying weeds (discoloration) may not be noticeable for 1-3 weeks after application (2-5 weeks for wild garlic) depending on the environmental conditions and weed susceptibility. Warm, moist conditions following treatment promote the activity of this product while cold, dry conditions delay the activity. Weeds hardened off by cold weather, drought stress or too wet conditions will be less susceptible.

Some naturally occurring weed biotypes\* resistant to this product are known to exist. If weeds listed on this label are not satisfactorily controlled, respray problem areas in a timely and effective manner using a broadleaf herbicide having a different mode of action.

\*Biotypes are naturally occurring individuals of the species, which have a slightly different make-up. Resistant biotypes may look exactly the same as susceptible biotypes. Herbicide-resistant biotypes are able to survive a use rate several times higher than needed to control susceptible biotypes.

## APPLICATION TIMING

Apply this product at least 45 days prior to planting corn, cotton, rice, grain sorghum or soybeans. Annual broadleaf weeds should be past the cotyledon stage, actively growing, but less than 4 inches tall or across. See SPECIFIC WEED PROBLEMS for information on vetch (hairy, common), wild garlic and wild radish.

## WEED CONTROL Application Rates:

Apply this product at 0.5 - 0.6 oz per acre to control emerged weeds. Use 0.6 oz per acre rate when weed infestation is heavy and predominantly consists of those weeds listed under PARTIAL CONTROL or when application timing and environmental conditions are marginal. Reduce the application rate to 0.5 ounces for fields to be planted to cotton.

Sequential treatments of this product to control emerged weeds may also be made

provided the total amount of this product applied during one fallow cropland season does not exceed 1.0 oz per acre; for example, 0.5 oz in the fall followed by 0.5 oz in the spring. At least one of the sequential treatments should include a tank mix partner herbicide having a different mode of action than this product.

Foliar absorption is the primary means of this product uptake by plants; therefore, thorough coverage of all target weeds is essential.

Conditions which are conducive to healthy, actively growing plants optimize this product's weed control performance. Ideal conditions include warm temperatures and adequate soil moisture before, during and immediately after application.

#### Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

#### Rates

[field\\_rates 0](#)

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#### Restricted Entry Interval

12 hours

#### Timings

[Preplant](#)