

WHEAT (INCLUDING DURUM) AND BARLEY

General Information

USE INFORMATION

This product is a water dispersible granule that is used for selective postemergence weed control in wheat (including durum), barley, and fallow. The best control is obtained when this product is applied to young, actively growing weeds. The specified 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, and completely dissolved in water and applied as a uniform broadcast spray.

ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY

This product is absorbed primarily through the foliage of plants, rapidly inhibiting the growth of susceptible weeds. One to three weeks after application to weeds, 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.

APPLICATION INFORMATION

USE RATE

Apply this product at a rate of 0.4 to 1 ounce per acre. When applying 0.4 to 0.6 ounce per acre, this product must be used in a tank-mix combination with other registered herbicides.

CROP ROTATION

Wheat (including durum) and barley may be replanted anytime after the application of this product.

Cotton can be planted 14 days after the application of this product. Sugar beets, Winter Rape and Canola can be planted at 60 days after the application of this product. Any other crop may be planted 45 days after the application of this product.

SPRAY ADJUVANTS

Always include a spray adjuvant with applications of this product. In addition to a spray adjuvant, an ammonium nitrogen fertilizer may be used. Consult your Ag dealer or applicator, local Arysta LifeScience North America, LLC fact sheets, technical bulletins, and service policies prior to using an adjuvant system. If another herbicide is tank mixed with this product, select adjuvants authorized for use with both products. Products must contain only EPA-exempt ingredients (40 CFR 1001)

NONIONIC SURFACTANT (NIS)

- Apply 0.06 to 0.50% volume/volume (1/2 to 4 pints per 100 gallon of spray solution)
- Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12. See TANK MIXTURES section of this label for additional information

PETROLEUM CROP OIL CONCENTRATE (COC) OR MODIFIED SEED OIL (MSO)

- Apply at 1% volume/volume (1 gallon per 100 gallon of spray solution) or 2% volume/volume under arid conditions.
- Oil adjuvants must contain at least 80% high quality, petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.

SPECIAL ADJUVANT TYPES

- Combination adjuvant products may be used at doses that provide the required amount of NIS, COC, MSO and/or ammonium nitrogen fertilizer. Consult product literature for use rates and restrictions - In addition to the adjuvants specified above, other adjuvant types may be used if they provide the same functionality and have been evaluated and approved by Arysta LifeScience North America, LLC product management Consult separate Arysta LifeScience North America, LLC technical bulletins for detailed information before using adjuvant types not specified on this label.

AMMONIUM NITROGEN FERTILIZER

- Use 2 qt/acre of a high-quality urea ammonium nitrate (UAN), such as 28%N or 32%N, or 2 lb/acre of a spraygrade ammonium sulfate (AMS). Use 4 qt/acre UAN or 4 lb/acre AMS under arid conditions

GROUND APPLICATION

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 gallon 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.

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

AERIAL APPLICATION

Use nozzle types and arrangements that provide optimum spray distribution and maximum coverage.

- Use 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.

CHEMIGATION

Do not apply this product through any irrigation system.

PRODUCT MEASUREMENT

This product is measured using this product volumetric measuring cylinder. The degree of accuracy of this cylinder varies by +/- 7.5%. For more precise measurement, use scales calibrated in ounces.

GRAZING

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

SPRAY EQUIPMENT

For specific application equipment, refer to the manufacturer's recommendations for additional information on GPA, pressure, speed, nozzle types and arrangements, nozzle heights above the target canopy, etc. Be sure to calibrate air or ground equipment properly before application. Select a spray volume and delivery system that will ensure thorough coverage and a uniform spray pattern with minimum drift. Use higher spray volumes to obtain better coverage when crop canopy is dense. Avoid swath overlapping, and shut off spray booms while starting, turning, slowing, or stopping to avoid injury to the crop.

Do not make applications using equipment and/or spray volumes or during weather conditions that might cause spray to drift onto nontarget sites For additional information on spray drift refer to SPRAY DRIFT MANAGEMENT section of label.

Continuous agitation may be required to keep this product and tank-mix partners in solution or suspension Refer to tank-mix partner labels for additional information.

AT THE END OF THE DAY

It is recommended that during periods when multiple loads of this product are applied, at the end of each day of spraying, the interior of the tank be rinsed with fresh water and then partially filled, and the boom and hoses flushed. This will prevent the buildup of dried pesticide deposits which can accumulate in the application equipment.

AFTER SPRAYING AND BEFORE SPRAYING CROPS OTHER THAN WHEAT AND BARLEY

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of this product as follows:

1. Drain tank; thoroughly rinse spray tanks, boom and hoses with clean water. Loosen and physically remove any visible deposits.
2. Fill the tank with clean water and 1 gal of household ammonia* (contains 3% active) for every 100 gal of water. Flush the hoses, boom and nozzles with the cleaning solution. Then add more water to completely fill the tank. Circulate the cleaning solution through the tank and hoses for at least 15 minutes. Flush the hoses, boom and nozzles again with the cleaning solution, and then drain the tank.
3. Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.
4. Repeat step 2.
5. Rinse the tank, boom, and hoses with clean water.
6. If only ammonia is used as a cleaner, the rinsate solution may be applied back to the crop(s) recommended on this label. Do not exceed the maximum labeled use rate. If other cleaners are used, consult the cleaner label for rinsate disposal instructions. If no instructions are given, dispose of the rinsate on site or at an approved waste disposal facility.

* Equivalent amounts of an alternate strength ammonia solution can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions. Consult your Ag dealer for a listing of approved cleaners.

Notes:

1. CAUTION: Do not use chlorine bleach with ammonia as dangerous gases will form. Do not clean equipment in an enclosed area.
2. Steam-cleaning aerial spray tanks is recommended prior to performing the above cleanout procedure to facilitate the removal of any caked deposits.
3. When this product is tank mixed with other pesticides, all cleanout procedures

should be examined and the most rigorous procedure should be followed.

4. In addition to this cleanout procedure, all precleanout guidelines on subsequently applied products should be followed as per the individual labels.

5. Where routine spraying practices include shared equipment frequently being switched between applications of this product and applications of other pesticides to sensitive crops during the same spray season, it is recommended that a sprayer be dedicated to this product to further reduce the chance of crop injury.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring. Note: Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the SPRAY EQUIPMENT section of this label to determine if use of an air assist sprayer is recommended.

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 AND PRECAUTIONS

Injury to or loss of adjacent sensitive crops, desirable trees or vegetation may result from failure to observe the following:

- 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.
- 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 or barley.
- Do not apply this product by air in the state of New York.

- Do not apply this product through any irrigation system.
- Do not exceed the maximum application rate of 1 ounce per acre per crop season.

Wheat and barley may differ in their response to various herbicides. Arysta Life-Science North America, 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 of this product to a small area.

Under certain conditions, such as heavy rainfall, prolonged cold weather (daily high temperature less than 50°F), or wide fluctuations in day/night temperatures prior to or soon after this product's 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 section of this label) and apply after the crop is in the tillering stage of growth. This product should not be applied to wheat and barley that is stressed by severe weather conditions, drought (including low levels of subsoil moisture), 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.

Do not apply to wheat or barley crops underseeded with another crop.

Dry, dusty field conditions may result in reduced control in wheel track areas.

Also observe the following:

Do not graze treated fields or feed treated forage or hay. Harvested straw may be used for bedding and/or feed.

Do not harvest wheat or barley sooner than 45 days after the last application of this product.

Limitations, Restrictions, and Exceptions

APPLICATION TIMING

WHEAT (INCLUDING DURUM) AND BARLEY

Make applications after the crop is in the 2-leaf stage, but before the flag leaf is visible.

Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

Rates

[field_rates 0](#)

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Restricted Entry Interval

12 hours

Timings

[Postemergence \(Weed\)](#)

[After the crop is in the 2-leaf stage, but before the flag leaf is visible.](#)