

# **WHEAT (INCLUDING DURUM), BARLEY, AND TRITICALE - WEEDS CONTROLLED WHEN TANK MIXED WITH 2,4-D-CONTAINING PRODUCTS**

## General Information

### USE INFORMATION

This product can be used in a tank mix with other suitable registered herbicides to provide selective postemergence control of certain broadleaf weeds in wheat (including durum), barley, triticale, post harvest burndown, pre-plant burndown and fallow. This product is a water dispersible granule to be mixed in water or other recommended carrier and applied as a uniform broadcast spray. It is noncorrosive, nonflammable, nonvolatile and does not freeze.

### BIOLOGICAL ACTIVITY AND ENVIRONMENTAL CONDITIONS

Best results are 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 of control and duration of effect are dependent on rate used, sensitivity and size of target weed and environmental conditions at the time of and following application. This product stops growth of susceptible weeds rapidly. However, typical symptoms of dying weeds (discoloration) may not be noticeable for 1 to 3 weeks after application (2 to 5 weeks for wild garlic, when present) 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 or drought stress will be less susceptible.

A vigorous growing crop will aid weed control by shading and providing competition for weeds. However, a dense crop canopy at time of application can intercept spray and result in reduced weed control. Weeds may not be adequately controlled in areas of thin crop stand or seeding skips.

Applications made to weeds that are in the cotyledon stage, larger than the size indicated, or to weeds under stress may result in unsatisfactory control. This product may injure crops that are stressed from adverse environmental conditions (such as extreme temperatures or moisture), abnormal soil conditions, or cultural

practices. In addition, different varieties of the crop may have differing levels of sensitivity to treatment with this product under otherwise normal conditions.

Treatment of sensitive crop varieties may injure crops. 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.

Weed control may be reduced if rainfall or snowfall occurs soon after application. Several hours of dry weather are needed to allow this product to be sufficiently absorbed by weed foliage.

This product must be used only in accordance with instructions on this label or in separately published Nufarm instructions.

Nufarm will not be responsible for losses or damages resulting from the use of this product in any manner not in accordance with instructions on this label. This product is registered for use on wheat, barley, triticale, post harvest burndown, pre-plant burndown and fallow in most states. Check with your state extension service or Department of Agriculture before use, to be certain this product is registered in your state.

#### SPRAY ADJUVANTS

Include a spray adjuvant with applications of this product. An ammonium nitrogen fertilizer may also be used. Do not use low rates of liquid nitrogen fertilizer solution as a substitute for a surfactant. Always use a surfactant, unless otherwise recommended. Antifoaming agents may be used if needed. Consult your Ag dealer or applicator, local Nufarm fact sheets and technical bulletins prior to using an adjuvant system. Select adjuvants that are authorized for use with all products in this product tank mix. Products must contain only EPA-exempt ingredients (40 CFR 1001).

#### NONIONIC SURFACTANT (NIS)

- Apply 0.25 to 0.50% v/v (2 to 4 pints per 100 gal of spray solution).

- Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12. (See the TANK MIXTURES section of this label for additional information.)

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

- Apply at least 1% v/v (1 gal per 100 gal spray solution), or 2% under arid conditions. MSO adjuvants may be used at 0.5% v/v if specified on local Nufarm product literature or service policies.
- 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 Nufarm product management. Consult separate Nufarm technical bulletins for detailed information before using adjuvant types not specified on this label.

#### AMMONIUM NITROGEN FERTILIZER

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

#### GROUND APPLICATION

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

- For best performance, select nozzles and pressure that deliver MEDIUM spray droplets.
- Nozzles that deliver COARSE spray droplets may be used to reduce drift, provided spray volume is increased to maintain coverage on small weeds. For optimal

product performance and minimal spray drift, adjust the spray boom to the lowest possible spray height recommended in manufacturer's specifications.

- Overlaps or starting, stopping, slowing, and turning while spraying may result in crop injury.
- 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 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.

When applying this product by air in areas adjacent to sensitive crops, use solid-stream nozzles oriented straight back. Adjust the swath to avoid spray drift damage to sensitive crops downwind and/or use ground equipment to treat the border edge of fields. See the SPRAY DRIFT MANAGEMENT section of this label.

#### PRODUCT MEASUREMENT

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

#### CROP ROTATION

Wheat, barley, and triticale may be replanted anytime after the application of this

product. Sugarbeets, winter rape, and canola can be planted 60 days after the application of this product. Any other crop may be planted 45 days after the application of this product.

#### GRAZING

Do not graze, or feed forage or hay from treated areas to livestock. Harvested straw collected after grain harvest may be used for bedding and/or feed.

#### 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, BARLEY OR TRITICALE

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 gallon 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.

## 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.

Limitations, Restrictions, and Exceptions

#### APPLICATION TIMING

##### WHEAT (INCLUDING DURUM), BARLEY, AND TRITICALE

Make applications after the crop is in the 2-leaf stage, but before the flag leaf is visible. Do not harvest within 45 days of the last application.

#### USE RATES

Unless otherwise instructed by Nufarm, do not use less than 0.6 ounce of this product per acre.

##### WHEAT, BARLEY AND TRITICALE

Apply 0.6 to 1 ounce of this product per acre in a tank mix with other suitable registered herbicides. Refer to the "APPLICATION TIMING", "TANK MIXTURES", "GENERAL INFORMATION", and weeds controlled sections of the label for additional information.

Sequential treatments of this product may be made provided the total amount of this product applied to the crop does not exceed 1.8 ounces per acre.

Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

Pre-Harvest Interval

45 days

Restricted Entry Interval

12 hours

Timings

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