

## **SMALL GRAINS: BARLEY - PREHARVEST**

### General Information

#### PRODUCT INFORMATION

DICAMBA HD is a water-soluble formulation intended for control and suppression of many annual, biennial, and perennial broadleaf weeds, as well as woody brush and vines listed in Table 1. General Weed List, Including ALS- and Triazine-Resistant Biotypes.

DICAMBA HD may be used for control of these weeds in asparagus, corn, cotton, conservation reserve programs, fallow cropland, forestry sites, grass grown for seed, hay, proso millet, pasture, rangeland, rights-of-way, general farmstead (non-cropland), small grains, sorghum, soy bean, sugarcane, and turf.

#### Mode of Action

DICAMBA HD is readily absorbed by plants through shoot and root uptake, translocates throughout the plant's system, and accumulates in areas of active growth. DICAMBA HD interferes with the plant's growth hormones (auxins) resulting in death of many broadleaf weeds.

#### Resistance Management

DICAMBA HD has a low probability of selecting for resistant weed biotypes.

#### Cleaning Spray Equipment

Clean application equipment thoroughly by using a strong detergent or commercial sprayer cleaner, according to the manufacturer's directions, and then triple rinsing the equipment before and after applying this product.

#### APPLICATION INSTRUCTIONS

DICAMBA HD can be applied to actively growing weeds as aerial, broadcast, band, or spot spray applications using water or sprayable fertilizer as a carrier. For general DICAMBA HD application rates for control or suppression by weed type and growth stage see Table 2. General DICAMBA HD Application Rates for Control or Suppression by Weed Type and Growth Stage. For crop-specific application timing and other details, refer to section VI. Crop-Specific Information.

To avoid uneven spray coverage, DICAMBA HD should not be applied during periods

of gusty wind or when wind is in excess of 15 mph.

Avoid off-target movement. Use extreme care when applying DICAMBA HD to prevent injury to desirable plants and shrubs.

#### Cultivation

DO NOT cultivate within 7 days after applying DICAMBA HD.

#### Sensitive Crop Precautions

DICAMBA HD may cause injury to desirable trees and plants, particularly beans, cotton, flowers, fruit trees, grapes, ornamentals, peas, potatoes, soybeans, sunflowers, tobacco, tomatoes, and other broadleaf plants when contacting their roots, stems, or foliage. These plants are most sensitive to DICAMBA HD during their development or growing stage.

#### Recommendations to avoid herbicide drift

- Use coarse sprays (volume median diameter of 400 microns or more) to avoid potential herbicide drift. Select nozzles that are designed to produce minimal amounts of fine spray particles (less than 200 microns). Examples of nozzles designed to produce coarse sprays via ground applications are Delavan Raindrops, Spraying Systems XR (excluding 110° tips) flat fans, Turbo Teejets, Turbo Floodjets, or large capacity flood nozzles such as D10, TK10, or greater capacity tips.
- Keep the spray pressure at or below 20 psi and the spray volume at or above 20 gallons per acre (for ground broadcast applications), unless otherwise required by the manufacturer of drift-reducing nozzles. Consult your spray nozzle supplier concerning the choice of drift-reducing nozzles.
- Agriculturally-approved drift-reducing additives may be used.

#### Aerial Application Methods and Equipment

Water Volume: Use 1-10 gallons of water per acre (2- 20 gallons of diluted spray per treated acre for preharvest uses). Use the higher spray volume when treating dense or tall vegetation.

Application Equipment: Select nozzles designed to produce minimal amounts of fine spray particles. Make aerial applications at the lowest safe height to reduce exposing the spray to evaporation and wind.

The applicator must follow the most restrictive use cautions to avoid drift hazards, including those found in this labeling, as well as state and local regulations and ordinances.

DO NOT use aerial equipment if spray particles can be carried by the wind into areas where sensitive crops or plants are growing or when temperature inversions exist.

#### Ground Application (Banding)

When applying DICAMBA HD by banding, determine the amount of herbicide and water volume needed using the formula given in the label.

#### Ground Application (Broadcast)

Water Volume: Use 3 - 50 gallons of spray solution per broadcast acre for optimal performance. Use the higher spray volume when treating dense or tall vegetation.

Application Equipment: Select nozzles designed to produce minimal amounts of fine spray particles. Spray with nozzles as close to the weeds as is practical for good weed coverage.

#### Ground Application (Wipers)

DICAMBA HD may be applied through wiper application equipment to control or suppress actively growing broadleaf weeds, brush, and vines. Use a solution containing 1 part DICAMBA HD to 1 part water. DO NOT contact desirable vegetation with herbicide solution. Wiper application may be made to crops (including pastures) and non-crop land areas described in this label with the exception of cotton, sorghum, and soybean.

#### ADDITIVES

To improve postemergence weed control, agriculturally approved surfactants, sprayable fertilizers (urea ammonium nitrate, or ammonium sulfate), or crop oil concentrate may be added, particularly in dry growing conditions. (Refer to Table 3. Additive Rate Per Acre.)

## Nitrogen Source

- Urea ammonium nitrate (UAN): Use 2 – 4 quarts of UAN (commonly referred to as 28%, 30%, or 32% nitrogen solution) per acre. DO NOT use brass or aluminum nozzles when spraying UAN.
- Ammonium sulfate (AMS): AMS at 2.5 pounds per acre may be substituted for UAN. Use high-quality AMS (spray grade) to avoid plugging of nozzles. Other sources of nitrogen are not as effective as those mentioned. Albaugh does not recommend applying AMS, if applied in less than 10 gallons per acre because of potential problems with precipitation in reduced volumes. Use AMS only if it has been demonstrated to be successful in local experience.

## Nonionic Surfactant

The standard label recommendation is 1 pint of an 80% active nonionic spray surfactant per 100 gallons of water. For certain weeds, a higher spray surfactant rate is recommended.

## Oil Concentrate

A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all of the following criteria:

- be nonphytotoxic,
- contain only EPA-exempt ingredients,
- provide good mixing quality in the jar test, and
- be successful in local experience.

The exact composition of suitable products will vary; however, vegetable and petroleum oil concentrates should contain emulsifiers to provide good mixing quality. Highly-refined vegetable oils have proven more satisfactory than unrefined vegetable oils. For additional information, see Compatibility Test for Mix Components.

Adjuvants containing crop oil concentrates may be used in preplant, preemergence, and preharvest application, as well as in pastures and non-cropland. DO NOT use crop oil concentrate for postemergence in-crop applications unless specifically allowed in section VI. Crop- Specific Information of this label.

## RESTRICTIONS AND LIMITATIONS

- Maximum seasonal use rate: Refer to Table 4. Crop-Specific Restrictions and Limitations for crop-specific maximum seasonal use rates. DO NOT exceed 64 fluid ounces of DICAMBA HD (2 pounds acid equivalent) per acre, per year.
- Preharvest Interval (PHI): Refer to section VI. Crop-Specific Information for preharvest intervals.
- Restricted-Entry Interval (REI): 24 hours

### Crop Rotational Restrictions:

The interval between application and planting rotational crop is given below. Always exclude counting days when the ground is frozen. Planting at intervals less than specified below may result in crop injury. Moisture is essential for the degradation of this herbicide in soil. If dry weather prevails, use cultivation to allow herbicide contact with moist soil.

Planting/replanting restrictions for DICAMBA HD applications of 24 fluid ounces per acre or less: No rotational cropping restrictions apply at 120 days or more following application. Additionally, for annual crop uses in this label including corn, cotton, sorghum, and soybean, follow the preplant use directions in section VI. Crop-Specific Information. For barley, oat, wheat, and other grass seedings, the interval between application and planting is 15 days per 8 fluid ounces per acre applied east of the Mississippi River and 22 days per 8 fluid ounces per acre west of the Mississippi River.

Planting/replanting restrictions for applications of more than 24 fluid ounces and up to 64 fluid ounces of DICAMBA HD per acre: Corn, sorghum, cotton (east of the Rocky Mountains) and all other crops grown in areas with 30" or more of annual rainfall may be planted 120 days or more after application. Barley, oat, wheat, and other grass seedings, may be planted if the interval from application to planting is 30 days per 16 fluid ounces per acre east of the Mississippi River and 45 days per 16 fluid ounces per acre west of the Mississippi River. For all other crops in areas

with less than 30" of annual rainfall, the interval between application and planting is 180 days or more.

- Rainfast period: Rainfall or irrigation occurring within 4 hours after postemergence applications may reduce the effectiveness of DICAMBA HD.

- Stress: DO NOT apply to crops under stress due to lack of moisture, hail damage, flooding, herbicide injury, mechanical injury, insects, or widely fluctuating temperatures as injury may result.

- DO NOT apply through any type of irrigation equipment. DO NOT treat irrigation ditches or water used for crop irrigation or domestic purposes.

#### Limitations, Restrictions, and Exceptions

##### SMALL GRAINS NOT UNDERSEEDDED TO LEGUMES

(Fall- and spring-seeded barley, oat, triticale and wheat)

DICAMBA HD combinations with listed tank mix partners will provide control or suppression of the annual broadleaf weeds listed in Table 1.

For improved control of listed weeds, tank mix DICAMBA HD with one or more of the herbicides listed. DICAMBA HD used in a tank mix with other herbicides offers the best spectrum of weed control and herbicide-tolerant or -resistant weed management. Refer to the specific crop section for DICAMBA HD application rate and timing.

For applications prior to weed emergence or when sulfonylurea-resistant weeds are present or suspected, tank mix a minimum of 3 fluid ounces of DICAMBA HD per treated acre with a non-sulfonylurea herbicide such as 2,4-D or MCPA. Tank mixing DICAMBA HD with these products will offer more consistent control of sulfonylurea-resistant weeds.

Additives: When tank mixing DICAMBA HD with sulfonyleurea herbicides (Ally, Amber, Canvas, Express, Finesse, Glean, Harmony Extra, and Peak), use 1- 4 pints of an agriculturally-approved surfactant (containing at least 80% active ingredient) per 100 gallons of spray or not more than 0.25 - 0.5% by volume. Use the highest rate of surfactant when using the lower rate ranges of the tank mix or when treating more mature and difficult-to-control weeds or dense vegetative growth.

Refer to the specific crop sections below for use rates. When treating difficult-to-control weeds such as kochia, wild buckwheat, cow cockle, prostrate knotweed, Russian thistle, and prickly lettuce or when dense vegetative growth occurs, use the 3 - 4 fluid ounces of DICAMBA HD per acre.

Timings: Apply DICAMBA HD before, during, or after planting small grains. See specific small grain crop uses below for maximum crop stage.

For best performance, apply DICAMBA HD when weeds are in the 2- to 3-leaf stage and rosettes are less than 2" across. Applying DICAMBA HD to small grains during periods of rapid growth may result in crop leaning. This condition is temporary and will not reduce crop yields.

Applications to small grains may be made with aerial applications with 1 gallon of water or more per acre. Where dense foliage is present, 2 - 3 gallons of water per acre should be used.

Restrictions for small grain areas that are grazed or cut for hay are indicated in Table 6 in Pasture, Hay, Rangeland, and General Farmstead section of the label.

#### SMALL GRAINS: BARLEY

(Fall- and spring-seeded)

#### PREHARVEST APPLICATIONS:

DICAMBA HD can be used to control weeds that may interfere with harvest of fall- and spring-seeded barley. Apply 8 fluid ounces of DICAMBA HD per acre as a broadcast or spot treatment to annual broadleaf weeds when barley is in the hard dough stage and the green color is gone from the nodes (joints) of the stem. Best results will be obtained if application can be made when weeds are actively growing, but before weeds canopy.

A waiting interval of 7 days is required before harvest.

DO NOT use preharvest-treated barley for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

For control of additional broadleaf weeds or grasses, DICAMBA HD may be tank mixed with other herbicides, such as 2,4-D, that are labeled for preharvest uses in barley.

DO NOT make preharvest applications in California.

## RESTRICTIONS

Fall seeded

8 fl oz / acre per application

12 fl oz / acre per season

Spring seeded

8 fl oz / acre per application

11 fl oz / acre per season

Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Spot treatment](#)

Rates

[field\\_rates 0](#)

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Restricted Entry Interval



24 hours

Timings

[Preharvest](#)