

# **SPRING, DURUM AND WINTER WHEAT - BROADLEAF WEEDS CONTROL (UP TO 4 INCHES IN HEIGHT; 2 INCH ROSETTE)**

## General Information

### PRODUCT INFORMATION

BATALIUM Herbicide is for use in spring, durum and winter wheat. BATALIUM Herbicide controls wild oat, green foxtail, and other grass species as well as numerous broadleaf weeds, including kochia, common lambsquarters, wild buckwheat, wild mustard and shepherd's purse. BATALIUM Herbicide also suppresses additional grass and broadleaf weeds, including downy brome, and wild buckwheat.

BATALIUM Herbicide is absorbed by foliage and roots of susceptible weeds, which cease growth soon after application. Maximum weed control is achieved one to two weeks after application, though susceptible weeds will stop growing and will no longer be competitive soon after application. For broader spectrum activity, BATALIUM Herbicide may be tank-mixed with other broadleaf and grass herbicides listed on this label. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank-mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture. See TANK-MIXES section for recommended products.

### WEED RESISTANCE MANAGEMENT

BATALIUM Herbicide, contains the active ingredients flucarbazone-sodium, fluroxypyr, and bromoxynil, which are categorized as Group 2, 4 and 6 herbicides based on the site of action classification system of the Weed Science Society of America. Flucarbazone-sodium is an amino acid synthesis inhibitor (ALS) mode of action (Group 2) herbicide. Fluroxypyr is a growth regulator (Group 4) herbicide. Bromoxynil is a photosynthesis inhibitor mode of action (Group 6) herbicide.

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A

diversified weed management program may include the use of multiple herbicides with different sites of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product, users should:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Apply the full label rate of BATALIUM Herbicide at the specified time (correct weed size) to minimize weed escapes.
- Scout fields after application to detect weed escapes or shifts in control of weed species.
- Control weed escapes before they reproduce by seed or proliferate through vegetative propagation.
- Contact your Arysta LifeScience North America, LLC ("Arysta") representative, crop advisor, or extension agent to find out if suspected resistant weeds to these MOAs have been found in your region. Do not assume that each listed weed is being controlled by multiple MOAs. Co-formulated active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredients in this product. If resistant biotypes of target weeds have been reported, use the full application rate of this product specified for your local conditions. Tank-mix products so that there are multiple effective sites of actions for each target weed.
- Report any incidence of non-performance of this product against a particular weed to your Arysta representative, local retailer, or county extension agent.
- If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Group 2, 4, or 6 and/or use nonchemical methods to remove escapes, as practical, with the goal of preventing further seed production.
- Suspected herbicide-resistant weeds may be identified by these indicators:
  - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
  - A spreading patch of non-controlled plants of a particular weed species; and

- Surviving plants mixed with controlled individuals of the same species
- Additionally, users should follow as many of the following herbicide resistance management practices as is practical:
  - Use a broad-spectrum soil-applied herbicide with other sites of action as a foundation in a weed control program.
  - Utilize sequential applications of herbicides with alternative sites of action.
  - Rotate the use of this product with non-Group 2, 4, or 6 herbicides.
  - Avoid making more than two applications of this or any other herbicide with the same mode of action within a single growing season unless mixed with an herbicide with a different site of action with an overlapping spectrum for the difficult to control weeds.
  - Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
  - Use good agronomic principles that enhance crop development and crop competitiveness.
  - Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
  - Manage weeds in and around fields, during and after harvest to reduce weed seed production.

Read the entire DIRECTIONS FOR USE before using BATALIUM Herbicide.

This product is not to be used on flood irrigated fields or irrigated fields with a soil pH greater than 8.0.

#### USE RESTRICTIONS

- For use only in wheat.
- Make only one application per year.
- Do not graze livestock or harvest forage for hay from treated areas for a minimum of 30 days following application.
- Do not mix, load or clean spray equipment within 33 feet of well-heads or aquatic systems, including marshes, ponds, ditches, streams, lakes, etc.
- Do not apply within 50 feet of well-heads or aquatic systems, including marshes, ponds, ditches, streams, lakes, etc.
- Do not apply post emergence when rain is expected within the next hour after application.
- Do not allow this chemical to drift onto other crops.
- Do not harvest grain for 60 days following application.

- Do not apply this product through any type of irrigation system.
- Do not use if cereal crop is under seeded with a legume.
- For Idaho, use only in the counties of Benewah, Boundary, Bonner, Clearwater, Idaho, Kootenai, Latah, Lewis, Nez Perce, and Shoshone. Use in all other counties of Idaho is prohibited.

#### USE PRECAUTIONS

With BATALIUM Herbicide occasional transitory leaf burn may occur. Recovery of the crop is generally rapid with no lasting effect. Frequency and amount of leaf burn may be greater when crops are stressed by abrasive winds, cool to cold evening temperatures or mechanical injury, such as that caused by hail, sleet or insect feeding. To reduce the potential for temporary leaf burn, applications should be made to dry foliage in the specified spray volumes per acre when weather conditions are not extreme.

#### POSTEMERGENCE USE DIRECTIONS FOR SPRING, DURUM AND WINTER WHEAT

#### APPLICATION PROCEDURES

##### GROUND APPLICATION

Apply in a spray volume of 8 to 15 gal/A (or 80 to 150 L/ha) at the recommended pressure for the nozzles used to ensure proper weed coverage. Use nozzles that provide a medium to coarse size droplet for best coverage and drift control.

##### AERIAL APPLICATION

Apply in water using a minimum spray volume of 3 gal/A (or 30 L/ha). For best results, use a minimum of 5 gal/A (or 50 L/ha) under dry conditions or heavy weed infestations. Use nozzles that provide 200 to 350 micron size droplets for best results and to ensure uniform spray coverage. Aerial applications with BATALIUM Herbicide must be made with low drift nozzles at a maximum height of 10 feet above the crop and at a maximum pressure of 40 psi. Do not apply aerially when wind speed is greater than 10 mph. Do not allow spray to drift onto adjacent crops, as injury or loss may occur.

#### ENDANGERED SPECIES PROTECTION

To avoid adverse effects on endangered dicot plant species, the following measures will be required where endangered plant species occur in the counties listed in the following:

## State County

Idaho: Idaho, Lewis, Nez Perce

Minnesota: Brown, Cottonwood, Goodhue, Jackson, Renville

Montana: Flathead, Lake

Oregon: Benton, Clackamas, Lane, Linn, Marion, Polk, Union, Wallowa, Washington, Yamhill

Washington: Asotin, Chelan, Cowlitz, Lewis, Lincoln, Spokane, Whitman

Wyoming: Laramie

For ground applications, the applicator must:

- Apply when there is sustained wind away from native plant communities,
- OR
- Use low-pressure nozzles according to manufacturer's specifications that produce only coarse or very coarse droplets, OR
  - Leave a 50-foot untreated buffer between the treatment and native plant communities.

For aerial applications, the applicator must:

- Apply only when there is sustained wind away from native plant communities,
- OR
- Leave a 350-foot untreated buffer between the treatment and native plant communities.

## Limitations, Restrictions, and Exceptions

### USE RATES AND TIMING OF APPLICATION

Best weed control is observed when environmental conditions and soil fertility support vigorous growth of crop and weeds. Research has demonstrated that optimum wheat yield is obtained by early removal of grassy weeds.

Apply BATALIUM Herbicide at a rate of 13.7 fl oz/A to spring, durum and winter wheat from two leaf up to 60 days prior to harvest. Winter wheat applications can be made in the fall or spring.

### RESTRICTIONS

- Do not make more than one post emergence application of BATALIUM Herbicide per year.
- Do not apply more than 13.7 fl oz/A of BATALIUM Herbicide (equivalent to 0.027 lb active ingredient (ai)/A flucarbazone-sodium) per year.

- Do not cumulatively apply more than 0.50 lb ai/A bromoxynil per year. Do not cumulatively apply more than 0.25 lb ai/A fluroxypyr per year.

Wheat exposed to excessive salt levels (saline) or water logged saturated soils or temperature extremes such as hot or freezing weather (frost 3 days before or 3 days after application), drought, low fertility or plant disease immediately prior to or after application could result in unacceptable injury symptoms. Weed control may also be reduced by these same conditions.

- For the states of Idaho, Oregon, Washington, Colorado, Wyoming, and Montana, add bromoxynil to provide 0.125 to 0.25 lb ai/A. Target weed size up to 2 inches in height; 1 inch rosette.

Kochia: Includes ALS herbicide resistant. Best control is achieved when weeds are at least 1 inch tall.

- For best control of sunflower, delay application until emerging seedlings are 4 inches in height.

#### Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

Restricted Entry Interval

24 hours

#### Timings

[Postemergence \(Weed\)](#)

[Postemergence \(Weed\)](#)

[Postemergence \(Weed\)](#)