BLUEBERRY, LOWBUSH - PERENNIAL WEED CONTROL - REGION A (SUPPLEMENTAL LABELING)

General Information

PRODUCT INFORMATION
Read all label directions before using. Fusilade DX Herbicide is a selective postemergence herbicide for control of annual and perennial grass weeds in numerous crops and on fallow land, and on listed noncrop areas and nonbearing crops. Fusilade DX Herbicide will provide effective control of grass weeds in conventional tillage, minimum tillage, and no-till plantings. Fusilade DX Herbicide does not control broadleaf weeds or sedges (nutgrass).

Fusilade DX Herbicide is a systemic herbicide which moves from the treated foliage into the shoots, roots, rhizomes, stolons, and growing points (meristematic regions) of treated grass weeds.

Thorough coverage of all weed plant foliage is important for good activity. Optimum weed control is achieved when young actively growing weeds are treated that are not under stress from moisture, temperature, low soil fertility, mechanical, or chemical injury.

Control Symptoms
Growth of treated grass weeds stops soon after application. Symptoms include loss of vigor, yellowing and/or reddening, and eventual death of treated grasses. Symptoms are generally observed within one week after treatment, depending on grass weed species and environmental conditions.

Rainfastness
Fusilade DX Herbicide is rainfast 1 hour after application.

WEED RESISTANCE MANAGEMENT

To reduce the potential for herbicide resistance issues, the end use product, Fusilade DX Herbicide, label contains the following label language that provides the user with information on resistant weed management.

Fusilade DX Herbicide is a Group 1 herbicide (ACCase-inhibitor mode of action).
Some naturally occurring grass weed populations have been identified as resistant to herbicides with the ACCase-inhibitor mode of action. Selection of resistant biotypes, through repeated use of these herbicides in the same field, may result in control failures. A resistant biotype may be present if poor performance cannot be attributed to adverse weather conditions or improper application methods.

Contact your local Syngenta representative, retailer, crop advisor or extension agent to determine if weeds resistant to this mode of action are present in your area. If resistant biotypes have been reported, use the full labeled rate of this product, apply at the labeled timing, and tank-mix with a different mode of action product so there are multiple effective modes of application for each suspected resistant weed.

Principles of Herbicide Resistance Management

Scout and know your field

- Know weed species present in the field to be treated through scouting and field history. An understanding of weed biology is useful in designing a resistance management strategy. Ensure the weed management program will control all weeds present.
- Fields should be scouted prior to application to determine species present and growth stage. Always apply this herbicide at the full labeled rate and correct timing for the weeds present in the field.

Utilize non-herbicidal practices to add diversity

- Use diversified management tactics such as cover crops, mechanical weed control, harvest weed seed control, and crop rotation as appropriate.

Use good agronomic practices, start clean and stay clean

- Use good agronomic practices that enhance crop competitiveness.
- Plant into weed-free fields utilizing tillage or an effective burndown herbicide for control of emerged weeds.
- Sanitize farm equipment to avoid spreading seed or vegetative propagules prior to leaving fields.

Difficult to control weeds

- Fields with difficult to control weeds should be planted in rotation with crops that allow the use of herbicides with an alternative mode of action or different management practices.
- Difficult to control weeds may require sequential applications, such as a broad spectrum preemergence herbicide followed by one or more postemergence
herbicide applications. Utilize herbicides containing different modes of action effective on the target weeds in sequential applications. Do not overuse the technology
- Do not use more than two applications of this or any other herbicide with the same mode of action in a single growing season unless mixed with an herbicide with a different mode of action which provides overlapping spectrum for the difficult to control weeds.
Scout and inspect fields following application
- Prevent an influx of weeds into the field by controlling weeds in field borders.
- Scout fields after application to verify that the treatment was effective.
- 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.
- Report non-performance of this product to your Syngenta retailer, Syngenta representative, or call 1-866-Syngent(a) (866-796-4368). If resistance is suspected ensure weed escapes are controlled using an herbicide with an effective mode of action and/or use non-chemical means to prevent further seed production.
Prevent weed escapes before, during, and after harvest
- Do not allow weed escapes to produce seed or vegetative structures such as tubers or stolons which contribute to spread and survival. Consider harvest weed seed management and control weeds post-harvest to prevent seed production.

APPLICATION DIRECTIONS

Tank Mix Requirement: Fusilade DX Herbicide may be tank mixed with other pesticides. Refer to the specific crop sections on this label for tank mixing directions. 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.
TIMING – Best control of susceptible grasses is obtained when Fusilade DX Herbicide is applied to actively growing grasses before they exceed the listed growth stages shown on this label. Refer to the grass weed tables for specific directions on weed growth stages.

SPRAY ADDITIVES – Only spray additives cleared for use on growing crops under 40 CFR 180.1001 may be used in spray mixture.

Always add one of the following:
- Crop Oil Concentrate – Add a non-phytotoxic crop oil concentrate or a once-refined vegetable oil concentrate containing 15-20% approved emulsifier, at 0.5-1% v/v (0.5-1 gal/100 gal) in the finished spray volume for ground applications. For aerial applications, add 1 pt of crop oil concentrate per acre.
- Nonionic Surfactant – Add nonionic surfactant containing at least 75% surface-active agent, at 0.25-0.5% v/v (1-2 qt/100 gal) in the finished spray volume for ground application. For aerial application, add 1 pt of surfactant per acre.
- Other Adjuvants – Adjuvants other than COC or NIS may be used providing the product meets the following criteria:
  1. Contains only EPA exempt ingredients.
  2. Is nonphytotoxic to the target crop.
  3. Is compatible in mixture. (May be established through a jar test).
  4. Is supported locally for use with Fusilade DX Herbicide on the target crop through proven field trials and through university and extension guidance.

Always refer to the product label and follow directions concerning rates, target crops, environmental effect such as drought or weed stress, and use in tank mix with other labeled pesticides.

In addition to crop oil concentrate or nonionic surfactant, liquid nitrogen fertilizer (28% or similar) can be added to the spray mixture in soybeans only. This 28% liquid nitrogen fertilizer is water soluble and can be used at a rate of one gallon per acre. Liquid nitrogen fertilizers cannot be used as a substitute for crop oil concentrate or nonionic surfactant in the spray mixture.
Diammonium phosphate (aqueous ammonium polyphosphate) commonly sold as a solution (10-34-0) can be added to the spray mixture. This water soluble material can be used at a rate of 2 pt/A. Diammonium phosphate cannot be used as a substitute for crop oil concentrate or nonionic surfactant in the spray mixture.

GROUND APPLICATION - Use sufficient spray volume to ensure complete coverage of target grasses. Apply in 5-40 gal/A of spray mixture. When grass foliage is dense, use a minimum of 20 gal/A to ensure coverage of weed foliage. For postemergence applications, spray nozzles that are set up to deliver medium droplets, as defined by the American Society of Agricultural and Biological Engineers (ASABE) S-572.1, will provide the most effective application.

BAND APPLICATIONS - Thorough weed coverage is important for control. Best coverage is obtained with a minimum of two nozzles, one directed to each side of the planted row. Avoid application with a single nozzle directed over the top of the row. Cultivation of untreated areas may be needed following band applications.

When making band applications and cultivating in the same operation, position nozzles in advance of the cultivation device. This will reduce dust in the spray area. Dust can intercept the spray, reducing weed coverage, resulting in less than adequate weed control.

Avoid band applications to perennial grasses as reinfestation of the treated band from the untreated middle may result.

AERIAL APPLICATION - Use sufficient spray volume to ensure complete coverage of target grasses. Apply a minimum of 5 gal/A. When grass foliage is dense, use a minimum of 10 gal/A to ensure coverage of weed foliage. Add 1 pt/A of crop oil concentrate or nonionic surfactant in the spray mixture.

MANDATORY SPRAY DRIFT MANAGEMENT SPRAY DRIFT

Aerial Applications
- Do not release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a Medium or coarser
- For aerial applications: Do not apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor blade diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed wing aircraft and 90% or less of the rotor blade diameter for helicopters. Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT
Ground Boom Applications
- User must apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy unless making a turf, pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 feet above the ground.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

CHEMIGATION
Sprinkler Irrigation Application: Apply Fusilade DX Herbicide at rates and timing described elsewhere in this label. Do not use adjuvants in the manner described elsewhere in this label for use in conventional applications. As local directions differ, consult your local State Extension Service or other local experts for directions on adjuvant or diluent types, rates and mixing instructions. These directions need to be proven, through university, extension or local expert field trials, to be effective with Fusilade DX Herbicide applied by chemigation.
Check the irrigation system to ensure uniform application of water to all areas. Thorough coverage of foliage is required for good control. Good agitation in the pesticide supply tank needs to be maintained prior to and during the entire application period.

Apply by injecting the directed rate of Fusilade DX Herbicide into the irrigation system using a metering device that will introduce a constant flow and by distributing the product to the target areas in 0.1-0.2 acre-inch of water. In general, use the least amount of water required for proper distribution and coverage. It is advised that the product be injected into the main irrigation line ahead of a right angle turn in the line to ensure adequate dispersion or mixing in the irrigation water. Once the application is completed, flush the entire irrigation and injection system with clean water before stopping the system.

In addition to the above directions, if application is being made during a normal irrigation set of a stationary sprinkler, the directed rate of Fusilade DX Herbicide for the area covered needs to be injected into the system only during the end of the irrigation set for sufficient time to provide adequate coverage and product distribution.

Fusilade DX Herbicide must not be applied through an irrigation system connected to a public water system. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
Use Precautions - Sprinkler Irrigation Application
- Apply this product only through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move. Do not apply this product through any other type of irrigation system.
- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.
- If you have any questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers or other experts.
- A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Use Restrictions – Sprinkler Irrigation Application
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public-water systems are in place.
- The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back-flow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and are capable of being fitted with a system interlock.
- Any alternatives to the above required safety devices must conform to the list of
EPA approved alternative devices.
- Do not apply when wind speed favors drift beyond the area intended for treatment or non-uniform distribution of treated water.

SPOT TREATMENTS - Mix Fusilade DX Herbicide and crop oil concentrate or nonionic surfactant with water according to the amounts shown below. Spray to obtain thorough coverage, but do not spray to runoff. Retreat if necessary. Refer to the CROP SPECIFIC RESTRICTIONS section for maximum yearly application rate.

CULTIVATION – Do not cultivate treated grasses within 7 days prior to or within 7 days after application of Fusilade DX Herbicide as weeds may be put under stress reducing weed control. Timely cultivation 2-3 weeks after applying Fusilade DX Herbicide may assist weed control.

USE RESTRICTIONS
- Do not apply to grasses which are stressed due to moisture, temperature, low soil fertility, mechanical or chemical injury.
- Do not apply to grasses which have tillered, formed seed heads, or exceeded listed growth stages.
- Do not apply Fusilade DX Herbicide if rainfall is expected within 1 hour.
- Do not plant rotational grass crops such as corn, sorghum, and cereals within 60 days of last application of Fusilade DX Herbicide or crop injury may occur.
- Do not plant rotational crops not listed on the label within 30 days after the last application of Fusilade DX Herbicide or illegal residues may occur.
- Avoid drift to all other crops and non-target areas. Grass crops are highly susceptible to Fusilade DX Herbicide.

USE PRECAUTIONS
- Apply to actively growing grasses.
- Apply at the directed rate to grasses at the listed growth stages as outlined.
- Apply when the first grass weed species in a mixed grass weed population reaches the specified growth stage for treatment. Use the highest directed rate for grasses in that population.
- Where irrigation is used as part of normal cropping practice, best results are usually obtained when Fusilade DX Herbicide is applied within 7 days after irrigation.
- Best perennial grass control can be obtained if rhizomes or stolons are cut up by preplant tillage practices (discing, plowing, etc.) to stimulate maximum emergence of grass shoots.
- Tank mixes of Fusilade DX Herbicide with pesticides, liquid fertilizers or additives
not specified on this label or other supplemental labeling may result in unsatisfactory crop injury and/or grass control.

- Sequential applications with herbicides, except as specified on this label or on supplemental labeling, within five days before or after Fusilade DX Herbicide application may result in unsatisfactory crop injury and/or grass control.
- Thoroughly clean spray tank with water and a commercial tank cleaner before and after each use.

Limitations, Restrictions, and Exceptions

BLUEBERRY, LOWBUSH (As well as lingonberry; currant, native)
- Apply during the non-bearing year or during the year of establishment with the last application no later than 10 months before harvest.
- Do not apply a total of more than 48 fl oz of Fusilade DX Herbicide per acre per year.
- Do not apply more than 24 fl oz of Fusilade DX Herbicide per acre per application.
- Do not apply more than 2 applications per year.
- Maintain a minimum of 14 days between applications.

SPECIAL INSTRUCTIONS
Apply Fusilade DX Herbicide as a directed postemergence application in the interspaces and around the base of plants while avoiding contact of spray with plants. Apply with sufficient spray volume and pressure to ensure complete coverage of target grasses. Applications can be made as a broadcast, strip band, or spot spray application at rates and growth stages listed in Tables 2-5. Refer to the Spray Additives section for spray additives.

Method
Broadcast/Foliar Air
Broadcast/Foliar Ground
Pre-Harvest Interval

10 months

Restricted Entry Interval

12 hours

Timings
Postemergence (Weed)