

CORN - PREPLANT/PREEMERGENCE APPLICATION (EARLY SEASON ANNUAL BROADLEAF AND GRASS WEEDS CONTROLLED-PREEMERGENCE)

General Information

PRODUCT INFORMATION

DiFlexx DUO is a selective preemergence and postemergence herbicide for the control of annual broadleaf weeds; control and/or suppression of many biennial/perennial broadleaf weeds and control of annual grasses found in corn (field corn, seed corn, popcorn and corn grown for silage) and for postharvest burndown weed control. Weed growth ceases within hours after DiFlexx DUO is applied. Symptoms on susceptible weed species include epinastic-like symptoms on stems and leaves with tissues turning yellow and bleached in color and soon becoming necrotic. Plant death generally occurs within 7 to 14 days after application.

WEED CONTROL INFORMATION

DiFlexx DUO applied postemergence at recommended rates of 24-40 fluid ounces per acre will effectively control a broad array of important annual broadleaf weeds and grasses, including biotypes resistant to glyphosate-, triazine-, auxin-, HPPD-, benzoic-, and ALS-inhibiting herbicides (Tables 1-2). Best control of annual broadleaf weeds is achieved when weeds are less than 6" in height and actively growing while the best control of annual grasses is achieved prior to tillering and when grasses are actively growing. In corn, the addition of atrazine at a minimum 0.5 lb ai/A will improve control of annual broadleaf weeds and increase the speed, spectrum, and consistency of grass control. DiFlexx DUO applied postemergence at 24-40 fluid ounces per acre will also control or suppress many biennial/perennial broadleaf weeds (Tables 3-4). As a preemergence application, DiFlexx DUO will provide suppression/control of certain annual broadleaf and grass weeds (Table 5) but will generally not provide season-long residual weed control. Preemergence applications of DiFlexx DUO should always be either tank mixed with additional registered residual preemergence herbicides (see Preemergence tank mix section) or be followed by a planned postemergence herbicide application program for improved weed control. Always follow the most restrictive use rates and use

instructions listed on the labeling of all tank mix partners.

Cultivation

Cultivation can help remove suppressed weeds or multiple flushing weeds. However, cultivation should not be performed within 7 days of an application of DiFlexx DUO as this could decrease effectiveness of weed control due to disruption of herbicide translocation in the plant.

RESISTANCE MANAGEMENT

DiFlexx DUO is a Group 4 and Group 27 herbicide. A given weed population may contain or develop resistance to a herbicide after repeated use. Appropriate resistance-management strategies should be followed to mitigate or delay resistance. The following Integrated Weed Management Techniques are effective in reducing problems with herbicide resistant weed biotypes. It is best to use multiple practices to manage or delay resistance, as no single strategy is likely to be totally effective.

Rotate crops. Crop rotation diversifies weed management.

Rotate Herbicide-tolerant traits. Alternate herbicide tolerant traits and or use HT trait stacks for more efficient rotations.

Rotate and tankmix modes of action. Use tankmix partners and multiple MOAs during both the growing season and from year to year to reduce the selection pressure of a single MOA.

Know your weeds, know your field. Closely monitor problematic areas with difficult to control weeds or dense weed populations.

Start with clean fields. Effective tillage or the use of a burndown herbicide program can control emerged weeds prior to planting.

Stay clean – use residual herbicides. Regardless of tillage system, a preemergence or early postemergence soil –applied residual herbicide should be used.

Apply herbicides correctly. Ensure proper application, correct timing, full-use rates and appropriate spray volumes.

Control weed escapes. Consider spot herbicide application, row wicking, cultivation,

hand removal of weeds or other techniques to stop weed seed production and improve weed management.

Zero Tolerance - reduce the weed seed bank. Do not allow surviving weeds to set seed, which will help decrease weed populations from year to year and prevent major weed shifts.

Clean Equipment. Prevent the spread of herbicide resistant weeds and seeds. Contact your local extension specialist, certified crop advisory and /or Bayer CropScience representative for additional resistance management or IPM recommendation. Also for more information on Weed Resistance Management, visit the Herbicide Resistance Action Committee (HRAC) on the web at <http://www.hracglobal.com>.

ROTATIONAL CROP RESTRICTIONS

The interval between application and planting rotational crops is shown in Table 6 in the label. If a corn crop has been destroyed by hail or other means soon after a DiFlexx DUO application, field corn, seed corn, popcorn and corn grown for silage may be replanted immediately. Other crops may be replanted at the intervals specified in Table 6 in the label. Planting rotational crops at intervals less than those specified in Table 6 in the label 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.

COVER CROPS

Use of cover crops as a means of soil improvement, erosion control, weed and/or insect suppression, etc., following harvest of corn in the fall is increasing. Planting of cover crops in fields treated with DiFlexx DUO is allowed as long as these cover crops are not grazed by livestock nor harvested for food. Cover crops are to be tilled under or chemically controlled with burndown herbicides in the spring. Cover crops can be planted within 90-120 days after application of DiFlexx DUO. However, all potential cover crops have not been evaluated for tolerance to DiFlexx DUO and significant injury may occur. Prior to seeding a cover crop, complete a successful field/ small scale bioassay to provide an indication of the level of tolerance to the prior DiFlexx DUO application. Refer to the "Field/ Small Scale Bioassay" section. If used in tank mixtures with other herbicides, always follow the most restrictive label.

FIELD/SMALL SCALE BIOASSAY

A field/ small scale bioassay must be completed before rotating to a cover crop other than those specified in the “Rotational Crop Restrictions” section of this label. To conduct an effective field bioassay, grow strips of the crop(s) you intend to grow the following season in a field previously treated with DiFlexx DUO. The test strip should be placed in a controlled area and should include low areas and knolls, and include variations in soil such as type and pH. Crop response to the bioassay will determine if the crop(s) grown in the test strips can be grown safely in the areas previously treated with DiFlexx DUO.

For an effective small scale bioassay, collect uniform samples of all soil types from the DiFlexx DUO - treated field (see example above for types of soil in the sample) and place the soil into a sturdy container. Plant the desired cover crop into the soil, apply water and place the container in a warm, sunny area to allow germination and growth of the crop. Monitor growth of the cover crop over a three to four week period. If the cover crop emerges and grows normally, the risk to establish and grow the cover crop in the DiFlexx DUO -treated field should be tolerable.

SPRAY DRIFT MANAGEMENT

Spray drift may result in injury to non-target crops or vegetation. To avoid spray drift, DO NOT apply when wind speed is greater than 10 MPH or during periods of temperature inversions. DO NOT apply when weather conditions, wind speed or wind direction may cause spray drift to non-target areas.

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

APPLICATION INFORMATION

DiFlexx DUO may be applied either preplant/preemergence burndown, preemergence or postemergence by ground equipment only. DO NOT apply DiFlexx DUO by air or through any type of irrigation system. Use application equipment that will provide uniform, thorough spray coverage of weed foliage to achieve consistent weed control. DiFlexx DUO mixtures should be sprayed within 24 hours of mixing to avoid product degradation. DiFlexx DUO is rain fast within 4 hours after application to most weed species.

PRECAUTIONS FOR USE

- DiFlexx DUO mixtures should be sprayed within 24 hours of mixing to avoid product degradation.

- DiFlexx DUO is rain fast within 4 hours after application to most weed species.
- DiFlexx DUO weed control may be reduced if:
 - o Rainfall occurs within 4 hours of application
 - o Weeds are dust covered or in the presence of heavy dew, fog, and mist/rain at time of application
- Weeds are stressed and not actively growing due to drought, heat, lack of fertility, flooding, or prolonged cool temperatures at time of application
- Avoid drift of DiFlexx DUO onto adjacent crops.
- Refer to the Resistance Management section of this label for specific precautions to help prevent weed resistance to this product.

RESTRICTIONS FOR USE

- DO NOT apply when wind causes drift to off-site vegetation as injury may occur. DiFlexx DUO delivered via drift or tank contamination can cause severe damage to other crops. Careful management of spray drift and tank cleanout is required.
- DO NOT apply DiFlexx DUO with liquid fertilizers as the primary spray carrier. Only apply with water as the primary spray carrier plus recommended adjuvants.
- DO NOT apply DiFlexx DUO by air or through any type of irrigation system.

USE DIRECTIONS

DiFlexx DUO can be applied by ground equipment for preplant/preemergence burndown, preemergence or postemergence weed control in field corn, seed corn, popcorn and corn grown for silage. DiFlexx DUO is not for use on sweet corn. Best results are obtained when the product is applied postemergence to young, actively growing weeds. DiFlexx DUO will affect weeds that are larger than the recommended height; however it may result in incomplete weed control.

DiFlexx DUO should be a part of an integrated pest control program that may include herbicides, insecticides and/or fungicide applied prior to, in tank mix with, or following a DiFlexx DUO application. When using tank mix or sequential applications with DiFlexx DUO, always follow the companion product label to determine specific use rates, application timings and pests controlled. In addition, follow precautions and restrictions including state and local use restrictions that may apply to specific products. Always follow the directions of the most restrictive label.

CORN Specific Precautions and Restrictions

- Corn (field seed, pop and silage) can be planted immediately after an application of DiFlexx DUO. DO NOT plant other rotational crops immediately following DiFlexx DUO application. For all other crops refer to the Rotational Crop Restrictions section

of this label.

- Plant corn at least 1 1/2 inches deep. Corn seed must be completely covered with soil and furrow firmed.
- In rare instances, applications of DiFlexx DUO during periods of rapid growth may result in temporary leaning of the crop. Corn will usually become erect within 3-7 days. Cultivation should be delayed until after the corn is growing normally to avoid potential stalk breakage.
- Seed Corn and Popcorn Only - Herbicide sensitivity in all hybrids and inbreds of seed corn and popcorn has not been tested. Consult with your seed provider for advice on hybrid/inbred tolerance before applying DiFlexx DUO. If the tolerance of a hybrid/inbred is not known, apply DiFlexx DUO to a small area to first determine if the hybrid/inbred is tolerant prior to spraying large acreages of that hybrid/inbred.
- DiFlexx DUO may be apply up to 40 fl oz/A per acre per application.
- The maximum seasonal rate of DiFlexx DUO which can be applied is 78 fl oz/A per use season.
- DO NOT apply DiFlexx DUO to corn that exhibits injury from previous herbicide applications.
- DO NOT apply DiFlexx DUO with liquid fertilizers as the primary spray carrier.
- DO NOT apply more than two (2) applications of DiFlexx DUO per use season.
- DO NOT graze or harvest corn forage within 45 days of the final DiFlexx DUO application. Corn grain and stover may be harvested once the crop has reached the ensilage (milk) stage.

Limitations, Restrictions, and Exceptions

PREPLANT/PREEMERGENCE APPLICATION

Preplant/preemergence applications of DiFlexx DUO may be made in either conventional, conservation tillage or no-till cropping systems.

Use Rates

Apply DiFlexx DUO at 32 - 40 fluid ounces per acre per application. Use the higher application rate when one or more of the following situations are present in the fields to be treated:

- Weeds present have suspected/confirmed resistance to either Group 4 (Auxin) or Group 27 (HPPD) modes-of-action herbicides.
- Heavy weed populations.

DiFlexx DUO will provide early season suppression/control of certain broadleaf and grass weeds (see Table 5) but will generally not provide season-long residual weed control. Preplant/preemergence applications of DiFlexx DUO should always be either tank mixed with additional registered residual preemergence herbicides or be followed by a planned postemergence herbicide application program.

Application Method, Timing and Number of Sprays

Preplant/Preemergence Burndown: When weeds are present at the time of treatment and prior to corn emergence, a tank mixture of DiFlexx DUO with MOS or COC is recommended for burndown of labeled weeds 6" or less in height. When weeds are greater than 6" in height or weeds not controlled by DiFlexx DUO are present, the addition of a burndown herbicide such as glyphosate or Liberty is recommended. Addition of atrazine will also provide improved weed control.

Preemergence: Apply DiFlexx DUO during planting (behind the planter after furrow closure) or after planting, but before weeds emerge. Failure to thoroughly close and firm the seed furrow may allow herbicide to directly contact the seed which can cause injury.

Sequential Application: A maximum of two (2) applications of DiFlexx DUO may be applied per growing season. Sequential applications must be separated by a minimum of two (2) weeks.

Early Season Annual Broadleaf and Grass Weeds Controlled-Preemergence
Crabgrass, large; Foxtail, giant; Foxtail, green; Foxtail, yellow; Johnsongrass (seedling); Lovegrass; Mallow, Venice

- Partial control- Partially controlled weeds will be stunted in growth and/or be reduced in number as compared to non-treated areas; performance may not be commercially acceptable. The degree of weed control will vary with application rate (higher rates = improved control), weed size, weed density, spray coverage and/or growing conditions.

Method

[Burndown Treatment](#)

Pre-Harvest Interval

45 days

Restricted Entry Interval

24 hours

Tillages

[Conventional](#)

[No-Tillage](#)

Timings

[Preplant](#)

[Preemergence \(Weed\)](#)