



**OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION**

WASHINGTON, D.C. 20460

May 9, 2024

Daniel Sandoval  
Regulatory Manager  
AXION AG PRODUCTS, LLC  
1880 FALL RIVER DRIVE, SUITE 100  
LOVELAND, CO 80638

Subject: Notification per PRN 98-10 – To correct product category from Insecticide to Herbicide within the MOA box  
Product Name: AX DD  
EPA Registration Number: 89167-131  
Application Date: 04/02/2024  
Case Number: 561840

Dear Daniel Sandoval:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped "NOTIFICATION" and placed in our records.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If you have any questions, please contact Hector Escobar at 202-566-1371 or at [escobar.hector@epa.gov](mailto:escobar.hector@epa.gov).

A handwritten signature in black ink, appearing to read "Lydia Crawford".

Lydia Crawford,  
Acting Product Manager 24  
Fungicide Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

{Note to reviewer: [Text] in brackets denotes optional or explanatory language}  
{Note to reviewer: {Text} in braces denotes where in the final label text will appear}

DIQUAT DIBROMIDE

GROUP

22

INSECTICIDE  
HERBICIDE

TO PREVENT ACCIDENTAL POISONING, NEVER PUT INTO FOOD, DRINK OR OTHER CONTAINERS  
AND USE STRICTLY IN ACCORDANCE WITH ENTIRE LABEL

**AX DD**

[INTENDED FOR AGRICULTURAL OR COMMERCIAL USE ON SPECIFIED LABELED CROPS  
ONLY]

**ACTIVE INGREDIENT:**

**% BY WT.**

Diquat Dibromide; [6,7-dihydrodipyrido (1,2-a:2',1'-c) pyrazinediium dibromide] ..... 37.3%

**OTHER INGREDIENTS**..... 62.7%

**TOTAL:** ..... 100.00%

AX DD is formulated as a soluble liquid containing 2 lb diquat cation per gal as 3.73 lb salt per gal.

**KEEP OUT OF REACH OF CHILDREN  
CAUTION / PRECAUCIÓN**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)

**For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300.**

**[SEE INSIDE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS.]**

**[See inside booklet for additional Precautionary Statements and Directions for Use.]**

**[See inside label booklet for First Aid, Precautionary Statements and Directions for Use.]**

**EPA Reg. No.: 89167-131**

**EPA Est. No.: \_\_\_\_\_**

**Net Contents: \_\_\_\_ Gal (\_\_\_\_ L)**

**NOTIFICATION**

89167-131

The applicant has certified that no  
changes, other than those reported to  
the Agency have been made to the  
labeling. The Agency acknowledges  
this notification by letter dated:

5/9/2024

**Manufactured For:**

AXION AG PRODUCTS, LLC  
1880 Fall River Drive, Suite 100  
Loveland, CO 80538

040224

## {LANGUAGE INSIDE BOOKLET}

<b>FIRST AID</b>	
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• <b>DO NOT</b> induce vomiting unless told to do so by the poison control center or doctor.</li><li>• <b>DO NOT</b> give anything by mouth to an unconscious person.</li></ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li><li>• Immediately call a poison control center or doctor for further treatment advice.</li></ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>NOTE TO PHYSICIAN</b> <p>To be effective, treatment for diquat poisoning must begin IMMEDIATELY. Treatment consists of binding diquat in the gut with suspensions of activated charcoal or bentonite clay, administration of cathartics to enhance elimination, and removal of diquat from the blood by charcoal hemoperfusion of continuous hemodialysis. If in eyes, treat symptomatically. Symptoms may develop gradually. Severe damage may be caused by apparently trivial contact and healing may be delayed. Medical supervision should be continued until healing is complete.</p>	
<b>HOTLINE NUMBER</b> <p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergencies call the poison control center at <b>1-800-222-1222</b>. For non-emergency resource information concerning this product, call the National Pesticides Information Center (NPIC) at <b>1-800-858-7378</b> Monday – Friday 8 am – Noon Pacific Time, (NPIC Web site: <a href="http://www.npic.orst.edu">www.npic.orst.edu</a>). For Chemical Spill, Leak, Fire or Exposure, call CHEMTREC <b>800-424-9300</b>.</p>	

**For Chemical Emergency:**  
**Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night**  
**Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)**

### **PRECAUTIONARY STATEMENTS**

#### **Hazards to Humans and Domestic Animals CAUTION**

Harmful if swallowed. Harmful if inhaled. Causes moderate eye irritation. Avoid breathing spray mist. Avoid contact with eyes, skin, or clothing. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

**Human Flagging is Prohibited**

## **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

### **Applicators, mixers, loaders, and other handlers must wear:**

- Coveralls worn over long-sleeved shirt and long pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading
- Wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R, or P filter; OR a NIOSH-approved elastomeric particulate respirator with any N, R, or P filter; OR a NIOSH-approved powered air- purifying respirator with a HE filter.

### **Respirator fit testing, medical qualification, and training**

- Using a program that conforms to OSHA's requirements (see 29 CFR Part 1910.134), employers must verify that any handler who uses a respirator is:
- Fit-tested and fit-checked,
- Trained, and
- Examined by a qualified medical practitioner to ensure physical ability to safely wear the style of respirator to be worn. A qualified medical practitioner is a physician or other licensed health care professional who will evaluate the ability of a worker to wear a respirator. The initial evaluation consists of a questionnaire that asks about medical conditions (such as a heart condition) that would be problematic for respirator use. If concerns are identified, then additional evaluations, such as a physical exam, might be necessary. The initial evaluation must be done before respirator use begins. Handlers must be reexamined by a qualified medical practitioner if their health status or respirator style or use-conditions change.

Upon request by local/state/federal/tribal enforcement personnel, employers must provide documentation demonstrating how they have complied with these requirements.

### **User Safety Requirements**

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### **Engineering Controls**

Mixers and loaders supporting aerial applications are required to use closed systems. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4)). When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS. Mixers, loaders, and applicators using closed systems who meet these requirements may wear: long- sleeved shirt and long pants; protective eyewear; waterproof gloves; shoes plus socks; and a chemical-resistant apron when mixing, loading, or cleaning equipment. If handling tasks are performed from inside an enclosed cab or aircraft with enclosed cockpits that meet these requirements may wear: long-sleeved shirt, long pants, shoes, and socks for the labeling- specified PPE. All labeling-specified PPE must be immediately available for use in an emergency. All applicable requirements as specified in 40 CFR 170.240(d)(4-6) must be followed.

## USER SAFETY RECOMMENDATIONS

### Users should:

- Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## ENVIRONMENTAL HAZARDS (TERRESTRIAL AND AQUATIC USES)

This pesticide is toxic to aquatic invertebrates. **For Terrestrial Uses, DO NOT** apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate. **For Aquatic Uses, DO NOT** apply directly to water except as specified on this label. Treatment of dense weed areas may result in oxygen loss from decomposition of dead weeds. This loss of oxygen may cause fish suffocation. Therefore, treat only 1/3 – 1/2 of the water body area at one time, especially if dense areas of weeds and/or algae exist and wait 14 days between treatments. Necessary approval and/or Permits must be obtained prior to application if required. Consult the responsible State Agencies (i.e., Fish and Game agencies or Department of Natural Resources) before making applications to public waters.

## NON-TARGET ORGANISM ADVISORY

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

## PHYSICAL - CHEMICAL HAZARDS

**DO NOT** mix or allow coming in contact with oxidizing agents. Hazardous chemical reactions may occur.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**DO NOT** apply this product via backpack sprayer.

**READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.**

**DO NOT APPLY THIS PRODUCT THROUGH ANY TYPE OF IRRIGATION SYSTEM.**

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.**

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves made of any waterproof material
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep all unprotected persons out of operating areas or vicinity where there may be drift.

**DO NOT allow people or pets to touch treated plants until the sprays have dried.**

**For terrestrial uses, DO NOT** allow entry of maintenance workers into treated areas, or allow contact with treated vegetation wet with spray, dew, or rain, without appropriate protective clothing until spray has dried.

**For aquatic uses, DO NOT** enter treated areas while treatments are in progress.

### PRODUCT INFORMATION

**AX DD** is a nonvolatile herbicide for use as a preharvest aid to desiccate certain crops in order to facilitate harvesting. **AX DD** is also advised for use as a general herbicide to control weeds in noncrop areas, nonbearing crops and aquatic areas. **AX DD** is a contact-type herbicide and requires actively growing green plant tissue to function. Thorough coverage of all green plant tissue is essential for effective control.

**AX DD** is rapidly absorbed by green plant tissue and interacts with the photosynthetic process to produce compounds which destroy plant cells. Herbicidal activity is usually quite rapid, with effects visible in a few days.

### AGRICULTURAL USE DIRECTIONS

#### APPLICATION

Since **AX DD** is a contact-type herbicide, it is essential to obtain complete coverage of the target weed or crop to achieve effective results. Improper application technique and/or application to large, stressed, or mowed weeds will generally result in unacceptable control.

Complete coverage is also essential for effective performance in harvest aid applications. See details below for additional information.

#### NOZZLE SELECTION

The use of flat fan nozzles will result in the most effective application of **AX DD**. The use of nozzles other than flat fans may result in reduced performance due to inadequate coverage.

### SPRAY VOLUME

Follow specified minimum spray volumes listed for each use of **AX DD**. These are **minimum** volumes only, and spray volumes must be increased as necessary to obtain complete coverage of the target weed or plant without runoff from the foliage. When spraying less than 20 gal of spray carrier per acre, target weeds must not exceed 6 inches in height.

### SPRAY ADJUVANTS

**Always Add One of the Following: Nonionic**

#### SURFACTANT (NIS)

Add a NIS containing 75% or greater surface active agent at 0.06–0.5% v/v (1/2–4 pt per 100 gal) of the finished spray volume.

#### OTHER ADJUVANTS

Adjuvants other than NIS may be used providing the product meets the following criteria:

- Contains only EPA exempt ingredients.
- Is compatible in mixture. Compatibility may be established through a jar test.
- Is supported locally for use with **AX DD** through proven field trials and through university and extension directions.

When an adjuvant is to be used with this product, the use of an adjuvant that meets the standards of the Council of Producers and Distributors of Agrotechnology (CPDA) adjuvant certification program is advised.

### RATES

Follow specified rates listed with each use of **AX DD**. Use the higher label rates when weeds are large or dense. Also, use higher labeled rates for harvest aid when crop vegetation is dense.

### APPLICATION TIMING

**AX DD** must be applied to emerged weeds when they are small. Weeds 1 inch to 6 inches in height are the easiest to control. When weeds have been grazed or mowed, thus removing much of the green foliage, allow the weeds to regrow to a height of 2–4 inches before spraying. For proper application timing of harvest aid applications, refer to each crop for specifications or directions.

Weeds emerging after application of **AX DD** will not be controlled or suppressed.

### RAINFESTNESS

Because **AX DD** is rapidly absorbed by green plant tissue, rain occurring 30 minutes after application will have no effect on the activity of **AX DD**.

### ENVIRONMENTAL CONDITIONS

**AX DD** is active over a wide range of environmental conditions. Cool weather (below 55°F) will slow the activity of **AX DD**, as will cloudy, overcast weather, but will not affect performance.

In dry areas, dust stirred up by high winds or equipment tires can coat target surface and reduce **AX DD** activity. Avoid applying **AX DD** in extremely dusty conditions.



## **MANDATORY SPRAY DRIFT MANAGEMENT**

### **Aerial Applications:**

- **DO NOT** release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 15 mph at the application site. If the windspeed 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 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 diameter for helicopters.
- If the windspeed is 10 miles per hour or less, applicators must use 1/2 swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use 3/4 swath displacement upwind at the downwind edge of the field.
- **DO NOT** apply during temperature inversions.

### **Groundboom Applications:**

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- 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.

### **Boomless Ground Applications:**

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

## **SPRAY DRIFT MANAGEMENT**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.  
BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

### **IMPORTANCE OF DROPLET SIZE**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### **Controlling Droplet Size – Groundboom**

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### **Controlling Droplet Size – Aircraft**

- Adjust Nozzles - Follow nozzle manufacturers' recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

#### **BOOM HEIGHT – Groundboom**

For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### **Boom-less Ground Applications:**

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

## **RELEASE HEIGHT – Aircraft**

Higher release heights increase the potential for spray drift.

## **Handheld Technology Applications:**

Take precautions to minimize spray drift

## **SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

## **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

## **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

## **WIND**

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

## **RESISTANCE MANAGEMENT RECOMMENDATIONS**

For resistance management, **AX DD** is a Group 22 herbicide. Any weed population may contain or develop plants naturally resistant to **AX DD** and other Group 22 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance management strategies should be followed:

- To delay herbicide resistance take one or more of the following steps:
- Rotate the use of **AX DD** or other Group 22 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout before and after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method including hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.

- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact AXION AG PRODUCTS, LLC at 844-425-8488.
- Report any incidence of non-performance of this product against a particular weed species to AXION AG PRODUCTS, LLC, your local retailer or your local extension specialist. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemical means to remove escapes, as practical, with the goal of preventing further seed production.

### SPECIFIC USE DIRECTIONS

The following table indicates use pattern, rates, minimum spray volumes, and preharvest interval for specific uses.

Crop	Use Pattern	AX DD Rate per Acre	Minimum Total Spray Volume per Acre	Preharvest Interval (Days)	Directions
<b>Alfalfa (seed crop only)</b>	Preharvest Desiccation Broadcast	1.5 – 2 pt (0.38 – 0.5 lb ai) (see precautions section for additional rate information)	Ground: 15 gal Air: 5 gal	3	<b>Restrictions</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply through irrigation systems.</li> <li>• On thin stands of seed alfalfa use 1 pt (0.25 lb ai) per acre.</li> <li>• <b>DO NOT</b> graze or feed treated forage to livestock.</li> <li>• <b>DO NOT</b> use seed from treated plants for food, feed, or oil purposes.</li> <li>• <b>DO NOT</b> apply more than 2 pt (0.5 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 pt (1.0 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications per acre per year.</li> </ul> <b>Precautions</b> <ul style="list-style-type: none"> <li>• Desiccation is complete in 3–10 days.</li> </ul>

Crop	Use Pattern	AX DD Rate per Acre	Minimum Total Spray Volume per Acre	Preharvest Interval (Days)	Directions
Canola	Preharvest Desiccation Broadcast	1.5 – 2 pt (0.38 – 0.5 lb ai)	Ground: 15 gal Air: 5 gal	7	<b>Restrictions</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply through irrigation systems.</li> <li>• <b>DO NOT</b> graze or feed treated forage to livestock.</li> <li>• <b>DO NOT</b> use seed from treated plants for food, feed, or oil purposes.</li> <li>• <b>DO NOT</b> apply more than 2 pt (0.5 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 2 pt (0.5 lb ai) per acre per year.</li> <li>• A maximum of one application per year is allowed.</li> <li>• Harvest no later than 10 days after application.</li> </ul>
Clover (seed crop only)	Preharvest Desiccation Broadcast	1.5 – 2 pt (0.38 – 0.5 lb ai)	Ground: 15 gal Air: 5 gal	3	<b>Restrictions</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply through irrigation systems.</li> <li>• <b>DO NOT</b> apply more than 2 pt (0.5 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> graze or feed treated forage to livestock.</li> <li>• <b>DO NOT</b> use seed from treated plants for food, feed, or oil purposes.</li> <li>• <b>DO NOT</b> apply more than 4 pt (1.0 lb) per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications per acre per year.</li> </ul> <b>Precautions</b> <ul style="list-style-type: none"> <li>• Desiccation is complete in 3–10 days.</li> </ul>

Crop	Use Pattern	AX DD Rate per Acre	Minimum Total Spray Volume per Acre	Preharvest Interval (Days)	Directions
Potato	Preharvest Desiccation Broadcast	1 – 2 pt (0.25 – 0.5 lb ai)	Ground: 20 gal Air: 5 gal	7	<p><b>Restrictions</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply through Irrigation systems.</li> <li>• <b>DO NOT</b> graze or feed treated forage to livestock.</li> <li>• <b>DO NOT</b> use seed from treated plants for food, feed, or oil purposes.</li> <li>• <b>DO NOT</b> apply more than 2 pt (0.5 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply to drought-stressed potatoes.</li> <li>• <b>DO NOT</b> exceed a total of 4 pt (1 lb ai) per acre.</li> <li>• <b>DO NOT</b> make more than 2 applications per acre per year.</li> <li>• Retreatment Interval: 5 days.</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>• Make a second application if necessary to obtain additional desiccation where vine growth is dense. For improved vine coverage, a 5-day interval is advised between applications.</li> </ul>

Crop	Use Pattern	AX DD Rate per Acre	Minimum Total Spray Volume per Acre	Preharvest Interval (Days)	Directions
<b>Tree, Vine, Small Fruit, Vegetable Crops- Nonbearing</b> Acerola (West Indian Cherry) Almonds, Apple, Apricots, Artichokes, Asparagus, Avocados, Bananas, Blackberry, Blueberry, Boysenberry, Cherries, Coffee, Conifers, Crabapple, Cranberry, Dates, Dewberry, Elderberry, Figs, Filberts, Ginseng, Gooseberry, Grapes, Grapefruit, Guava, Huckleberry, Jojoba, Kiwi, Lemons, Limes, Loganberry, Macadamia, Mango, Nectarines, Olives, Oranges, Papayas, Passion Fruit, Peaches, Pears, Pecans, Persimmons, Pistachios, Plantains, Plums, Pomegranates, Prunes, Raspberry, Tangelos, Tangerines, Walnuts	Directed spray	1.5 – 2 pt (0.38 – 0.5 lb ai)	Ground: 15 gal	<b>DO NOT</b> use for food or feed for one year after application	<b>Restrictions</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 2 pt (0.5 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 10 pt (2.5 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 5 applications per acre per year.</li> <li>• <b>DO NOT</b> graze or feed treated forage to livestock.</li> <li>• <b>DO NOT</b> use seed from treated plants for food, feed, or oil purposes.</li> </ul> <b>Precautions</b> <ul style="list-style-type: none"> <li>• <b>AX DD</b> can be used during site preparation prior to planting and up to 1 year of harvest.</li> <li>• Retreatment may be necessary for complete control of grasses and older established weeds.</li> <li>• <b>DO NOT</b> allow spray to contact green stems, foliage, or fruit as injury can occur.</li> <li>• Use a shield or wrap plant when spraying around young trees or vines.</li> </ul>

Other Uses	Use Pattern	AX DD Rate	Directions
<b>Noncrop or Nonplanted Areas on Farms</b> Fence Lines Farmyards Farm Buildings Fuel Storage Areas Barrier Strips Equipment Areas Dry (non- flooded) Areas around ponds, lakes, and drainage ditches on farms	Broadcast	1 – 2 pt (0.25 – 0.5 lb ai) in a minimum of 15 gal water per acre	<b>Restrictions</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply this product via backpack sprayer.</li> <li>• <b>DO NOT</b> apply more than 2 pt (0.5 lb ai) per acre per broadcast application.</li> <li>• <b>DO NOT</b> apply more than 20 pt (5 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make more than 10 application per acre per year.</li> </ul> <b>Precautions</b> <ul style="list-style-type: none"> <li>• Apply for full coverage and thorough weed contact.</li> <li>• Retreatment may be necessary to control grasses and established weeds.</li> <li>• Avoid spray contact with foliage of food crops or ornamental plants or other desirable vegetation.</li> <li>• Add the labeled rate of 75% or greater nonionic surfactant to the finished spray volume.</li> </ul>
	Spot Treatment	1 – 2 quarts (0.5 – 1 lb ai) plus the labeled rate of a 75% or greater nonionic surfactant per 100 gal water or 0.75 oz (22 ml)  the labeled rate of a 75% or greater nonionic surfactant per 1 gal of water	

#### AGRICULTURAL AQUATIC USE DIRECTIONS[\*]

**[\*Not registered for use in California]**

Necessary approval and/or permits must be obtained prior to application if required. Consult the responsible State Agencies (i.e., Fish and Game Agencies or Department of Natural Resources). Treatment of dense weed areas may result in oxygen loss from decomposition of dead weeds. This loss of oxygen may cause fish suffocation. Therefore, treat only 1/3 – 1/2 of the water body area at one time and wait 14 days between treatments.

For application only to stillwater (e.g., farm ponds, farm lakes, and farm drainage ditches) where there is minimal or no outflow to public waters.

Treated water may be used according to the following table or until such time as an approved assay (example: PAM II Spectromatic Method) shows that the water does not contain more than the designated maximum contaminant level goal (MCLG) of 0.02 mg/l (ppm) of diquat dibromide (calculated as the cation).

Waters treated with this product may be hazardous to non-target aquatic organisms. Treatment of aquatic weeds and algae can result in oxygen loss from decomposition of dead biomass. This oxygen loss can cause fish and invertebrate suffocation. To minimize this hazard, do not use products containing diquat dibromide to treat more than 1/2 of the water body (excluding water infrastructure and constructed conveyances such as drainage canals, ditches and pipelines or intakes and aqueducts for drinking water or irrigation use) to avoid depletion of oxygen due to decaying vegetation. Wait at least 7 days between

diquat dibromide treatments of contiguous waterbody sections. Begin treatment along the shore and proceed outward in bands to allow fish to move into untreated areas. Consult with the state or local agency with primary responsibility for regulating pesticides before applying this product to public waters to determine if a permit is required.

#### Water Use Restrictions Following Application with AX DD (Days)

Application Rate	Drinking	Fishing and Swimming	Livestock Consumption	Spray Tank Applications** and Irrigation to Turf and Ornamentals	Spray Tank Applications** and Irrigation to Food Crops
2 gal/surface acre	3 days	0	1 day	3 days	5 days
1 gal/surface acre	2 days	0	1 day	2 days	5 days
0.75 gal/surface acre	2 days	0	1 day	2 days	5 days
0.50 gal/surface acre	1 day	0	1 day	1 day	5 days
Spot Spray* ( $< 0.5$ gal/surface acre)	1 day	0	1 day	1 day	5 days

\* Rates refer to total surface area.

\*\* For preparing agricultural sprays for food crops, turf or ornamentals (to prevent phytotoxicity), **DO NOT** use water treated with **AX DD** before the specified time periods. When the contents of more than one spray tank is necessary to complete a single aquatic application, no water holding restrictions apply between the consecutive spray tanks.

#### Restriction:

- **DO NOT** make applications in areas where commercial processing of fish, resulting in the production of fish protein concentrate or fish meal, is practiced. Before application, coordination and approval of local and/or State authorities must be obtained.
- **DO NOT** apply this product at a rate greater than 2.5 lb ai/surface-acre per application for the control of floating, emergent, or marginal vegetation.
- **DO NOT** apply this product at a rate greater than 1 lb ai/acre-foot per application for the control of submersed weeds.
- **DO NOT** apply this product on cattails (*Typha* spp.) as a target weed species.
- The use of a vehicle-mounted boom sprayer to apply this product above the water surface for treatment of floating, emergent, or marginal vegetation, except for applications made via aircraft, is prohibited. This prohibition does not apply to applications made below the water surface via submersed or trailing hoses.

#### Apply AX DD in accordance with the following table:

Weed Species	Subsurface or Bottom Placement (gal/surface acre)*	Surface Application (gal/surface acre)*
Bladderwort ( <i>Utricularia</i> spp.)	1 – 2	2
Coontail ( <i>Ceratophyllum demersum</i> )	2	2
Elodea ( <i>Elodea</i> spp.)	2	2
Naiad ( <i>Najas</i> spp.)	1 – 2	2
Pondweeds <sup>1</sup> ( <i>Potamogeton</i> spp.)	2	2
Watermilfoils ( <i>Myriophyllum</i> spp.)	1 – 2	2



Weed Species	Subsurface or Bottom Placement (gal/surface acre)*	Surface Application (gal/surface acre)*
Hydrilla ( <i>Hydrilla verticillata</i> )	2	2
Waterlettuce <sup>2</sup> ( <i>Pistia Stratiotes</i> )	NA	0.5 – 0.75
Waterhyacinth <sup>2</sup> ( <i>Eichhornia crassipes</i> )	NA	0.5 – 0.75
Pennywort <sup>3</sup> ( <i>Hydrocotyle</i> spp.)	NA	0.5 – 0.75
Frog's Bit <sup>6</sup> ( <i>Limnobium spongia</i> )	NA	0.5 – 0.75
Salvinia <sup>2</sup> ( <i>Salvinia</i> spp.)	NA	0.5 – 0.75
Duckweed <sup>4</sup> ( <i>Lemna</i> spp.)	NA	1
Algae <sup>5</sup> ( <i>Spirogyra</i> spp. & <i>Pithophora</i> spp.)	1 – 2	2
<p>*For water less than or equal to 2 ft in average depth of treatment area, use a maximum of 1 gal of <b>AX DD</b> per surface acre. Lowest rates must be used in shallow areas where the water depth is considerably less than the coverage depth of the entire treatment area, for example, shallow shoreline area. At water temperatures below 50°–60°F efficacy and immediacy of results may be reduced.</p> <p><sup>1</sup> <b>AX DD</b> controls <i>Potamogeton</i> species except Richardson's pondweed (<i>P. richardsonii</i>). For control of <i>P. robbinsii</i>, applications must be made when the plants are in the early stages of growth including in Spring and early Summer.</p> <p><sup>2</sup> For salvinia, waterlettuce and waterhyacinth, use the labeled rate of <b>AX DD</b> in 75–200 gal water plus the labeled rate of a 75% or greater nonionic surfactant per acre for surface sprays and for aerial application for waterlettuce and waterhyacinth control, apply the labeled rate of <b>AX DD</b> in 10–24 gal water plus the labeled rate of a 75% or greater nonionic surfactant per acre.</p> <p><sup>3</sup> For pennywort control, apply in 50–150 gal of water plus the labeled rate of a 75% or greater nonionic surfactant per acre for full coverage and thorough weed contact. Repeat treatments may be necessary to control regrowth.</p> <p><sup>4</sup> For duckweed control, apply as an overall spray in 50–150 gal. of water plus the labeled rate of a 75% or greater nonionic surfactant per acre. Retreatment may be necessary for plants missed in previous applications and regrowth.</p> <p><sup>5</sup> For suppression of certain filamentous algae species including <i>Spirogyra</i> and <i>Pithophora</i>, apply according to the submersed use directions.</p> <p><sup>6</sup> <b>Not registered for use in California.</b></p>		

## APPLICATION

In mixed weed populations, use the high rate of application as indicated by weeds present.

## SUBSURFACE APPLICATIONS

Where the submersed weed growth, especially Hydrilla, has reached the water surface, apply either in a water carrier or an invert emulsion through boom trailing hoses carrying nozzle tips to apply the dilute spray below the water surface to insure adequate coverage.

## BOTTOM PLACEMENT

Where the submersed weeds, especially Hydrilla, Bladderwort, and Coontail growth have reached the water surface or where water is slowly moving through the submersed weed growth that has reached the water surface, especially Hydrilla, Bladderwort, and Coontail, control may be enhanced when applied in an invert emulsion carrier injecting diluted **AX DD** near the bottom with weighted hoses. The addition of a copper-based algacide will improve control. Where algae are present along with the submersed weeds, pretreatment with copper- based algacide at specified rates is advised for best results.

## SURFACE APPLICATION

For submerged aquatic weeds, apply **AX DD** either as concentrate slowly poured directly from the container

in strips[\*] or as a spray in sufficient carrier. Applications must be made to ensure complete coverage of the weed areas. In mixed weed populations, use the high rate of application as indicated by weeds present.  
[\*Not registered for use in California]

#### **LIMITATIONS AND PRECAUTIONS (TERRESTRIAL AND AQUATIC USES)**

Direct spray contact or drift of **AX DD** will cause severe plant injury or death. Avoid contact of desirable vegetation.

Weeds emerging after application of **AX DD** will not be controlled or suppressed. Retreatment may be necessary to control large weeds or established weeds.

Use of dirty or muddy water for **AX DD** dilution may result in reduced control.

Application to muddy water may result in reduced control. Minimize creating muddy water during application.  
(Aquatic Uses)

Avoid applying under conditions of high wind, water flow, or wave action. **(Aquatic Uses)**

**DO NOT** apply this product through any type of irrigation system. Rinse all spray equipment thoroughly with water after use.

#### **STORAGE AND DISPOSAL**

**DO NOT** contaminate water, food or feed by storage or disposal. TO PREVENT ACCIDENTAL POISONING, NEVER STORE THIS PRODUCT IN FOOD, DRINK, OR UNLABELED CONTAINERS.

**PESTICIDE STORAGE:** Store in a tightly closed container in a cool, dry place. Store in original container and out of reach of children, preferably in a locked storage area.

**PESTICIDE DISPOSAL:** Pesticide spray mixture or rinsate that cannot be used must be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

#### **CONTAINER HANDLING:**

**[For plastic containers ≤ 5 gallons: Nonrefillable Container: DO NOT** reuse or refill this container.

Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.]

**[For plastic containers > 5 gallons: Nonrefillable container. DO NOT** reuse or refill this container.

Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Recap and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.]

**[Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures allowed by state and local authorities.]

**[REFILLABLE CONTAINER:** Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. After triple rinsing is complete, and the container is not suitable for refilling or reconditioning, offer the container for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.]

#### **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of AXION AG PRODUCTS, LLC, or Seller. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW all such risks shall be assumed by Buyer and User and Buyer and User agree to hold AXION AG PRODUCTS, LLC, and Seller harmless for any claims relating to such factors.

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