# Drive XLR8 Herbicide

Active Ingredient:	
dimethylamine salt of quinclorac: 3,7-dichloro-8-quinolinecarboxylic acid	
Other Ingredients:	
<b>Total:</b>	
Equivalent to:	

1.50 lbs quinclorac: 3,7-dichloro-8-quinolinecarboxylic acid equivalent per gallon

SPECIMEN

#### EPA Reg. No. 7969-272

EPA Est. No.

## KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

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

See inside for complete **First Aid**, **Precautionary Statements**, **Directions For Use**, **Conditions of Sale and Warranty**, and state-specific crop and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

**Net Contents:** 



FIRST AID				
If swallowed	<ul> <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>DO NOT induce vomiting unless told to do so by a poison control center or doctor.</li> <li>DO NOT give anything by mouth to an unconscious person.</li> </ul>			
If on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>			
If in eyes	<ul> <li>Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>			
lf inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth to mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>			
	HOTLINE NUMBER			
Have the product conta	ner or label with you when calling a poison control center or doctor or going for treatment			

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).

#### **Precautionary Statements**

#### Hazards to Humans and Domestic Animals

**CAUTION.** Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

#### **Personal Protective Equipment (PPE)**

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, made of butyl rubber ≥ 14 mils, natural rubber ≥ 14 mils, neoprene rubber
- $\geq$  14 mils, or nitrile rubber  $\geq$  14 mils
- Shoes plus socks

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.

#### USER SAFETY RECOMMENDATIONS

#### Users should:

- 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.

#### **Engineering Controls**

When handlers use closed systems or enclosed cabs 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.

#### **Environmental Hazards**

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Keep out of lakes, ponds and streams. **DO NOT** apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. **DO NOT** contaminate water by cleaning of equipment or disposal of rinsate.

#### **Directions For Use**

It is a violation of federal law to use this product in a manner inconsistent with this labeling. All applicable directions, restrictions and precautions are to be followed. This labeling must be in the possession of the user at time of application.

**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 specified area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation. BASF Corporation does not recommend or authorize the use of this product in manufacturing, processing or preparing custom blends with other products for application to turfgrass. **DO NOT** use to formulate or reformulate any other pesticide product that is not registered by EPA.

Drive<sup>®</sup> XLR8 herbicide is not for sale, distribution, or use in Nassau and Suffolk counties in New York State.

#### 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 **12 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
- Chemical-resistant gloves made of any butyl rubber
   ≥ 14 mils, natural rubber ≥ 14 mils, neoprene rubber
   ≥ 14 mils, or nitrile rubber ≥ 14 mils
- ≥ 14 mils, or nitrile rubber ≥ 14
   Shoes plus socks

#### NONAGRICULTURAL 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, nurseries, or greenhouses.

Professional applications to residential and nonresidential turfgrass (excluding sod farms) are not within the scope of the Worker Protection Standard.

DO NOT enter or allow others to enter the treated area until sprays have dried.

#### STORAGE AND DISPOSAL

**DO NOT** contaminate water, food, or feed by storage or disposal.

#### **Pesticide Storage**

Store in a dry, well-ventilated area.

#### **Pesticide Disposal**

Wastes resulting from the use of this product must be disposed of on-site or at an approved waste disposal facility.

#### **Container Handling**

**Nonrefillable Container. DO NOT** reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity  $\leq$  5 gallons) 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.

Triple rinse containers too large to shake

(capacity > 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace 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.

**Pressure rinse as follows:** Empty the remaining contents into application equipment or 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.

#### In Case of Emergency

In case of large-scale spillage regarding this product, call:

• CHEMTREC	1-800-424-9300
<ul> <li>BASF Corporation</li> </ul>	1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

### Steps to be taken in case material is released or spilled:

- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing, and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

#### **Product Information**

Drive<sup>®</sup> XLR8 herbicide may be applied postemergence to residential and nonresidential turfgrass (refer to Table 1. Turfgrass Tolerance (Established)) for the control of many broadleaf and grass weeds on the following sites:

- Airports
- Athletic fields
- Cemeteries
- Golf courses
- Grounds or lawns around residential and commercial establishments
- Houses of worship
- Military and other institutions
- Multifamily dwellings
- Parks
- Picnic grounds
- Roadsides
- Schools
- Sod farms

#### Mode of Action

**Drive XLR8** is an auxin agonist and is classified as a quinoline carboxylic acid. It is absorbed by foliage and roots and translocated throughout the plant. The control symptoms exhibited by broadleaf weeds include leaf and stem curl or twisting, and chlorosis. Susceptible grasses demonstrate stunting, chlorosis, and gradual reddening followed by necrosis and death. Refer to **Table 1**, **Table 2**, and **Table 3** for turfgrass tolerance and susceptible weed species.

#### Herbicide Resistance Management

#### **Management Plan**

While weed resistance to **Group 4** herbicides is infrequent, populations of resistant biotypes are known to exist. Weeds resistant to **Group 4** herbicides may be effectively managed using herbicide(s) from a different group. Resistance management should be part of a diversified weed control strategy that integrates chemical, cultural, and mechanical (tillage) control tactics. Cultural control tactics include crop rotation, proper fertilizer placement, and optimum seeding rate/row spacing. Consult your local BASF representative, state cooperative extension service, professional consultants, or other qualified authority to determine appropriate actions if you suspect resistant weeds.

#### **Chemical Control**

- Start clean with tillage or an effective burndown herbicide program.
- **DO NOT** rely on a single herbicide site of action for weed control.
- Follow labeled application rate and weed growth stage specifications.
- The use of preemergence herbicides that provide soil residual control of broadleaf and grass weeds is recommended to reduce early season weed competition and allow for timely postemergence herbicide applications.
- Avoid application of herbicides with the same site of action more than twice a season.
- Use tank mixes and sequential applications with other herbicides possessing different sites of action that are also effective on the target weeds.

## 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.

#### Best Management Practices for Resistance Management/Scouting and Containment

- Scout areas prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective.
- Scout areas after herbicide application to identify areas where weed control was ineffective.
- Control weed escapes with herbicides possessing a different site of action or use a mechanical control measure. Weed escapes should not be allowed to reproduce by seed or to proliferate vegetatively.
- Contact your **Drive XLR8** supplier and/or your local BASF representative to report weed escapes.
- To the extent possible DO NOT allow weed escapes to produce seeds, roots or tubers. Manage weed seeds at harvest and post-harvest to prevent a buildup of the weed seedbank.
- Clean equipment before moving to a different area to avoid spread of resistant weeds.

#### **Application Information**

## In New York, Drive<sup>®</sup> XLR8 herbicide can only be applied as a spot application.

Apply **Drive XLR8** to actively growing weeds as postemergence broadcast or spot sprays using the turfgrass species, rate, and growth stages indicated in **Table 1**, **Table 2**, and **Table 3**. **DO NOT** exceed the labeled application rate or fail to comply with use restrictions listed in **Restrictions and Limitations**.

For best results, weeds should not be under stress from lack of water, excessive water, low fertility, mowing shock, excessive hot or cold temperatures, or injury from other herbicide applications.

To achieve consistent weed control, use methylated seed oil (MSO). Refer to **Table 2** and **Table 3** for rates.

Adding adjuvants may cause slight leaf burn, but new growth is normal, and turfgrass vigor is not reduced. The potential for leaf burn is increased when relative humidity and temperature are high. Additional stress from low mowing heights may also increase the possibility of turfgrass injury. Chelated iron or sprayable soluble nitrogen fertilizer will reduce a slight yellowing that may occur on some turfgrass species. Not all chelated iron or sprayable nitrogen fertilizers are compatible with **Drive XLR8**. Always perform a compatibility test to ensure proper mixing. See **Compatibility Test For Mix Components** section of label for directions.

#### **Broadcast Applications**

Apply with properly calibrated ground equipment in sufficient water per acre to provide uniform spray distribution (at least 20 gallons of water per acre or at least 0.5 gallon per 1000 square feet). Use low-pressure sprayers at 20 to 40 psi.

Maintain continuous agitation during spraying with good mechanical or bypass agitation. Nozzle screens must be no finer than 50 mesh (100 mesh is finer than 50 mesh). Check sprayer routinely to determine proper calibration. Flat fan, flood, or cone nozzles may be used. Arrange nozzles for uniform coverage for turfgrass and weeds to be controlled. Adjust boom height, nozzle selection, and pressure to provide uniform coverage and minimize spray drift.

Avoid overlaps that will increase rates above those labeled for use. Avoid application when winds may cause drift.

#### **Spot Applications**

Postemergence spot applications may be made to susceptible weeds in turfgrass that is tolerant to **Drive XLR8** (see **Table 1** and **Table 2**). Apply 1.45 fluid ounces of **Drive XLR8** per 1000 square feet (0.75 lb ae/A) of treated area. Spray coverage should be uniform and complete. See **Table 5** for spot spray mix instructions.

**Spot Treatment in New York:** Spray individual weeds only. Adjust the sprayer to coarse spray to minimize wind drift. Apply to the center of the weed and spray to lightly cover.

#### **Mowing Information**

**DO NOT** mow 2 days before or after applying **Drive XLR8** to maximize weed control and minimize potential turfgrass injury. **Clippings from the first three mowings after application should be left on the treated area.** 

#### Irrigation and Rainfall

If soil moisture is not sufficient prior to **Drive XLR8** application, irrigation may improve weed control. For best results, **DO NOT** water or irrigate for 24 hours after application. If rainfall does not occur in 2 to 7 days after application, irrigation of at least 1/2 inch is desirable.

#### **Extended Grass Control**

To extend grass control, **Drive XLR8** can be tank mixed with **Pendulum<sup>®</sup> 3.3 EC herbicide** or **Pendulum<sup>®</sup> AquaCap<sup>™</sup> herbicide** to provide residual control of annual grasses. Consult the respective tank mix labels for additional weeds controlled.

#### Seeding/Overseeding/Sprigging

The use of **Drive XLR8** before or after seeding or overseeding a turfgrass area will not significantly interfere with the turfgrass seed germination and growth of those grass types identified as tolerant or moderately tolerant in **Table 1**. See **Table 4** for seeding, overseeding, or sprigging application timing.

#### Adjuvants

#### Additives in Spray Mix to Achieve Control

Methylated seed oil is the preferred adjuvant for postemergence applications. However, if an MSO is not available in your region, the use of a crop oil concentrate (COC) or other high quality surfactant must be used in the spray tank at the time of application. Refer to actual product label for use rates and use directions.

Additives should not be used when tank mixing with emulsifiable concentrate (EC) products or turfgrass phytotoxicity may occur.

Methylated seed oil or crop oil concentrate used as the adjuvant with **Drive XLR8** must meet all the following criteria:

- Nonphytotoxic
- Contain only EPA-exempt ingredients
- Provide good mixing quality in the jar test
- Successful in local experience

The exact composition of suitable products will vary; however, any methylated seed oil or crop oil concentrate used should contain emulsifiers to provide good mixing quality.

When an adjuvant (or a specific adjuvant product, such as a drift control agent) is to be used with this product, the use of a Chemical Producers and Distributors Association (CPDA) certified adjuvant is recommended.

Consult your local BASF representative or distributor for instructions for your area.

#### **Turfgrass Tank Mixes**

Read and follow the applicable **Restrictions and Limitations** and **Directions For Use** on all products involved in tank mixing. 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.

To increase spectrum of control of broadleaf weed species, a tank mix with 2,4-D; triclopyr; or other broadleaf herbicides may be used. For extended residual control, apply **Drive<sup>®</sup> XLR8 herbicide** with **Pendulum<sup>®</sup> 3.3 EC herbicide** or **Pendulum<sup>®</sup> AquaCap<sup>™</sup> herbicide**.

For sedge control, applications of **Drive XLR8** with **Basagran® T&O herbicide**, **Image® 70 DG herbicide**, or MSMA may be made. Combinations with MSMA will aid in control of certain grass weeds, such as Bahiagrass or kikuyugrass. Consult labels for turfgrass tolerance when tank mixing. Make separate applications if all target weeds are not at the correct growth stage for treatment at the same time.

Physical incompatibility, reduced weed control, or turfgrass injury may result from mixing **Drive XLR8** with other pesticides (fungicides, herbicides, insecticides, or miticides), additives, or fertilizers.

Before tank mixing, a simple jar test is required to ensure compatibility of herbicides or other pesticides and/or additives.

#### **Cleaning Spray Equipment**

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

#### **Compatibility Test for Mix Components**

Add components in the following sequence using 2 teaspoons for each pound or 1 teaspoon for each pint of labeled rate per acre.

- 1. **Water** For 20 gallons per acre spray volume, use 3.3 cups (800 ml) of water. For other spray volumes, adjust rates accordingly. Use only water from the intended source at the source temperature.
- Products in PVA bags Cut an opening in the water-soluble PVA bag just large enough to use a teaspoon for measuring purposes. Use the opened, water-soluble PVA bag first when preparing spray solution. Boron-containing fertilizers can be incompatible with PVA material. Include PVA material if a boron fertilizer is intended to be used. Cap the jar and invert 10 cycles.
- Water-dispersible products (dry flowables, wettable powders, suspension concentrates, or suspoemulsions) - Cap the jar and invert 10 cycles.

- 4. Water-soluble products (Drive XLR8) Cap the jar and invert 10 cycles.
- 5. **Emulsifiable concentrates** (methylated seed oil) Cap the jar and invert 10 cycles.
- 6. **Water-soluble additives** Cap the jar and invert 10 cycles.

#### Let the solution stand for 15 minutes.

**Evaluate** the solution for uniformity and stability. The spray solution should not have free oil on the surface nor thick (clabbered) texture. For water-dispersible granule (WG) or wettable powder (WP) products, a fine precipitate that is easily resuspended is normal; large, nondispersible particles (>300 microns) that precipitate on standing are a sign of tank mix incompatibility. **DO NOT** use any spray solution that could clog spray nozzles.

#### **Mixing Instructions**

#### **Mixing Order**

- 1. **Water** Begin by agitating a thoroughly clean sprayer tank 3/4 full of clean water.
- 2. **Agitation** Maintain constant agitation throughout mixing and application.
- 3. **Inductor** If an inductor is used, rinse it thoroughly after each component has been added.
- 4. **Products in PVA bags** Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
- 5. **Water-dispersible products** (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
- 6. Water-soluble products (such as Drive XLR8)
- 7. **Emulsifiable concentrates** (such as methylated seed oil or crop oil concentrate)
- 8. Water-soluble additives (such as chelated iron or soluble nitrogen fertilizer when applicable; not all chelated iron or sprayable nitrogen fertilizers are compatible with Drive XLR8. Always perform a compatibility test to ensure proper mixing. See Compatibility Test For Mix Components section of label for directions.)
- 9. Remaining quantity of water

Maintain constant agitation during application.

#### **Backpack Sprayer**

Begin with a clean spray tank. Fill the spray tank 1/2 full with clean water and add the required amount of **Drive XLR8** to the sprayer. Cap sprayer and agitate to ensure mixing. Uncap sprayer and add appropriate amount of methylated seed oil. Cap sprayer and agitate once again. Uncap sprayer and finish filling tank to desired level. During application, agitate the mixture on occasion to ensure mixing. If the mixture is allowed to settle for any period of time, thorough agitation is essential before spraying is resumed.

#### **Restrictions and Limitations**

#### New York

- **Drive® XLR8 herbicide** can only be applied as a spot application.
- Drive XLR8 is not for sale, distribution, or use in Nassau and Suffolk counties in New York State.
- **DO NOT** apply more than 128 fluid ounces of **Drive XLR8** per acre (or 2.9 fluid ounces per 1000 square feet) in one year (1.5 lbs ae per acre per year).
- **DO NOT** apply more than 64 fluid ounces of **Drive XLR8** per acre (or 1.45 fluid ounces per 1000 square feet) in a single application (0.75 lb ae per acre per application).
- **DO NOT** apply to golf course collars or greens.
- **DO NOT** make applications of **Drive XLR8** to droughtstressed turfgrass and/or drought-stressed weeds.
- **DO NOT** apply to fine fescue unless it is part of a seed blend.
- **DO NOT** apply to Bahiagrass, carpetgrass, centipedegrass, colonial and seaside bentgrass, dichondra, St. Augustinegrass, or lawns or turfgrass where desirable clovers are present.
- **DO NOT** apply to exposed feeder roots of trees or ornamentals or within the dripline of trees and other ornamental species.
- **DO NOT** apply into any ornamental bed.

- **DO NOT** apply within 4 weeks after seedling emergence of creeping bentgrass, fine fescue blends, Kentucky bluegrass, and perennial ryegrass.
- **DO NOT** apply **Drive XLR8** prior to and within 2 weeks after seeding seashore paspalum.
- DO NOT use clippings as mulch or compost around flowers, ornamentals, trees, or in vegetable gardens.
- **DO NOT** plant eggplants or tobacco within 12 months in areas treated with **Drive XLR8**.
- **DO NOT** plant tomatoes or carrots within 24 months in areas treated with **Drive XLR8**.
- Apply as a medium or coarser spray (ASABE standard S-572.1).
- **DO NOT** release spray at a height greater than 30 inches above the ground.
- **DO NOT** apply when wind speeds are greater than 10 mph at the application site.
- Use a lawn-type sprayer with coarse spray because wind drift is less likely.
- Avoid mist and spray onto vegetables, flowers, ornamentals, shrubs, trees, and other desirable plants, especially plants belonging to the Solanaceae family, such as tomatoes, eggplants, and bell peppers.
- DO NOT discard rinsate on or near desirable plants.
- **DO NOT** apply this product by air or through any type of irrigation system or equipment.

#### Table 1. Turfgrass Tolerance (Established)

Highly Tolerant	Moderately Tolerant	Susceptible		
Bermudagrass, common <sup>1</sup>	Bentgrass, creeping <sup>1</sup>	Bahiagrass		
Bluegrass, annual	Bermudagrass, hybrid <sup>1</sup>	Bentgrass, colonial		
Bluegrass, Kentucky	Bluegrass, rough (Poa trivialis)	Bentgrass, seaside		
Buffalograss	Fescue, Chewing's	Carpetgrass		
Fescue, tall	Fescue, fine <sup>2</sup>	Centipedegrass		
Ryegrass, annual	Fescue, hard	Dichondra		
Ryegrass, perennial	Fescue, red	St. Augustinegrass		
Zoysiagrass	Paspalum, seashore			
<sup>1</sup> Yellowing that occurs on these species can be reduced by the addition of chelated iron or sprayable soluble nitrogen fertilizer. See <b>Application Information</b> and <b>Adjuvants</b> .				
<sup>2</sup> Apply <b>Drive<sup>®</sup> XLR8 herbicide</b> to fine fescue only when it is part of a blend.				

**DO NOT** use on golf course greens and collars.

#### Table 2. Drive XLR8 Application to Established Creeping Bentgrass

Turfgrass Species	Application Rate/Timing	Additive Rate		
Bentgrass, creeping <sup>1,2</sup>	<b>Drive XLR8</b> must be applied in 2 to 3 split applications at 0.5 to 1.0 fl oz per 1000 sq ft (0.25 to 0.51 lb ae/A).			
	<b>DO NOT</b> exceed 128 fl ozs of product per acre (2.9 fl ozs of product per 1000 sq ft) per year or 1.5 lbs ae/A/year.			
	Time sequential application(s) 14 to 21 days apart.	Methylated seed oil at 0.55 fl oz per 1000 sq ft (1.5 pints/A)		
Bentgrass, creeping <sup>1,3</sup>	<b>Drive XLR8</b> must be applied in 2 to 3 split applications at 0.65 to 1.0 fl oz per 1000 sq ft (0.33 to 0.51 lb ae/A).			
	<b>DO NOT</b> exceed 128 fl ozs of product per acre (2.9 fl ozs of product per 1000 sq ft) per year or 1.5 lbs ae/A/year.			
	Time sequential application(s) 14 to 21 days apart.			
<sup>1</sup> Yellowing that occurs on these species can be reduced by the addition of chelated iron or sprayable soluble nitrogen fertilizer. See <b>Application Information</b> and <b>Adjuvants</b> .				
<sup>2</sup> DO NOT apply this rate in California.				
<sup>3</sup> This rate range for use on	ly in California.			
DO NOT use on golf cours	se greens and collars.			

Weed Species Controlled		Drive <sup>®</sup> XLR8 herbicide Rate	Additive Rate			
Grass Weeds						
Common Name	Scientific Name	Broadcast Application				
Barnyardgrass	Echinochloa crus-galli	64 fl ozs of product per acre or				
Crabgrass, large <sup>1,4</sup>	Digitaria sanguinalis	- 1.45 fl ozs per 1000 sq ft (0.75 lb ae/A)				
Crabgrass, smooth <sup>1,4</sup>	Digitaria ischaemum	_				
Foxtail, giant <sup>1</sup>	Setaria faberi					
Foxtail, green <sup>1</sup>	Setaria viridis	Spot Application				
Foxtail, yellow <sup>1</sup>	Setaria glauca	Applied as a spot application.				
Kikuyugrass <sup>2,3</sup>	Pennisetum clandestinum					
Signalgrass, broadleaf <sup>1</sup>	Brachiaria platyphylla	- 1.45 fl ozs of product per 1000 sq ft of treated area (0.75 lb ae/A)				
Torpedograss <sup>3</sup>	Panicum repens	Refer to footnotes in <b>Table 2</b> and				
Broadleaf Weeds		Table 3 for specific turfgrass or weed				
Common Name	Scientific Name	instructions.	Methylated seec oil at 0.55 fl oz per 1000 sq ft (1.5 pints/A)			
Bindweed, field	Convolvulus arvensis					
Clover, hop	Trifolium aureum Pollich					
Clover, red	Trifolium pratense					
Clover, white	Trifolium repens					
Daisy, English <sup>2,5</sup>	Bellis perenne					
Dandelion, common <sup>2</sup>	Taraxacum officinale					
Dollarweed	Hydrocotyle umbellata					
Geranium, Carolina	Geranium carolinianum					
Horseweed <sup>5</sup>	Conyza canadensis					
Medic, black	Medicago lupulina					
Morningglory spp.	<i>Ipomoea</i> sp.					
Speedwell, common	Veronica officinalis					
Speedwell, slender	Veronica filiformis					
Speedwell, thymeleaf	Veronica serpyllifolia					
Violet, wild	Viola sp.					

<sup>1</sup> Under certain conditions, **Drive XLR8** application to annual grasses at 2-tiller to 4-tiller may not provide complete control. A sequential application will be required for grass control in these situations. Optimum control is achieved when applications of **Drive XLR8** + methylated seed oil are applied either before second tiller or as grass weeds mature.

<sup>2</sup>Tank mix partner or sequential application required.

<sup>3</sup>Make 2 sequential applications of 1.0 fl oz (0.51 lb ae/A) of **Drive XLR8** per 1000 sq ft and an additional sequential application up to 0.90 fl oz (0.46 lb ae/A) of **Drive XLR8** per 1000 sq ft at 14-day to 21-day intervals.

<sup>4</sup> Biotypes of large and smooth crabgrass in California have shown varied response to **Drive XLR8**. If control failure occurs following a full or split application, **DO NOT** reapply **Drive XLR8**. Change to a herbicide with a different mode of action.

<sup>5</sup>NOT FOR USE to control this weed in California.

#### Table 4. Seeding/Overseeding/Sprigging Timing Chart<sup>1</sup>

Variety	Before seeding <sup>2</sup>	At seeding	7 days after emergence	14 days after emergence	28 days after emergence
Annual bluegrass	OK	OK	OK	OK	OK
Annual ryegrass	OK	OK	OK	OK	OK
Buffalograss	OK	OK	OK	OK	OK
Common Bermudagrass <sup>3</sup> (for sprigging see footnote 3)	ОК	OK	OK	OK	OK
Creeping bentgrass	OK	NO	NO	NO	OK
Fine fescue (in blend)	OK	NO	NO	NO	OK
Hybrid Bermudagrass <sup>3</sup> (for sprigging see footnote 3)	ОК	OK	OK	OK	OK
Kentucky bluegrass	OK	NO	NO	NO	OK
Perennial ryegrass	OK	OK	NO	NO	OK
Seashore paspalum <sup>3,4</sup> (for sprigging see footnote 3)	NO	NO	NO	OK	OK
Tall fescue	OK	OK	OK	OK	OK
Zoysiagrass <sup>3</sup> (for sprigging see footnote 3)	ОК	OK	OK	ОК	OK

<sup>1</sup> **NOTE:** No adjuvant or additive should be used when **Drive<sup>®</sup> XLR8 herbicide** applications are made on newly emerged turfgrass seedlings until 28 days after emergence. With the exception of seashore paspalum, a **Drive XLR8** application rate of 1.45 fl ozs/1000 sq ft (0.75 lb ae/A) can be made to all other turfgrass species in **Table 4**.

<sup>2</sup> Drive XLR8 can be applied 7 days or greater prior to seeding.

<sup>3</sup> Drive XLR8 can be used anytime prior to, at or after sprigging as indicated by turfgrass species in Table 4.

<sup>4</sup>0.75 fl oz to 1.45 fl ozs/1000 sq ft (0.37 to 0.75 lb ae/A) application can be made at times indicated in **Table 4**.

Time **Drive XLR8** application around the seeding operations using the chart above as a reference point.

#### Table 5. Spot Spraying with Drive XLR8

* <b>Spray Mix Volume</b> (gallons)	Drive XLR8 Product in Mix (tablespoons)	MSO Adjuvant in Mix (tablespoons)
1	3	1.5
2	6	3.0
3	9	4.5

\* Apply at the rate of 1 gallon per 1000 sq ft.

1 tablespoon = 0.5 fl oz (0.25 lb ae/A) of **Drive XLR8** product.

**NOTES:** For consistent results, make **Drive XLR8** application to newly germinated crabgrass, to 1-tiller crabgrass, and when crabgrass has matured to 5 tillers or greater. Under certain conditions, applications of **Drive XLR8** made to annual grasses 2-tiller to 4-tiller may not provide complete control. A sequential application will be required for grass control in these situations.

**Spot Treatment in New York:** Spray individual weeds only. Adjust the sprayer to coarse spray to minimize wind drift. Apply to center of the weed and spray lightly to cover.

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007969-00272.20180517.**NVA 2018-04-310-0041** Supersedes: NVA 2017-04-310-0213

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