



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

December 14, 2014

Jennifer L. DeCarlo  
Registration Manager  
Cheminova, Inc  
1600 Wilson Blvd., Suite 700  
Arlington, VA 22209

Subject: Label Amendment – Adding Combustible Statement  
Product Name: Dawn Herbicide  
EPA Registration Number: 67760-93  
Application Date: July 14, 2014  
Decision Number: 493933

Dear Ms. DeCarlo:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

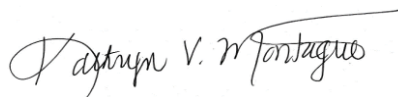
A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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 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) list 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.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance

with FIFRA section 6. If you have any questions, please contact Grant Rowland by phone at 703-347-0254, or via email at [Rowland.Grant@epa.gov](mailto:Rowland.Grant@epa.gov).

Sincerely,

A handwritten signature in cursive script, reading "Kathryn V. Montague". The signature is written in black ink and is positioned above the printed name and title.

Kathryn Montague, Product Manager 23  
Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

**ACCEPTED**

**12/14/2014**

Under the Federal Insecticide, Fungicide  
and Rodenticide Act as amended, for the  
pesticide registered under  
EPA Reg. No. 67760-93

## **Dawn® Herbicide**

### **ACTIVE INGREDIENT:**

**Sodium salt of fomesafen:** 5- [2-chloro-4-(trifluoromethyl)phenoxy]-

N-(methylsulfonyl)-2-nitrobenzamide .....22.8%

**OTHER INGREDIENTS:** .....77.2%

**TOTAL:** ..... 100.0%

Equivalent to 21.7% or 2 pounds fomesafen active ingredient per gallon.

## **KEEP OUT OF REACH OF CHILDREN WARNING/AVISO**

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.)

**IN CASE OF A MEDICAL EMERGENCY INVOLVING THIS PRODUCT, CALL  
TOLL FREE, DAY OR NIGHT 1-866-303-6950**

Read the entire label before using this product.

Use only according to label instructions.

Read the WARRANTY DISCLAIMER, INHERENT RISKS OF USE, and LIMITATION OF REMEDIES before buying or using.

If terms are not acceptable, return product unopened without delay.

SEE LABEL BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND USE DIRECTIONS.

***Note to PM,** the following bracketed statements are individually optional depending on the packaging configuration and whether a booklet label design is used:*

- a. [See First Aid statement on back panel of booklet.]
- b. [See First Aid statement on back panel.]
- c. [See additional precautionary statements and Directions for Use in booklet.]
- d. [Read the entire label before using this product. See First Aid, Precautionary Statements, Directions for Use on individual packages.]

**EPA Reg. No. 67760- 93**

**EPA Est. No.**

### **Net contents:**

Cheminova, Inc.  
P.O. Box 110566  
Research Triangle Park, NC 27709  
[1-800-548-6113](tel:18005486113)

FIRST AID	
If in eyes	<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.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
If swallowed	<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>• 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 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>
If inhaled	<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 by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>Note to Physician:</b> Probable mucosal damage may contraindicate the use of gastric lavage.	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. <b>In case of a medical emergency involving this product, call toll free, day or night, 1-866-303-6950.</b>	

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING/AVISO

Causes substantial but temporary eye injury. Harmful if swallowed. Do not get in eyes or on clothing. Wear: Long-sleeved shirt and long pants, socks and shoes. Wear protective eyewear (goggles, face shield, or safety glasses).

#### Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below.

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate or viton
- Shoes plus socks
- Protective eyewear

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.

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.

USER SAFETY RECOMMENDATIONS
<b>Users should:</b> <ul style="list-style-type: none"> <li>• Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.</li> <li>• Remove and wash contaminated clothing before reuse.</li> <li>• Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.</li> <li>• 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.</li> </ul>

## ENVIRONMENTAL HAZARDS

**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 wash waters. **DO NOT** apply when weather conditions favor drift from target area.

This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

## PHYSICAL OR CHEMICAL HAZARDS

**Combustible.** Do not use or store near heat or open flame.

## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

### WARRANTY DISCLAIMER

Cheminova warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, CHEMINOVA MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

### INHERENT RISKS OF USE

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Cheminova or the Seller. All such risk, to the extent consistent with applicable law, shall be assumed by Buyer and User. To the extent consistent with applicable law, the Buyer and User agree to hold Cheminova and the Seller harmless for any claims related to such factors.

### LIMITATION OF REMEDIES

To the extent consistent with applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories) shall be limited to one of the following, at Cheminova's election:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used.

To the extent consistent with applicable law, Cheminova shall not be liable for consequential, incidental, or special damages or losses in any matter.

The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Cheminova or the Seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

## 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.

### 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 apply only 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
- Chemical-resistant gloves such as barrier laminate or viton
- Shoes plus socks
- Protective eyewear .

### INFORMATION

Read all label directions before using.

**Dawn® Herbicide** is a selective herbicide that may be applied preplant, preemergence, and/or postemergence for control and suppression of broadleaf and grass weeds and sedges.

**Dawn Herbicide** is generally most effective and consistent when used postemergence, working through contact action. Therefore, emerged weeds must be thoroughly covered with spray. Some bronzing, crinkling or spotting of labeled crop leaves may occur following postemergence applications, but labeled crops soon outgrow these effects and develop normally.

Optimum broad-spectrum weed control is achieved by postemergence applications of **Dawn Herbicide** to young actively growing broadleaf weeds that are not under stress from moisture, temperature, low soil fertility, or mechanical or chemical injury.

Certain germinating broadleaf and grass weeds and sedges may be controlled, or suppressed by soil residual activity from either preplant, preemergence or postemergence applications if rainfall occurs shortly after application. The extent and consistency of soil activity are dependent upon soil type, ground cover at time of application, amount of rainfall, and the rate of **Dawn Herbicide** used.

### APPLICATION DIRECTIONS

#### DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator and the grower. The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator and grower must consider the interaction of equipment and weather-related factors to ensure that the potential for drift to sensitive non-target plants is minimal.

This pesticide may only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, non-target plants) is minimal (i.e., when the wind is blowing away from the sensitive area).

#### TIMING

Best broad-spectrum postemergence control of susceptible broadleaf weeds is obtained when Dawn Herbicide is applied early to actively growing weeds. This usually occurs 14 to 28 days after planting. Refer to the weed tables for specific recommendations on weed growth stages, rates, and regions.

## SPRAY ADDITIVES

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

For best broad-spectrum postemergence control of susceptible broadleaf weeds in Regions 2,3,4 and 5 (see Regional Use Maps), Dawn Herbicide can be used with a minimum of 2.5% liquid nitrogen (28% or similar) or a minimum of 10 pounds ammonium sulfate 'per 100 gallons of spray volume;

**For Postemergence Applications Always Add One Of The Following Except in Tank Mix With Products Prohibiting Spray Additives (see Tank-Mix Directions for Use):**

### NONIONIC SURFACTANT (NIS)

Use NIS containing at least 75% surface active agent at 0.25 to 0.5% (1/2 to 1 pint per 25 gallons) of the finished spray volume (use in Region 1 and East of Interstates 79 and 77 for Regions 2 and 3).

### CROP OIL CONCENTRATE (COC)

Use a nonphytotoxic COC or a once-refined vegetable oil concentrate (VOC, MSO) containing 15-20% approved emulsifier, at 0.5-1% (1-2 pints per 25 gallons) of the finished spray volume. COC can improve weed control but may slightly reduce crop tolerance.

### OTHER ADJUVANTS

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

1. Contains only EPA exempt ingredients.
2. Is nonphytotoxic to the target crop.
3. Is compatible in mixture. (May be established through a jar test.)
4. Is supported locally for use with **Dawn Herbicide** on the target crop through proven field trials and through university and extension recommendations.

**NOTE:** No adjuvants are needed for preplant or preemergence applications unless **Dawn Herbicide** is being used in a burndown.

### Recommended Mixing Order:

1. Half required amount of water, begin agitation. \*
2. Dry pesticide formulation.
3. **Dawn Herbicide** Herbicide.
4. Liquid pesticide formulation. \*\*
5. Adjuvant (MOS, COC, or NIS) and fertilizer.

\*Compatibility agent, 1 gallon/500 gallons of water or 0.2% v/v, may be added as needed.

\*\*Tank mixing with glyphosate formulations containing more than 4 pounds glyphosate active ingredient per gallon may result in precipitate forming. If precipitate forms in spray tank, add ammonia (household) to the spray tank at a concentration of 2% of the total tank volume to remove precipitate.

## GROUND APPLICATION

Use sufficient spray volume and pressure to ensure complete coverage of the target. A spray volume of 10-20 gallons per acre and 30-60 psi at the nozzle tip is recommended. On large weeds and/or dense foliage, use 60 psi and a minimum of 20 gallons per acre to ensure coverage of weed foliage.

The use of flat fan nozzles will result in the most effective application of **Dawn Herbicide**. Use nozzles that are set up to deliver medium quality spray (ASAE Standard S-572).

**DO NOT USE FLOOD TYPE OR OTHER SPRAY NOZZLES, WHICH DELIVER COARSE, LARGE-DROPLET SPRAYS.**

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

## BAND APPLICATIONS

Thorough weed coverage is important for postemergence control. Best coverage is obtained with a minimum of two nozzles, one directed to each side of the planted row. Application with a single nozzle directed over the top of the row is not recommended for postemergence applications but is suitable for preemergence applications. Cultivation of untreated areas may be needed following band applications. When making postemergence band applications and cultivating in the same operation, position nozzles in advance of the cultivation device. This will reduce dust in the spray area. Dust can intercept spray, reducing weed coverage and resulting in less than adequate weed control.

Calculate the amount of herbicide and water volume needed for postemergence band treatment by the following formulas:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{broadcast rate per acre} = \text{Band herbicide rate per acre}$$
$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{broadcast volume per acre} = \text{Band water rate per acre}$$

## AERIAL APPLICATION

Use sufficient spray volume and pressure to ensure complete coverage of the target. A minimum of 5 gallons per acre of spray mixture should be applied with a maximum of 40 PSI pressure. When broadleaf weed foliage is dense, use a minimum of 10 gallons per acre to ensure coverage of weed foliage.

## CULTIVATION

Cultivation prior to application is not recommended. Cultivation may put weeds under stress, reducing weed control. Timely cultivation 1-3 weeks after applying Dawn Herbicide may assist weed control.

## PRECAUTIONS

- Thoroughly clean the spray system with water and a commercial tank cleaner before and after each use.
- Tank mixes of **Dawn Herbicide** Herbicide with other pesticides, fertilizers, or any other additives except as specified on this label or other approved Cheminova supplemental labels may result in tank-mix incompatibility, unsatisfactory performance, or unsatisfactory crop injury.
- **Dawn Herbicide** Herbicide requires a 1-hour rain-free period for best results when applied postemergence.
- Apply postemergence to actively growing weeds. Avoid applying **Dawn Herbicide** to weeds or labeled crops that are under stress from moisture, temperature, low soil fertility, or mechanical or chemical injury, as reduced weed control and/or increased crop injury may result.
- Avoid overlapping spray swaths, as injury may occur to rotational crops.
- To provide adequate coverage, it is recommended that ground speed not exceed 10 mph during application.

## RESTRICTIONS

- A maximum of 1.5 pts. of **Dawn Herbicide** Herbicide (or a maximum of 0.375 lb. a.i./A of fomesafen from any product containing fomesafen) may be applied per acre per year in Region 1 (see Regional Use Map).
- A maximum of 1.5 pts. of **Dawn Herbicide** Herbicide (or a maximum of 0.375 lb. a.i./A of fomesafen from any product containing fomesafen) may be applied per acre in

ALTERNATE years in Region 2 (see Regional Use Map).

- A maximum of 1.25 pts. of **Dawn Herbicide** Herbicide (**or a maximum of 0.313 lb. a.i./A of fomesafen from any product containing fomesafen**) may be applied per acre in ALTERNATE years in Region 3 (see *Regional Use Map*).
- A maximum of 1 pt. of **Dawn Herbicide** Herbicide (**or a maximum of 0.25 lb. a.i./A of fomesafen from any product containing fomesafen**) may be applied per acre in ALTERNATE years in Region 4 (see Regional Use Map).
- A maximum of 0.75 pt. of **Dawn Herbicide** Herbicide (**or a maximum of 0.1875 lb. a.i./A of fomesafen from any product containing fomesafen**) may be applied per acre in ALTERNATE years in Region 5 (see Regional Use Map).
- Do not graze treated areas or harvest for forage or hay.
- Do not make ground or aerial application during temperature inversions.
- Avoid drift to all other crops and non-target areas. Crops other than those labeled may be severely injured by drift. Do not apply when wind velocity exceeds 15 mph.

## ROTATIONAL CROP RESTRICTIONS

The following rotational crops may be planted after applying Dawn Herbicide at recommended rates:

Crop To Be Planted	Minimum Rotation Interval (Months After Last <b>Dawn Herbicide</b> Application)
Dry beans, snap beans, soybeans and cotton	0
Small grains such as wheat, barley, rye	4
Corn*, peanuts, peas, rice	10
. To avoid crop injury do not plant alfalfa, sunflowers, sugar beets, sorghum** or any other crop within 18 months	18

Do not graze rotated small grain crops or harvest forage or straw for livestock. In the event of a crop loss due to weather conditions cotton, dry beans, snap beans, or soybeans can be replanted.

\* Use a 12-month minimum rotation interval for popcorn in the states of Ohio, Kentucky, Illinois, Indiana, Iowa, and Region 4 when applied at rates of 1.0 pint per acre or more.

\* Use 18-month minimum rotation interval for sweet corn in the states of Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont and Region 5.

\*\*Sorghum may be planted back after 10 months in Region 1.

## USE RATES AND WEEDS CONTROLLED

### DAWN HERBICIDE REGIONAL USE MAP



#### REGION 1 (Maximum Rate 1.5 pts./A per year)



. **REGION 1** - Includes the following states or portion of states where **Dawn Herbicide** may be applied:

Alabama, Arkansas, Georgia, Louisiana, Mississippi, Missouri (counties of Bollinger, Butler, Cape Girardeau, Dunklin, Madison, Mississippi, New Madrid, Pemiscot, Perry, Ripley, Scott, Stoddard, and Wayne), North Carolina, Oklahoma (East of U.S. Highway 75 and East of Indian Nation Parkway), South Carolina, Tennessee, and Texas (includes area East of U.S. Highway 77 to State Road 239 including all of Calhoun County).

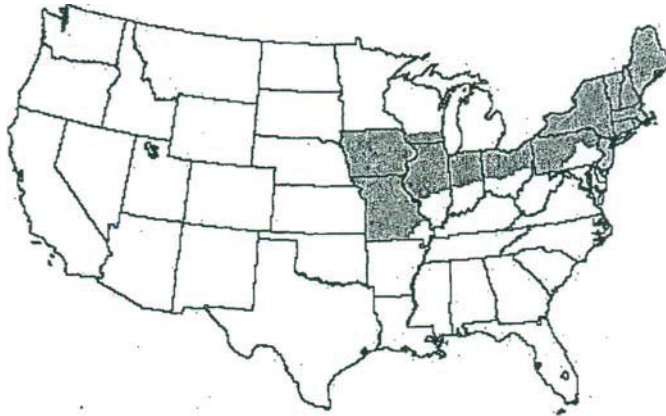
**REGION 2**  
**(Maximum Rate 1.5 pts./A, alternate years)**



**REGION 2** - Includes the following states or portion of states where **Dawn Herbicide** may be applied:

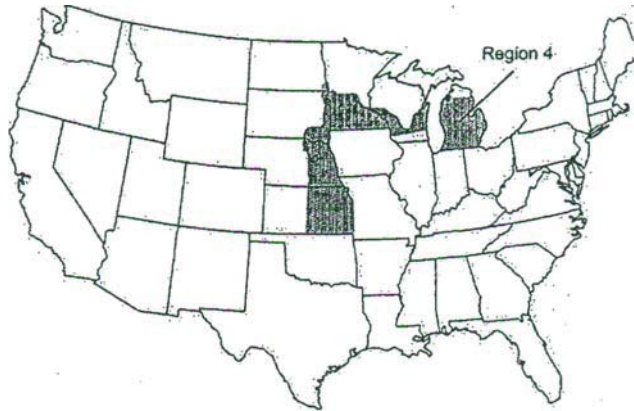
Delaware, Kentucky, Maryland, Virginia, West Virginia, South of Interstate 70 in the following states: Illinois, Indiana and Ohio and all areas South of Interstate 80 to the intersection of U.S. Highway 15 and East of U.S. Highway 15 and U.S. Highway 522 in Pennsylvania.

**REGION 3**  
**(Maximum Rate 1.25 pts./A, alternate years)**



**REGION 3** - Includes the following states or portion of states where **Dawn Herbicide** may be applied: Connecticut, Iowa, Maine, Massachusetts, Missouri (all counties except for those listed in Region 1), New Hampshire, New Jersey, New York, Pennsylvania (all areas except those listed in Region 2), Rhode Island, Vermont and Wisconsin (South of U.S. Highway 18 between Prairie Du Chien and Madison, and South of Interstate 94 between Madison and Milwaukee), and North of Interstate 70 in following states: Indiana, Illinois and Ohio.

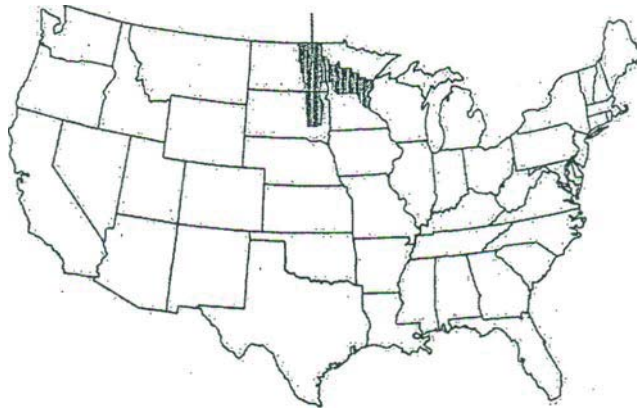
**REGION 4**  
**(Maximum Rate 1 pint per acre, alternate years)**



**REGION 4** - Includes the following states or portion of states where **Dawn Herbicide** may be applied:

Kansas (all counties East of or intersected by U.S. Highway 281), Michigan (Southern Peninsula), Minnesota (all areas South of Interstate 94), Nebraska (all counties East of or intersected by U.S. Highway 281), and Wisconsin (all areas, except those in Region 3, South of Interstate 94 from Minnesota state line to Eau Claire and South of U.S. Highway 29 from Eau Claire to Green Bay plus Door and Kewaunee counties .. The following counties are excluded: Clark, Marathon, Wood, Portage, Adams, Shawano, Waupaca, Waushara, and Marquette). North Dakota (all areas East of Interstate 29 from Fargo South to the South Dakota state line). South Dakota (all areas East of Interstate 29 from the North Dakota state line to Watertown, all areas East of Highway 81 from Watertown to Madison and all areas East and South of State Road 34 and U.S. Highway 281 to the Nebraska state line).

**REGION 5**  
**(Maximum Rate 0.75 pint per acre, alternate years)**



**REGION 5** - Includes the following states or portion of states where **Dawn Herbicide** may be applied:

North Dakota (all areas East of U.S. Highway 281 except those areas in Region 4), South Dakota (all areas East of U.S. Highway 281 except those areas in Region 4) and Minnesota (all areas South of U.S. Highway 2 except those areas in Region 4).

## APPLICATION RATES FOR WEED GROWTH STAGES

	Dawn Herbicide Rate (pt. /A)			
	Maximum Growth Stage Controlled At			
Weed	3/4 pt./A No. of True leaves	1 pt./A No. of True Leaves	1.25 pts./A No. of True Leaves	1.5 pts./A No. of True Leaves
Anoda, Spurred	--	--	--	2
Balloonvine	--	--	2 <sup>c</sup>	2
Carpetweed	--	6" Diameter Size	Multi-leaf 6" Diameter	Unlimited Size
Citron (Wild Watermelon)	--	2	2	4
Cocklebur, Common <sup>a,b,d</sup>	--	-	2	4
Copperleaf, Hophornbeam <sup>d</sup>	--	2	2	4
Copperleaf, Virginia	--	2	2	4
Crotalaria, Showy	--	4	4	6
Croton, Tropic <sup>d</sup>	--	2	2	4
Cucumber, Volunteer	--	4	4	6
Eclipta	--	2	2	4
Groundcherry, Cutleaf	--	4	4	6
Hemp <sup>b</sup>	--	--	4	6
Horsenettle <sup>b</sup>	--	2 <sup>c</sup>	3 <sup>c</sup>	4 <sup>c</sup>
Jimsonweed <sup>d</sup>	2	4	6	8
Ladysthumb	--	2	2	4
Lambsquarters, Common <sup>c</sup>	--	2	2	2
Mexicanweed	--	2 <sup>c</sup>	2 <sup>c</sup>	2
Morningglory <sup>d</sup>				
Cypressvine	--	4	4	6
Entireleaf var.	2 <sup>c</sup>	2	2	4
Ivyleaf	2 <sup>c</sup>	2	2	4
Purple Moonflower	--	2	4	4
Red (Scarlet)	--	2	2	4
Smallflower	--	2	2	4
Pitted (Small white)	--	4	4	4
Tall (Common)	2 <sup>c</sup>	2	2	3
Palmleaf (Willowleaf)	--	2	2	4

Weed	Dawn Herbicide Rate (pt./A) Maximum Growth Stage Controlled At			
	3/4 pt./A No. of True Leaves	1 pt./A No. of True Leaves	1.25 pts./A No. of True Leaves	1.5 pts./A No. of True Leaves
Mustard, Wild	2	4	6	8
Nightshade, Black	2	4	4	4
Nutsedge, Yellow <sup>d</sup>	--	--	--	Suppression Only
Pigweed, spp. <sup>d</sup>				
Amaranth, Palmer	2 <sup>c</sup>	2	2	2
Amaranth, Spiny	2 <sup>c</sup>	2	2	4
Redroot	2 <sup>c</sup>	4	4	4
Smooth	2 <sup>c</sup>	4	4	4
Waterhemp, Common	2 <sup>c</sup>	2	2	2
Waterhemp, Tall	2 <sup>c</sup>	2	2	2
Poinsettia, Wild	--	--	--	3
Purslane, Common	--	Multi-Leaf 6" Diameter	Multi-Leaf 6" Diameter	Multi-Leaf 8" Diameter
Pusley, Florida	--	--	--	2
Ragweed, Common <sup>d</sup>	2	4	4	6
Ragweed Giant <sup>b</sup>	--	--	4	4
Redweed	--	--	--	3 <sup>c</sup>
Sesbania, Hemp	--	6	6	12
Sicklepod	--	--	--	Cotyledon <sup>c</sup>
Sida, Prickly <sup>d</sup>	--	--	--	Cotyledon <sup>c</sup> .
Smartweed, Pennsylvania	2 <sup>c</sup>	4	4	6
Smellmelon	--	--	--	2
Spurge, Prostrate	--	--	--	1" Diameter <sup>c</sup>
Spurge, Spotted	--	--	--	2c
Starbur, Bristly	--	2	2	4
Sunflower, Common	--	--	--	2
Velvetleaf <sup>b</sup>	--	--	2	4
Venice Mallow	2	4	4	6
Witchweed	--	Multi-leaf Up to 7"	Multi-leaf Up to 7"	Multi-leaf Up to 10"
Yellow Rocket	2	4	6	6

<sup>a</sup> Do not apply in cotyledon stage.

<sup>b</sup> It is necessary to use 1% MSO and 2.5% UAN v/v as an adjuvant in Regions 2 and 3.

<sup>c</sup> Suppression only.

<sup>d</sup> **Dawn Herbicide** may provide preemergence activity at 1-1.5 pints/A.

## SPECIAL USE DIRECTIONS FOR ADDITIONAL WEED PROBLEMS

### Suppression of Annual Grass Weeds

The grass weeds listed below may be suppressed by postemergence applications and controlled or suppressed by preemergence applications of **Dawn Herbicide** at 1 to 1-1/2 pints/acre. Consult Use Rate Table for maximum rate in each region. For full-season broadspectrum annual grass control, consult tank-mix section.

Barnyardgrass Broadleaf  
signalgrass Crabgrass  
Foxtail  
Giant  
Green  
Yellow  
Goosegrass  
Johnsongrass, Seedling  
Panicum, Fall  
Panicum, Texas

### Suppression of Perennial Weeds

Use of **Dawn Herbicide** postemergence at rates of 1-1.5 pts./A will aid in suppressing the aboveground portions of the weeds listed below until crop canopy can assist in suppression. Perennial weeds continue to regrow from underground rootstocks even if aboveground foliage is temporarily controlled or retarded. Even though **Dawn Herbicide** and crop competition can suppress perennial weeds for a growing season, the rootstocks will continue to live, and reestablishment will occur in subsequent years.

Milkweed, Climbing  
Milkweed, Honeyvine  
Bindweed, Field  
Bindweed, Hedge  
Trumpet creeper

## CROP USE DIRECTIONS

### COTTON

#### Early Preplant Application on Medium and Fine –Textured Soils in the States of Alabama, Arkansas, Louisiana, Mississippi and Missouri

Apply DAWN HERBICIDE to medium or fine-textured soils (i.e. soil types heavier than coarse textured soils) at 1.0 pint per acre ~~up to from 14~~ 21 days prior to planting of cotton. DAWN HERBICIDE will provide preemergence control of Palmer amaranth (including glyphosate-resistant Palmer amaranth) pigweed species, and control or partial control of other broadleaf weeds, sedges and grasses listed on the federal label.

To broaden the weed control spectrum, DAWN HERBICIDE may be tank mixed with other preemergence herbicides such as Caparol®, Cotoran®, Direx®, Karmex®, Solicam®, or Staple®. For control of emerged weeds, DAWN HERBICIDE may be tank mixed with a burndown herbicide such as dicamba, Gramoxone Inteon™ or glyphosate brands (such as Touchdown®, Roundup®) labeled in cotton. Refer to the tank-mix partner label for use directions, restrictions and limitations. The most restrictive product labeling applies.

Cotton plants are tolerant to preplant applications of DAWN HERBICIDE when applied at the recommended rate and application use directions. Some crinkling or spotting of cotton foliage or stunting may occur, but cotton plants normally outgrow these effects and develop normally.

### Restrictions

- After DAWN HERBICIDE application, ~~a minimum of 14-day interval must be maintained~~

~~AND~~ a minimum of 0.5 inch of rainfall or overhead irrigation must occur before planting cotton on medium or fine-textured soils. Failure to follow this ~~this~~ use directions will result in severe crop injury.

- Do not disturb or re-work the seedbed following a DAWN HERBICIDE application.
- Cotton must be planted at least 0.75 inch in depth.

### Precautions

- Avoid overlapping spray swaths.
- The use of an in-furrow or seed applied fungicide will generally assist with seedling establishment and development.

### Preemergence

Apply **Dawn Herbicide** preemergence at 1-1.5 pints per acre in cotton. Apply as a preemergence treatment only to coarse-textured soils (sandy loam, loamy sand, sandy clay loam). **Do not** apply as a preemergence treatment to medium or fine-textured soils as crop injury will likely occur.

Apply preemergence as a broadcast or banded treatment in a minimum of 10 gallons spray solution per acre. Adequate rainfall or irrigation within 7 days of application is required for **Dawn Herbicide** activation. Preemergence applications of **Dawn Herbicide** will provide improved residual control of difficult-to-control weeds such as wild poinsettia, eclipta, cocklebur, morningglory species, prickly sida, velvetleaf, lambsquarters, spurred anoda, common ragweed and pigweed species (including herbicide-resistant Palmer amaranth). **Dawn Herbicide** is effective on yellow nutsedge tubers prior to emergence. The extent of yellow nutsedge activity is dependent upon the time lapsed between tillage and application and between application and rainfall or irrigation.

To broaden the weed control spectrum, **Dawn Herbicide** may be tank mixed with other preemergence herbicides such as Caparol®, Cotoran®, Direx®, Karmex®, Staple®. For control of emerged weeds, **Dawn Herbicide** may be tank mixed with a burndown herbicide such as Gramoxone®Max, Gramoxone Inteon™, Ignite® or glyphosate brands (such as Glyfos X-TRA, Touchdown®, Roundup®) labeled in cotton.) In reduced tillage plantings, **Dawn Herbicide** can be applied up to 14 days prior to planting or at planting with a burndown herbicide. Refer to the tank-mix partner label for use directions, restrictions, and limitations. The most restrictive labeling applies.

Cotton plants are tolerant to preemergence applications of **Dawn Herbicide** when applied at recommended rates. Some crinkling or spotting of cotton foliage or stunting may occur, especially if heavy rainfall occurs during or soon after cotton emergence, but cotton plants normally outgrow these effects and develop normally.

Cotton foliage is not tolerant to **Dawn Herbicide**. Do not apply **Dawn Herbicide** over the top of emerged cotton as unacceptable cotton injury will occur.

Do not apply more than 1.5 pints per acre of **Dawn Herbicide** in any year.

### Post-Directed Application

Apply **Dawn Herbicide** in emerged cotton as a post-directed treatment using precision post-directed, hooded, or shielded application equipment to provide complete coverage of emerged weeds. Apply **Dawn Herbicide** at 1-1.5 pints per acre in a minimum of 10 gallons spray solution per acre. Applications may be made broadcast or banded. Post-directed applications of **Dawn Herbicide** will provide contact control of labeled emerged weeds and residual preemergence control of labeled weeds (once activated by rainfall or irrigation). See previous label sections for a list of weeds controlled, recommended application rates, weed growth stages, and application directions.

**Dawn Herbicide** should be applied with non-ionic surfactant at 0.25 to 0.5% v/v, or crop oil concentrate at 1% v/v to emerged weeds. Do not add liquid nitrogen (28% or similar) to **Dawn Herbicide** or **Dawn Herbicide** tank mixes in cotton.

To broaden the weed control spectrum, post-directed applications of **Dawn Herbicide** may be tank mixed with other labeled post-directed herbicides such as Caparol®, DSMA, Direx, Dual MAGNUM®, Envoke®, Karmex, Layby™ Pro, MSMA, Sequence®, or Suprend®. When applied with hooded or shielded sprayers, **Dawn Herbicide** and **Dawn Herbicide** tank mixes may be applied with burndown products such as Gramoxone®Max, Gramoxone Inteon™, Sequence®, or glyphosate brands (such as, Glyfos® X-TRA, Touchdown®, Roundup®) labeled for in-crop application in cotton. Refer to the tank-mix partner label for use directions, restrictions, and limitations. The most restrictive labeling applies.

Cotton foliage is not tolerant to **Dawn Herbicide** applications. Avoid contact to cotton foliage as unacceptable injury will occur. Application equipment should be calibrated (spray pressure, nozzle type and configuration, and orifice size) to avoid fine spray droplets contacting green stems or cotton foliage.

#### **Post-Directed Application Timing in Cotton**

**Dawn Herbicide** may be applied to cotton at least 6 inches in height through layby as a post-directed application. All post-directed applications should avoid spray contact with any green non-barked parts of the cotton plant or foliage as unacceptable injury will occur. Follow the application timing recommendations below for specific post-directed applications in cotton.

#### **Shield and Hooded Applications**

Make a precision post-directed **Dawn Herbicide** application to the base of the cotton plant avoiding contact with the cotton stem or foliage when cotton is at least 6 inches in height with less than 4 inches of brown bark. Use only hooded or shielded spray equipment to apply **Dawn Herbicide** in cotton that is 6 inches to 12 inches in height. Adjust nozzles to provide full coverage of emerged target weeds.

#### **Layby Applications**

Make a post-directed **Dawn Herbicide** application to the base of the cotton plant avoiding contact with any non-barked portion of the cotton plant or foliage. Use precision post-directed equipment or hooded or shielded sprayers on cotton that has developed a minimum of 4 inches of brown bark through layby. Application equipment should be configured to provide full coverage of emerged target weeds.

Do not apply **Dawn Herbicide** later than 70 days before harvest.

Do not apply more than 1.5 pints per acre of **Dawn Herbicide** in any year.

**Texas: West of Highway 277 from Wichita Falls to Anson, and north of Highway 180 to the New Mexico and Oklahoma state lines including Fisher, Scurry, Borden and Dawson counties and excluding Gaines county for control of weeds, including glyphosate-resistant palmer amaranth and suppression of Lakeweed in Cotton.**

#### **EARLY PREPLANT APPLICATION FOR IRRIGATED AND NON-IRRIGATED COTTON IN WEST TEXAS**

Apply DAWN HERBICIDE at 1pt/A from 14 to 21 days prior to planting of cotton. A minimum of 14-day interval must be maintained AND a minimum of 0.5 inch of rainfall or overhead sprinkler irrigation must occur before planting of cotton. Refer to the federal label for a list of weeds controlled and application directions.

#### **PREEMERGENCE APPLICATION FOR OVERHEAD BROADCAST SPRINKLER IRRIGATED COTTON ONLY IN WEST TEXAS**

For overhead broadcast sprinkler irrigated cotton only, DAWN HERBICIDE may be applied at 1 pt/A immediately after planting of cotton provided that 0.5 inch of irrigation is

applied prior to cotton cracking the soil surface. Refer to the federal label for a list of weeds controlled and application directions.

To broaden the weed control spectrum, DAWN HERBICIDE may be tank mixed with other residual herbicides such as Caparol®, Cotoran®, Direx®, Karmex®, Solicam®, or Staple®. For control of emerged weeds, DAWN HERBICIDE may be tank mixed with a burndown herbicide such as Gramoxone Inteon™ or glyphosate brands (such as Touchdown®, Roundup®) labeled in cotton. Refer to the tank-mix partner label for use directions, restrictions and limitations. The most restrictive product labeling applies. Cotton plants are tolerant to early preplant and preemergence applications of DAWN HERBICIDE when applied at recommend rates and application methods. Some crinkling or spotting of cotton foliage or stunting may occur, especially if heavy rainfall occurs during or soon after cotton emergence, but cotton plants normally outgrow these effects and develop normally.

Cotton foliage is not tolerant to DAWN HERBICIDE. Do not apply DAWN HERBICIDE over the top of emerged cotton as unacceptable cotton injury will occur.

### **POST-DIRECTED APPLICATION FOR IRRIGATED AND NON-IRRIGATED COTTON IN WEST TEXAS**

Apply DAWN HERBICIDE in emerged cotton as a post-directed treatment using precision post-directed, hooded or shielded application equipment to provide complete coverage of emerged weeds. Apply DAWN HERBICIDE at 1 pt/A in a minimum of 10 gallons spray solution per acre. Applications may be made broadcast or banded. Post-directed applications of DAWN HERBICIDE will provide contact control of labeled emerged weeds and residual preemergence control of labeled weeds (once activated by rainfall or irrigation). Refer to the federal label for a list of weeds controlled, weed growth stages, and application directions. A post-directed application may be made up to July 10.

DAWN HERBICIDE should be applied with a non-ionic surfactant at 0.25 to 0.5% v/v or crop oil concentrate at 1% v/v to emerged weeds. Do not add liquid nitrogen (28% or similar) to DAWN HERBICIDE, or DAWN HERBICIDE tank mixes in cotton.

To broaden the weed control spectrum, post-directed applications of DAWN HERBICIDE may be tank mixed with other labeled post-directed herbicides such as Caparol, DSMA, Direx, Dual MAGNUM®, Karmex, Layby™ Pro, MSMA, or Sequence®. When applied with hooded or shielded sprayers, DAWN HERBICIDE and DAWN HERBICIDE tank mixes may be applied with burndown products such as Gramoxone Inteon, Ignite®, Sequence® or glyphosate brands (such as Touchdown, Roundup) labeled for in crop application in cotton.

Refer to the tank-mix partner label for use directions, restrictions and limitations. The most restrictive product labeling applies.

Cotton foliage is not tolerant to DAWN HERBICIDE applications. Avoid contact to cotton foliage as unacceptable injury will occur. Application equipment should be calibrated (spray pressure, nozzle type, orifice size and configuration) to avoid fine spray droplets contacting green cotton stems and foliage.

### **Post-Directed Application Timing in Irrigated and Non-Irrigated Cotton in West Texas**

DAWN HERBICIDE may be applied to cotton at least 6 inches in height through layby as a post-directed application. All post-directed applications should avoid spray contact with any green non-barked parts of the cotton plant or foliage as unacceptable injury will occur. Follow the application timing recommendations below for post-directed applications in cotton.

#### **Shielded and Hooded Applications**

Make a precision post-directed Reflex application to the base of the cotton plant

avoiding contact with the cotton stem or foliage when cotton is at least 6 inches in height to avoid cotton injury. Use only hooded or shielded spray equipment to apply DAWN HERBICIDE in cotton that is a minimum 6 inches in height. Adjust nozzles to provide full coverage of emerged target weeds.

### Layby Applications

Make a post-directed DAWN HERBICIDE application to the base of the cotton plant avoiding contact with any non-barked portion of the cotton plant or foliage. Use precision post-directed equipment or hooded or shielded sprayers on cotton that has developed a minimum of 4 inches of brown bark through layby. Application equipment should be configured to provide full coverage of emerged target weeds.

## ROTATIONAL CROP RESTRICTIONS FOR IRRIGATED AND NON-IRRIGATED COTTON IN WEST TEXAS

### Rotational Crop Restrictions for Overhead Broadcast Sprinkler Irrigation Only

The irrigation method must be overhead broadcast sprinkler irrigation only. For a DAWN HERBICIDE early preplant or preemergence application, a total of 13 inches of irrigation must be applied following application through August 31. For a DAWN HERBICIDE post-directed application, a minimum of 10 inches of irrigation must be applied following application through August 31. A post-direct application may be made up to July 10.

The following table provides rotational crop intervals for overhead broadcast sprinkler irrigated cotton. If irrigation practices are not implemented as described above, follow the rotational crop intervals for non-irrigated cotton (see **Rotational Crop Restrictions for Non-Irrigated Cotton** table).

Rotational Crop	Minimum Rotational Interval after DAWN HERBICIDE Application (Months)	DAWN HERBICIDE Rate and Application Frequency in Cotton
Cotton, dry beans, snap beans and soybeans	0	Up to 1pt/A applied once every year.
Peanuts	10	Up to 1pt/A applied once every two years.
Field Corn (soils <1.5% OM)	24	Up to 1pt/A applied once every two years.
Field Corn (soils >+1.5% OM)	34	Up to 1pt/A applied once every two years.
Wheat (soils <+2% OM)	15	Up to 1pt/A applied once every two years.
Whate (soils >2% OM)	24	Up to 1pt/A applied once every two years.
Sorghum	>36*	Up to 1pt/A applied once every three years.
All other crops	>36*	Up to 1pt/A applied once every three years.

\*To avoid crop injury a successful field bioassay (refer to **Field Bioassay Instructions** section) must be conducted prior to planting sorghum or other rotational crops not listed in the table.

### Rotational Crop Restrictions for Non-Irrigated Cotton

For non-irrigated cotton, follow the rotational crop intervals indicated in the table below.

Rotational Crop	Minimum Rotational Interval after DAWN HERBICIDE Application (Months)	DAWN HERBICIDE Rate and Application Frequency in Cotton
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Cotton, dry beans, snap beans and soybeans	0	Up to 1pt/A applied once every year.
Peanuts	10	Up to 1pt/A applied once every two years.
Wheat	24	Up to 1pt/A applied once every two years.
Field Corn	34	Up to 1pt/A applied once every three years.
Sorghum	>36*	Up to 1pt/A applied once every three years.
All other crops	>36*	Up to 1pt/A applied once every three years.

\*To avoid crop injury a successful field bioassay (refer to **Field Bioassay Instructions** section) must be conducted prior to planting sorghum or other rotational crops not listed in the table.

#### **RESTRICTIONS FOR EARLY PREPLANT, PREEMERGENCE AND POST-DIRECTED APPLICATIONS IN IRRIGATED AND NON-IRRIGATED COTTON IN WEST TEXAS**

- Do not apply DAWN HERBICIDE later than 70 days before harvest.
- Do not apply more than 1 pt/A of DAWN HERBICIDE in any year.

#### **SPECIAL USE DIRECTIONS FOR THE SUPPRESSION OF WOOLLYLEAF BURSAGE (LAKEWEED), *AMBROSIA GRAYI*, IN WEST TEXAS IN IRRIGATED AND NON-IRRIGATED COTTON**

Apply DAWN HERBICIDE to cultivated areas of cropland in the fall or spring as a spot treatment at a rate of 1.5 pt/A and incorporate to a depth of 2-3 inches for suppression of woollyleaf bursage. Applications should be made with ground equipment. Significant suppression may not be seen until 6-8 months after application, but should then continue for at least 2 years after application.

The use of adjuvants such as nonionic surfactant at 0.25-0.5% v/v or crop oil concentrate at 1% v/v will significantly improve the initial burndown of any emerged woollyleaf bursage, but this effect is only temporary. Therefore, an adjuvant may be used if desired, but is not necessary.

#### **Rotational Crop Restrictions When Using DAWN HERBICIDE for Suppression of Woollyleaf Bursage in West Texas**

Soybeans may be planted immediately after application. Cotton planted within 12 months of application may have significant damage. A minimum 3-year interval from last application to planting AND a successful field bioassay (refer to **Field Bioassay Instructions** section) must be conducted before planting all other crops.

#### **Restrictions for the Suppression of Woollyleaf Bursage in West Texas**

- Do not apply DAWN HERBICIDE later than 70 days before harvest.
- Do not make more than one application of DAWN HERBICIDE per year.
- Do not apply more than 1.5 pints per acre of DAWN HERBICIDE in any year. If two consecutive year applications are made, allow a 2 year interval before another application.

#### **Field Bioassay Instructions**

Using typical tillage, planting dates and seeding rates, plant several strips of the desired crop variety across the field which has been previously treated with DAWN HERBICIDE. Plant the strips perpendicular to the direction DAWN HERBICIDE was applied. The strips should be located so that all the different field conditions are encountered, including differences in soil texture, organic matter, pH, and drainage. If the crop does not show visible symptoms of injury, stand reduction, and/or yield reduction, this field can be seeded with this crop the next growing season after the bioassay. If visible injury, stand reduction, or yield reduction occurs, this crop must not be seeded, and the bioassay must be repeated the next growing season.

## DRY BEANS

Apply **Dawn Herbicide** as a postemergence broadcast application for control or suppression of weeds listed in the **Application Rates For Weed Growth Stages** table and **Special Use Directions For Additional Weed Problems**. Application rate depends on weed growth stage, but should not exceed the maximum rate specified per geographic region (Refer to Map For Definition of Specified Geographic Regions). Refer to the Spray Additive section and include in the application when the beans have at least one fully expanded trifoliate leaf. Do not use liquid nitrogen (28% or similar) on dry beans. Two applications may be made if necessary but the total yearly dose must not exceed 1.5 pints (0.375 lbs. active) per acre.

Do not exceed 1.5 pints (0.375 lbs. a.i.) per acre in any one year. Do not apply to any field in Regions 2, 3, 4, or 5 more than once every two years. Do not graze animals on green forage or stubble. Do not use hay or straw for animal feed or bedding. Do not apply within 45 days of harvest.

### Tank Mix and Sequential Applications

**Dawn Herbicide** can be used sequentially or in tank mix with the following products: Assure II®, Basagran®, Dual MAGNUM, Eptam®, Outlook®, Poast®, Prowl®, Pursuit®, Raptor®, Select®, Sonalan®, or Treflan®.

Under certain conditions, the mixture of **Dawn Herbicide** with one or more of the above- mentioned broadleaf herbicides may cause a reduction in activity of any postemergence grass herbicide in the mixture.

For sequential applications allow 2-3 days after the application of the grass herbicide before applying **Dawn Herbicide** or **Dawn Herbicide** mixtures. Where **Dawn Herbicide** or the **Dawn Herbicide** mixture is applied first, apply the grass herbicide when the grass weeds begin to develop new leaves (generally around 7 days).

**NOTE:** Tank-mix applications can result in increased crop injury as compared to either product used alone.

### Dry Beans Grown Under Sprinkler or Center Pivot Irrigation in the States of Colorado and Nebraska

Apply DAWN Herbicide as a postemergence broadcast application for control or suppression of weeds listed in the Application Rates for Weed Growth Stages table and Special Use Directions For Additional Weed Problems on the federal label. Application rate depends on weed growth stage, but not to exceed 1pt/A. Refer to the Spray Additive Section and include in the application when the beans have at least four fully expanded trifoliate leaves. Do not use liquid nitrogen (28% or similar) on dry beans. Use a spray volume of 10-20 GPA by ground application and a minimum of 5 GPA by aerial application.

Do not exceed 1 pint (0.25 lbs ai) per acre in any one year. Do not apply to any field more than once every two years.

### Restrictions

- **DAWN HERBICIDE use under this 24© special label can only be applied to dry beans that are grown under sprinkler or center pivot irrigation.** If the dry bean crop is lost and normal irrigation amounts for growing the dry bean crop are not followed, do not rotate to corn the following season only rotate to small grains, dry beans, pea or soybeans according to the plant-back intervals on the federal label.
- Do not apply DAWN HERBICIDE on dry beans that are not grown under irrigation or are furrow irrigated.
- Do not graze animals on green forage or stubble.
- Do not utilize hay or straw for animal feed or bedding.
- Do not apply within 45 days of harvest.

### Tank Mix and Sequential Applications

DAWN HERBICIDE can be used sequentially or in tank mix with the following products: Assure II®, Basagran®, Dual MAGNUM®, Eptam®, Outlook®, Poast®, Prowl®, Pursuit®, Raptor®, Select®, Sonalan®, or Treflan®.

Under certain conditions, the mixture of DAWN HERBICIDE with one or more of the above mentioned broadleaf herbicides may cause a reduction in activity of any postemergence grass herbicide in the mixture.

For sequential applications allow 2-3 days after the application of the grass herbicide before applying DAWN HERBICIDE or DAWN HERBICIDE mixtures. Where DAWN HERBICIDE or the DAWN HERBICIDE mixture is applied first, apply the grass herbicide when the grass weeds begin to develop new leaves (generally around 7 days).

### NOTE:

- Tank mix applications can result in increased crop injury as compared to either product used alone.
- Do not apply this product through any type of irrigation system.

### SNAP BEANS

Apply **Dawn Herbicide** as a postemergence broadcast application for control or suppression of weeds listed in the **Application Rates For Weed Growth Stages** table and **Special Use Directions For Additional Weed Problems**. Application rate depends on weed growth stage, but should not exceed the maximum rate specified per geographic region (Refer to Map For Definition of Specified Geographic Regions). Apply with NIS, COC, or other adjuvant when the snap beans have at least one fully expanded trifoliate leaf. Do not use liquid nitrogen (28% or similar) on snap beans. Two applications may be made if necessary, but the total yearly dose must not exceed 1.5 pints (0.375 lbs. active) per acre.

Do not exceed 1.5 pints (0.375 lbs. a.i.) per acre in any one year. Do not apply to any field in Regions 2, 3, 4, or 5 more than once every two years. Do not graze animals on green forage or stubble. Do not use hay or straw for animal feed or bedding. Do not apply within 30 days of harvest.

### Tank Mix and Sequential Applications

**Dawn Herbicide** can be used sequentially or in tank mix with the following products: Assure II,

Basagran, Dual MAGNUM, Eptam, Poast, Prowl, Pursuit, Raptor, or Treflan.

Under certain conditions, the mixture of **Dawn Herbicide** with one or more of the above-mentioned broadleaf herbicides may cause a reduction in activity of any postemergence grass herbicide in the mixture.

For sequential applications, allow 2-3 days after the application of the grass herbicide before applying **Dawn Herbicide** or **Dawn Herbicide** mixtures. In case **Dawn Herbicide** or the **Dawn Herbicide** mixture is applied first, apply the grass herbicide when the grass weeds begin to develop new leaves (generally around 7 days).

**NOTE:** Tank-mix applications can result in increased crop injury as compared to either product used alone.

## **SOYBEANS**

### **Dawn Herbicide Alone**

Apply **Dawn Herbicide** either preplant, preemergence, or postemergence using the appropriate rate for geographical region, weed spectrum, and stage of growth.

#### **Preplant Surface-Applied or Preemergence**

Apply **Dawn Herbicide** preplant surface or preemergence in Regions 1, 2, 3, and 4 at a rate not exceeding the maximum lbs. a.i./A. If weeds are present at the time of application, add a burndown herbicide.

Certain germinating broadleaf and grass weeds and sedges may be controlled or suppressed by soil residual activity if rainfall occurs shortly after application. The extent and consistency of soil activity are dependent on soil type, ground cover at time of application, amount of rainfall, and rate of **Dawn Herbicide** used.

#### **Postemergence**

Apply **Dawn Herbicide** postemergence for control of weeds listed in the **Application Rates For Weed Growth Stages** according to the rate limits specified per regional map. Emerged weeds must be thoroughly covered with spray. Some bronzing, crinkling, or spotting of soybean leaves may occur following postemergence applications, but soybeans soon outgrow these effects and develop normally.

Do not apply within 45 days of harvest.

#### **Tank Mix and Sequential Applications for Soybeans**

**Dawn Herbicide** can be used sequentially or in tank mix with one or more of the following products: Assure II, Basagran, Butyrac®, Classic®, FirstRate®, Fusilade® DX, Fusion®, Glyphosate (such as Glyphos X-TRA, Touchdown, Roundup), Gramoxone Max, Harmony® GT, Harmony® GT XP, Ignite®, Pursuit, Poast, Poast Plus®, Raptor, Resource®, Select, Scepter®, and Synchrony® STS®.

Under certain conditions, the mixture of **Dawn Herbicide** with one or more of the above-mentioned broadleaf herbicides may cause a reduction in activity of any postemergence grass herbicide in the mixture.

For sequential applications allow 2-3 days after the application of the grass herbicide before applying **Dawn Herbicide** or **Dawn Herbicide** mixtures. In case **Dawn Herbicide** or the **Dawn Herbicide** mixture is applied first, apply the grass herbicide when the grass weeds begin to develop new leaves (generally around 7 days).

**NOTE:**

- Tank-mix applications can result in increases in crop injury as compared to either product used alone.
- Do not exceed 1 fl. oz. of Butyrac per acre in mixture with **Dawn Herbicide**.
- Do not exceed 0.25 oz./A of Synchrony STS herbicide in the tank with labeled rates of **Dawn Herbicide** on non-STs varieties. This tank mix can be applied postemergence to any soybean variety for additional broadleaf weed control. Refer to the Synchrony STS label for more information and crop rotation restrictions.
- Always read and follow the recommendations, restrictions, and limitations for all products whether used alone, sequentially, or in a tank mix. The most restrictive labeling of any product used applies.

### **Roundup Ready® Soybean Tank Mixes**

**Dawn Herbicide** at 6-12 oz./A, can be tank mixed with glyphosate products (such as Glyfos X-TRA, Touchdown or Roundup) that are labeled for Roundup Ready Soybeans for improved postemergence control of many weeds, such as morningglory spp., hemp sesbania, waterhemp, and black nightshade, that are known to have tolerance to glyphosate but are susceptible to **Dawn Herbicide**.

For improved control of **Glyphosate Resistant Populations**, the following weed heights and rates should be followed:

Use rates of 12 to 24 fl. oz./A, refer to the geographic region for the proper use rate.						
<b>Glyphosate Resistant Weed</b>	<b>Weed Size</b>	Region 1	Region 2	Region 3	Region 4	Region 5
Palmer amaranth	1-2 inches	24 fl oz	24 fl oz	20 fl oz	16 fl oz	12 fl oz
Common ragweed	2 inches	24 fl oz	24 fl oz	20 fl oz	16 fl oz	12 fl oz
Giant ragweed	2 inches	24 fl oz	24 fl oz	20 fl oz	16 fl oz	12 fl oz
Waterhemp	1-2 inches	24 fl oz	24 fl oz	20 fl oz	16 fl oz	12 fl oz

### **FOLLOW THE RECOMMENDATIONS ON THE GLYPHOSATE PRODUCT LABEL FOR THE USE OF SPRAY ADDITIVES IN THIS TANK MIX.**

Do not allow this tank mix to move off target as contact by even minute quantities can cause severe damage or death to any non-target vegetation.

**NOTE:** Postemergence application of this tank mix on soybean varieties that do not contain the Roundup Ready gene will result in severe crop injury or death of the soybean crop. Always read and follow the recommendations, restrictions, and limitations for all products used. The most restrictive labeling of any product applies.

### **FOR CONTROL OF WITCHWEED IN SOYBEANS AND IDLE CROPLAND IN NORTH AND SOUTH CAROLINA.**

For use only in the USDA witchweed eradication program to control witchweed in soybeans, idle cropland and non-cropland.

#### **Soybeans:**

Apply DAWN Herbicide at or before the R-1 growth stage (one open flower at any node on the main stem) of the soybeans.

Apply as a postemergence directed spray to the witchweed plants before they bloom at a rate of 24 ounces per acre in 10-20 gallons of spray volume in a single application. Position nozzles such that there is minimal interception of spray by the soybean plants and maximum coverage of emerged

witchweed, exposed soil, and host grasses throughout the field.

### **Idle and Non-Cropland**

Apply as a direct spray to the witchweed plants before they bloom at a rate of 24 ounces per acre in 10-20 gallons of spray volume in a single application.

Add nonionic surfactant containing at least 75% surface active agent at 0.25 to 0.5% (1/2 to 1 pint per 25 gallons) of the finished spray volume to improve contact activity.

### **Rotational Crop Restrictions**

The following rotational crops may be planted after applying DAWN Herbicide at recommended rates on soybeans or idle cropland.

Maximum number of applications: 1

### **Crop To be Planted (Months after last DAWN Herbicide Application)**

<b>Crops To Be Planted</b>	<b>Minimum Rotation Interval (Months after Last DAWN Herbicide Application)</b>
Small grains such as wheat, barley, rye	4
Alfalfa, beans, peas, corn, cotton, peanuts, rice	10
To avoid crop injury do not plant sunflower, sugar beets, sorghum or any other crop not listed above	18

Do not graze rotated small grain crops or harvest for livestock forage or straw. In the event of a crop loss due to weather conditions, soybeans can be replanted.

### **RESTRICTIONS**

Do not apply this product through any type of irrigation system.

### **Pine Seedling Nurseries For Control of Yellow Nutsedge (*Cyperus esculentus*) In Alabama, Arkansas, Georgia, Mississippi, North Carolina and Texas**

This treatment should be used as part of an overall integrated pest management (IPM) program. A single application of DAWN HERBICIDE will not eliminate yellow nutsedge. This herbicide can be used as part of an integrated program to keep nutsedge weak and suppressed.

### **RESTRICTIONS**

- Do not apply a preemergence application and a postemergence application to the same area during the same year.
- Do not exceed a total of 2 pints per acre per year.
- Do not apply this product through any type of irrigation system.

**PREEMERGENCE APPLICATION:** Apply DAWN HERBICIDE at 2 pints per acre. Make application immediately after seeding as a preemergence spray in 30 to 40 gallons of water per acre. Apply mulch for seed cover. For best results, irrigate with ½ inch of water immediately after application.

**POSTEMERGENCE APPLICATION:** Apply DAWN HERBICIDE at 1.5 pints per acre as a postemergence spray in 30 to 40 gallons of water per acre. Make application after pine seedlings are 8 weeks old (i.e. 8 weeks after seedling emergence) or later. DO NOT use a spray adjuvant (i.e. crop oil or surfactant, etc.) with DAWN HERBICIDE as this may cause severe pine seedling injury. DAWN HERBICIDE may cause temporary chlorotic (yellow) spots on pine seedlings. Scout field and apply to nutsedge patches. For best results, irrigate with ½ inch of water within one week of application.

### **AERIAL SPRAY DRIFT MANAGEMENT ADVISORY**

## SPRAY DRIFT MANAGEMENT

**AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.** The interaction of many equipment and weather related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses, or to applications using dry formulations.

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the **Aerial Drift Reduction Advisory Information**.

## AERIAL DRIFT REDUCTION ADVISORY INFORMATION

### IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly or under unfavorable environmental conditions (**See Wind, Temperature and Humidity, and Temperature Inversion** sections of this label).

### CONTROLLING DROPLET SIZE

- **Volume** - Use high flow-rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow-rate nozzles instead of increasing pressure.
- **Number of nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released backwards, parallel to the airstream, will produce larger droplets than other orientations. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid-stream nozzles oriented straight back produce larger droplets than other nozzle types.

### BOOM LENGTH

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

### APPLICATION HEIGHT

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

### SWATH ADJUSTMENT

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the

up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

## WIND

Drift potential is lowest between wind speeds of 2-10 mph. However; many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

## TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

## TEMPERATURE INVERSION

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified 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.

## SENSITIVE AREAS

The pesticide should be applied only when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

## APPENDIX

Scientific names are listed for those weeds referred to in the **Dawn Herbicide** label.

COMMON NAME	SCIENTIFIC NAME
Amaranth, Palmer	<i>Amaranthus palmeri</i>
Amaranth, Spiny	<i>Amaranthus spinosus</i>
Anoda, Spurred	<i>Anoda cristata</i>
Balloonvine	<i>Cardiospermum halicacabum</i>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Bindweed, Field	<i>Convolvulus arvensis</i>
Bindweed, Hedge	<i>Calystegia sepium</i>
Broadleaf Signalgrass	<i>Brachiaria playphylla</i>
Carpetweed	<i>Mollugo verticillata</i>
Citron (Wild Watermelon)	<i>Citrullus vulgaris</i>
Cocklebur, Common	<i>Xanthium strumarium</i>
Copperleaf, Hophornbeam	<i>Acalypha ostryifolia</i>
Copperleaf, Virginia	<i>Acalypha virginica</i>
Crabgrass	<i>Digitaria spp.</i>
Crotalaria, Showy	<i>Crotalaria spectabilis</i>
Croton, Tropic	<i>Croton glandulosus</i>
Cucumber, Volunteer	<i>Cucumis sativas</i>

Eclipta	<i>Eclipta prostrate</i>
Foxtail, Giant	<i>Setaria feberi</i>
Foxtail, Green	<i>Setaria viridis</i>
Foxtail, Yellow	<i>Setaria glauca</i>
Goosegrass	<i>Eleusine indica</i>
Groundcherry, Cutleaf	<i>Physalis angulata</i>
Hemp	<i>Cannabis sativa</i>
Horsenettle	<i>Solanum carolinense</i>
Jimsonweed	<i>Datura stramonium</i>
Johnsongrass, Seedling	<i>Sorghum halepense</i>
Ladysthumb	<i>Polygonum persicaria</i>
Lambsquarters, Common	<i>Chenopodium album</i>
Mexicanweed	<i>Caperonia castaniifolia</i>
Milkweed, Climbing	<i>Sarcostemma cyanchoides</i>
Milkweed, Honeyvine	<i>Ampelamus albidus</i>
Morningglory, Cypressvine	<i>Ipomoea quamoclit</i>
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriscula</i>
Ivyleaf	<i>Ipomoea hederacea</i> var. <i>hederacea</i>
Purple Moonflower	<i>Ipomoea turbinata</i>
Red (Scarlet)	<i>Ipomoea coccinea</i>
Smallflower	<i>Jacquemontia tamnifolia</i>
Pitted (Smallwhite)	<i>Ipomoea lacunosa</i>
Tall (Common)	<i>Ipomoea purpurea</i>
Palmleaf (Willowleaf)	<i>Ipomoea wrightii</i>
Mustard, Wild	<i>Brassica kaber</i>
Nightshade, Black	<i>Solanum nigrum</i>
Nutsedge, Yellow	<i>Cyperus esculentus</i>
Panicum, Fall	<i>Panicum dichotomiflorum</i>
Panicum, Texas	<i>Panicum texanum</i>
Pigweed, Redroot	<i>Amaranthus retroflexus</i>
Pigweed, Smooth	<i>Amaranthus hybridus</i>
Poinsettia, Wild	<i>Euphorbia heterophylla</i>
Purslane, Common	<i>Portulaca oleracea</i>
Pusley, Florida	<i>Richardia scabra</i>
Ragweed, Common	<i>Ambrosia artemisiifolia</i>
Ragweed, Giant	<i>Ambrosia trifida</i>
Redweed	<i>Melochia corchorifolia</i>
Sesbania, Hemp	<i>Sesbania exaltata</i>
Sicklepod	<i>Cassia obtusifolia</i>
Sida, Prickly	<i>Sida spinosa</i>
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>
Smellmelon	<i>Cucumis melo</i>
Spurge, Prostrate	<i>Euphorbia humistrata</i>
Spurge, Spotted	<i>Euphorbia maculata</i>
Starbur, Bristly	<i>Acanthospermum hispidum</i>
Sunflower, Common	<i>Helianthus annuus</i>
Trumpet creeper	<i>Campsis radicans</i>
Velvetleaf	<i>Abutilon theophrasti</i>

Venice Mallow	<i>Hibiscus trionum</i>
Waterhemp, Common	<i>Amaranthus rudis</i>
Waterhemp, Tall	<i>Amaranthus tuberculatos</i>
Witchweed	<i>Striga asiatica</i>
Yellow Rocket	<i>Barbarea vulgaris</i>

#### **STORAGE AND DISPOSAL:**

Do not contaminate water, food, or feed by storage or disposal.

##### **Pesticide Storage:**

Store above 32°F in original containers only. If product freezes, return to room temperature and agitate to reconstitute. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with sand, earth, or synthetic absorbent. Remove to chemical waste area.

##### **Pesticide Disposal: Refillable containers:**

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.

##### **Pesticide Disposal: Nonrefillable containers 5 gallons or less:**

Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. 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 ¼ 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.

##### **Nonrefillable containers 5 gallons or larger:**

Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. 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 ¼ 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 and store rinsate for later use or disposal. Repeat this procedure two more times.

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