

#### U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (7505P) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460

91234-8	82
91234-	82

EPA Reg. Number:

Date of Issuance:

7/11/18

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X Registration Reregistration (under FIFRA, as amended)

Unconditional

Term of Issuance:

Name of Pesticide Product:

A357.01 [TM]

Name and Address of Registrant (include ZIP Code):

Dave G. Bolin, PhD. **Director- Regulatory Affairs** Atticus, LLC 5000 CentreGreen Way, Suite 100 Cary, NC 27513

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/registration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

Signature of Appro	ving Official:	Date	e:	
· ·	oduct Manager 24 Herbicide Branch, Registration Division (7505P)		7/11/18	
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- 2. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 91234-82."
- 3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

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.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

Basic CSF dated 04/24/2018

If you have any questions, please contact Lisa Pahel by phone at (703) 347-0459, or via email at pahel.lisa@epa.gov.

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

**{BOOKLET FRONT PANEL LANGUAGE}** 

**GLUFOSINATE-AMMONIUM GROUP 10 HERBICIDE** 

# A357.01<sup>[TM]</sup>

Active Ingredient:	(% by weight)
Glufosinate-ammonium (CAS No. 77182-82-2)	24.5%
Other Ingredients:	75.5%
Total	100.0%
Contains 2.34 lbs. of Glufosinate-ammonium per gallon.	

# **KEEP OUT OF REACH OF CHILDREN** CAUTION

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.)

	FIRST AID
IF ON SKIN:	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20minutes.</li> <li>Call a poison control center or doctor for treatmentadvice.</li> </ul>
IF IN EYES:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>Call a poison control center or doctor for treatmentadvice.</li> </ul>
IF SWALLOWED:	<ul> <li>Call a poison control center or doctor for treatmentadvice.</li> <li>Have person sip a glass of water if able toswallow.</li> <li>Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>

NOTE TO PHYSICIAN: If this product is ingested, endotracheal intubation and gastric lavage should be performed as soon as possible, followed by charcoal and sodium sulfate administration.

#### **HOT LINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at 1-844-685-9173 for emergency medical treatment information.

> For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident **Call CHEMTREC Day or Night**

Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

See inside label booklet for Precautionary Statements and Directions for Use.

EPA Reg. No.: 91234-XX

**EPA Est. No.: Net Weight:** 

# Manufactured For:

Atticus, LLC 5000 CentreGreen Way, Suite 100 Cary, NC 27513

ACCEPTED

07/11/2018

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 91234-82

# **{LANGUAGE INSIDE BOOKLET}**

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing.

#### Personal Protective Equipment (PPE)

#### Applicators and other handlers must wear:

- Long sleeved shirt and long pants, socks, shoes;
- Chemical-resistant gloves such as barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils, or Viton® ≥14 mils; chemical resistant footwear plus socks;
- Protective eyewear (goggles, face shield or safety glasses).
- Wear a chemical resistant apron when mixing/loading and cleaning equipment.

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.

#### **USER SAFETY RECOMMENDATIONS**

#### Users should:

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

Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENGINEERING CONTROLS STATEMENT**

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.

#### **ENVIRONMENTAL HAZARDS**

Do not apply directly to water or to areas where surface water is present. Do not apply to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment wash waters or rinseate.

This pesticide is toxic to vascular plants and must be used strictly in accordance with the drift and run-off precautions on this label in order to minimize off-site exposures.

Under some conditions, this product may have a potential to run-off to surface water or adjacent land. Where possible, use methods which reduce soil erosion, such as no till, limited till and contour plowing; these methods also reduce pesticide run-off. Use of vegetation filter strips along rivers, creeks, streams, wetlands, etc. or on the downhill side of fields where run-off could occur to minimize water runoff is recommended.

#### **DIRECTIONS FOR USE**

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

Do not use this product until you have read the entire label. 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.

#### In the State of New York Only: Not For Use In Nassau and Suffolk Counties

#### 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 intervals. 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 for all post-application activities, with the following exceptions: The REI for workers engaged in scouting activities in corn, canola, and soybeans is 4 hours. The REI for workers to move irrigation piping is 7 days for all crops.

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 worn over short- sleeved shirt and short pants; chemical resistant gloves such as barrier laminate, butyl rubber  $\geq$ 14 mils, nitrile rubber  $\geq$ 14 mils, neoprene rubber  $\geq$ 14 mils, polyvinyl chloride (PVC)  $\geq$ 14 mils, or Viton  $\geq$ 14 mils; chemical resistant footwear plus socks.

# IMPORTANT CROP SAFETY INFORMATION READ BEFORE USING THIS PRODUCT Burndown treatments

For row crop applications in canola, corn, cotton, soybean or sugar beets, A357.01 may be applied to any variety as a **burndown treatment prior to planting or prior to crop emergence.** 

#### Post emergent treatments

Post emergence row crop applications of A357.01 may be made only to crops containing the LibertyLink trait. The basis of selectivity of A357.01 in LibertyLink crops is the presence of a gene not sensitive to glufosinate. Crops not containing the LibertyLink trait will be sensitive to A357.01 and severe crop injury and/or death may occur. Do not allow spray to contact foliage or green tissue of desirable vegetation other than crops not sensitive to the active ingredient in this product.

Post emergent applications of A357.01 may be applied to cotton sensitive to the active ingredient in A357.01 using a hooded sprayer.

#### Tree, Nut, Vine and Berry treatments

When applying A357.01 to apples, berries, tree nuts and vines, avoid contact of solution, spray, drift or mist with green bark, stems or foliage, as injury may occur. Only trunks with calloused, mature brown bark may be sprayed unless protected from spray contact by nonporous wraps, grow tubes or waxed containers. Contact of A357.01 with parts of trees, berries or vines other than mature brown bark can result in serious damage.

#### PRODUCT INFORMATION

A357.01 is a water-soluble non-selective, broad-spectrum herbicide used for control of annual and perennial grass and broadleaf weeds in a variety of crops. Uses include applications as foliar sprays in trees, vines and berry crops for control of emerged weeds; broadcast burndown applications prior to planting or crop emergence in labeled conventional row crops; and as over-the-top applications in canola, corn, cotton, soybeans and sugar beets designated as LibertyLink®. A357.01 may be used for weed control in cotton when applied with a hooded sprayer in- crop.

A357.01 may also be applied for potato vine desiccation.

It is important to always follow a responsible integrated weed management program. Contact your local agronomic advisor for more specific information on integrated weed management in your area.

#### **ROTATIONAL CROP RESTRICTIONS\***

Rotational crop planting intervals following application of A357.01 are listed below. Failure to comply with these restrictions may result in illegal residues in rotated crops.

Rotational Crop	Plant-back Interval  (Minimum Rotational Crop Planting Interval from Last Application)
Canola, Sweet Corn, Corn, Cotton, Rice, Soybeans, Sugar Beets	May be planted at any time
Root and Tuber Vegetables, Leafy Vegetables, Brassica Leafy Vegetables, Small Grains (barley, buckwheat, oats, rye, teosinte, triticale, and wheat).	70 Days
All Other Crops	180 Days

<sup>\*</sup>See **Application Directions for Potato Vine Desiccation** for Rotational Crop Restrictions specifically after A357.01 applications to potatoes. See application directions for sugar beets and rice for Rotational Crop Restrictions specifically for those crops.

#### **RESISTANCE MANAGEMENT**

A357.01 is a Group 10 Herbicide, i.e., a glutamine synthetase inhibitor. Any weed population may contain plants naturally resistant to a glufosinate and other Group 10 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance management strategies should be followed. Contact your local sales representative, crop advisor, or extension agent to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of actions for each target weed. If levels of control provided by applications of this product is reduced and cannot be accounted for by factors such as misapplication, abnormal levels of target species or extremes of weather, it may be the case that target species have developed a strain resistant to applications of A357.01.

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.

To minimize the occurrence of resistant biotypes, observe the following general weed management practices:

- Scout application site before and after herbicide applications.
- Start with a clean application site, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small.
- Add other herbicides (e.g. a selective and/or a residual herbicide) and cultural practices (e.g. tillage or crop rotation) where appropriate.
- Utilize the specified label rate for the most difficult to control weed in your field. Avoid tank mixtures with other herbicides that reduce this product's efficacy (through antagonism), or tank mixture directions that

- encourage application rates of this product below the label directions.
- Control weed escapes and prevent weeds from setting seeds.
- Clean equipment before moving from field to field to minimize the spread of weed seed or plant parts.
- Report any incidence of repeated non-performance of this product on a particular weed to local extension specialists, certified crop advisors, or your Atticus, LLC representative.

#### **WEEDS CONTROLLED**

The following weeds controlled charts are outlined by crop or crop group.

Volunteer LibertyLink crop plants (corn, cotton, soybeans, sugar beets, canola) from the previous season will not be controlled by applications of A357.01.

# WEEDS CONTROLLED TABLE - ROW CROPS (canola, corn (field, silage, sweet), cotton, soybean)

Rates in fluid ounces of formulated product per acre for the control of weeds at selected heights. In weed populations with mixed species, apply at a rate needed for the species that requires the highest rate. See **Application Instructions and Crop Use Directions** for specific use directions

Broadleaf Weed Control					
	Maximum Weed Height or Diameter (inches)		Weed Species	Maximum Weed Height or Diameter (inches)	
Weed Species	22 fl oz/A (0.40 lbs ai/A)	29 fl oz/A (0.53 lbs ai/A)		22 fl oz/A (0.40 lbs ai/A)	29 fl oz/A (0.53 lbs ai/A
Amaranth, Palmer <sup>2</sup>	Not Recommended	4"	Morningglory, sharppod <sup>2</sup>	2"	4"
Anoda, spurred	3"	5"	Morningglory, smallflower <sup>2</sup>	4"	6"
Beggarweed, Florida	4"	5"	Morningglory, tall <sup>2</sup>	6"	8"
Black medic	5"	7"	Mustard, wild	4"	6"
Blueweed, Texas	5"	7"	Nightshade, black	4"	6"
Buckwheat, wild	6"	7"	Nightshade, eastern black	6"	8"
Buffalobur	6"	7"	Nightshade, hairy	6"	8"
Burcucumber	6"	10"	Pennycress (stinkweed)	4"	6"
Catchweed bedstraw (cleavers)	2"	4"	Pigweed, redroot <sup>2</sup>	3"	4"
Carpetweed	4"	6"	Pigweed, prostrate <sup>2</sup>	3"	4"
Chickweed, common	6"	8"	Pigweed, spiny <sup>2</sup>	3"	4"
Cocklebur, common	6"	14"	Pigweed, smooth <sup>2</sup>	3"	4"
Copperleaf, hophornbeam	4"	6"	Pigweed, tumble <sup>2</sup>	3"	4"
Cotton, volunteer <sup>1</sup>	6"	8"	Puncturevine	4"	6"
Croton, tropic	3"	5"	Purslane, common	2"	4"
Croton, woolly	2"	4"	Pusley, Florida	Suppression	3"

		Broadleaf V	Weed Control		
	Maximum Weed Height or Diameter (inches)		Weed Species	Maximum Weed Height or Diameter (inches)	
Weed Species	22 fl oz/A (0.40 lbs ai/A)	29 fl oz/A (0.53 lbs ai/A)		22 fl oz/A (0.40 lbs ai/A)	29 fl oz/A (0.53 lbs ai/A
Eclipta	4"	6"	Ragweed, common	6"	10"
Devil's claw	2"	4"	Ragweed, giant	6"	12"
Fleabane, annual	6"	8"	Senna coffee	4"	6"
Galinsoga, hairy	6"	8"	Sesbania, hemp	6"	8"
Galinsoga, small flower	6"	7"	Shepherd's-Purse	6"	8"
Groundcherry, cutleaf	4"	5"	Sicklepod (java bean)	4"	6"
Geranium, cutleaf	4"	6"	Sida, prickly	4"	5"
Hempnettle	4"	6"	Smartweed, Pennsylvania	6"	14"
Horsenettle, Carolina <sup>3</sup>	2"	4"	Smellmelon	4"	6"
Jimsonweed	6"	10"	Sowthistle, annual	6"	8"
Knotweed	3"	5"	Soybeans, volunteer <sup>1</sup>	6"	8"
Kochia <sup>2</sup>	4"	6"	Spurge, prostrate	2"	4"
Ladysthumb	6"	14"	Spurge, spotted	2"	4"
Lambsquarters, common <sup>S,,2,</sup>	4"	6"	Starbur, bristly	4"	6"
Mallow, common	4"	6"	Sunflower, common	6"	14"
Mallow, Venice	6"	8"	Sunflower, prairie	3"	5"
Marestail	Suppression	6"-12"	Sunflower, volunteer	6"	10"
Marshelder, annual	4"	6"	Thistle, Russian <sup>3</sup>	Suppression	6"-12"
Morningglory, entireleaf <sup>2</sup>	6"	8"	Velvetleaf <sup>2,4</sup>	3"	4"
Morningglory, ivyleaf <sup>2</sup>	6"	8"	Waterhemp, common <sup>2</sup>	Not Recommended	5"
Morningglory, pitted²	6"	8"	Waterhemp, tall <sup>2</sup>	Not Recommended	5"

<sup>&</sup>lt;sup>S</sup> Suppression

<sup>&</sup>lt;sup>1</sup>Volunteer LibertyLink crops from the previous season will not be controlled.

<sup>&</sup>lt;sup>2</sup> For applications to corn, tank mixing with atrazine may enhance weed control of this species. <sup>3</sup> May require sequential applications for control.

<sup>&</sup>lt;sup>4</sup> For optimal control, make applications between dawn and 2 hours before sunset.

		Grass We	ed Control		
	Maximum Weed Height or Diameter (inches)		Weed Species	Maximum Weed Height or Diameter (inches)	
Weed Species	22 fl oz/A (0.40 lbs ai/A)	29 fl oz/A (0.53 lbs ai/A)		22 fl oz/A (0.40 lbs ai/A)	29 fl oz/A (0.53 lbs ai/A)
Barley, volunteer <sup>3</sup>	3"	4"	Millet, proso volunteer	6"	7"
Barnyardgrass	3"	5"	Oat, wild <sup>2</sup>	3"	4"
Bluegrass, annual	3"	5"	Panicum, fall	3"	5"
Corn, volunteer¹	10"	12"	Panicum, Texas	4"	6"
Crabgrass, large <sup>2</sup>	3"	5"	Rice, red	4"	6"
Crabgrass, smooth <sup>2</sup>	3"	5"	Rice, volunteer <sup>1</sup>	4"	6"
Cupgrass, woolly	6"	12"	Sandbur, field <sup>2</sup>	Suppression	2"
Foxtail, bristly	6"	8"	Shattercane	6"	8"
Foxtail, giant	6"	12"	Signalgrass, broadleaf	3"	5"
Foxtail, green	6"	12"	Sprangletop	4"	6"
Foxtail, robust purple	6"	8"	Sorghum, volunteer	6"	8"
Foxtail, yellow <sup>2</sup>	3"	4"	Stinkgrass	4"	6"
Goosegrass <sup>3</sup>	2"	3"	Wheat, volunteer <sup>2</sup>	4"	5"
Johnsongrass, seedling	3"	5"	Witchgrass	4"	6"
Junglerice	3"	5"			

<sup>&</sup>lt;sup>1</sup> Volunteer LibertyLink crops from the previous season will not be controlled. A timely cultivation 7 to 10 days after an application and/or retreatment 10-21 days after the first application will aid in controlling dense clumps of volunteer corn.

# Biennial and Perennial Weed Control\*\*

For control of the biennial and perennial weeds listed below, tank mix partners or sequential applications of A357.01 will provide the best results (22 fl oz/A [0.40 lbs ai]/A followed by 22 fl oz/A [0.40 lbs ai]/A). Please refer to **Application**Instruction and Crop Use Directions for maximum use rates per year.

struction and crop ose Directions for maximum use rates per year.				
Clover, Alsike	Nutsedge, purple <sup>s</sup>			
Clover, red	Nutsedge, yellow <sup>s</sup>			
Dandelion	Orchardgrass			
Dock, smooth	Poinsettia, wild			
Dogbane, hemp <sup>s</sup>	Pokeweed			
Milkweed, common <sup>s</sup>	Quackgrass <sup>s</sup>			
Johnsongrass, rhizome	Sowthistle, perennial			
Goldenrod, gray <sup>S</sup>	Thistle, bull			
Milkweed, honeyvine <sup>s</sup>	Thistle, Canada			
Muhly, wirestem <sup>S</sup>	Timothy <sup>S</sup>			
Nightshade, silverleaf	Wormwood, biennial			
	Clover, Alsike Clover, red Dandelion Dock, smooth Dogbane, hemp <sup>s</sup> Milkweed, common <sup>s</sup> Johnsongrass, rhizome Goldenrod, gray <sup>s</sup> Milkweed, honeyvine <sup>s</sup> Muhly, wirestem <sup>s</sup>			

<sup>&</sup>lt;sup>S</sup> Suppression

# WEEDS CONTROLLED TABLE - SUGAR BEETS

The rate of A357.01 in fluid ounces of formulated product per acre to be used for the control of weeds at selected

 $<sup>^{2}</sup>$  For best control of yellow foxtail, field sandbur, crabgrass, and wild oats, treat prior to tiller initiation.

<sup>&</sup>lt;sup>3</sup> A sequential application may be necessary for control.

<sup>\*\*</sup> See the application Directions for Use on Cotton section of this label for additional use rates.

heights is shown in the following tables. In weed populations with mixed species, apply the highest rate needed for all species present.

	(	Grass Weed Control	
Weed Species	Growth Stage of Weed* / (Maximum Weed Height in Inches)		Comments on Weed Growth Stage/ Application Timing/ Number of Applications
	15 fl ozs/A (0.27 lbs ai/A)	20 fl ozs/A (0.37 lbs ai/A)	
Barley, volunteer	1-2 leaf / (2 inch)	3 leaf / (3 inch)	Multiple applications may be required.
Barnyardgrass	1-3 leaf / (2 inch)	4-5 leaf / (3 inch)	Maximum of 1 tiller.
Corn, volunteer	1-2 leaf / (3 inch)	3-4 leaf / (6 inch)	
Crabgrass, large	1-3 leaf / (2 inch)	4-5 leaf / (3 inch)	Maximum of 1 tiller.
Crabgrass, smooth	1-3 leaf / (2 inch)	4-5 leaf / (3 inch)	Maximum of 1 tiller.
Cupgrass, woolly	1-5 leaf / (4inch)	- / (8 inch)	
Foxtail, giant	1-4 leaf / (3 inch)	5-6 leaf / (4 inch)	Maximum of 2 tillers.
Foxtail, green	1-4 leaf / (3 inch)	5-6 leaf / (4 inch)	Maximum of 2 tillers
Foxtail, yellow	1-3 leaf / (1 inch)	4 leaf / (2 inch)	Apply prior to tillering.
Millet, volunteer proso	1-3 leaf / (2 inch)	4-5 leaf / (3 inch)	Maximum of 1 tiller.
Millet, wild proso	1-3 leaf / (2 inch)	4-5 leaf / (3 inch)	Maximum of 1 tiller.
Oat, wild	1-2 leaf / (2 inch)	3 leaf / (3 inch)	Maximum of 1 tiller.
Panicum, fall	1-3 leaf / (2 inch)	4-5 leaf / (3 inch)	
Panicum, Texas	1-3 leaf / (2 inch)	4-5 leaf / (3 inch)	Maximum of 1 tiller.
Sandbur, field	- / ()	1-4 leaf / (2 inch)	Apply prior to tillering.
Wheat, volunteer	1-2 leaf / (2 inch)	3 leaf / (3 inch)	Maximum of 1 tiller.

<sup>\*</sup>Apply up to 30 fl oz/A (1.88 pt/A) (0.55 lbs ai/A) if weeds exceed the growth stage shown in the table.

For improved control of heavy populations or larger than recommended volunteer wheat, volunteer barley, yellow foxtail, and wild oats, A357.01 can be tank mixed with quizalofop-p-ethyl, sethoxydim, or clethodim.

	Per	rennial Weed Contro	ol
Weed Species	Growth Stag		Comments on Number of Applications
	15 fl ozs/A (0.27 lbs ai/A)	20 fl ozs/A (0.37 lbs ai/A)	
Quackgrass		1-3 leaf / (3 inches)	Multiple applications required.
Sowthistle, perennial		1-4 leaf / (3 inches)	Multiple applications required.
Thistle, Canada		1-4 leaf / (6 inches)	Multiple applications required.

<sup>\*</sup>Apply up to 30 fl oz/A (1.88 pt/A) (0.55 lbs ai/A) if weeds exceed the growth stage shown in the table.

Mood Species	Cuputh Chara of Made 1 * /84	Mand Diameters		
Weed Species	Growth Stage of Weed* (Maximum Weed Diameter)			
	15 fl ozs/A	20 fl ozs/A (0.37 lbs ai/A)		
	(0.27 lbs ai/A)			
Buckwheat, wild	1-4 leaf / (2 inches)	5-6 leaf / (3 inches)		
Buffalobur	1-4 leaf (2 inches)	5-6 leaf / (3 inches)		
Carpetweed		1-4 leaf / (2 inches)		
Chickweed, common	1-4 leaf / (2 inches)	5-6 leaf / (3 inches)		
Cocklebur, common	1-6 leaf / (3 inches)	7-8 leaf / (5 inches)		
Kochia	/ (1 inch)	/ (2 inches)		
Ladysthumb	1-2 leaf / (1 inch)	3-4 leaf / (3 inches)		
Lambsquarter, common	1-2 leaf / (1 inch)	4-5 leaf / (3 inches)		
Mallow, Venice	1-4 leaf / (2 inch)	5-6 leaf / (3 inches)		
Marshelder	1-2 leaf / (1 inch)	3-4 leaf / (2 inches)		
Mustard, wild	1-4 leaf / (2 inches)	5-6 leaf / (3 inches)		
Nightshade, eastern black	1-4 leaf / (2 inches)	5-6 leaf / (3 inches)		
Pigweed, prostrate	/ (1 inch)	/ (3 inches)		
Pigweed, redroot	1-2 leaf / (1 inch)	3-4 leaf / (3 inches)		
Pigweed, smooth	1-2 leaf / (1 inch)	3-4 leaf / (3 inches)		
Pigweed, spiny	1-2 leaf / (1 inch)	3-4 leaf / (3 inches)		
Purslane, common	/ (1 inch)	/(2 inches)		
Ragweed, common	1-6 leaf / (3 inches)	7-8 leaf / (5 inches)		
Ragweed, giant	1-4 leaf / (2 inches)	5-6 leaf / (3 inches)		
Shepherdspurse	1-4 leaf / (2 inches)	5-6 leaf / (3 inches)		
Smartweed, Pennsylvania	1-2 leaf / (1 inch)	3-4 leaf / (3 inches)		
Sowthistle, annual	1-4 leaf / (2 inches)	5-6 leaf / (3 inches)		
Sunflower, common	1-6 leaf / (3 inches)	7-8 leaf / (5 inches)		
Thistle, Russian	/ (1 inch)	/ (2 inches)		
Velvetleaf	1-2 leaf / (1 inch)	3-4 leaf / (3 inches)		

<sup>\*</sup>Apply up to 30 fl oz/A (1.88 pt/A) (0.55 lbs ai/A) if weeds exceed the growth stage shown in the table.

# WEEDS CONTROLLED TABLE – TREE FRUIT, TREE NUT, VINES, BERRIES, AND OLIVES

Rates in fluid ounces of formulated product per acre for the control of weeds at selected heights. In weed populations with mixed species, apply at a rate needed for the species that requires the highest rate. See Application Instructions and Crop Use Directions for specific use directions. Apply as a broadcast, banded, or spot treatment application depending on the situation to control weeds listed. Regrowth may occur due to the weed stage of growth at application, low use rate, or environmental conditions. Repeat applications of A357.01 may be necessary to control plants generating from underground part or seed.

Weed Height in Inches	Use Rate/A
Weeds < 3" in height	48 fl oz/A (0.88 lbs ai/A)
Weeds < 6" in height	56 fl oz/A (1.02 lbs ai/A)
Weeds > 6" in height and/or grasses that have tillered	56 fl oz – 82 fl oz/A (1.02 – 1.50 lbs ai/A)

	Broadleaf Weed Control				
Alkali sida	Fleabane, annual	Morningglory, ivyleaf	Smartweed, Pennsylvania		
Ammannia purple	Goosefoot	Morningglory, pitted	Sowthistle, annual		
Arrowhead, California	Gromwell, field	Mullein, turkey	Spurge, prostrate		
Buckwheat, wild	Groundcherry, cutleaf	Mustard, wild	Starthistle, yellow		
Buffalobur	Groundsel, common	Nettle	Sunflower, common		
Burclover, California	Henbit	Nightshade, black	Sunflower, prairie		
Carpetweed	Jimsonweed	Nightshade, eastern black	Sunflower, volunteer		
Chickweed, common	Knotweed	Nightshade, hairy	Swinecress		
Chinese thornapple	Kochia	Pennycress	Thistle, Russian		
Cockebur, common	Lambsquarters, common <sup>1</sup>	Pigweed, redroot	Turnip, wild		
Copperleaf, Virginia	Lettuce, miner's	Pineapple weed	Velvetleaf <sup>1</sup>		
Cudweed	Lettuce, prickly	Puncturevine	Vervain		
Cutleaf eveningprimrose	London rocket	Purslane, common	Vetch		
Dodder	Mallow, common	Radish, wild	Virginia copperleaf		
Eclipta	Malva (little mallow)	Ragweed, common	Willowherb, panicle		
Fiddleneck	Marestail	Ragweed, giant			
Filaree	Mayweed	Redmaids			
Filaree, redstem	Morningglory, entireleaf	Shepherdspurse			

<sup>&</sup>lt;sup>1</sup> For optimal control, make applications between dawn and 2 hours before sunset.

Grass Weed Control				
Barnyardgrass	Crabgrass, smooth	Junglerice	Shattercane	
Bluegrass, annual	Cupgrass, woolly	Oat, wild	Sprangletop	
Brome, ripgut	Foxtail, giant	Panicum, fall	Stinkgrass	
Bromegrass, downy	Foxtail, green	Panicum, Texas	Wheat, volunteer	
Canarygrass	Foxtail, yellow	Rush, toad <sup>s</sup>	Windgrass	
Chess, soft	Goosegrass	Rygrass, annual <sup>1</sup>	Witchgrass	
Crabgrass, large	Johnsongrass, seedling	Sandbur, field		

<sup>&</sup>lt;sup>1</sup> Apply to annual ryegrass prior to 3 inches in height <sup>5</sup> Suppression

Biennial and Perennial Weed Control				
Aster, white heath	Dallisgrass	Mustard, tansy	Rubus spp.	
Bindweed, field	Dandelion	Nutsedge, purple	Spurge, leafy	
Bindweed, hedge	Dock, curly	Nutsedge, yellow		
Bluegrass, Kentucky	Dogbank (hemp)	Onion, wild	ThisItle, bull	
Bromegrass, smooth	Fescue	Orchardgrass	Thistle, musk	
Bulrush**	Goldenrod, gray	Paragrass	   Torpedograss	
Burdock	Guineagrass	Plantain	Macaugrass	
Canada thistle	Horsetail	Poison ivy/oak	Vaseygrass	
Clover, Alsike	Lovegrass	Quackgrass	Woodsorrel	
Clover, red	Mugwort	Rocket, yellow	Yarrow, common	
Clover, white	Mullein, common	Rose, wild		

#### APPLICATION AND MIXING PROCEDURES

Do not use flood jet nozzles, controlled droplet application equipment, or air-assisted spray equipment. Uniform, thorough spray coverage is important to achieve consistent weed control.

**Ground application:** Refer to the **Weeds Controlled** tables **or Applications Instructions and Crop Use Directions** for application rates. DO NOT apply when winds are gusty, or when conditions favor movement of spray particles off the desired spray target.

Apply A357.01 broadcast in a minimum of 10 gallons of water per acre using a minimum spray pressure of 40 psi and a maximum ground speed of 10 mph. The use of 80 degree or 110 degree flat fan nozzles will provide optimum spray coverage and canopy penetration. Application of the spray at a 45-degree angle forward will result in better spray coverage. Under dense weed/crop canopies, use a broadcast rate of 15-20 gallons of water per acre so that thorough spray coverage will be obtained. DO NOT use raindrop nozzles. See the **Spray Drift Management** section of this label for additional information on proper application of A357.01.

**Aerial Application:** Thorough coverage is necessary for best weed control. For optimal weed control, apply A357.01 in a minimum of 10 gallons per acre. See the **Spray Drift Management** section of this label for additional information on proper application of A357.01.

#### **COMPATIBILITY TESTING**

If A357.01 will be mixed with pesticide products not listed on this label, test the compatibility of the intended tank mixture before mixing the products in the spray tank. The following procedure assumes a spray volume of 25 gallons per acre. For other spray volumes, adjust the amount of the water used accordingly. Check compatibility using this process:

- 1. In a clear 1-quart jar, place 1.0 pint of water from the source that will be used to prepare the spray solution.
- 2. For each pound of a dry tank mix partner to be applied per acre, add 1.5 teaspoons to the jar.
- 3. For each 16 fl oz of a liquid tank mix partner to be applied per acre, add 0.5 teaspoon to the jar.
- 4. For each 16 fl oz of A357.01 to be applied per acre, add 0.5 teaspoon to the jar.
- 5. After adding all the ingredients, place a lid on the jar and tighten, then invert 10 times to mix.
- 6. Allow the mixture to stand for 15 minutes, then evaluate the solution for uniformity and stability. Look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. If the tank mix partners are not compatible, do not use the mixture in a spray tank.
- 7. Once compatibility testing is complete, dispose of any pesticide wastes in accordance with the **Storage and Disposal** section of this label.

#### **MIXING INSTRUCTIONS**

**Tank Mix Instructions:** A357.01 may be applied in tank mix combinations with labeled rates of other products provided these other products are labeled for the timing and method of application for the crop to be treated. Use the tank mix partner in accordance with label limitations and restrictions. Do not exceed label dosage rates.

A357.01 may not be mixed with any product containing a label prohibition against such mixing. Refer to the specific crop section for rates and other restrictions. 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.

A357.01 must be applied with properly calibrated and clean equipment. A357.01 is formulated to mix readily in water. Prior to adding A357.01 to the spray tank, ensure that the spray tank is thoroughly clean, particularly if a herbicide with the potential to injure crops was previously used (see **Cleaning Instructions**).

Mix A357.01 with water to make a finished spray solution as follows:

- 1. Fill the spray tank half full with water.
- 2. Begin agitation.

- 3. If mixing with a flowable/wettable powder tank mix partner, prepare a slurry of the proper amount of the product in a small amount of water. Add the slurry to the spray tank.
- 4. Add the appropriate amount of ammonium sulfate (AMS) to the spray tank.
- 5. If mixing with a liquid tank mix partner, add the liquid mix partner next.
- 6. Complete filling the spray tank with water.
- 7. Add the proper amount of A357.01 and continue agitation.
- 8. If foaming occurs, use a silicone-based antifoam agent.

Ensure that all spray system lines including pipes, booms, etc. have the correct concentration of spray solution by flushing out the spray system lines before starting the crop application.

If tank mix partners listed on this label are added, maintain good agitation at all times until contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to re-suspend the mixture before spraying is resumed. Keep bypass line on or near bottom of tank to minimize foaming. Screen size in nozzles or line strainers must be 50 mesh or larger.

#### **CLEANING INSTRUCTIONS**

Before using A357.01, thoroughly clean bulk storage tank, refillable tank, nurse tanks, spray tank, lines, and filter, particularly if a herbicide with the potential to injure crops was previously used. Ensure that equipment is thoroughly rinsed using a commercial tank cleaner.

After using A357.01, triple rinse the spray equipment and clean with a commercial tank cleaner before using for crops not labeled as LibertyLink. Make sure any rinsate or foam is thoroughly removed from spray tank and boom. Rinsate may be disposed following the pesticide disposal directions on this label.

#### MANDATORY SPRAY DRIFT MITIGATION

When applying to crops via aerial application equipment, the spray boom must be mounted on the aircraft so as to minimize drift caused by wing tip or rotor blade vortices. The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter

- When applying to crops via aerial application equipment, applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- Do not apply when wind speeds exceed IO miles per hour at the application site.
- Do not apply during temperature inversions.
- For aerial applications, do not release spray at a height greater than IO feet above the crop canopy, unless a greater application height is required for pilot safety.
- For ground applications and aerial applications, select nozzle and pressure that deliver medium to coarse spray droplets as indicated in nozzle manufacturer's catalogues and in accordance with ASABE Standard 572.1.
- Spray at the appropriate boom height based on nozzle selection and nozzle spacing, but do not exceed a boom height of 24 inches above target pest or crop canopy. Set boom to lowest effective height over the target pest or crop canopy based on equipment manufacturer's directions. Automated boom height controllers are recommended with large booms to better maintain optimum nozzle to canopy height. Excessive boom height will increase the potential for spray drift.
- For non-crop vegetation management ground applications, apply with the nozzle height no more than 4 feet above the ground or target vegetation, unless necessitated by the application equipment. Examples would include roadside, railroad, utility rights of way, forestry and other industrial vegetation management applications where safety or natural barriers obstruct application.

#### **ADVISORY SPRAY DRIFT**

POLLINATOR ADVISORY STATEMENT: This product contains an herbicide. Follow all label directions and precautions to minimize potential off-target exposure in order to prevent effects to non-target plants adjacent to the treated site which may serve as habitat or forage for pollinators.

#### Spray Drift Management:

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

#### Information on 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. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. 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 Inversions sections of this label.

Techniques for 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 A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- 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.
- Controlling Droplet Size -Aircraft
- Number of Nozzles- Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

- Nozzle Type- Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
- Boom Length Longer booms increase drift potential. Therefore, a shorter boom length is recommended. • Application Height- Application more than 10ft. above the canopy increases the potential for spray drift.
- Boom Height Setting the boom at the lowest referenced height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.
- Drift Reduction Technology (DRT)

The EPA Drift Reduction Technology (DRT) Program was developed to encourage the manufacture, marketing, and use of spray technologies scientifically verified to significantly reduce pesticide drift. The use of DRTs should result in significantly less pesticide from spray applications drifting and being deposited in areas not targeted by those applications, compared to spray technologies that do not meet the minimum DRT standard. EPA-verified drift reduction technologies (DRTs) and their ratings will be added to the following webpage as they become available: https://www.epa.gov/reducing-pesticide-driftlepa-verified-and-rated-drift-reductiontechnologies

• Wind

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than I 0 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. AVOID APPLICATIONS DURING GUSTY OR WINDLESS CONDITIONS.

Note: Local terrain can influence wind patterns. Every applicator needs to be familiar with local wind patterns and how they affect spray drift.

• Temperature and Humidity

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

• Temperature Inversions

Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature 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.

• Shielded Sprayers

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

#### APPLICATION INSTRUCTIONS AND CROP USE DIRECTIONS

The following tables indicate use patterns, rates, minimum spray volumes, preharvest intervals and other precautions, restrictions and comments specific to each crop. Read and follow directions carefully.

A357.01 is a foliar active herbicide with no soil residual activity. For best results, apply to emerged, young, actively growing weeds. Warm temperatures, high humidity and bright sunlight improves the performance of A357.01. Necrosis of leaves and young shoots occurs within 2 to 4 days after application under growing conditions.

Weeds that emerge after application will not be controlled. A357.01 will have an effect on weeds that are larger than the specified leaf stage, however, speed of activity and control may be reduced.

Weed control may be reduced if application is made when heavy dew, fog, mist or rain are present or when weeds are under stress due to drought, cool temperatures, or extended periods of cloudiness.

When applying for control of lambsquarters and velvetleaf, make applications between dawn and 2 hours before sunset to avoid the possibility of reduced control.

The addition of ammonium sulfate may improve weed control if weeds are under stress. For optimal yield, early season weed removal is important.

To maximize weed control, do not cultivate from 5 days before an application to 7 days after an application. A357.01 is rainfast 4 hours after application; therefore rainfall within 4 hours may necessitate retreatment.

Consult your local Cooperative Extension Service for guidelines on optimum application timing for A357.01 in your region.

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
COTTON OPTION 1 Up to 2 applications	Burndown (Prior to Planting or Prior to Crop Emergence) In-Season (Post Emergent to the Crop)	1st application 30.0 – 43.0 fl oz/A (0.55 – 0.79 lbs ai/A) 2nd application 22.0 – 29.0 fl oz/A (0.40 – 0.53 lbs ai/A)	Apply to emerged, young, actively growing weeds. Uniform, thorough spray coverage is necessary to achieve consistent weed control. When applying In-Season to cotton, a hooded sprayer must be used.  Refer to Application Methods to cotton.  Post Emergent application: apply from crop emergence to early bloom stage.  Severe injury or death may result if the A357.01 contacts the foliage or stems of cotton NOT labeled as LibertyLink.	In-Season do not apply to cotton in Florida, South of Tampa (Florida Route 60), or in Hawaii, except for test plots or breeding nurseries.  Do not apply within 70 days of harvest.  Do not apply through any type of irrigation system.  Do not apply more than 72.0 floz/A (1.32 lbs ai/A) through any combination of use patterns per year.  Do not apply more than two applications per year.  For In-Season applications, do not apply more than 29.0 floz/A (0.53 lbs ai/A) in one application.  For burndown, do not apply more than 43.0 floz/A (0.79 lbs ai/A) in one application.  Applications must be a minimum of 10 days apart.

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
COTTON OPTION 2 Up to 3 applications	Burndown (Prior to Planting or Prior to Crop Emergence) In-Season (Post Emergent to the Crop)	1st application 22 - 29.0 fl oz/A (0.4 - 0.53 lbs ai/A) 2nd application 22.0 - 29.0 fl oz/A (0.40 - 0.53 lbs ai/A) 3rd application 22.0 - 29.0 fl oz/A (0.40 - 0.53 lbs ai/A)	If first application is a burndown application, apply at the highest 1st application use rate.  Apply to emerged, young, actively growing weeds.  Uniform, thorough spray coverage is necessary to achieve consistent weed control.  When applying In-Season to cotton, a hooded sprayer must be used. Refer to Application Methods to cotton.  Post Emergent application: apply from crop emergence to early bloom stage  Severe injury or death may result if the A357.01 contacts the foliage or stems of cotton NOT labeled as LibertyLink.	In-Season do not apply to cotton in Florida, South of Tampa (Florida Route 60), or in Hawaii, except for test plots or breeding nurseries.  In-Season applications must be at least 10 days apart.  Do not apply within 70 days of harvest.  Do not apply through any type of irrigation system.  Do not apply more than 87.0 floz/A (1.59 lbs ai/A) through any combination of use patterns per year.  Do not apply more than 3 applications per year.  Do not apply more than 29.0 floz/A (0.53 lbs ai/A) in one application.

COTTON: If environmental conditions prevent a timely herbicide application resulting in large weeds or heavy infestations, a single application of up to 43 fl oz (0.79 lbs ai/A) per acre of A357.01 may be made to cotton. **DO NOT** apply more than 43 fl oz (0.79 lbs ai/A) in a single application under this use scenario. If a single application of 43 fl oz (0.79 lbs ai/A) per acre is made, a subsequent application not to exceed 29 fl oz (0.53 lbs ai/A) may be made to cotton. The yearly total under this scenario may not exceed 72 fl oz (1.32 lbs ai/A) per acre including all application timings. Make sequential applications at least 10 days apart.

\*Apply the higher rate to control larger weeds growing in the crop at the time of harvest.

- Refer to **Weeds Controlled Row Crop** table for proper application rate based upon the weeds present and their sizes.
- Refer to **Application Methods to Cotton** when making In-Season applications to cotton.
- Refer to **Tank Mixtures** section for additional information on tankmixes.

COTTON	Post harvest	29.0 – 43.0 fl.	Apply to emerged, young,	Do not apply through any type of
	Burndown	oz/A	actively growing weeds.	irrigation system.
	(After Cotton	(0.53 – 0.79 lbs		
	Harvest)	ai/A)	Uniform, thorough spray coverage is necessary to achieve consistent weed control.	Do not apply more than 87.0 fl oz/A (1.59 lbs ai) through any combinations of use patterns per year.  Applications must be a minimum of 10 days apart. Do not make more than 2 applications per year. Do not apply more than 43.0 fl. oz/A (0.79 lbs ai/A in one application.

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
CORN	Burndown	29.0 – 36.0 fl	Apply to emerged, young,	Do not apply more than 36.0 fl
Field,	(Prior to	Planting or	oz/A (0.66 lbs ai/A) as a burndown treatment.	
Silage,	Prior to Crop	(0.53 – 0.66 lbs ai/A)	Uniform, thorough spray coverage is necessary to	
Sweet	Emergence)		achieve consistent weed control.	Do not apply more than one burndown application per year.
CORN Field, Silage	In-Season to LibertyLink Corn Only (Post Emergent to the Crop)	22.0 fl oz/A (0.40 lbs ai/A) A second In- Season application may be needed to control weeds that have not yet emerged at time of application.	Apply to emerged, young, actively growing weeds.  Uniform, thorough spray coverage is necessary to achieve consistent weed control.  Post Emergent application: apply broadcast or with drop nozzles from emergence up to 24" tall or in the V7 stage of growth (7 developed collars) whichever comes first.  For corn 24" to 36" tall, only apply using ground application and nozzles and avoid spraying into the whorl or leaf axils of the corn stalks.  Must be applied with ammonium sulfate (AMS).	If used as a burndown application no In-Season applications may be applied.  Do not apply more than 2 applications In-Season.  In-Season applications must be at least 10 days apart.  Do not apply with 60 days of harvesting corn forage, and within 70 days of harvesting corn grain or corn fodder.  Do not apply through any type of irrigation system.  Do not apply more than 44.0 fl oz/A (0.80 lbs ai/A) through any combination of use patterns per year.  Do not apply more than 22.0 fl oz/A (0.40 lbs ai/A) in one application.  Do not use nitrogen solutions as spray carriers. A silicone based anti foam agent may be added if needed.  Do not apply if corn shows injury from environmental stress or prior herbicide applications.

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
CORN	In-Season to	20.0 fl oz/A	Apply to emerged, young,	If used as a burndown application
Sweet	LibertyLink	(0.37 lbs ai/A)	actively growing weeds.	no In-Season applications may be
	Sweet Corn Only			applied.
	(Post Emergent to	A second In-	Unifrom, thorough spray	
	the Crop)	Season	coverage is necessary to	Do not apply more than 2
		application may	achieve consistent weed	applications In-Season.
		be needed to	control.	
		control weeds		In-Season applications must be at
			Post Emergent application:	least 10 days apart.
		emerged at time	apply from emergence up to	
		of application.	24" tall or in the V7 stage of	Do not apply within 50 days of
			growth (7 developed collars)	harvesting sweet corn ears and
			whichever comes first.	within 55 days of harvesting stover.
				Do not apply through any type of irrigation system.
				Do not apply more than 40.0 fl oz/A ( 0.74 lbs ai/A) through any combination of use patterns per year.
				Do not apply more than 20.0 fl oz/A (0.37 lbs ai/A) in one application.
				Do not use nitrogen solutions as spray carriers. A silicone based anti foam agent may be added if needed.
				Do not apply if corn shows injury from environmental stress or prior herbicide applications.
				Must be applied with ammonium sulfate (AMS).

- For best results use only fine feed grade or spray grade AMS at 3 lbs/A (17 lbs/100 gallons). When temperatures exceed 85° F, the rate of AMS can be reduced to 1.5 lbs per acre (8.5 lbs/100 gallons) to reduce potential leaf burn. Use of additional surfactants or crops oils may increase risk of crop response.
- Refer to **Weeds Controlled Row Crop** table for proper application rate based upon the weeds present and their sizes.
- Refer to **Tank Mixtures** section for additional information on tankmixes.

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
CANOLA	Burndown (Prior to Planting or Prior to Crop Emergence)	29.0 – 36.0 fl oz/A (0.53 – 0.66 lbs ai/A)	Apply to emerged, young, actively growing weeds.  Uniform, thorough spray coverage is necessary to achieve consistent weed control.	If used as a burndown application, no In-Season applications may be applied.  Do not apply more than one burndown application per year.  If used as a burndown application, do not apply more than 36.0 fl oz/A (0.66 lbs ai/A) in one application.  Do not apply more than 2
	In-Season to LibertyLink Canola Only (Post Emergent to the Crop)	22.0 fl oz/A (0.40 lbs ai/A) A second In- Season application may be needed to control weeds that have not yet emerged at time of application.		In-Season applications must be at least 10 days apart.  Do not apply In-Season in states of AL, DE, GA, KY, MD, NJ, NC, SC, TN, VA, WV.  Do not apply within 65 days of harvest.  Do not graze the treated crop or cut for hay.  Do not apply through any type of irrigation system.  Do not apply more than 44.0 fl oz/A (0.80 lbs ai/A) through any combination of use patterns per year.  For In-Season, do not apply more than 22.0 fl oz/A (0.40 lbs ai/A) in one application.  Do not apply if canola shows injury from environmental stress or prior herbicide applications.
- Refe	er to <b>Weeds Controlle</b>	d – Row Crop table		prior herbicide applications.

- Refer to **Weeds Controlled Row Crop** table for proper application rate based upon the weeds present and their sizes.
- Refer to **Tank Mixtures** section for additional information on tankmixes.

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
SOYBEAN	Burndown (Prior to Planting or Prior to Crop Emergence)  In-Season to LibertyLink Soybeans Only (Post Emergent to the Crop)	1st application 29.0 -36.0 fl oz/A (0.53 – 0.66 lbs ai/A) 2nd application 22.0 – 29.0 fl oz/A (0.40 – 0.53 lbs ai/A)	Apply to emerged, young, actively growing weeds.  Uniform, thorough spray coverage is necessary to achieve consistent weed control.  A silicone-based antifoam agent may be added if needed.  Post Emergent application: apply from crop emergence up to but not including bloom stage.	Do not apply more than 36.0 fl oz/A (0.66 lbs ai/A) in a single application.  Make sequential applications at least 5 days apart.  Do not apply within 70 days of harvesting soybean seed.  Do not graze the treated crop or cut for hay.  Do not apply through any type of irrigation system.  Do not apply more than 65.0 fl oz/A (1.19 lbs ai/A) through any combination of use patterns per year.  Do not make more than two applications per year.  Do not use nitrogen solutions as spray carriers.  Do not apply if soybeans show injury from environmental stress or prior herbicide applications.

<sup>-</sup> Refer to **Weeds Controlled** – **Row Crop** table for proper application rate based upon the weeds present and their sizes.

<sup>-</sup> Refer to **Tank Mixtures** section for additional information on tankmixes.

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
SUGAR BEETS	Burndown (Prior to Planting or Prior to Crop Emergence)  In-Season to LibertyLink	29.0 – 36.0 fl oz/A (0.53 – 0.66 lbs ai/A) 15.0 – 30.0 fl oz/A	Apply to emerged, young, actively growing weeds.  For best control application should begin when weeds are up to 1 inch in height or diameter.  Repeat applications when newly germinated weeds again reach 1 inch in height or diameter.	If used as burndown, no Inseason applications may be applied.  Do not make more than one burndown application per year.  In-Season do not apply more than 30 fl oz/A (0.55 lbs ai/A) in one application.  Do not apply within 60 days of harvesting sugar beets.
	Sugar Beets Only (Post Emergent to the Crop)	(0.27 – 0.55 lbs ai/A) A second In-Season application may be needed to control weeds that have not yet emerged at time of application.	Uniform, thorough spray coverage is necessary to achieve consistent weed control.  Post Emergent application: apply from cotyledon stage up to 10 leaf stage of sugar beet.  Anti foams or drift control agents may be added if needed.	Do not plant rotation crops in a field treated with A357.01 within 120 days after the last application of this product with the exception of wheat, barley, buckwheat, millet, oats, rye, sorghum, and triticale, which may be planted 70 days after the last application of this product. Crops listed on this label may be planted at any time.  Do not graze the treated
				crop or cut for hay.  Do not apply product through any type of irrigation system.  Do not apply more than 60.0 fl oz/A (1.10 lbs ai/A) through any combination of use patterns per year.  Do not make more than 2 applications per year.  Do not add surfactants.  Do not apply if sugar beets show injury from environmental stress or prior herbicide applications.  Applications must be a minimum of 28 days apart.  For burndown, do not apply more than 36.0 fl oz/A (0.66 lbs ai/A) in one application.

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
- Refer to their sizes.	Weeds Controlled	– Row Crop table	for proper application rate based	upon the weeds present and
POME FRUIT (Crop Group 11- 10)    Apples, Crabapple, Loquat, Mayhaw, Quince, Pear, Oriental Pear Azarole, Medlar, Tejocote, cultivars, varieties and/or hybrids of these	Broadcast Banded Directed Spray Spot Treatments  See Application Methods section for additional information on Banded, Directed Spray and Spot Treatments	Weeds < 3" in height  48 fl oz/A (0.88 lbs ai/A) Weeds < 6" in height  56 fl oz/A (1.02 lbs ai/A) Weeds > 6" in height and/or grasses that have tillered  56 fl oz - 82 fl oz/A (1.02 - 1.50 lbs ai/A)	Apply to emerged, young, actively growing weeds.  Uniform, thorough spray coverage is necessary to achieve consistent weed control.  Avoid direct spray, drift or mist to desirable vegetation, green bark, stems or foliage, as injury may occur.  Only trunks with callused, mature brown bark may be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers.  When tankmixing with a residual herbicide no additional surfactant is needed.	Applications must be a minimum of 14 days apart.  Do not graze, harvest and/or feed treated orchard cover crops to livestock.  Do not aerially apply.  Do not apply through any type of irrigation system.  Do not make spot spray applications to suckers as tree injury may occur.  Do not apply within 14 days of harvest.  Do not apply more than 246 fl oz/A (4.5 lbs ai/A) through any combination of use patterns per year.  Do not apply more than 5 applications per year at 48 fl oz/A (0.88 lbs ai/A).  Do not apply more than 82 fl oz/A (1.50 lbs ai/A) in one application.
CITRUS (Crop Group 10-10) Calamondin, Citrus citron, Citrus hybrids (chironja, tangelo, tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine),	Broadcast Banded Directed Spray Spot Treatments  See Application Methods section for additional information on Banded, Directed Spray and Spot	Weeds < 3" in height  48 fl oz/A  (0.88 lbs ai/A)  Weeds < 6" in height  56 fl oz/A  (1.02 lbs ai/A)  Weeds > 6" in height and/or grasses that have tillered  56 fl oz - 82 fl	Apply to emerged, young, actively growing weeds.  Uniform, thorough spray coverage is necessary to achieve consistent weed control.  Avoid direct spray, drift or mist to desirable vegetation, green bark, stems or foliage, as injury may occur.  Only trunks with callused, mature brown bark may be sprayed unless protected from spray contact by nonporous	Applications must be a minimum of 14 days apart.  Do not graze, harvest and/or feed treated orchard cover crops to livestock.  Do not aerially apply.  Do not apply through any type of irrigation system.  Do not make spot spray applications to suckers as tree injury may occur.  Do not apply within 14 days of harvest.  Do not apply more than 246

Do not apply more than 246

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
Orange (sour, sweet), Pummelo, Satsuma mandarin cultivars, varieties and/or hybrids of these		oz/A (1.02 – 1.50 lbs ai/A)	wraps, grow tubes, or waxed containers.	fl oz/A (4.5 lbs ai/A) through any combination of use patterns per year.  Do not apply more than 5 applications per year at 48 fl oz/A (0.88 lbs ai/A).  Do not apply more than 82 fl oz/A (1.50 lbs ai/A) in one application.

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
GRAPES Table, Wine, Raisin	Broadcast Banded Directed Spray Spot Treatments  See Application Methods section for additional information on Banded, Directed Spray and Spot Treatments	Weeds < 3" in height  48 fl oz/A  (0.88 lbs ai/A)  Weeds < 6" in height  56 fl oz/A  (1.02 lbs ai/A)  Weeds > 6" in height and/or grasses that have tillered  56 fl oz - 82 fl oz/A  (1.02 - 1.50 lbs ai/A)	nonporous wraps, grow tubes, or waxed containers.	Do not aerially apply.  Do not apply through any type of irrigation system.  Do not make spot spray applications to suckers as tree injury may occur.  Do not apply within 14 days of harvest.  Do not apply more than 246 floz/A (4.5 lb ai/A) through any combination of use patterns per year.  Do not apply more than 5 applications per year at 48 floz/A (0.88 lbs ai/A).  Do not apply more than 82 floz/A
STONE FRUIT	Broadcast Banded	Weeds < 3" in height		(1.50 lbs ai/A) in one application.  Applications must be a minimum of 28 days apart.  Applications must be a minimum of 28 days apart.
(Crop Group 12-12) Apricot, Cherry (sweet, tart),	Directed Spray Spot Treatments	48 fl oz/A (0.88 lbs ai/A)	Uniform, thorough spray coverage is necessary to achieve consistent weed control.	Do not graze, harvest and/or feed treated orchard cover crops to livestock.  Do not aerially apply.
Nectarine, Peach, Plum (chickasaw, damson, Japanese), Plumcot, Prune (fresh)	See Application Methods section for additional information on Banded, Directed Spray and Spot Treatments	Weeds < 6" in height 56 fl oz/A (1.02 lbs ai/A)  Weeds > 6" in height and/or grasses that have tillered 56 fl oz - 82 fl oz/A (1.02-1.50 lbs ai/A)		Do not apply through any type of irrigation system.  Do not make spot spray applications to suckers as tree injury may occur.  Do not apply within 14 days of harvest.  Do not apply more than 164 floz/A (3.0 lb ai/A) through any combination of use patterns per year.  Do not apply more than 2 applications per year.  Do not apply more than 82 floz/A (1.50 lbs ai/A) in one application.

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
TREE NUTS (Crop Group 14) (including Pistachio) Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory nut, Macadamia (bush nut), Pecan, Pistachio, Walnut (black and English (Persian))	Broadcast Banded Directed Spray Spot Treatments  See Application Methods section for additional information on Banded, Directed Spray and Spot Treatments	Weeds < 3" in height  48 fl oz/A  (0.88 lbs ai/A)  Weeds < 6" in height  56 fl oz/A  (1.02 lbs ai/A)  Weeds > 6" in height and/or grasses that have tillered  56 fl oz - 82 fl oz/A  (1.02 - 1.50 lbs ai/A)		Do not graze, harvest and/or feed treated orchard cover crops to livestock.  Do not aerially apply.  Do not apply through any type of irrigation system.  Do not make spot spray applications to suckers as tree injury may occur.  Do not apply within 14 days of harvest.  Do not apply more than 246 fl oz/A (4.5 lbs ai/A) through any combination of use patterns per year.  Do not apply more than 5 applications per year at 48 fl oz/A (0.88 lbs ai/A).  Do not apply more than 82 fl oz/A (1.50 lbs ai/A) in one application.  Applications must be at least 28 days apart.

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
Bushberry subgroup 13B  Blueberry, highbush and lowbush; currant; elderberry; gooseberry; huckleberry	Use Pattern Broadcast Banded Directed Spray Spot Treatments  See Application Methods section for additional	Weeds < 3" in height 48 fl oz/A (0.88 lbs ai/A) Weeds < 6" in height 56 fl oz/A (1.02 lbs ai/A) Weeds > 6" in	Directions  Apply to emerged, young, actively growing weeds.  Uniform, thorough spray coverage is necessary to achieve consistent weed control.  Avoid direct spray, drift or mist to desirable vegetation, green bark, stems, or foliage,	Do not aerially apply.  Do not apply through any type of irrigation system.  Do not make spot spray applications to suckers as tree injury may occur.  Do not apply within 14 days of harvest.  Do not apply more than 164 fl
juneberry, salal	information on Banded, Directed Spray and Spot Treatments	height and/or grasses that have tillered 56 fl oz – 82 fl oz/A (1.02 – 1.50 lbs ai/A)	as injury may occur.  Only trunks with callused, mature brown bark may be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers.	oz/A (3.0 lb ai/A) through any combination of use patterns per year.  Do not apply more than 3 applications per year at 48 fl oz/A (0.88 lbs ai/A).  Do not apply more than 82 fl oz/A (1.50 lbs ai/A) in one application.  Applications must be a minimum of 28 days apart.

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
Crop	Broadcast Banded Directed Spray Spot Treatments  See Application Methods section for additional information on Banded, Directed Spray and Spot Treatments	Rate/Acre  Weeds < 3" in height 48 fl oz/A (0.88 lbs ai/A)  Weeds < 6" in height 56 fl oz/A (1.02 lbs ai/A)  Weeds > 6" in height and/or grasses that have tillered 56 fl oz - 82 fl oz/A (1.02 - 1.50 lbs ai/A)	Apply to emerged, young, actively growing weeds.  Uniform, thorough spray coverage is necessary to achieve consistent weed control.  Avoid direct spray, drift or mist to desirable vegetation, green bark, stems, or foliage, as injury may occur.  Only trunks with callused, mature brown bark may be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers.	Applications must be a minimum of 14 days apart.  Do not graze, harvest and/or feed treated orchard cover crops to livestock.  Do not aerially apply.  Do not apply through any type of irrigation system.  Do not make spot spray applications to suckers as tree injury may occur.  Do not apply more than 246 fl oz/A (4.50 lbs ai/A) through any combination of use patterns per year.  Do not apply more than 5 applications per year at 48 fl oz/A (0.88 lbs ai/A).
				Do not apply more than 82 fl oz/A (1.50 lbs ai/A) in one application.

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
POTATOES	Use Pattern Vine Desiccation	Rate/Acre 21.0 fl oz/A (0.38 lbs ai/A)	Apply at the beginning of natural senescence of potato vines.  Potato varieties with heavy or dense vines may require an application of another desiccation product to complete vine desiccation.  Thorough coverage of the potato vines to be desiccated is essential.  Use sufficient volume of water (20 to 100 gpa).  Vary the gallons of water per acre and spray pressure as indicated by the density of the potato vines.  Increase spray volume to at least 30 gallons of water per acre when potato canopy is dense or under cool and dry conditions.	Do not apply to potatoes grown for seed.  Do not split application or apply more than 1 application per year.  Do not harvest potatoes until 9 days or more after application.  Do not apply more than 21.0 floz/A (0.38 lbs ai/A) per year.  Canola, corn, cotton, rice, soybean and sugar beets may be planted at any time after an application of A357.01 as a potato vine desiccant.  Wheat, barley, buckwheat, millet, oats, rye sorghum or triticale may be planted 30 days or more after an application of A357.01 as a potato vine desiccant.  All other crops may be planted 120 or more days after an application of A357.01 as a
			conditions.  Apply with the spray boom as low as possible to achieve thorough coverage of the potato vines for best control and to minimize drift potential.	application of A357.01 as a potato vine desiccant.

#### **SUCKER CONTROL**

When applied to suckers that are young, green, and uncallused, A357.01 will reduce or eliminate sucker growth. For sucker control, make a split application approximately 4 weeks apart at 56 fl oz of product/A (1.02 lbs ai/A) in a broadcast application. Thorough coverage of all sucker foliage is necessary for optimum control. Suckers should not exceed 12 inches in length. Do not make spot applications to trunk as injury may occur.

# TANK MIX PARTNER INSTRUCTIONS

Because A357.01 does not provide residual weed control or control of unexposed plant parts, certain herbicide tank mixes may aid in the performance of A357.01 or be added to provide residual herbicide activity. No additional surfactant is needed with any tank mix partner. A357.01 may be applied in tank mix combinations with labeled rates of other products that are labeled for the timing and method of application for the crop to be treated. Always use the tank mix partner in accordance with the label limitations and restrictions. Do not exceed label dosage rates. A357.01 may not be mixed with any product containing a label prohibition against such 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.

flumioxazin	simazine	terbacil
napropamide		norflurazon
oxyfluorfen		oryzalin
diuron		

#### **APPLICATION METHODS**

#### **COTTON**

Application of A357.01 to cotton varieties not labeled as LibertyLink requires the use of hooded spray equipment designed to minimize exposure of the spray to the cotton stand. A hooded sprayer directs the spray onto weeds, while shielding the cotton stand from contact. Use nozzles that provide uniform coverage within the treated area. Keep hoods on these sprayers adjusted to protect desirable vegetation. Extreme care must be exercised to avoid exposure of the desirable vegetation to the spray.

With a hooded sprayer, the spray pattern is completely enclosed on the top and all 4 sides by a hood. This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods off the ground in any way. The spray hoods must be operated on the ground or skimming across the ground. Tractor speed must be adjusted to avoid bouncing of the spray hoods. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground as this may cause spray particles to escape and come into contact with the cotton, causing damage or destruction of the crop.

Herbicide rates and spray volume instructions are presented as broadcast equivalents and must be reduced in proportion to the area actually treated. Use the following formulas to calculate the correct rate and volume per planted (field) acre:

Band width in inches	X	Broadcast RATE	=	Amount of banded product
Row width in inches		per acre		needed per acre
Band width in inches	Х	Broadcast spray VOLUME	=	Amount of spray volume
Row width in inches		per acre		needed per acre

#### BANDED SPRAY APPLICATIONS – TREE, NUT, VINE AND BERRIES

Banded applications may be used using the following formula to calculate the amount of herbicide needed for orchard or vineyard strip sprays:

Band width in inches	Χ	Rate per acre	=	Amount of herbicide
Row width in inches		broadcast		needed for treatment

# SPOT OR DIRECTED SPRAY APPLICATIONS – TREE, NUT, VINE AND BERRIES

For spot or directed spray applications mix A357.01 at 1.7 fl oz (0.03 lb ai/A) of product per gallon of water. Apply to undesirable vegetation foliage until wet but prior to runoff. Ensure uniform and complete coverage. Thoroughly clean the sprayer following use. DO NOT make spot or directed spray applications to tree or vine trunk as injury may occur.

### **TANK MIXTURES**

See Compatibility Testing section of this label if tankmixing with other pesticide products.

For all crops certain herbicide tank mixes may aid in the performance of A357.01 or be added to provide residual herbicide activity. When tank mixing with a residual herbicide no additional surfactant is needed. A357.01 may be applied in tank mix combinations with labeled rates of other products labeled for the timing and method of application for the crop to be treated. The tank mix partner must be used in accordance with the label limitations

and restrictions. No label dosage rates may be exceeded. A357.01 may not be mixed with any product containing a label prohibition against such 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.

### Tankmix partners for A357.01 on LibertyLink canola:

Tank Mix Partner	Rate (fl oz/A)
quizalofop-p-ethyl	Refer to product label
sethoxydim	Refer to product label
Clethodim (26.4%)	Refer to product label
Clethodim (12.6%)	Refer to product label

# Tankmix partners for A357.01 on LibertyLink corn:

2,4-D	tembotrione + thiencarbazone-methyl	tembotrione	pendimethalin <sup>1</sup>	dicamba, sodium salt + halosulfuron-methyl
acetochlor	dicamba, sodium salt + diflufenzopyr-sodium	atrazine + mesotrione + s-metolachlor <sup>2</sup>	halosulfuron-methyl	mesotrione + s-metolachlor <sup>2</sup>
carfentrazone-ethyl	atrazine + dimethenamide-P	atrazine + mesotrione + s-metolachlor <sup>2</sup>	flumetsulam	
atrazine	glyphosate + mesotrione + s-metolachlor	metolachlor <sup>2</sup>	s-metolachlor <sup>2</sup>	
mesotrione	flumetsulam + clopyralid potassium	nicosulfuron	primisulfuron-methyl + prosulfuron	
mesotrione + s-metolachlor <sup>2</sup>	topramezone	dicamba, sodium salt + primisulfuron-methyl	dicamba, sodium salt + diflufenzopyr-sodium	

<sup>&</sup>lt;sup>1</sup> Tank mixing with pendimethalin may result in reduced control of barnyardgrass, fall panicum, field sandbur, yellow foxtail, and volunteer corn.

# APPLICATION DIRECTIONS FOR CANOLA, CORN, COTTON, AND SOYBEAN SEED PROPAGATION

A357.01 may be applied to select out susceptible "segregates," i.e., canola, corn, cotton, and soybean plants that are sensitive to glufosinate-ammonium during seed propagation.

• Canola: A357.01 may also be used in canola seed propagation as a foliar spray to selectively eliminate canola plants that do not carry the LibertyLink gene and as such, can be applied to remove susceptible segregates during canola seed propagation. Breeding material not possessing the LibertyLink gene will be severely injured or killed if treated with this herbicide. Up to three (3) applications of A357.01 may be applied at a rate of 22.0 fl oz/A (0.40 lbs ai/A). Apply from the cotyledon stage up to the early bolting stage (e.g., BBCH 18-30, between just prior to stem elongation/bolting, eight or more leaves and beginning of stem elongation, no internodes).

<sup>&</sup>lt;sup>2</sup> For best results refer to the product label when tank mixing these products.

#### **Restrictions:**

- DO NOT apply more than 3 applications at up to 22.0 fl oz/A (0.40 lbs ai/A) per application through any combination of use patterns peryear.
- DO NOT apply more than 66.0 fl oz/A (1.21 lbs ai/A) through any combination of use patterns per year.
- o DO NOT apply beyond the early bolting stage or within 65 days of harvesting canola seed.
- o DO NOT use treated canola seed for food, feed or oil purposes.
- DO NOT apply if canola shows injury from environmental stress (drought, excessive rainfall, etc) or from a prior herbicide application.
- o DO NOT apply this product through any type of irrigation system.
- o Refer to **Rotational Crop Restrictions** for appropriate crop plant backintervals.
- o Applications must be a minimum of 10 days apart.
- Corn: Inbred lines (plants not possessing the LibertyLink trait) will be severely injured or killed if treated with this herbicide. A hooded sprayer may be used to protect plants from coming into contact with the herbicide application. For the selection of LibertyLink corn "segregates", apply A357.01 at 22 fl oz/A (0.40 lbs ai/A) plus AMS at 3 lb/A (17 lb/100 gallons) when corn is in the V-3 to V-4 stage of growth, i.e., 3 to 4 developed collars. Make a second treatment of 22 fl oz/A (0.40 lbs ai/A) plus AMS at 3 lbs/A when the corn is in the V-6 to V-7 stage of growth or up to 24" tall. Make sequential applications at least 10 days apart. When temperatures exceed 85° F, the rate of AMS can be reduced to 1.5 lbs/A (8.5 lbs/100 gallons) to reduce potential leaf burn.
- **Cotton:** use A357.01 in cotton seed propagation as a foliar spray to selectively eliminate cotton plants that do not carry the LibertyLink trait, removing susceptible segregates during cotton seed propagation. Breeding material not possessing the LibertyLink trait will be severely injured or killed if treated with this herbicide. See **Application Instructions and Crop Use Directions** on Cotton for use rates and application timing.
- Soybeans: For the selection of LibertyLink soybean "segregates", apply A357.01 at up to 22 to 36 fl oz/A (0.40 0.66 lbs ai/A) when soybean is in the third trifoliate stage. Make a second treatment of 22 to 29 fl oz/A (0.40
  - 0.53 lbs ai/A) up to but not including the bloom growth stage of soybean. Make sequential applications at least 5 days apart.

#### **FALLOW FIELDS OR POST HARVEST**

A357.01 may be used as a substitute for tillage in fallow fields to control or suppress weeds listed in the **Weed Control for Row Crops** section of this label. Applications may be made in fallow fields, post-harvest, before planting or emergence of any crop listed on this label.

Apply A357.01 at 22 or 29 fl oz/A (0.40 – 0.53 lbs ai/A) to fallow fields to control specific weeds. A357.01 must be applied with ammonium sulfate. Tank mixes with 2,4-D, glyphosate or atrazine and A357.01 will enhance total weed control. 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. See the **Application and Mixing Procedures** section of this label for additional information on how to apply this product. See the **Product Information** section of this label for rotational crop restrictions.

#### Restrictions:

- Do not apply more than 29 fl oz/A (0.53 lbs ai/A) in one application.
- Do not apply more than 145 fl oz/A (2.65 lbs ai/A) per year.

- Applications must be a minimum of 10 days apart.
- Do not apply more than 5 applications per year at 29 fl oz/A (0.53 lbs ai/A).

### FARMSTEADS, RECREATIONAL, AND PUBLIC AREAS

When applied as listed, A357.01 controls undesirable plant vegetation in non-crop areas around farmstead building foundations, shelter belts, along fences, airports, commercial plants, storage and lumber yards, educational facilities, fence lines, ditch banks, dry ditches, schools, parking lots, tank farms, pumping stations, parks, and farmstead weed control. Refer to **Weeds Controlled Table** for list of weeds controlled.

Apply as a broadcast or spot spray treatment application depending on the situation to control weeds. Regrowth may occur due to the weed stage of growth at application, low use rate, or environmental conditions. Repeat applications may be necessary to control plants generating from underground part or seed.

#### **Restrictions:**

- Do not apply more than 82 fl oz/A (1.5 lbs ai/A) in one application.
- Do not apply more than 82 fl oz/A (1.5 lbs ai/A) per year.
- Applications must be a minimum of 10 days apart.
- Do not apply more than 2 applications per year when using reduced application rates.

Rates in fluid ounces of formulated product per acre for the control of weeds at selected heights. In weed populations with mixed species, apply at a rate needed for the species that requires the highest rate.

Weed Height in Inches	Use Rate/A
Weeds <3" in height	48 fl oz/A (0.88 lbs ai/A)
Weeds <6" in height	56 fl oz/A (1.02 lbs ai/A)
Weeds >6" in height and/or grasses that have tillered	56 -82 fl oz/A (1.02 – 1.50 lbs ai/A)

See the **Application and Mixing Procedures** section of this label for additional information on how to apply this product. See the **Product Information** section of this label for rotational crop restrictions.

# STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Do not use or store near heat or open flame. Keep the container tightly closed and dry in a cool, well-ventilated place. Storage temperature should not exceed 125°F. If storage temperature for bulk A357.01 is below 32°F, the material should not be pumped until its temperature exceeds 32° F. Protect against direct sunlight.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

#### **CONTAINER HANDLING:**

[Rigid, Non-refillable containers small enough to shake (i.e., with capacities equal to or less than 5 gallons)]

Non-refillable container. Do not reuse or refill this container. Triple rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Once container is rinsed, then offer for recycling if available or reconditioning if appropriate; or puncture and dispose of in a sanitary landfill, or by incineration; or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

[Rigid, Non-refillable containers (i.e., with capacities greater than 5 gallons)] triple rinse [or pressure rinse] as follows:

Triple rinse: 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 back 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 and disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Do not cut or weld metal containers. Pressure rinse: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after flow begins to drip. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

#### [All refillable container types (containers with capacities greater than 50 lbs)]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. This is a sealed returnable container to be used only for A357.01. When this container is empty, it must not be opened, cleaned, or discarded. Empty containers must be returned to the original purchase location.

[Bottom discharge Intermediate Bulk Container (IBC) (containers with capacities greater than 50 lbs)]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. Empty the remaining contents from the Intermediate Bulk container (IBC) into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inch on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve. Contact your Ag retailer for container return, disposal, and recycling recommendations.

**SEED DISPOSAL:** To dispose of out-of-date or otherwise unmarketable seed from plants, which have been treated with A357.01, broadcast and lightly incorporate seed into field soils using disc or other suitable implement. Any resulting crop may be destroyed by chemical or mechanical means. Alternatively, seed may be destroyed by deep burial, incineration or landfill disposal

#### LIMITATION OF WARRANTY AND LIABILITY

IMPORTANT: READ BEFORE USE. Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Disclaimer of Warranties and Limitations of Liability. CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of Atticus, LLC. All such risks shall be assumed by the user or buyer. **DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, Atticus, LLC makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label. LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, neither Atticus, LLC the manufacturer, nor the Seller shall be liable for any indirect, special, incidental or consequential damages resulting from the use, handling, application, storage, or disposal of this product. To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use, handling, application, or storage of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid.

#### [A357.01] is a trademark of Atticus, LLC

Liberty, LibertyLink, Laudis, and the LibertyLink design are registered trademarks of Bayer CropScience. Impact is a registered trademark of Amvac Chemical Company.

# **{LANGUAGE ON LABEL AFFIXED TO CONTAINER}**

A357.01<sup>[TM]</sup>

Active Ingredient:	(% by weight)
Glufosinate-ammonium (CAS No. 77182-82-2)	24.5%
Other Ingredients	75.5%
Total	100.0%
Contains 2.34 lbs. of Glufosinate-ammonium per gallon.	

# CAUTION

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.)

FIRST AID		
IF ON SKIN:	Take off contaminated clothing.	
	Rinse skin immediately with plenty of water for 15-20 minutes.	
	Call a poison control center or doctor for treatment advice.	
IF IN EYES:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> </ul>	
	Call a poison control center or doctor for treatment advice.	
IF SWALLOWED:	Call a poison control center or doctor for treatment advice.	
	Have person sip a glass of water if able to swallow.	
	Do not induce vomiting unless told to by a poison control center or doctor.	
	Do not give anything by mouth to an unconscious person.	

**NOTE TO PHYSICIAN:** If this product is ingested, endotracheal intubation and gastric lavage should be performed as soon as possible, followed by charcoal and sodium sulfate administration.

# HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at 1-844-685-9173 for emergency medical treatment information.

#### For Chemical Emergency

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

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing.

**ENVIRONMENTAL HAZARDS:** Do not apply directly to water or to areas where surface water is present. Do not apply to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment wash waters or rinseate.

This pesticide is toxic to vascular plants and must be used strictly in accordance with the drift and run-off precautions on this label in order to minimize off-site exposures.

Under some conditions, this product may have a potential to run-off to

surface water or adjacent land. Where possible, use methods which reduce soil erosion, such as no till, limited till and contour plowing; these methods also reduce pesticide run-off. Use of vegetation filter strips along rivers, creeks, streams, wetlands, etc. or on the downhill side of fields where runoff could occur to minimize water runoff is recommended.

#### STORAGE AND DISPOSAL

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Do not use or store near heat or open flame. Keep the container tightly closed and dry in a cool, well-ventilated place. Storage temperature should not exceed 125°F. If storage temperature for bulk A357.01 herbicide is below 32°F, the material should not be pumped until its temperature exceeds 32° F. Protect against direct sunlight.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on-site

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

CONTAINER HANDLING:

[Rigid, Non-refillable containers small enough to shake (i.e., with capacities equal to or less than 5 gallons)]

Non-refillable container. Do not reuse or refill this container. Triple rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Once container is rinsed, then offer for recycling if available or reconditioning if appropriate; or puncture and dispose of in a sanitary landfill, or by incineration; or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

[Rigid, Non-refillable containers (i.e., with capacities greater than 5 gallons)] triple rinse [or pressure rinse] as follows:

Triple rinse: 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 back 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 and disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Do not cut or weld metal containers. Pressure rinse: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after flow begins to drip. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

[All refillable container types (containers with capacities greater than 50 lbs)]
Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. This is a sealed returnable container to be used only for A357.01 herbicide. When this container is empty, it must not be opened, cleaned, or discarded. Empty containers must be returned to the original purchase location.

[Bottom discharge Intermediate Bulk Container (IBC) (containers with capacities greater than 50 lbs)]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. Empty the remaining contents from the Intermediate Bulk container (IBC) into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inch on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve. Contact your Ag retailer for container return, disposal, and recycling recommendations.

SEED DISPOSAL: To dispose of out-of-date or otherwise unmarketable seed from plants, which have been treated with A357.01 herbicide, broadcast and lightly incorporate seed into field soils using disc or other suitable implement. Any resulting crop may be destroyed by chemical or mechanical means. Alternatively, seed may be destroyed by deep burial, incineration or landfill disposal.

See inside label booklet for additional Precautionary Statements and Directions for Use.

Manufactured for:
Atticus. LLC

5000 CentreGreen Way, Suite 100

Cary, NC 27513

EPA Reg. No. 91234-XX EPA Est. No. \_\_\_\_\_ NET WEIGHT: \_\_\_\_