

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

Michael Kellogg Tacoma Ag. LLC c/o Pyxis Regulatory Consulting, Inc. 4110 136th St. NW Gig Harbor, WA 98332

MAY 1 4 2014

Subject:

Label Amendment – Clarification of postharvest burndown language

Andover Herbicide EPA Reg. No. 83520-24 Decision No. 483938

Application dated - September 24, 2013

Dear Mr. Kellogg:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is <u>acceptable</u>.

A stamped copy of the label is enclosed for your records. This label supersedes all previously accepted labels. You must submit one (1) copy of the final printed label before you release the product for shipment. Products released for shipping after eighteen (18) months must bear the new revised label. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA §6(e). Your release for shipment of the product constitutes acceptance of these conditions.

If you have any questions regarding this letter, please feel free to contact Shanta Adeeb at (703) 347-0502 or adeeb.shanta@epa.gov.

Sincerely,

Kathryn Montague Product Manager 25

Herbicide Branch

Registration Division (7505P)

**Master Label includes:** 

Sublabel A: For use on peanuts, rice, soybeans and strawberries

Sublabel B: For use on soybeans

**GROUP** 

HERBICIDE

# **ANDOVER™** Herbicide

[Alternate brand names: Acifluorfen 2E Herbicide, Andover BDF Herbicide]

Manufactured for:

Tacóma Ag, LLC P.O. Box 14073 Durham, NC 27709

EPA Reg. No. 83520-24

EPA Est. No.

ACCEPTED

MAY 1 4 2014

Under the Federal Insecticide, fringledde, and Rodenbloide Act, on amended, for the periods registered index PPA Neg. No. 83520-24

# Sublabel A: For use on peanuts, rice, soybeans and strawberries

**GROUP** 

# ANDOVER™ Herbicide

MAY 1 4 2014

Herbicide

| Market Mar

For use on peanuts, rice, soybeans and strawberries

<b>ACTIVE</b>	INGRE	DIENT:
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Sodium salt of acifluorfen*	20.1%
OTHER INGREDIENTS:	
TOTAL:	

<sup>\*</sup>Equivalent to 2 pounds of active ingredient per gallon.

# **KEEP OUT OF REACH OF CHILDREN** DANGER/PELIGRO

Si usted no entienda 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				
<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continuring eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>				
IF ON SKIN OR CLOTHING:	(IN OR   • Take off contaminated clothing.			
<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow. Do not induce volunless told to do so by the poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>				
<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give as respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>				
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 CHEMTREC at 1-800-424-9300 for emergency medical information. NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric layage.

ANTIDOTE - No specific antidote is available. Treat symptomatically

### Manufactured for:

Tacoma Ag, LLC P.O. Box 14073 Durham, NC 27709

EPA Reg. No. 83520-24

EPA Est. No.

NET CONTENTS: \_\_\_GALS

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER

Corrosive. Causes irreversible eye damage. Harmful if swallowed or absorbed through the skin, or inhaled. Do not get in eyes or on clothing. Avoid contact with skin and breathing vapor or spray mist.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product are made of any waterproof material. If you want more options, follow the instructions for category A on an EPA chemical resistance category selection chart.

### Mixers, Loaders and Applicators must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves
- · Goggles or face shield

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not re-use them.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### **Engineering Controls Statement**

When handlers use closed systems, enclosed cabs, or cockpits in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

### **USER SAFETY RECOMMENDATIONS**

#### Users should:

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

### **ENVIRONMENTAL HAZARDS**

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark, except as specified on this label for application to rice. Do not contaminate water when disposing of equipment washwaters. Do not apply when weather conditions favor drift from target area.

### **GROUND WATER ADVISORY**

Sodium acifluorfen is known to leach through soil to groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable (sandy/loamy soils) and water tables are shallow could result in contamination of groundwater. Use of irrigated water in such areas will increase the likelihood of groundwater contamination.

# **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other people, either directly on through drift. Only handlers wearing PPE may be in the treatment area during application. For any requirements specific to your State or Tribe consult the agency responsible for pesticide regulation. This pesticide is toxic to vascular plants and should be used strictly in accordance with the drift and run-off precautions on this label to minimize off-site exposures. All applicable directions, restrictions, precautions and Conditions of Sale and Warranty are to be followed. This labeling must be in the user's possession eduring application.

# AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

The following PPE is required for early entry into 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

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

Notify workers of pesticide application by warning them orally and by posting warning signs at entrances to treated areas.

### PRODUCT INFORMATION

Andover Herbicide is a selective herbicide for use in rice, strawberries, peanuts and soybeans for postemergence control of grasses and broadleaf weeds listed in this label.

### **Crop Tolerance**

Crops listed as use sites are tolerant of Andover Herbicide at all growth stages specified below. Following treatment with this product, crops may display temporary leaf speckling; however, crops will outgrow the condition within 10 days. Crop vigor and/or new growth will not be affected by applications of Andover Herbicide.

### **Cleaning Application Equipment**

Application equipment must be triple rinsed before and after treatment with Andover Herbicide. Use a strong detergent or commercial spray cleaner following the manufacturer's instructions.

### APPLICATION INSTRUCTIONS

### **Irrigated Areas**

Applying Andover Herbicide to weed species under conditions of drought may result in inadequate control. In order to ensure weeds are actively growing, it may be necessary to irrigate target areas prior to applying this product.

### Spray Coverage

For effective control and thorough coverage, ensure this product is applied in a sufficient spray volume. Spray coverage may be prevented or hindered by dense leaf canopies that may shelter smaller target weeds.

Treat with Andover Herbicide as an aerial banding application or as a broadcast application to actively growing weeds. Specific growth stage(s) and rates are listed in Table 1 for strawberries and rice. For soybeans and peanuts, see the Crop-Specific Information section.

Adequate control may be hindered if treatment with Andover Herbicide is delayed as the growth stage specified in this label may be exceeded. Applying Andover Herbicide during early poste(nergence when weeds are small will allow treatment using the lower rate (dependent upon the weed species present) and will facilitate thorough spray coverage.

Unless the Crop-Specific Information section (below) specifies otherwise, apply Andover Herbicide at the following rates.

### **Aerial Application**

Use a minimum of 10 gallons per acre of water when applying this product as an aerial application. A minimum of 5 gallons per acre of water has been effective where sufficient coverage can be achieved.

### **Application Equipment**

Use spray equipment for applications of Andover Herbicide at a pressure of up to 40 psi. Applicators must use diaphragm-type nozzles that create cone patterns or fan spray. In order avoid drift and to ensure best coverage with Andover Herbicide, refer to the Spray Drift Management section (below).

### **Ground (Banding) Applications**

Adjust row banding equipment in order to ensure the most thorough coverage of weeds in the row. Direct two nozzles from either side of the crop row toward the target weeds in the center rows. Do not use a single nozzle for treatment over the row. Use a minimum of 15 gallons of water per acre on the band with a minimum band width of 15 inches. For further instructions, refer to the Ground Application Equipment and Methods of Application (Broadcast) section.

# **Ground Application Equipment and Methods of Application (Broadcast)**

### **Application Equipment**

Use hollow cone nozzles to apply Andover Herbicide, spaced 20 inches apart (maximum). Application may also be made with a standard high-pressure flat fan for pesticide treatment. Do not apply this product with flood, controlled droplet applicator (CDA) or chamber nozzles as inconsistent coverage may result, causing variable weed control. Do not apply Andover Herbicide with selective application equipment such as wiper applicators or recirculating sprayers.

### **Water Volume**

Apply this product in 10-20 gallons per broadcast acre of spray solution for best results. If there is dense weed foliage, increase water volume up to 50 gallons. Use 20-40 gallons of spray solution per broadcast acre when applying Andover Herbicide to strawberry crops.

### **Spray Pressure**

Use spray equipment to apply Andover Herbicide at a minimum pressure of 40 psi. It is important to measure spray pressure at the boom. Do not measure spray pressure at the pump or in the line. Where there a low volume of water (i.e., 10 gallons per acre) or where there is dense weed/crop foliage, use a minimum spray pressure of 60 psi for optimal results.

#### Cultivation

Do not cultivate treated areas within 5 days prior to treatment with Andover Herbicide, or 7 days following treatment.

### SPRAY DRIFT MANAGEMENT

Use best practices to avoid drift to all other crops and non-target areas. Do not apply when conditions favor drift from target areas. The interaction of many equipment and weather-related factors determine the potential for spray drift. Avoiding spray drift at the application site is the responsibility of the applicator. The applicator must follow the most restrictive use precautions to avoid drift, including those found in this labeling as well as applicable state and local regulations and ordinances. A drift control agent may reduce drift, however, it may also decrease weed control.

# Requirements for ground applications:

For ground applications, adjust nozzle height and droplet size with wind speed according to the following table:

Wind Speed	Nozzle Height	Droplet size for standard nozzles (ASAE standard 572)	
Less than 10 mph	Up to 2 feet 2-4 feet	Medium or coarser Coarse or coarser	
	4-6 feet	Very coarse or coarser	
10 to 15 mph .	0-2 feet	Coarse or coarser	

Wind Speed	Nozzle Height	Droplet size for standard nozzles (ASAE standard 572)
	2-4 feet	Very coarser or coarser
	4-6 feet	Extremely coarse
Do not apply when the v	vind speed exceeds 15 miles per hou	r. Do not apply at a nozzle height of greater

Do not apply when the wind speed exceeds 15 miles per hour. Do not apply at a nozzle height of greater than 6 feet above the ground or crop canopy. Apply as a medium or coarser spray (ASAE standard 572).

# Requirements for aerial applications:

For aerial applications, apply only when the wind speed is less than or equal to 15 miles per hour using a release height of no more than 10 feet above the ground or crop canopy. If the wind speed is less than 10 mph, apply as a medium or coarser spray (ASAE standard 572). If the wind speed is between 10 mph and 15 mph, apply as a coarse or coarser spray (ASAE standard 572). The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter. Do not make aerial applications into temperature inversions. When aerial applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

# Table 1: Application Rates for Andover Herbicide – Peanuts and Soybeans

Refer to the Crop-Specific Information (below) for growth stage instructions and rates of use when applying this product to rice crops. In Table 1 below, weed height is given for guidance purposes only and is dependent on environmental factors. When using Table 1, place importance on leaf stages when determining the stage(s) of growth of listed weeds. Refer to the Additives section below for more information.

			Rate of And	over Herbicide			
Weeds Species	0.5 pint	0.5 pint of Andover Herbicide per acre		1.0 pint of Andover		1.5 pints of Andover	
-	Herbicid			e per acre	Herbicide per acre		
	Growth	Max.	Growth	Max.	Growth	Maximum	
	Stage <sup>b</sup>	Height	Stage <sup>b</sup>	Height	Stage <sup>b</sup>	Height	
	(up to)	(inches)	(up to)	(inches)	(up to)	(inches)	
Balloonvine	-	-	-	-	2 leaves	2	
Beggarweed, Florida	-	-	-		2 leaves	Less than 2°	
Buckwheat, Wild	-	-	-	-	2 leaves	2°	
Buffalobur	-	-	-	-	2 leaves	2°	
Burgherkin	-	•	-	-	2 leaves	2°	
Carpetweed	-	-	Multi 3"	Less than 2	Multi 6"	2	
·			diameter		diameter		
Citron (Wild Watermelon)	-	-	-	•	2 leaves	2°	
Cocklebur	-	-	-	-	2 leaves	2	
Copperleaf, Hophorn beam	-	, •	2 leaves	2	4 leaves	4	
Copperleaf, Virginia	-	•	-	-	2 leaves	2	
Crotolaria, Showy		•	6 leaves	6°	6 leaves	6°	
Croton, Tropic	•	-	1-2 leaves	Less than 2	2 leaves	2	
	-	•	1-2 leaves	Less than 2	2 leaves	2	
Croton, Wooly							
Crownbeard, Golden		-	-	-	2 leaves	Less than 2	
Eclipta	·	-	-		6 leaves	Less than 2	
Galinsoga, Hairy	•	-	-	-	4 leaves	Less than 2	
Galinsoga, Smallflower	-		•	-	4 leaves	Less than 2	
Groundcherry, Cutleaf	-	•	-	-	2 leaves	1	
Groundcherry, Lanceleaf	-	•	-	-	2 leaves	1	
Indigo, Hairy	-	•	-	-	3 leaves	Less than 2	
Jimsonweed	-	-	4 leaves	4	6 leaves	6	
Ladysthumb	-	-	4 leaves	4	6 leaves	6	
Lambsquarters, Common⁴	•	-	-	-	2 leaves	2	
Morningglory, Cypressvine	-	•	2 leaves	2	4 leaves	4	
Morningglory, Entireleaf	-	-	2 leaves	2	4 leaves	4	
Morningglory, Ivyleaf	-	•	2 leaves	2	4 leaves	4	
Morningglory, Purple	-	-	2 leaves	2	4 leaves	4	

			Rate of Ando	over Herbicide		
Weeds Species	0.5 pint of Andover Herbicide per acre		1.0 pint of Andover Herbicide per acre		1.5 pints of Andover Herbicide per acre	
-						
	Growth	Max.	Growth	Max.	Growth	Maximum
	Stage <sup>b</sup>	Height	Stage <sup>b</sup>	Height	Stage <sup>b</sup>	Height
	(up to)	(inches)	(up to)	(inches)	(up to)	(inches)
Moonflower, Scarlet	-	-	2 leaves	2	4 leaves	4
Moonflower, Smallflower	-	-	2 leaves	2	4 leaves	4
Moonflower, Small White (pitted)		-	2 leaves	2	4 leaves	4
Moonflower, Tall (common)	-	-	2 leaves	2	4 leaves	4
Moonflower, Willowleaf (Palmleaf)	-	-	2 leaves	2	4 leaves	4
Mustard, Wild	2 leaves	2	4 leaves	Less than 4	4 leaves	4
Nightshade, Eastern Black	-	-	2-3 leaves	Less than 2	6 leaves	2
Nightshade, Black	-	-	2-3 leaves	Less than 2	6 leaves	2
Pigweed, Palmer	4 leaves	Less than 2	6 leaves	Less than 4	6 leaves	4
Pigweed, Prostrate	-	•	•	-	4 leaves	4
Pigweed, Redroot	4 leaves	Less than 2	6 leaves	Less than 4	6 leaves	4
Pigweed, Smooth	4 leaves	Less than 2	6 leaves	Less than 4	6 leaves	4
Pigweed, Spiny	-	-	2 leaves	Less than 2	2 leaves	2
Poinsettia, Wild	<u>-</u>	-	-	-	2 leaves	20
Poorjoe	-	-	-	-	2 leaves	2
Purslane, Common	+	· -	-	•	Multi 6" diameter	1
Pusley, Florida	1 -		2 leaves	2	4 leaves	4
Ragweed, Common	-		2 leaves	2	4 leaves	3
Ragweed, Giant	-	<del></del>	2 leaves	Less than 2	2 leaves	3
Senna, Coffee	-	-	-	-	2 leaves	2°
Sesbania, Hemp	-	-	4 leaves	4 <sup>c</sup>	6 leaves	6°
Smartweed, Pennsylvania	-	_	4 leaves	4	6 leaves	6
Smellmelon	-		-	-	2 leaves	2°
Spurge, Prostrate	-	-	•	-	Multi 0.5"	-
Course Course	-	<b></b>			diameter Multi 0.5"	ļ
Spurge, Spotted		-	-	-	diameter	-
Starbur, Bristly	-	-	-	-	2 leaves	2°
Waterhemp, Common	4 leaves	Less than 2	6 leaves	Less than 4	6 leaves	4
Waterhemp, Tall	4 leaves	Less than 2	6 leaves	Less than 4	6 leaves	4
		Annual Gra	isses			
Foxtail, Giant <sup>c</sup>		-	-	-	2 leaves	1
Foxtail, Green <sup>c</sup>	-	-	-	-	2 leaves	1
Foxtail, Yellow <sup>c</sup>	-	-	•	<u> </u>	2 leaves	1
Johnsongrass, Seedling <sup>c</sup>	-	-	_		2 leaves	1
Panicum, Fall <sup>c</sup>	-	-	•	-	2 leaves	1
Shattercane <sup>c</sup>	-	-	-	-	2 leaves	1
Volunteer Small Grains <sup>c</sup>	<del> </del>	1	<del> </del>	·	2 leaves	1

<sup>&</sup>lt;sup>a</sup>Includes triazine and ALS resistant biotypes.

# ADDITIONAL WEED PROBLEMS IN PEANUTS AND SOYBEANS SPECIAL USE DIRECTIONS

Prior to applying Andover Herbicide with spray equipment, ensure that there is good soil moisture. For an effective application, soil must be moist before and after application.

Use a rate of 1.5 pints of Andover Herbicide per acre, mixed with 2 pints of spray surfactant per 100 gallons of spray mix (unless otherwise stated) for the following weeds:

# Beggarweed, Florida

Florida Beggarweed is difficult to control because it has a long germination season. Apply Andover Herbicide when Florida Beggarweed seedlings have no more than 2 expanding young true leaves and seedlings are no higher than 1.5".

<sup>&</sup>lt;sup>b</sup>When assessing leaf stages as an indication of growth stage, do not count pairs of leaves, count individual leaves separately and do not count cotyledon leaves. Do not treat weeds during the cotyledon stage of growth.

<sup>&</sup>lt;sup>c</sup>Refer to the Special Use Directions section below.

<sup>&</sup>lt;sup>d</sup>Supression or partial control.

To ensure an optimal treatment of Andover Herbicide for control of Florida Beggarweed, obtain maximum control of the earliest flush of the weed. Schedule cultivation to ensure that secondary weed flushes and regrowth are controlled.

Applications of Andover Herbicide will suppress and/or partially control Florida Beggarweed growing in high soil moisture or in high relative humidity.

### Buckwheat, Wild

### **Buffalobur**

Andover Herbicide will provide partial control when buffalobur and wild buckwheat seedlings have less than 2 true leaves. Treat with Andover Herbicide at a rate of 1.5 pints per acre in 30 gallons of water.

# **Cucurbits: Burgherkin** Citron (Wild Watermelon)

### **Smellmelon**

The cucumber species may be difficult to control with a single application as germination of the plant occurs over a protracted period. For an effective application of Andover Herbicide, ensure the first treatment is made no later than the 2-leaf stage.

### Morningglories

In order to achieve control of morningglories on a consistent basis, make sequential applications of 1 pint of Andover Herbicide.

### Poinsettia, Wild

Usually, Andover Herbicide will kill or severely stunt Wild Poinsettia. Apply this product to before the formation of the third true leaf.

Treatment with Andover Herbicide may result in a differential in height between surviving poinsettia and soybeans crops which will allow for directed applications. Directed applications may be undertaken in order to achieve greater control.

# Sesbania, Hemp

Crotolaria, Showy

Sesbania and Crotalaria are sensitive to treatment with this product. Therefore, control can be achieved at almost any plant height.

Apply Andover Herbicide at the rate of 1 pint per acre after maximum weed emergence but before bloom. Applications of this product made after bloom are usually ineffective. Ensure that target weed species are not shaded by the crop canopy from spray applications. In order to control infestations of Sesbania in the late season, wait until the weed breaks the crop canopy before applying Andover Herbicide.

# Senna, Coffee

# Starbur, Bristly

Applications of this product are usually ineffective if made after the 2-leaf growth stage. Andover Herbicide will kill/suppress seedlings if applied to weeds not past the 2 leaf growth stage at the directed rate.

### **Perennial Weeds**

- Bindweed, Field and Hedge
- Milkweed, Climbing and Common
- Redvine, Trumpetcreeper

Acifluorfen is not effective in killing rootstocks of these perennial weeds because control of weeds growing from rootstocks underground is difficult. Applications of Andover Herbicide will burn back above ground plants and suppress regrowth. Apply this product at the rate directed in Table 1 with 2 to 4 pints of spray surfactant per 100 gallons of spray mix.

# **Annual Grasses**

- Foxtail, Giant, Green and Yellow
- Johnsongrass, Seedling
- Panicum, Fall
- Shattercane

When used with a pre-emergence herbicide or preplant incorporated herbicide, this product will provide supplemental control of grasses and will kill/suppress annual grasses not past the 2-leaf stage of growth. Andover Herbicide must not be used as the basic or lone component in an annual grasses control program.

### **Volunteer Small Grains**

- Barley
- Oats
- Rye
- Wheat

To suppress or kill weeds, treat emerging volunteer small grains which are at the 1 to 2 leaf growth stage with Andover Herbicide.

# **ADDITIVES**

For consistent control with Andover Herbicide, one of the following additives must be combined with this product: ammonium sulfate, nonionic surfactant, urea ammonium nitrate, crop oil concentrate.

UAN (or AMS) should be the additive selected when controlling velvetleaf.

Using additives with Andover Herbicide may result in leaf burn. Leaf burn is more likely to occur if the relative humidity and the air temperature are high. Crop vigor will remain unaffected and new growth will continue normally. For more details, contact the Tacoma Ag, LLC representative for your area.

See Table 2 For Additive Options, and Table 3 for Additive Rates.

### **Nonionic Surfactant**

Use 1 to 2 pints of 80% active nonionic spray surfactant per 100 gallons of water. Use a higher rate of spray surfactant for certain weeds.

### Ammonium Sulfate (AMS) Fertilizer

AMS is a granular, dry, nitrogen-source fertilizer. It must not be used unless it has been shown to be effective within the local area. AMS, of an inferior grade will not dissolve adequately and may plug spray nozzles. Only use fine-feed grade or spray grade AMS.

Do not apply AMS in less than 10 gallons per acre. Precipitation may cause problems with AMS if it is applied in reduced volumes.

#### Oil Concentrate

The oil concentrate must contain either a petroleum or vegetable oil base and must meet all of the following criteria:

- be nonphytotoxic,
- contain only EPA-exempt ingredients,
- provide good mixing quality in the compatibility test, and
- be successful in local experience.

The composition of suitable additives will vary. Vegetable and petroleum oil concentrates should contain emulsifiers to have good mixing properties. Highly refined vegetable oils have been shown to be more successful as additives than those that are unrefined. For more information, see the Compatibility Test for Mix Components section.

Use of certain oil concentrate products may result in excessive leaf burn. Prior to purchasing an oil concentrate, contact your local area additive supplier regarding the success and suitability of the product.

### **UAN: Urea Ammonium Nitrate**

UAN may be added to this product for increased control of weeds and instead of other spray additives in order to improve control of target weeds. UAN is known as either 28%, 30%, or 32% nitrogen solution. Do not use brass or aluminum nozzles to apply this product combined with UAN because most UAN solutions are mildly corrosive to mild steel, brass and galvanized metals. Thoroughly rinse application equipment immediately after use with water.

### Effects of Temperature and Relative Humidity.

To ensure that the use of adjuvants is effective, use the following equation and use rate table (Table 2):

If temperature (degrees Fahrenheit) plus relative humidity (expressed as a percentage) exceeds 150, use the lower rates for adjuvants in Table 2.

Example: Temperature 75°F + relative humidity 90% = 165; use the lower use rate for adjuvant in Table 2

Table 2 - Tank Mix Use Rates for Additives and Additive Options

Option	Additive(s)	Use Rate
A	AMS	2.5 pounds per acre
В	UAN	4-8 pints per acre
С	Nonionic Surfactant	1-2 pints per 100 gallons
D	Crop Oil Concentrate	1-2 pints per acre
. <b>E</b>	AMS and Nonionic Surfactant	AMS (1-2 pounds per acre)
		Nonionic surfactant (1-2 pints per 100 gallons)
F	<b>UAN and Nonionic Surfactant</b>	UAN (2-4 pints per acre)
,		Nonionic surfactant (1-2 pints per 100 gallons)
G	AMS and Crop Oil Concentrate	AMS (1-2 pounds per acre)
		Crop Oil Concentrate (1 pint per acre)
Н	<b>UAN and Crop Oil Concentrate</b>	UAN (2-4 pints per acre)
		Crop Oil Concentrate (1 pint per acre)

Table 3 - Additive Rate Per Acre

Additive	Ground Application Rate	Air Application Rate
Nonionic Surfactant	1-2 pints per 100 gallons	1-2 pints per 100 gallons
AMS	2.5 pounds per acre	2.5 pounds per acre
Oil Concentrate	1-2 pints per acre	1-2 pints per acre
UAN Solution	4-8 pints per acre	4 pints per acre

# **MIXING INFORMATION**

Physical incompatibility, reduced weed control, or crop injury may result from mixing Andover Herbicide with other pesticides (fungicides, herbicides, insecticides or miticides), additives or fertilizers. Tacoma Ag LLC does not recommend using tank mixes other than those listed on the Andover Herbicide label.

Refer to local area agricultural authorities who may recommend tank mixtures not specified on Tacoma Ag, LLC labeling. The use of tank mixtures whose effectiveness has not been tested may result in crop injury, reduced weed control or physical incompatibility.

Read and follow the directions and tank mix instructions of all products in the tank mix. The most restrictive label of the tank mix partners must apply. This product may be tank mixed with the following products (Generic versions of these products may be available. Andover Herbicide may be tank mixed with generic products provided that the specific product is registered for the same uses as Andover Herbicide.):

Assure® II (quizalofop p-ethyl)	<ul> <li>Fusion<sup>®</sup> (fluazifop-p-butyl + fenoxaprop-p-ethyl)</li> </ul>	Raptor® (imazamox ammonium)
<ul> <li>Basagran<sup>®</sup> (sodium bentazon)</li> <li>Cadre<sup>®</sup> (imazapic-ammonium)</li> </ul>	<ul> <li>Glyphosate</li> <li>Lasso® 4E (alachlor)</li> </ul>	<ul> <li>Synchrony XP</li> <li>Resource® (flumiclorac pentyl ester)</li> </ul>
<ul> <li>Classic® (chlorimuron ethyl)</li> <li>Dual® Magnum (metolachlor)</li> </ul>	<ul> <li>Matador<sup>®</sup> (quizalofop-p-ethyl)</li> <li>Harmony<sup>®</sup> (thifensulfuron</li> </ul>	<ul> <li>Scepter<sup>®</sup> (imazaquin)</li> <li>Select<sup>®</sup> (clethodim)</li> </ul>

- Facet 75 DF (quinclorac)
- FirstRate® (cloransulam-methyl)
- Frontier® 6.0 (dimethenamid)
- Fusilade® DX (fluazifop-p-butyl)

### methyl)

- Poast® (sethoxydim)
- Poast® Plus (sethoxydim)
- Stam® (propanil)
- Pursuit® (imazethapyr ammonium)
- Synchrony® STS (thifensulfuron methyl + chlorimuron ethyl)
- 2.4-DB
- 2,4-DB (preplant burndown only)
- Dicamba

For further instructions, see the Crop-Specific Information section. Applicators must read and follow the directions and tank mix instructions of all products in the tank mix. The most restrictive label of the tank mix partners must apply.

# **Compatibility Test for Tank Mix Components**

Before mixing components, always perform a compatibility jar test. For 20 gallons per acre spray volume, use 3.3 cups (800 ml) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source temperature.

Add components in the sequence indicated in **Mixing Order** using teaspoons for each pound or 1 teaspoon for each pint of recommended label rate per acre. Always cap the jar and invert 10 cycles between component additions.

When the components have all been added to the jar, let the solution stand for 15 minutes. Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface, nor fine particles that precipitate to the bottom, nor thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, do not mix the ingredients in the same tank.

# **Mixing Order**

- 1. Water. Begin by agitating a thoroughly clean sprayer tank three-quarters full of clean water.
- 2. **Agitation**. Maintain constant agitation throughout mixing and application.
- 3. **Products in PVA Bags**. Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
- 4. **Water dispersible products** (such as dry flowables, wettable powders, suspension concentrates, or suspo-emulsions). If an inductor is used, rinse it thoroughly after the component has been added.
- 5. **Water-soluble products** (such as Andover Herbicide). If an inductor is used, rinse it thoroughly after the component has been added.
- 6. **Emulsifiable concentrates** (such as oil concentrate when applicable). If an inductor is used, rinse it thoroughly after the component has been added.
- 7. **Water-soluble additives** (such as AMS or UAN when applicable). If an inductor is used, rinse it thoroughly after the component has been added.
- 8. Remaining quantity of water. Maintain constant agitation during application.

### RESTRICTIONS

- Leave at least 15 days between treatments with this product.
- Plants treated with this product must not be used for feed or forage.
- Weeds or crops that are under stress (e.g. from flooding, drought, hail damage, widely fluctuating temperatures, herbicide injury or mechanical injury) must not be treated with this product or unsatisfactory control of weeds may result. Do not apply Andover Herbicide to injured crops. Crop injury may be caused by a previous herbicide application (e.g. phytotoxicity and plant stunting). Treating injured crops with Andover Herbicide may cause existing crop damage to be enhanced or prolonged.
- Andover Herbicide must not be applied through irrigation systems of any type.

- Do not allow livestock to graze treated crops. Do not allow treated areas to be used to harvest forage, hay or feed for livestock.
- In the event of crop failure, do not replant small grains in a treated field for 40 days following the application of Andover Herbicide to that field. The replanting of strawberries, peanuts and soybeans may take place immediately after a crop failure. All other species of rotational crops must not be replanted for 100 days following an application with Andover Herbicide.

# Soybeans and peanuts

• Do not apply more than a total of 2 pints per acre of Andover Herbicide per season (0.5 lb. ai per acre per season). Do not apply more than 1.5 pints per acre of Andover Herbicide per application (0.375 lb. ai per acre per application).

### **Strawberries**

• Do not apply more than a total of 3 pints per acre of Andover Herbicide per season (0.75 lb. ai per acre per season). Do not apply more than 1.5 pints per acre of Andover Herbicide per application (0.375 lb. ai per acre per application).

### Rice

• Do not apply more than a total of 1 pint per acre of Andover Herbicide per season (0.25 lb. ai per acre per season). Do not apply more than 1 pint per acre of Andover Herbicide per application (0.25 lb. ai per acre per application).

### LIMITATIONS

• The effectiveness of an application of this product may be reduced if rainfall or overhead irrigation happens within 4 hours of treatment.

Table 4 – Summary of Crop-Specific Restrictions

Crop	Pre-Harvest Interval (PHI): Minimum Time Between Application to Harvest (in days)	Maximum Rate Per Season (Per Acre in pints)	Maximum Rate Per Application (Per Acre in pints)
Peanuts	75	2	1.5 pints
Rice	50	1	1 pint
Soybeans	50	2	1.5 pints
Strawberries	60	3	1.5 pints

# **CROP SPECIFIC INFORMATION**

### **PEANUTS**

Treat peanuts with a preemergence application of Andover Herbicide at the initiation of soil cracking but before the crop emerges from the soil at the rates directed in Table 1. Andover Herbicide may also be used to treat peanuts as a postemergence application.

#### **Tank Mixes**

See Table 2 for additive options. For the treatment of peanuts, Andover Herbicide may be tank mixed with the following products:

Tank Mix Partner	Additive(s) – refer to Table 2
Basagran® (sodium bentazon)	Option C or Option D
Cadre® (imazapic-ammonium)	Option C
Dual® Magnum (metolachlor)	Option C
Frontier® 6.0 (dimethenamid)	Option C
Lasso® 4E (alachlor)	Option C
Poast® (sethoxydim)	Option C

Tank Mix Partner	Additive(s) – refer to Table 2	
Poast® (sethoxydim)	Option C	
Poast® Plus (sethoxydim)	Option C	
2,4-DB <sup>1</sup>	Option C or Option D	

<sup>&</sup>lt;sup>1</sup> Do not apply a mixture of 2,4-DB and Andover Herbicide after the pod-filling stage has commenced.

### RICE

Treat rice with Andover Herbicide from the late tillering stage until the early boot stage (i.e. usually during June or July). Rice must be past the 3-leaf stage before making an application of Andover Herbicide. When targeting hemp sesbania, apply Andover Herbicide once growth of the target weeds extends above the rice crop. Apply Andover Herbicide to hemp sesbania plants before the flowering stage at the rate of 0.5 pint per acre. A second application should be made to control later germinating sesbania at 0.5 pint per acre. Use a spray adjuvant with Andover Herbicide for effective and uniform control of hemp sesbania. Add 1 to 2 pints of an 80% active nonionic spray surfactant per 100 gallons of water.

# Restrictions and Limitations (Rice)

- Maximum application rate: 1 pint per acre of Andover Herbicide per season: only to be used to control hemp sesbania.
- Do not apply Andover Herbicide to rice more than twice per season.
- Once rice has reached the boot stage, do not treat with Andover Herbicide.
- Do not use water from treated rice fields for crop irrigation except those crops labeled for use with Andover Herbicide.
- Do not harvest crayfish from rice areas treated with Andover Herbicide.

### **Tank Mixes**

See Table 2 for additive options. Andover Herbicide may be tank mixed with the following products for the treatment of rice.

Tank Mix Partner	Additive (refer to Table 2)	
Basagran® (sodium bentazon)	Option C	
Facet® 75 DF (quinclorac)	Option C	
Propanil	Option C	

### SOYBEANS

Refer to Application Instructions (above) and Table 1. Make a spray application with Andover Herbicide to actively growing small weeds. For subsequent weed flushes, or to control weeds that escaped the first treatment, make a sequential application of this product as follows: apply 1 pint of this product following an initial application of 1 pint. Treatment(s) with Andover Herbicide must be made prior to target weeds reaching the maximum size specified in Table 1.

### **Tank Mixes**

See Table 2 for additive options. For the treatment of Soybean, Andover Herbicide may be tank mixed with the following products:

Tank Mix Partner	Additive (refer to Table 2)
Assure II®a (quizalofop-p-ethyl)	Option C
Basagran® (sodium bentazon)	Option C or Option D
Classic® (chlorimuron ethyl)	Option C
First Rate® (cloransulam-methyl)	Option E
Frontier® 6.0 (dimethenamid)	Option C
Fusilade® DXa (fluazifop-p-butyl)	Option C
Fusion®a (fluazifop-p-butyl + fenoxaprop-p-ethyl)	Option C
Glyphosate <sup>b</sup>	8.5 lbs. to 17 lbs. of AMS per 100 gallons
Matador®a (quizalofop-p-ethyl)	Option C
Harmony® (up to 0.25 ounces)	Option C or Option E
Poast® (sethoxydim)	Option D

Tank Mix Partner	Additive (refer to Table 2)
Poast Plus®a (sethoxydim)	Option D
Pursuit® (imazethapyr ammonium)	Option E
Raptor® (imazamox ammonium)	Option E
Resource® (flumiclorac pentyl ester)	Option D
Scepter® (imazaquin)	Option C
Select® 2 EC (clethodim)	Option D
Synchrony® XPc (up to 0.5 ounce) (thifensulfuron methyl + chlorimuron ethyl)	Option G or Option H
2,4-DB	Option C
Clethodim	

- <sup>a</sup> If utilizing this mixture as part of a weed control program, do the following:
  - If an area is treated with the tank mix partner first, wait at least 24 hours before applying Andover Herbicide to the same area.
  - If an area is treated with Andover Herbicide first, wait 7 days before applying the tank mix partner to the same area.
- <sup>b</sup> Only apply this product in tank mix with glyphosate containing herbicides to glyphosate tolerant soybeans or severe crop injury or plant death will occur.
- c Application to soybean crops that have not been designated STS will cause severe crop injury and/or loss of yield. Do not add an oil concentrate when applying to soybean not designated STS.

# **Burndown Treatment (Prior to Soybean Planting)**

To control present weeds (per Table 1), Andover Herbicide can be applied on its own before crop planting. Burndown prior to planting can be enhanced through the addition of a spray additive. However, this pre-planting application is not a replacement for a season long weed control program.

### **Burndown Treatment - Tank Mixes**

See Table 2 for additive options. For the pre-planting burndown, Andover Herbicide may be mixed with the following products:

Tank Mix Partner	Additive (refer to Table 2)	
Poast® (sethoxydim)	Option D, Option G or Option H	
Poast Plus® (sethoxydim)	Option D, Option G or Option H	
2,4-D LVE	Option D	
Dicamba		
Glyphosate <sup>a</sup>		
Clethodim		

<sup>&</sup>lt;sup>a</sup> Only apply this product in tank mix with glyphosate containing herbicides to glyphosate tolerant soybeans or severe crop injury or plant death will occur.

# Burndown Treatment (Post harvest/Fallow/Crop Stubble/Set-aside) - plantback only to soybeans

To control present weeds (per Table 1), Andover Herbicide can be applied on its own after harvest in the fall, spring or summer during the fallow period or to crop stubble/set-aside acres. Burndown after harvest can be enhanced through the addition of a spray additive. However, this post-harvest application is not a replacement for a season long weed control program. Apply to acres that will only be planted back to soybeans. **Tank Mixes:** See Table 2 for additive options. For post-harvest burndown, Andover Herbicide may be mixed with the tank-mix partners listed in the table under Burndown Treatment – Tank Mixes.

# Tank Mixtures for Glyphosate Tolerant Soybeans

Andover Herbicide can be applied postemergent in tank mixtures with glyphosate containing herbicides to control glyphosate resistant weeds. Target weeds must be listed on this label. Refer to Table 1 for a list of weeds controlled, application rates and application timing. If using spray additives, follow the directions

on the glyphosate tank mix partner product label. Information on this label regarding weed growth stages and application rates must be followed for effective broadleaf weed control. Only apply this product in tank mix with glyphosate containing herbicides to glyphosate tolerant soybeans or severe crop injury or plant death will occur.

### **STRAWBERRIES**

To control listed weeds, use ground equipment to apply this product up to a maximum of 1.5 pints of Andover Herbicide per acre per season (0.375 lb. ai per acre per season). Treat with Andover Herbicide using a broadcast application of this product or a tank mix in 20-40 gallons of water per acre. When making an application by band strip application, reduce rates proportionally.

**RESTRICTION**: Do not apply more than 3 pints Andover Herbicide per acre per season (0.75 lb. ai per acre per season).

### Annual Strawberries grown on plastic mulch on plant beds:

Apply this product before transplanting and before laying the mulch but after final land preparation. Use one banded application. For the best treatment, reduce soil disturbance to a minimum during planting and during the laying of plastic.

When treating between rows of mulch, apply Andover Herbicide in between mulched beds to the center of the strawberry row as a direct-shielded application. Do not allow Andover Herbicide to contact strawberry crops.

### **Perennial Strawberries:**

After the last harvest or following bed renovation, make an initial application of Andover Herbicide. In late fall to early spring, when plants are dormant, make a second application. The second application must be made a minimum of 120 days after the strawberry harvest.

When treating row middles with Andover Herbicide, apply the product up to the maximum rate of 1.5 pints per acre per season of Andover Herbicide (0.375 lb. ai per acre per season).

Broadleaves Leaves Controlled by Andover Herbicide
Artichoke, Jerusalem (Helianthus tuberosus)
Balloonvine (Cardiospemum halicacaburm)
Beggarweed, Florida (Desmodium tortuosum)
Beggarticks (Bidens frondosa)
Bindweed, Field (Convolvulus arvensis)
Bindweed, Hedge (Convolvulus sepium)
Buckwheat, Wild (Polygonum convolvulus)
Buffalobur (Solanum rostratum)
Burgherkin (Cucumis anguria)
Carpetweed (Mollugo verticillata)
Citron (Wild Watermelon) (Citrullus vulgaris)
Cocklebur, Common (Xanthium pensylvanicum)
Cocklebur, Heartleaf (Xanthium strumarium)
Copperleaf, Hophornbeam (Acalypha ostryaefolia)
Copperleaf, Virginia (Acalypha virginica)
Crotolaria, Showy (Crotalaria spectabillis)
Croton, Tropic (Croton glandulosus)
Croton, Wooly (Croton capitatus)
Crownbeard, Golden (Verbesina encelioides)
Cucumber, Wild Spiny (Cucumis dipsaceus)
Eclipta (Eclipta alba)
Galinsoga, Hairy <i>(Galinsoga ciliate)</i>
Galinsoga, Smallflower (Galinsoga parviflora)
Groundcherry, Cutleaf (Physalis angulate)
Groundcherry, Lanceleaf (Physalis lanceifolia)

Broadleaves Leaves Controlled by Andover Herbicide
Indigo, Hairy (Indigo fera hirsute)
Jimsonweed (Datura stramonium)
Ladysthumb (Polygonum persicaria)
Lambsquarters, Common (Chenopodium album)
Milkweed, Climbing (Sarcostemma cyanchoides)
Milkweed, Common (Asclepias syriaca)
Morningglory, Cypressvine (Ipomoea quamoclit)
Morningglory, Entireleaf (Ipomoea hederacea var. integruscula)
Morningglory, Ivyleaf (Ipomoea hederacea var. hederacea)
Morningglory, Purple Moonflower (Ipomoea muricata)
Morningglory, Scarlet (Ipomoea coccinea)
Morningglory, Smallflower (Jacquemontia tamnifolia)
Morningglory, Small White (pitted) (Opomoea lacunose)
Morningglory, Tall, Common (Ipomoea purpurea)
Morningglory, Willowleaf (Palmleaf) (Ipomoea wrightii)
Mustard, Wild (Brassica kaber)
Nightshade, Black (Solanum nigrum)
Nightshade, Eastern Black (Solanum ptycanthum)
Pigweed, Palmer (Amaranthus palmeri)
Pigweed, Prostrate (Amaranthus blitoides)
Pigweed, Redroot (Amaranthus retroflexus)
Pigweed, Smooth (Amaranthus hybridus)
Pigweed, Spiny (Amaranthus spinosus)
Poinsettia, Wild (Euphorbia heterophylla)
Poorjoe (Diodia teres)
Purslane, Common (Portulaca oleracea)
Pusley, Florida (Richardia scabra)
Ragweed, Common (Ambrosia artemisifolia)
Ragweed, Giant (Ambrosia trifida)
Redvine (Brunnichia cirrhosa)
Senna, Coffee (Cassia occidentalis)
Sesbania, Hemp (Sesbania exaltata)
Smartweed, Pennsylvania (Polygonum pensylvanicum)
Smellmelon (Cucumis melo)
Spurge, Prostrate (Euphorbia supine)
Spurge, Spotted (Euphorbia maculate)
Starbur, Bristly (Acanthospermum hispidum)
Teaweed (See Sida, Prickly) (Sida spinosa)
Trumpetcreeper (Campsis radicans)
Velvetleaf (Abutilon theophrasti)
Waterhemp, Common (Amaranthus rudis)
Waterhemp, Tall (Amaranthus tuberculatus)

Grasses Controlled by Andover Herbicide	
Foxtail, Giant (Setaria faberi)	
Foxtail, Green (Setaria viridis)	
Foxtail, Yellow (Setaria lutescens)	
Johnsongrass, Seedling (Sorghum halepense)	
Johnsongrass, Rhizome (Sorghum halepense)	
Panicum, Fall (Panicum dichotomiflorum)	
Panicum, Texas (Panicum texanum)	
Shattercane (Sorghum bicolor)	

# **Grasses Controlled by Andover Herbicide**

Volunteer Barley (Hordeum vulgare)

Volunteer Barley, Corn (Zea mays)

Volunteer Barley, Oats (Avena sativa)

Volunteer Barley, Rye (Secale cereal)

Volunteer Barley, Wheat (Triticum aestivum)

# STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Do not store below 32°F.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Clean 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. Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. If rinsate cannot be used, follow pesticide disposal instructions. If not triple rinsed, these containers are acute hazardous wastes and must be disposed of in accordance with local, state and federal regulations.

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

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

# **Terms and Conditions of Use**

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer. Inherent Risks of Use and Limitations of Remedies.

# **Warranty Disclaimer**

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

# Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Tacoma Ag, LLC or the seller. All such risks shall be assumed by buyer.

# **Limitation of Remedies**

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Tacoma Ag, LLC's election, one of the following: (1) Refund of purchase price paid by buyer or user for product bought, or (2) Replacement of amount of product used.

To the extent consistent with applicable law, Tacoma Ag, LLC shall not be liable for losses or damages resulting from handling or use of this product unless Tacoma Ag, LLC is promptly notified of such loss or damage in writing. In no case, to the extent consistent with applicable law, shall Tacoma Ag, LLC be liable for consequential or incidental damages or losses.

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

Andover is a trademark of Tacoma Ag, LLC.

Basagran, Cadre, Facet, Frontier, Poast, Poast Plus, Pursuit, Raptor and Scepter are registered trademarks of BASF AG.

Stam is a registered trademark of United Phosphorus, Inc.

Assure, Classic, and Synchrony are registered trademarks and STS is a trademark of E.I. DuPont de Nemours and Company.

Dual, Fusilade and Fusion are registered trademarks of a Syngenta Group Company.

FirstRate is a registered trademark of Dow AgroSciences LLC.

Lasso is a registered trademark of Monsanto Technology LLC.

Matador is a registered trademark of FMC Corp.

Resource and Select are registered trademarks of Valent USA Corp.

[EPA approval date]

Under the Februal Insecholds. Principality, and Resignifieds Act, as assessed, for the periodice.

Sublabel B: For use on soybeans

ACTIVE INCOEDIENT.

**GROUP** 

**HERBICIDE** 

# ANDOVER™ Herbicide

[Alternate brand names: Acifluorfen 2E Herbicide, Andover BDF Herbicide]

# For use on soybeans

ACTIVE INGREDIENT.	
Sodium salt of acifluorfen*	20.1%
OTHER INGREDIENTS:	
TOTAL:	
*Equivalent to 2 pounds of active ingredient per gallon.	
KEEP OUT OF REACH OF CHILDREN	
DANGER/PELIGRO	
Si usted no entienda la etiqueta, busque a alguien para que se la explique a uste	d en detalle. (If y

you do not understand the label, find someone to explain it to you in detail.)

<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
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 CHEMTREC at 1-800-424-9300 for emergency medical information.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. ANTIDOTE - No specific antidote is available. Treat symptomatically.

### Manufactured for:

Tacoma Ag, LLC P.O. Box 14073 Durham, NC 27709

EPA Reg. No. 83520-24

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CEA	E-51.	INC).	

NET CONTENTS: \_\_\_\_GALS

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER

Corrosive. Causes irreversible eye damage. Harmful if swallowed or absorbed through the skin, or inhaled. Do not get in eyes or on clothing. Avoid contact with skin and breathing vapor or spray mist:

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product are made of any waterproof material. If you want more options, follow the instructions for category A on an EPA chemical resistance category selection chart.

# Mixers, Loaders and Applicators must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves
- Goggles or face shield

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not re-use them.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### **Engineering Controls Statement**

When handlers use closed systems, enclosed cabs, or cockpits in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

### **USER SAFETY RECOMMENDATIONS**

### Users should:

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

### **ENVIRONMENTAL HAZARDS**

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters. Do not apply when weather conditions favor drift from target area.

### **GROUND WATER ADVISORY**

Sodium acifluorfen is known to leach through soil to groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable (sandy/loamy soils) and water tables are shallow could result in contamination of groundwater. Use of irrigated water in such areas will increase the likelihood of groundwater contamination.

# DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other people, either directly or through drift. Only handlers wearing PPE may be in the treatment area during application. For any requirements specific to your State or Tribe consult the agency responsible for pesticide regulation. This pesticide is toxic to vascular plants and should be used strictly in accordance with the drift and run-off precautions on this label to minimize off-site exposures. All applicable directions, restrictions, precautions and **Conditions of Sale and Warranty** are to be followed. This labeling must be in the user's possession during application.

### AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

The following PPE is required for early entry into 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

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

Notify workers of pesticide application by warning them orally and by posting warning signs at entrances to treated areas.

# PRODUCT INFORMATION

Andover Herbicide is a selective herbicide for use in soybeans for postemergence and burndown control of grasses and broadleaf weeds listed in this label. Andover Herbicide is specifically formulated for enhanced burndown control of problem weeds including glyphosate and ALS resistant weeds, for example pigweed. Andover Herbicide can also be tank mixed with other herbicides used in burndown treatments to enhance and broaden the range of weed control. Please refer to the tank mix treatment chart found in this label under the Burndown Applications segment for more information.

### **Crop Tolerance**

Crops listed as use sites are tolerant of Andover Herbicide at all growth stages specified below. Following treatment with this product, crops may display temporary leaf speckling; however, crops will outgrow the condition within 10 days. Crop vigor and/or new growth will not be affected by applications of Andover Herbicide.

### **Cleaning Application Equipment**

Application equipment must be triple rinsed before and after treatment with Andover Herbicide. Use a strong detergent or commercial spray cleaner following the manufacturer's instructions.

### APPLICATION INSTRUCTIONS

# **Irrigated Areas**

Applying Andover Herbicide to weed species under conditions of drought may result in inadequate control. In order to ensure weeds are actively growing, it may be necessary to irrigate target areas prior to applying this product.

### **Spray Coverage**

For effective control and thorough coverage, ensure this product is applied in a sufficient spray volume. Spray coverage may be prevented or hindered by dense leaf canopies that may shelter smaller target weeds

Treat with Andover Herbicide as an aerial banding application or as a broadcast application to actively growing weeds. Specific growth stage(s) and rates are listed in the Crop-Specific Information section for soybeans.

Adequate control may be hindered if treatment with Andover Herbicide is delayed as the growth stage specified in this label may be exceeded. Applying Andover Herbicide in burndown or during early

postemergence when weeds are small will allow treatment using the lower rate (dependent upon the weed species present) and will facilitate thorough spray coverage.

Unless the Crop-Specific Information section (below) specifies otherwise, apply Andover Herbicide at the following rates.

### **Aerial Application**

Use a minimum of 10 gallons per acre of water when applying this product as an aerial application. A minimum of 5 gallons per acre of water has been effective where sufficient coverage can be achieved.

### **Application Equipment**

Use spray equipment for applications of Andover Herbicide at a pressure of up to 40 psi. Applicators must use diaphragm-type nozzles that create cone patterns or fan spray. In order avoid drift and to ensure best coverage with Andover Herbicide, refer to the Spray Drift Management section (below).

### **Ground (Banding) Applications**

Adjust row banding equipment in order to ensure the most thorough coverage of weeds in the row. Direct two nozzles from either side of the crop row toward the target weeds in the center rows. Do not use a single nozzle for treatment over the row. Use a minimum of 15 gallons of water per acre on the band with a minimum band width of 15 inches. For further instructions, refer to the Ground Application Equipment and Methods of Application (Broadcast) section.

### Ground Application Equipment and Methods of Application (Broadcast)

# **Application Equipment**

Use hollow cone nozzles to apply Andover Herbicide, spaced 20 inches apart (maximum). Application may also be made with a standard high-pressure flat fan for pesticide treatment. Do not apply this product with flood, controlled droplet applicator (CDA) or chamber nozzles as inconsistent coverage may result, causing variable weed control. Do not apply Andover Herbicide with selective application equipment such as wiper applicators or recirculating sprayers.

#### Water Volume

Apply this product in 10-20 gallons per broadcast acre of spray solution for best results. If there is dense weed foliage, increase water volume up to 50 gallons.

### **Spray Pressure**

Use spray equipment to apply Andover Herbicide at a minimum pressure of 40 psi. It is important to measure spray pressure at the boom. Do not measure spray pressure at the pump or in the line. Where there a low volume of water (i.e., 10 gallons per acre) or where there is dense weed/crop foliage, use a minimum spray pressure of 60 psi for optimal results.

### Cultivation

Do not cultivate treated areas within 5 days prior to treatment with Andover Herbicide, or 7 days following treatment.

# SPRAY DRIFT MANAGEMENT

Use best practices to avoid drift to all other crops and non-target areas. Do not apply when conditions favor drift from target areas. The interaction of many equipment and weather-related factors determine the potential for spray drift. Avoiding spray drift at the application site is the responsibility of the applicator. The applicator must follow the most restrictive use precautions to avoid drift, including those found in this labeling as well as applicable state and local regulations and ordinances. A drift control agent may reduce drift, however, it may also decrease weed control.

### Requirements for ground applications:

For ground applications, adjust nozzle height and droplet size with wind speed according to the following table:

Wind Speed	Nozzle Height	Droplet size for standard nozzles (ASAE standard 572)	
Less than 10 mph	Up to 2 feet	Medium or coarser	
·	2-4 feet	Coarse or coarser	
	4-6 feet	Very coarse or coarser	
10 to 15 mph	0-2 feet	Coarse or coarser	
·	2-4 feet	Very coarser or coarser	
	4-6 feet	Extremely coarse	

Do not apply when the wind speed exceeds 15 miles per hour. Do not apply at a nozzle height of greater than 6 feet above the ground or crop canopy. Apply as a medium or coarser spray (ASAE standard 572).

# Requirements for aerial applications:

For aerial applications, apply only when the wind speed is less than or equal to 15 miles per hour using a release height of no more than 10 feet above the ground or crop canopy. If the wind speed is less than 10 mph, apply as a medium or coarser spray (ASAE standard 572). If the wind speed is between 10 mph and 15 mph, apply as a coarse or coarser spray (ASAE standard 572). The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter. Do not make aerial applications into temperature inversions. When aerial applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

# Table 1: Application Rates for Andover Herbicide - Soybeans

In Table 1 below, weed height is given for guidance purposes only and is dependent on environmental factors. When using Table 1, place importance on leaf stages when determining the stage(s) of growth of listed weeds. Refer to the Additives section below for more information.

	Rate of Andover Herbicide						
Weeds Species	0.5 pint of Andover		1.0 pint of Andover		1.5 pints of Andover		
	Herbicio	Herbicide per acre		Herbicide per acre		Herbicide per acre	
	Growth	Max.	Growth	Max.	Growth	Maximum	
	Stage <sup>b</sup>	Height	Stage <sup>b</sup>	Height	Stage <sup>b</sup>	Height	
	(up to)	(inches)	(up to)	(inches)	(up to)	(inches)	
Balloonvine	-		•	-	2 leaves	2	
Beggarweed, Florida	-	•	•	-	2 leaves	Less than 2°	
Buckwheat, Wild	-	-	-	-	2 leaves	2°	
Buffalobur	-	-	-	-	2 leaves	2°	
Burgherkin			-	-	2 leaves	2°	
Carpetweed	-	-	Multi 3"	Less than 2	Multi 6"	2	
·			diameter		diameter		
Citron (Wild Watermelon)	-	-	-	-	2 leaves	2°	
Cocklebur	-	-	-	-	2 leaves	2	
Copperleaf, Hophorn beam	-	-	2 leaves	2	4 leaves	4	
Copperleaf, Virginia	-	•	-	-	2 leaves	2	
Crotolaria, Showy	-	-	6 leaves	6°	6 leaves	6°	
Croton, Tropic	-	-	1-2 leaves	Less than 2	2 leaves	- 2	
•	-	•	1-2 leaves	Less than 2	2 leaves	2	
Croton, Wooly							
Crownbeard, Golden	-	-	-	-	2 leaves	Less than 2	
Eclipta	-	-	T -	-	6 leaves	Less than 2	
Galinsoga, Hairy	-	-	-	-	4 leaves	Less than 2	
Galinsoga, Smallflower		-	-	-	4 leaves	Less than 2	
Groundcherry, Cutleaf	-	-	-	-	2 leaves	1	
Groundcherry, Lanceleaf	-	-	-	-	2 leaves	1	
Indigo, Hairy	-	-		-	3 leaves	Less than 2	
Jimsonweed	-	-	4 leaves	4	6 leaves	6	
Ladysthumb	-	-	4 leaves	4	6 leaves	6	
Lambsquarters, Common⁴	-	-	_	-	2 leaves	2	
Morningglory, Cypressvine	-	-	2 leaves	2	4 leaves	4	
Morningglory, Entireleaf	-		2 leaves	2	4 leaves	4	

	Rate of Andover Herbicide					
Weeds Species	0.5 pint of Andover		1.0 pint of Andover		1.5 pints of Andover	
	Herbicio	de per acre	Herbicide	e per acre	Herbicid	e per acre
	Growth	Max.	Growth	Max.	Growth	Maximun
	Stage <sup>b</sup>	Height	Stage <sup>b</sup>	Height	Stage <sup>b</sup>	Height
	(up to)	(inches)	(up to)	(inches)	(up to)	(inches)
Morningglory, Ivyleaf	-	-	2 leaves	2	4 leaves	4
Morningglory, Purple	-	-	2 leaves	2	4 leaves	4
Moonflower, Scarlet	-	-	2 leaves	2	4 leaves	4
Moonflower, Smallflower	_	-	2 leaves	2	4 leaves	4
Moonflower, Small White (pitted)	-		2 leaves	2	4 leaves	4
Moonflower, Tall (common)			2 leaves	2	4 leaves	4
Moonflower, Willowleaf (Palmleaf)	-	-	2 leaves	2	4 leaves	4
Mustard, Wild	2 leaves	2	4 leaves	Less than 4	4 leaves	4
Nightshade, Eastern Black	-	-	2-3 leaves	Less than 2	6 leaves	2
Nightshade, Black	-	-	2-3 leaves	Less than 2	6 leaves	2
Pigweed, Palmer	4 leaves	Less than 2	6 leaves	Less than 4	6 leaves	4
Pigweed, Prostrate	-		-	-	4 leaves	4
Pigweed, Redroot	4 leaves	Less than 2	6 leaves	Less than 4	6 leaves	4
Pigweed, Smooth	4 leaves	Less than 2	6 leaves	Less than 4	6 leaves	4
Pigweed, Spiny	-	-	2 leaves	Less than 2	2 leaves	2
Poinsettia, Wild	<del></del>	-	-	-	2 leaves	2°
Poorjoe	1	_	_	, <u>-</u>	2 leaves	2
Purslane, Common	-	-	<del>-</del>	-	Multi 6" diameter	1
Pusley, Florida	<del> </del>		2 leaves	2	4 leaves	. 4
Ragweed, Common	<del>-</del>	_	2 leaves	2	4 leaves	3
Ragweed, Giant		-	2 leaves	Less than 2	2 leaves	3
Senna, Coffee	<del></del>		2 leaves	Less than 2	2 leaves	2°
Sesbania, Hemp	<del> </del>	-	4 leaves	4°	6 leaves	6°
Smartweed, Pennsylvania	-		4 leaves	4	6 leaves	6
		<del></del>		- 4	2 leaves	2°
Smellmelon Spurge, Prostrate	-		-		Multi 0.5"	
, -			•	-	diameter	-
Spurge, Spotted	-	-	-	-	Multi 0.5" diameter	- '
Starbur, Bristly	-	-	-	-	2 leaves	2°
Waterhemp, Common	4 leaves	Less than 2	6 leaves	Less than 4	6 leaves	4
Waterhemp, Tall	4 leaves	Less than 2	6 leaves	Less than 4	6 leaves	4
		Annual Gra				
Foxtail, Giant <sup>c</sup>	T -	-	•	-	2 leaves	1
Foxtail, Green <sup>c</sup>	<del>                                     </del>	<del></del>	-	-	2 leaves	1
Foxtail, Yellow <sup>c</sup>	-	<u> </u>	•		2 leaves	1
Johnsongrass, Seedling <sup>c</sup>	<del>  -</del> -	-		-	2 leaves	1
Panicum, Fall <sup>c</sup>	<del>  -</del> -		-	-	2 leaves	1
Shattercane <sup>c</sup>	<del></del>		-	<u> </u>	2 leaves	1
			-		2 leaves	<del> </del>
Volunteer Small Grains <sup>c</sup>	-	L	-	L	2 leaves	<u> </u>

<sup>&</sup>lt;sup>a</sup>Includes triazine and ALS resistant biotypes.

# ADDITIONAL WEED PROBLEMS IN SOYBEANS SPECIAL USE DIRECTIONS

Prior to applying Andover Herbicide with spray equipment, ensure that there is good soil moisture. For an effective application, soil must be moist before and after application.

Use a rate of 1.5 pints of Andover Herbicide per acre, mixed with 2 pints of spray surfactant per 100 gallons of spray mix (unless otherwise stated) for the following weeds:

<sup>&</sup>lt;sup>b</sup>When assessing leaf stages as an indication of growth stage, do not count pairs of leaves, count individual leaves separately and do not count cotyledon leaves. Do not treat weeds during the cotyledon stage of growth.

<sup>°</sup>Refer to the Special Use Directions section below.

<sup>&</sup>lt;sup>d</sup>Supression or partial control.

### Beggarweed, Florida

Florida Beggarweed is difficult to control because it has a long germination season. Apply Andover Herbicide when Florida Beggarweed seedlings have no more than 2 expanding young true leaves and seedlings are no higher than 1.5".

To ensure an optimal treatment of Andover Herbicide for control of Florida Beggarweed, obtain maximum control of the earliest flush of the weed. Schedule cultivation to ensure that secondary weed flushes and regrowth are controlled.

Applications of Andover Herbicide will suppress and/or partially control Florida Beggarweed growing in high soil moisture or in high relative humidity.

### **Buckwheat, Wild**

#### Buffalobur

Andover Herbicide will provide partial control when buffalobur and wild buckwheat seedlings have less than 2 true leaves. Treat with Andover Herbicide at a rate of 1.5 pints per acre in 30 gallons of water.

# Cucurbits: Burgherkin Citron (Wild Watermelon)

### **Smellmelon**

The cucumber species may be difficult to control with a single application as germination of the plant occurs over a protracted period. For an effective application of Andover Herbicide, ensure the first treatment is made no later than the 2-leaf stage.

# Morningglories

In order to achieve control of morningglories on a consistent basis, make sequential applications of 1 pint of Andover Herbicide.

### Poinsettia, Wild

Usually, Andover Herbicide will kill or severely stunt Wild Poinsettia. Apply this product to before the formation of the third true leaf.

Treatment with Andover Herbicide may result in a differential in height between surviving poinsettia and soybeans crops which will allow for directed applications. Directed applications may be undertaken in order to achieve greater control.

### Sesbania, Hemp

# Crotolaria, Showy

Sesbania and Crotalaria are sensitive to treatment with this product. Therefore, control can be achieved at almost any plant height.

Apply Andover Herbicide at the rate of 1 pint per acre after maximum weed emergence but before bloom. Applications of this product made after bloom are usually ineffective. Ensure that target weed species are not shaded by the crop canopy from spray applications. In order to control infestations of Sesbania in the late season, wait until the weed breaks the crop canopy before applying Andover Herbicide.

# Senna, Coffee

# Starbur, Bristly

Applications of this product are usually ineffective if made after the 2-leaf growth stage. Andover Herbicide will kill/suppress seedlings if applied to weeds not past the 2 leaf growth stage at the directed rate.

### **Perennial Weeds**

- Bindweed, Field and Hedge
- Milkweed, Climbing and Common
- Redvine, Trumpetcreeper

Acifluorfen is not effective in killing rootstocks of these perennial weeds because control of weeds growing from rootstocks underground is difficult. Applications of Andover Herbicide will burn back above ground plants and suppress regrowth. Apply this product at the rate directed in Table 1 with 2 to 4 pints of spray surfactant per 100 gallons of spray mix.

### **Annual Grasses**

- Foxtail, Giant, Green and Yellow
- Johnsongrass, Seedling
- Panicum, Fall
- Shattercane

When used with a pre-emergence herbicide or preplant incorporated herbicide, this product will provide supplemental control of grasses and will kill/suppress annual grasses not past the 2-leaf stage of growth. Andover Herbicide must not be used as the basic or lone component in an annual grasses control program.

# Volunteer Small Grains

- Barley
- Oats
- Rve
- Wheat

To suppress or kill weeds, treat emerging volunteer small grains which are at the 1 to 2 leaf growth stage with Andover Herbicide.

### **ADDITIVES**

For consistent control with Andover Herbicide, one of the following additives must be combined with this product: ammonium sulfate, nonionic surfactant, urea ammonium nitrate, crop oil concentrate.

UAN (or AMS) should be the additive selected when controlling velvetleaf.

Using additives with Andover Herbicide may result in leaf burn. Leaf burn is more likely to occur if the relative humidity and the air temperature are high. Crop vigor will remain unaffected and new growth will continue normally. For more details, contact the Tacoma Ag, LLC representative for your area.

See Table 2 For Additive Options, and Table 3 for Additive Rates.

### **Nonionic Surfactant**

Use 1 to 2 pints of 80% active nonionic spray surfactant per 100 gallons of water. Use a higher rate of spray surfactant for certain weeds.

### Ammonium Sulfate (AMS) Fertilizer

AMS is a granular, dry, nitrogen-source fertilizer. It must not be used unless it has been shown to be effective within the local area. AMS of an inferior grade will not dissolve adequately and may plug spray nozzles. Only use fine-feed grade or spray grade AMS.

Do not apply AMS in less than 10 gallons per acre. Precipitation may cause problems with AMS if it is applied in reduced volumes.

### Oil Concentrate

The oil concentrate must contain either a petroleum or vegetable oil base and must meet all of the following criteria:

- be nonphytotoxic,
- contain only EPA-exempt ingredients,
- provide good mixing quality in the compatibility test, and
- be successful in local experience.

The composition of suitable additives will vary. Vegetable and petroleum oil concentrates should contain emulsifiers to have good mixing properties. Highly refined vegetable oils have been shown to be more successful as additives than those that are unrefined. For more information, see the Compatibility Test for Mix Components section.

Use of certain oil concentrate products may result in excessive leaf burn. Prior to purchasing an oil concentrate, contact your local area additive supplier regarding the success and suitability of the product.

### **UAN: Urea Ammonium Nitrate**

UAN may be added to this product for increased control of weeds and instead of other spray additives in order to improve control of target weeds. UAN is known as either 28%, 30%, or 32% nitrogen solution. Do not use brass or aluminum nozzles to apply this product combined with UAN because most UAN solutions are mildly corrosive to mild steel, brass and galvanized metals. Thoroughly rinse application equipment immediately after use with water.

### **Effects of Temperature and Relative Humidity**

To ensure that the use of adjuvants is effective, use the following equation and use rate table (Table 2):

If temperature (degrees Fahrenheit) plus relative humidity (expressed as a percentage) exceeds 150, use the lower rates for adjuvants in Table 2.

Example: Temperature 75°F + relative humidity 90% = 165: use the lower use rate for adjuvant in Table 2

Table 2 - Tank Mix Use Rates for Additives and Additive Options

Option	Additive(s)	Use Rate
Α	AMS	2.5 pounds per acre
В	UAN	4-8 pints per acre
` C	Nonionic Surfactant	1-2 pints per 100 gallons
D	Crop Oil Concentrate	1-2 pints per acre
E	AMS and Nonionic Surfactant	AMS (1-2 pounds per acre)
		Nonionic surfactant (1-2 pints per 100 gallons)
F	UAN and Nonionic Surfactant	UAN (2-4 pints per acre)
		Nonionic surfactant (1-2 pints per 100 gallons)
G	AMS and Crop Oil Concentrate	AMS (1-2 pounds per acre)
		Crop Oil Concentrate (1 pint per acre)
Н	<b>UAN and Crop Oil Concentrate</b>	UAN (2-4 pints per acre)
		Crop Oil Concentrate (1 pint per acre)

Table 3 - Additive Rate Per Acre

Additive	Ground Application Rate	Air Application Rate
Nonionic Surfactant	1-2 pints per 100 gallons	1-2 pints per 100 gallons
AMS	2.5 pounds per acre	2.5 pounds per acre
Oil Concentrate	1-2 pints per acre	1-2 pints per acre
UAN Solution	4-8 pints per acre	4 pints per acre

# MIXING INFORMATION

Physical incompatibility, reduced weed control, or crop injury may result from mixing Andover Herbicide with other pesticides (fungicides, herbicides, insecticides or miticides), additives or fertilizers. Tacoma Ag LLC does not recommend using tank mixes other than those listed on the Andover Herbicide label.

Refer to local area agricultural authorities who may recommend tank mixtures not specified on Tacoma Ag, LLC labeling. The use of tank mixtures whose effectiveness has not been tested may result in crop injury, reduced weed control or physical incompatibility.

Read and follow the directions and tank mix instructions of all products in the tank mix. The most restrictive label of the tank mix partners must apply. This product may be tank mixed with the following products (Generic versions of these products may be available. Andover Herbicide may be tank mixed with generic products provided that the specific product is registered for the same uses as Andover Herbicide.):

		Dicamba
Fusilade® DX (fluazifop-p-butyl)	<ul> <li>Pursuit<sup>®</sup> (imazethapyr ammonium)</li> </ul>	• 2,4-DB (preplant burndown only)
• Frontier® 6.0 (dimethenamid)	<ul> <li>Poast® Plus (sethoxydim)</li> </ul>	• 2,4-DB
	Poast® (sethoxydim)	<ul> <li>Synchrony<sup>®</sup> STS (thifensulfuron methyl + chlorimuron ethyl)</li> </ul>
FirstRate® (cloransulam-methyl)	<ul> <li>Harmony<sup>®</sup> (thifensulfuron methyl)</li> </ul>	• Select® (clethodim)
<ul> <li>Classic<sup>®</sup> (chlorimuron ethyl)</li> </ul>	<ul> <li>Matador<sup>®</sup> (quizalofop-p-ethyl)</li> </ul>	• Scepter® (imazaquin)
		<ul> <li>Resource® (flumiclorac pentyl ester)</li> </ul>
<ul> <li>Basagran® (sodium bentazon)</li> </ul>	<ul> <li>Glyphosate</li> </ul>	Synchrony XP
Assure® II (quizalofop p-ethyl)	<ul> <li>Fusion® (fluazifop-p-butyl + fenoxaprop-p-ethyl)</li> </ul>	Raptor® (imazamox ammonium)

For further instructions, see the Crop-Specific Information section. Applicators must read and follow the directions and tank mix instructions of all products in the tank mix. The most restrictive label of the tank mix partners must apply.

# **Compatibility Test for Tank Mix Components**

Before mixing components, always perform a compatibility jar test. For 20 gallons per acre spray volume, use 3.3 cups (800 ml) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source temperature.

Add components in the sequence indicated in **Mixing Order** using teaspoons for each pound or 1 teaspoon for each pint of recommended label rate per acre. Always cap the jar and invert 10 cycles between component additions.

When the components have all been added to the jar, let the solution stand for 15 minutes. Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface, nor fine particles that precipitate to the bottom, nor thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, do not mix the ingredients in the same tank.

### Mixing Order

- 1. **Water**. Begin by agitating a thoroughly clean sprayer tank three-quarters full of clean water.
- 2. **Agitation**. Maintain constant agitation throughout mixing and application.
- 3. **Products in PVA Bags**. Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
- 4. **Water dispersible products** (such as dry flowables, wettable powders, suspension concentrates, or suspo-emulsions). If an inductor is used, rinse it thoroughly after the component has been added.
- 5. **Water-soluble products** (such as Andover Herbicide). If an inductor is used, rinse it thoroughly after the component has been added.
- 6. **Emulsifiable concentrates** (such as oil concentrate when applicable). If an inductor is used, rinse it thoroughly after the component has been added.
- 7. **Water-soluble additives** (such as AMS or UAN when applicable). If an inductor is used, rinse it thoroughly after the component has been added.
- 8. Remaining quantity of water. Maintain constant agitation during application.

### RESTRICTIONS

- Leave at least 15 days between treatments with this product.
- Plants treated with this product must not be used for feed or forage.

- Weeds or crops that are under stress (e.g. from flooding, drought, hail damage, widely fluctuating temperatures, herbicide injury or mechanical injury) must not be treated with this product or unsatisfactory control of weeds may result. Do not apply Andover Herbicide to injured crops. Crop injury may be caused by a previous herbicide application (e.g. phytotoxicity and plant stunting). Treating injured crops with Andover Herbicide may cause existing crop damage to be enhanced or prolonged.
- Andover Herbicide must not be applied through irrigation systems of any type.
- Do not allow livestock to graze treated crops. Do not allow treated areas to be used to harvest forage, hay or feed for livestock.
- In the event of crop failure, do not replant small grains in a treated field for 40 days following the application of Andover Herbicide to that field. The replanting of strawberries, peanuts and soybeans may take place immediately after a crop failure. All other species of rotational crops must not be replanted for 100 days following an application with Andover Herbicide.

### Soybeans

• Do not apply more than a total of 2 pints per acre of Andover Herbicide per season (0.5 lb. ai per acre per season). Do not apply more than 1.5 pints per acre of Andover Herbicide per application (0.375 lb. ai per acre per application).

### LIMITATIONS

• The effectiveness of an application of this product may be reduced if rainfall or overhead irrigation happens within 4 hours of treatment.

Table 4 - Summary of Crop-Specific Restrictions

Crop	Pre-Harvest Interval (PHI): Minimum Time Between Application to Harvest (in days)	Maximum Rate Per Season (Per Acre in pints)	Maximum Rate Per Application (Per Acre in pints)
Soybeans	50	2	1.5 pints

# CROP SPECIFIC INFORMATION

# SOYBEANS

Refer to Application Instructions (above) and Table 1. Make a spray application with Andover Herbicide to actively growing small weeds. For subsequent weed flushes, or to control weeds that escaped the first treatment, make a sequential application of this product as follows: apply 1 pint of this product following an initial application of 1 pint. Treatment(s) with Andover Herbicide must be made prior to target weeds reaching the maximum size specified in Table 1.

### **Tank Mixes**

See Table 2 for additive options. For the treatment of Soybeans, Andover Herbicide may be tank mixed with the following products:

Tank Mix Partner	Additive (refer to Table 2)
Assure II®a (quizalofop-p-ethyl)	Option C
Basagran® (sodium bentazon)	Option C or Option D
Classic® (chlorimuron ethyl)	Option C
First Rate® (cloransulam-methyl)	Option E
Frontier® 6.0 (dimethenamid)	Option C
Fusilade® DXa (fluazifop-p-butyl)	Option C
Fusion®a (fluazifop-p-butyl + fenoxaprop-p-ethyl)	Option C
Glyphosate <sup>b</sup>	8.5 lbs. to 17 lbs. of AMS per 100 gallons
Matador®a (quizalofop-p-ethyl)	Option C

Tank Mix Partner	Additive (refer to Table 2)
Harmony® (up to 0.25 ounces)	Option C or Option E
Poast® (sethoxydim)	Option D
Poast Plus®a (sethoxydim)	Option D
Pursuit® (imazethapyr ammonium)	Option E
Raptor® (imazamox ammonium)	Option E
Resource® (flumiclorac pentyl ester)	Option D
Scepter® (imazaquin)	Option C
Select® 2 EC (clethodim)	Option D
Synchrony® XPc (up to 0.5 ounce) (thifensulfuron methyl + chlorimuron ethyl)	Option G or Option H
2,4-DB	Option C
Clethodim	

- <sup>a</sup> If utilizing this mixture as part of a weed control program, do the following:
  - If an area is treated with the tank mix partner first, wait at least 24 hours before applying Andover Herbicide to the same area.
  - If an area is treated with Andover Herbicide first, wait 7 days before applying the tank mix partner to the same area.
- <sup>b</sup> Only apply this product in tank mix with glyphosate containing herbicides to glyphosate tolerant soybeans or severe crop injury or plant death will occur.
- <sup>c</sup> Application to soybean crops that have not been designated STS will cause severe crop injury and/or loss of yield. Do not add an oil concentrate when applying to soybean not designated STS.

# **Burndown Treatment (Prior to Soybean Planting)**

Andover Herbicide has been specially formulated for use in burndown treatments to particularly aide in control of weeds resistant to glyphosate and ALS inhibitors. To control present weeds (per Table 1), Andover Herbicide can be applied on its own before crop planting. Andover Herbicide can also be used as a tank mix partner with other burndown herbicides to broaden range and level of control. Reduced rates of Andover Herbicide in three way combinations with Glyphosate plus 2,4-D <u>OR</u> Dicamba may be found to be very effective particularly in controlling resistant pigweed. Burndown prior to planting can be enhanced through the addition of a spray additive. However, this pre-plant burndown application is not a replacement for a season long weed control program.

# **Burndown Treatment - Tank Mixes**

See Table 2 for additive options. For the pre-planting burndown, Andover Herbicide may be mixed with the following products:

Tank Mix Partner	Additive (refer to Table 2)
Poast® (sethoxydim)	Option D, Option G or Option H
Poast Plus® (sethoxydim)	Option D, Option G or Option H
2,4-D	Option D
Dicamba	
Glyphosatea	
Clethodim	

<sup>&</sup>lt;sup>a</sup> Only apply this product in tank mix with glyphosate containing herbicides to glyphosate tolerant soybeans or severe crop injury or plant death will occur.

# Burndown Treatment (Post harvest/Fallow/Crop Stubble/Set-aside) – plantback only to soybeans

To control present weeds (per Table 1), Andover Herbicide can be applied on its own after harvest in the fall, spring or summer during the fallow period or to crop stubble/set-aside acres. Burndown after harvest can be enhanced through the addition of a spray additive. However, this post-harvest application is not a replacement for a season long weed control program. Apply to acres that will only be planted back to

soybeans. **Tank Mixes:** See Table 2 for additive options. For post-harvest burndown, Andover Herbicide may be mixed with the tank-mix partners listed in the table under Burndown Treatment – Tank Mixes.

# **Tank Mixtures for Glyphosate Tolerant Soybeans**

Andover Herbicide can be applied postemergent in tank mixtures with glyphosate containing herbicides to control glyphosate resistant weeds. Target weeds must be listed on this label. Refer to Table 1 for a list of weeds controlled, application rates and application timing. If using spray additives, follow the directions on the glyphosate tank mix partner product label. Information on this label regarding weed growth stages and application rates must be followed for effective broadleaf weed control. Only apply this product in tank mix with glyphosate containing herbicides to glyphosate tolerant soybeans or severe crop injury or plant death will occur.

Broadleaves Leaves Controlled by Andover Herbicide
Artichoke, Jerusalem (Helianthus tuberosus)
Balloonvine (Cardiospemum halicacaburm)
Beggarweed, Florida (Desmodium tortuosum)
Beggarticks (Bidens frondosa)
Bindweed, Field (Convolvulus arvensis)
Bindweed, Hedge (Convolvulus sepium)
Buckwheat, Wild (Polygonum convolvulus)
Buffalobur (Solanum rostratum)
Burgherkin (Cucumis anguria)
Carpetweed (Mollugo verticillata)
Citron (Wild Watermelon) (Citrullus vulgaris)
Cocklebur, Common (Xanthium pensylvanicum)
Cocklebur, Heartleaf (Xanthium strumarium)
Copperleaf, Hophornbeam (Acalypha ostryaefolia)
Copperleaf, Virginia (Acalypha virginica)
Crotolaria, Showy (Crotalaria spectabillis)
Croton, Tropic (Croton glandulosus)
Croton, Wooly (Croton capitatus)
Crownbeard, Golden (Verbesina encelioides)
Cucumber, Wild Spiny (Cucumis dipsaceus)
Eclipta (Eclipta alba)
Galinsoga, Hairy (Galinsoga ciliate)
Galinsoga, Smallflower (Galinsoga parviflora)
Groundcherry, Cutleaf (Physalis angulate)
Groundcherry, Lanceleaf (Physalis lanceifolia)
Indigo, Hairy (Indigo fera hirsute)
Jimsonweed (Datura stramonium)
Ladysthumb (Polygonum persicaria)
Lambsquarters, Common (Chenopodium album)
Milkweed, Climbing (Sarcostemma cyanchoides)
Milkweed, Common (Asclepias syriaca)
Morningglory, Cypressvine (Ipomoea quamoclit)
Morningglory, Entireleaf (Ipomoea hederacea var. integruscula)
Morningglory, Ivyleaf (Ipomoea hederacea var. hederacea)
Morningglory, Purple Moonflower (Ipomoèa muricata)
Morningglory, Scarlet (Ipomoea coccinea)
Morningglory, Smallflower (Jacquemontia tamnifolia)
Morningglory, Small White (pitted) (Opomoea lacunose)
Morningglory, Tall, Common (Ipomoea purpurea)
Morningglory, Willowleaf (Palmleaf) (Ipomoea wrightii)
Mustard, Wild (Brassica kaber)

Broadleaves Leaves Controlled by Andover Herbicide
Nightshade, Black (Solanum nigrum)
Nightshade, Eastern Black (Solanum ptycanthum)
Pigweed, Palmer (Amaranthus palmeri)
Pigweed, Prostrate (Amaranthus blitoides)
Pigweed, Redroot (Amaranthus retroflexus)
Pigweed, Smooth (Amaranthus hybridus)
Pigweed, Spiny (Amaranthus spinosus)
Poinsettia, Wild (Euphorbia heterophylla)
Poorjoe (Diodia teres)
Purslane, Common (Portulaca oleracea)
Pusley, Florida (Richardia scabra)
Ragweed, Common (Ambrosia artemisifolia)
Ragweed, Giant (Ambrosia trifida)
Redvine (Brunnichia cirrhosa)
Senna, Coffee (Cassia occidentalis)
Sesbania, Hemp (Sesbania exaltata)
Smartweed, Pennsylvania (Polygonum pensylvanicum)
Smellmelon (Cucumis melo)
Spurge, Prostrate (Euphorbia supine)
Spurge, Spotted (Euphorbia maculate)
Starbur, Bristly (Acanthospermum hispidum)
Teaweed (See Sida, Prickly) (Sida spinosa)
Trumpetcreeper (Campsis radicans)
Velvetleaf (Abutilon theophrasti)
Waterhemp, Common (Amaranthus rudis)
Waterhemp, Tall (Amaranthus tuberculatus)

Grasses Controlled by Andover Herbicide
Foxtail, Giant (Setaria faberi)
Foxtail, Green (Setaria viridis)
Foxtail, Yellow (Setaria lutescens)
Johnsongrass, Seedling (Sorghum halepense)
Johnsongrass, Rhizome (Sorghum halepense)
Panicum, Fall (Panicum dichotomiflorum)
Panicum, Texas (Panicum texanum)
Shattercane (Sorghum bicolor)
Volunteer Barley (Hordeum vulgare)
Volunteer Barley, Corn (Zea mays)
Volunteer Barley, Oats (Avena sativa)
Volunteer Barley, Rye (Secale cereal)
Volunteer Barley, Wheat (Triticum aestivum)

# STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Do not store below 32°F.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Clean 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. Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. If rinsate cannot be used, follow pesticide disposal instructions. If not triple rinsed, these containers are acute hazardous wastes and must be disposed of in accordance with local, state and federal regulations.

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

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

# **Terms and Conditions of Use**

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.

# **Warranty Disclaimer**

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

# Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Tacoma Ag, LLC or the seller. All such risks shall be assumed by buyer.

# **Limitation of Remedies**

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Tacoma Ag, LLC's election, one of the following: (1) Refund of purchase price paid by buyer or user for product bought, or (2) Replacement of amount of product used.

To the extent consistent with applicable law, Tacoma Ag, LLC shall not be liable for losses or damages resulting from handling or use of this product unless Tacoma Ag, LLC is promptly notified of such loss or damage in writing. In no case, to the extent consistent with applicable law, shall Tacoma Ag, LLC be liable for consequential or incidental damages or losses.

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

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[EPA approval date]