GROUP 9 HERBICIDE

# CLEAROUT 5 EXTRA

### **1.0 - INGREDIENTS**

Glyphosate*, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt	
OTHER INGREDIENTS	46.2%
TOTAL	100.0%

\*Contains 648 grams per litre or 5.4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 480 grams per litre or 4 pounds per U.S. gallon of the acid, glyphosate.

# KEEP OUT OF REACH OF CHILDREN CAUTION

See inside booklet for complete Precautionary Statements, Directions For Use, Storage and Disposal, and Conditions of Sale and Warranty.

2.0 - EMERGENCY PHONE NUMBERS

For 24-hour chemical spill, leak, fire, exposure or accident response information, call CHEMTREC toll free at 1-800-424-9300. For non-emergency exposure information on this product, call 1-888-347-6732 (7 days/week, 24-hr). For medical emergencies, dial 911. Avoid contact of herbicide with foliage, green stems, exposed non-woody roots or fruit of crops, desirable plants and trees because severe injury or destruction may result.

Manufactured by: ALBAUGH, LLC 1525 NE 36th Street, Ankeny, IA 50021





EPA Reg. No. 42750-59 AD020223X

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# **3.0 – PRECAUTIONARY STATEMENTS** 3.1 – HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DOMESTIC ANIMALS: This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

# **3.1.1 – PHYSICAL AND CHEMICAL HAZARDS**

Spray solutions of this product must be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

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

### Applicators and other handlers must wear:

1. long-sleeved shirt and long pants,

2. shoes plus socks.

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

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in 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.

# **3.3 – USER SAFETY RECOMMENDATIONS**

### **Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing or PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

# **3.4 - ENVIRONMENTAL HAZARDS**

FOR TERRESTRIAL USE ONLY: Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

# **DIRECTIONS FOR USE**

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

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

# **3.5 – 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 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, are: 1. coveralls,

2. waterproof gloves,

3. shoes plus socks.

# **3.6 – NON-AGRICULTURAL USE REQUIREMENTS**

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

Keep people and pets off treated areas until spray solution has dried to prevent transfer of this product onto desirable vegetation.

# **3.7 – SEED POTATO PRECAUTIONS**

Potatoes grown for seed are very sensitive to glyphosate at extremely low concentrations. Exposure of the seed potato crop can case germination failure or deformities. Daughter tuber damage may occur at levels where mother crop symptoms are not viable. Multiple sprouting from eyes, weak and distorted stems, "little potato syndrome", cauliflower sprouts, root distortions, excessive root growth, suppressed tuber initiation and bulking failure or delay in opening of eyes and rotting of tubers in the field or store can result. Subsequent plantings of seed pieces from the exposed mother crop can result in delayed a no emergence or produce lower than normal yields.

Glyphosate can contaminate seed potato crops through carryover residue in application equipment or drift from applying glyphosate to nearby crops.

Always follow good wash-out procedures using detergents or other suitable cleaning agents to remove all residual traces of glyphosate from application equipment that may be used to apply other products to seed potato crops.

To avoid contamination from spray drift follow the precautions in the "Spray Drift Management" section of the label.

# 4.0 - STORAGE AND DISPOSAL

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

**STORAGE:** STORE ABOVE 10°F (-12°C) TO KEEP FROM CRYSTALLIZING. Crystals will settle to the bottom. If crystals form, allow product to warm above 50°F (10°C) and mix well or recirculate to redissolve.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state, or local procedures. Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned, or destroyed.

### CONTAINER HANDLING: (See the Net Contents section on the container to determine if it non-refillable or refillable.) APPROPRIATE BOX MUST BE CHECKED.

Non-refillable containers (1 and 2.5 gallon): Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

<u>Triple rinse as follows</u>: 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.

<u>Pressure rinse as follows</u>: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Non-refillable containers (>5 gallon): Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

<u>Triple rinse as follows</u>: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

<u>Pressure rinse as follows</u>: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Refillable containers: Refillable container. Refill this container with glyphosate only. Do not reuse this container for any other purpose.

When this container is empty, replace the cap and seal all openings that have been made during usage and return the container to the point of purchase, or to an alternate location designated by the manufacturer at the time of purchase of this product. If not returned, clean container the empty container and offer for recycling, if available.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing process two more times.

If the container cannot be refilled, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Read the entire label before using this product. Use only according to label instructions.

Read the "CONDITIONS OF SALE AND WARRANTY" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

# **5.0 – USE INFORMATION**

**Product Description:** This product is a postemergent, systemic herbicide with no soil residual activity. It is generally non-selective and gives broad-spectrum control of many annual weeds, perennial weeds, woody brush and trees. It is formulated as a water-soluble liquid. It may be applied through most standard industrial or field-type sprayers after dilution and thorough mixing with water or other carriers according to label instructions.

Surfactant may be included in the tank mixture if desired and should only be done so based on field experience or further instructions from your local extension service, crop consultant or field representative. **Time to Symptoms:** This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay development of visual symptoms. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of aboveground growth and deterioration of underground plant parts.

Stage of Weeds: Annual weeds are easiest to control when they are small. Best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity. Refer to the annual, perennial, woody brush and trees rate tables for rates of specific weeds.

Always use the higher rate of this product per acre within the labeled range when weed growth is heavy or dense or weeds are growing in an undisturbed (non-cultivated) area.

Do not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed control may result. Reduced results may also occur when treating weeds heavily covered with dust.

**Cultural Considerations:** Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the labeled stage for treatment.

Rainfastness: Heavy rainfall soon after application may wash this product off of the foliage and a repeat application may be required for adequate control.

Spray Coverage: For best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of runoff.

Mode of Action: The active ingredient in this product inhibits an enzyme found only in plants and microorganisms that is essential to formation of specific amino acids.

No Soil Activity: Weeds must be emerged at the time of application to be controlled by this product. Weeds germinating from seed after application will not be controlled. Unemerged plants arising from unattached underground rhizomes or rootstocks of perennials will not be affected by the herbicide and will continue to grow.

When this product comes in contact with soil, it is bound to soil particles. Under labeled use situations, once this product is bound to soil particles, it is not available for plant uptake and will not harm off-site vegetation where roots grow into the treated area or if the soil is transported off-site. The strong affinity of this product to soil particles prevents this product from leaching out of the soil profile and entering ground water.

Biological Degradation: Degradation of this product is primarily a biological process carried out by soil microbes.

Tank Mixing: This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive label directions for each product in the mixture.

To the extent consistent with applicable law, buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly allowed in this labeling. Mixing this product with herbicides or other materials not labeled on this label may result in reduced performance.

Annual Maximum Use Rate: Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 4.5 quarts of this product per acre per year.

For noncrop uses, the combined total of all treatments must not exceed 6.0 quarts of this product per acre per year.

# **ATTENTION**

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product increases when winds are gusty, as wind velocity increases, when wind direction is constantly changing or when there are other meteorological conditions that favor spray drift. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift.

Refer to the Spray Drift Management guidance in Section 8.0.

**NOTE:** Keep container closed to prevent spills and contamination.

# 6.0 – WEED RESISTANCE MANAGEMENT

Glyphosate, the active ingredient in this product, is a Group 9 herbicide. Target site resistance to Group 9 herbicides is rare. Any weed population may contain plants naturally resistant to Group 9 herbicides. Weed species resistant to Group 9 herbicides may be effectively managed utilizing another herbicide from a different Group or using other cultural practices or mechanical practices.

# **6.1 – WEED MANAGEMENT DIRECTIONS**

To minimize the occurrence of glyphosate-resistant biotypes, observe the following weed management recommendations:

- Scout your fields before and after herbicide applications.
- Start with a clean field, use either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small.
- Add other herbicides (e.g. a selective and/or a residual herbicide) and cultural practices (e.g. tillage or crop rotation) where appropriate.
- One method of adding other herbicides into a continuous Roundup Ready system is to rotate to other Roundup Ready crops.
- Utilize the labeled rate for the most difficult to control weed in your field. Avoid tank mixtures with other herbicides that reduce this product's efficacy (through antagonism), or tank mixture recommendations that encourage application rates of this product below the labeled rate.
- Control weed escapes and prevent weeds from setting seeds.
- Clean equipment before moving from field to field to minimize the spread of weed seed or plant parts.
- Use new commercial seed that is as free of weed seed as possible.
- Report any incidence of repeated non-performance of this product on a particular weed to your Albaugh, LLC representative, local retailer, or county extension agent.

# **6.2 – MANAGEMENT DIRECTIONS FOR GLYPHOSATE RESISTANCE BIOTYPES**

**Note:** Appropriate testing is critical in order to determine if a weed is resistant to glyphosate. Contact your Albaugh, LLC representative to determine if resistance has been confirmed to any particular weed biotype in your area, or visit on the internet www.weedresistancemangement.com or www.weedscience.org. For more information see the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label.

Control directions for biotypes confirmed as resistant to glyphosate are made available on separately published supplemental labeling or fact sheets for this product and can be obtained from your local retailer or Albaugh, LLC representative.

Since the occurrence of new glyphosate resistant weeds cannot be determined until after product use and scientific confirmation, to the extent consistent with applicable law, Albaugh, LLC is not responsible for any losses that may result from the failure of this product to control glyphosate-resistant weed biotypes.

The following good agronomic practices are recommended to reduce the spread of confirmed glyphosate resistant biotypes:

- If a naturally occurring resistant biotype is present in your field, this product should be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control
- Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.
- One method for adding other herbicides into a continuous Roundup Ready system is to rotate to other Roundup Ready corps.
- Scout treated fields after herbicide applications and control escaping weeds including resistant biotypes before they set seed.
- Thoroughly clean equipment before leaving fields known to contain resistant biotypes.

# 7.0 – MIXING

Clean sprayer parts immediately after using this product by thoroughly flushing with water.

Precaution: Reduced results may occur if water containing soil is used, such as visibly muddy water or water that is not clear from ponds and ditches.

# 7.1 – Mixing with Water

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the labeled amount of this product near the end of the filling process and mix well. Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

# 7.2 – Surfactants

Surfactant may be included in the tank mixture if desired and should only be done so based on field experience or further recommendation of your local extension service, crop consultant or field representative.

# 7.3 – Tank Mixing Procedure

Mix labeled tank mixtures of this product with water as follows:

- 1. Place a 20 to 35-mesh screen or wetting basket over filling port.
- 2. Through the screen, fill the spray tank one-half full with water and start agitation.
- 3. If a wettable powder is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.
- 4. If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
- 5. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture slowly through the screen into the tank. Continue agitation.
- 6. Continue filling the spray tank with water and add the required amount of this product near the end of the filling process.
- 7. When using nonionic surfactant add it to the spray tank before completing the filling process.

8. Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, water-soluble liquid followed by surfactant.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed. Keep by-pass line on or near the bottom of the tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance.

Refer to the "TANK MIXING" section of "USE INFORMATION" for additional precautions.

# 7.4 – Mixing for Hand-Held Sprayers

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

### **Spray Solution**

Desired	Amount of ClearOut™ 5 Extra					
Volume	3/4%	1%	1-1/2%	2%	5%	10%
1 Gal	1 fl. oz.	1-1/3 fl. oz.	2 fl. oz.	2-2/3 fl. oz.	6-1/2 fl. oz.	13 fl. oz.
25 Gal	1-1/2 pt	1 qt	1-1/2 qt	2 qt	5 qt	10 qt
100 Gal	3 qt	1 gal	1-1/2 gal	2 gal	5 gal	10 gal

2 tablespoons = 1 fluid ounce

For use in knapsack sprayers, it is suggested that the labeled amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution.

# 7.5 – Ammonium Sulfate

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product when tank mixed with certain residual herbicides on annual and perennial weeds. The equivalent rate of ammonium sulfate in a liquid formulation may also be used. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides. Thoroughly rinse the spray system with clean water after use to reduce corrosion.

NOTE: When using ammonium sulfate, apply this product at rates labeled in this label. Lower rates will result in reduced performance.

# 7.6 – Colorants or Dyes

Agriculturally approved colorants or marking dyes may be added to this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dyes according to the manufacturer's directions.

# 7.7 – Drift Control Additives

Drift control additives may be used with all equipment types, except wiper applicators, sponge bars and CDA equipment. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

# **8.0 – APPLICATION EQUIPMENT AND TECHNIQUES**

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

This product may be applied with the following application equipment:

### Aerial – Fixed Wing and Helicopter

Ground Broadcast Spray – Boom or boomless systems, pull-type sprayer, floaters, pick-up sprayers, spray coupes and other ground broadcast equipment.

Hand-held and High-Volume Spray Equipment – Knapsack and backpack sprayers, pump-up pressure sprayers, handguns, handwands, mistblowers\*, lances and other hand-held and motorized spray equipment used to direct the spray onto weed foliage.

\*This product is not registered in California or Arizona for use in mistblowers.

Selective Equipment – Recirculating sprayers, shielded and hooded sprayers, wiper applicators and sponge bars.

Injection Systems – Aerial or ground injection sprayers.

Controlled Droplet Applicator (CDA) - Hand-held or boom-mounted applicators which produce a spray consisting of a narrow range of droplet sizes.

Apply these spray solutions in properly maintained and calibrated equipment capable of delivering desired volumes.

# 8.1 – Aerial Equipment

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

Use the labeled rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise specified on this label. Unless otherwise specified, do not exceed 24 fluid ounces per acre. Aerial applications of this product may be made in annual cropping conventional tillage systems, fallow and reduced tillage systems and preharvest applications. Refer to the individual use area sections of this label for labeled volumes and application rates.

**NOTE:** For aerial application in California or Arkansas, refer to the Federal supplemental label for aerial applications in that state for specific instructions, restrictions and requirements. For aerial applications, consult with state or local authorities regarding any additional requirements for aerial treatments.

Dicamba tank mixtures may not be applied by air in California.

Avoid direct application to any body of water.

AVOID DRIFT – DO NOT APPLY DURING LOW-LEVEL INVERSION CONDITIONS, WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH FAVORS DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

Ensure uniform application - To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills.

Prolonged exposure of this product to uncoated steel surfaces may result in corrosion and possible failure of the part. Landing gear are most susceptible.

The maintenance of an organic coating (paint), which meets aerospace specification MIL-C-38413, may prevent corrosion.

# 8.2 – AERIAL SPRAY DRIFT MANAGEMENT

### SPRAY DRIFT MANAGEMENT

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

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

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.

2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

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

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

# **Aerial Drift Reduction Advisory**

This section is advisory in nature and does not supersede the mandatory label requirements.

### INFORMATION ON DROPLET SIZE

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

### CONTROLLING DROPLET SIZE

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure Do not exceed the nozzle manufacturer's specified pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of Nozzles Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation Orient nozzles so that the spray is released parallel to the airstream which produces larger droplets than other orientations. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

### **BOOM LENGTH**

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

### **APPLICATION HEIGHT**

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

### SWATH ADJUSTMENT

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance must increase with increasing drift potential (higher wind, smaller drops, etc.).

### WIND

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

### **TEMPERATURE AND HUMIDITY**

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

### **TEMPERATURE INVERSIONS**

Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

### **SENSITIVE AREAS**

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

### 8.3 – Ground Broadcast Equipment

Use the labeled rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified. As density of weeds increases, spray volume should be increased within the labeled range to ensure complete coverage. Carefully select proper nozzles to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

### 8.4 – Hand-Held and High-Volume Equipment

Apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage must be uniform and complete. Do not spray to the point of runoff. Use coarse sprays only.

For control of weeds listed in the annual weeds rate tables, apply a 1/2 percent solution of this product to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. For annual weeds over 6 inches tall, or unless otherwise specified, use a 1 percent solution.

For best results, use a 1-1/2 percent solution on harder-to-control perennials, such as bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle.

When using application methods which result in less than complete coverage, use a 3.75 percent solution for annual and perennial weeds and a 3.75 to 5 percent solution for woody brush and trees.

# 8.5 – Selective Equipment

This product may be applied through recirculating spray systems, shielded applicators, hooded sprayers, wiper applicators or sponge bars after dilution and thorough mixing with water to listed weeds growing in any noncrop site specified on this label and only when specifically labeled in cropping systems.

A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation, while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

A shielded or hooded applicator directs the herbicide solution onto weeds, while shielding desirable vegetation from the herbicide.

A wiper or sponge applicator applies the herbicide solution onto weeds by rubbing the weed with an absorbent material containing the herbicide solution.

### AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.

Contact of the herbicide solution with desirable vegetation may result in damage or destruction.

Applicators used above desirable vegetation must be adjusted so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam, or splatter of the herbicide solution settling on desirable vegetation may result in discoloration, stunting or destruction.

Applications made above the crops should be made when the weeds are a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat applications can be made up to the maximum number of applications for that use site.

### Shielded and hooded applicators

Use nozzles that provide uniform coverage within the treated area. Keep shields on these sprayers adjusted to protect desirable vegetation. Extreme care must be exercised to avoid contact of herbicide with desirable vegetation.

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

### Wiper applicators and sponge bars

Wiper applicators are devices that physically wipe appropriate amounts of this product directly onto the weed.

Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 mph. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.

Avoid leakage or dripping onto desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator.

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from use of leftover solutions. Clean wiper parts immediately after using this product by thoroughly flushing with water.

Include a nonionic surfactant at a rate of 10 percent by volume of total herbicide solution with all wiper applications.

For Rope or Sponge Wick Applicators – Mix 3 quarts of this product in 2 gallons of water to prepare a 25 percent solution. Apply this solution to weeds listed in this section.

For Porous-Plastic Applicators – Solutions ranging from 25 to 100 percent of this product in water may be used in porous-plastic wiper applicators.

When applied as labeled, this product CONTROLS the following weeds:

Corn, volunteer Panicum, Texas Rye, common Shattercane

Sicklepod Spanishneedles Starbur, bristly When applied as labeled, this product SUPPRESSES the following weeds:

Beggarweed, Florida	Ragweed, common
Bermudagrass	Ragweed, giant
Dogbane, hemp	Smutgrass
Dogfennel	Sunflower
Guineagrass	Thistle, Canada
Johnsongrass	Thistle, musk
Milkweed	Vaseygrass
Nightshade, silverleaf	Velvetleaf
Pigweed, redroot	

## 8.6 – Injection Systems

This product may be used in aerial or ground injection spray systems. It may be used as a liquid concentrate or diluted prior to injecting into the spray stream.

### **RESTRICTION:**

• Do not mix this product with the concentrate of other products when using injection systems.

### 8.7 – CDA Equipment

The rate of this product applied per acre by vehicle-mounted CDA equipment must not be less than the amount labeled in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply 3 to 15 gallons of water per acre.

For the control of annual weeds with hand-held CDA units, apply a 20 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 mph (1-1/2 pints per acre). For the control of perennial weeds, apply a 20 to 40 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 mph (3 to 6 pints per acre).

Controlled droplet application equipment produces a spray pattern which is not easily visible. Extreme care must be exercised to avoid spray or drift contacting the foliage or any other green tissue of desirable vegetation, as damage or destruction may result.

# **CROPS (Alphabetical)**

# 9.0 - ANNUAL & PERENNIAL CROPS (Alphabetical)

This section is organized alphabetically by crop category. There may be several labeled crops listed in a crop category.

See the individual crop categories for specific instructions, preharvest intervals, and additional precautions and restrictions.

See the "ROUNDUP READY CROPS" section of this label or separately published Albaugh supplemental labeling for instructions for treating Roundup Ready crops.

### **TYPES OF APPLICATIONS**

Chemical fallow, Pre-plant fallow beds, Pre-plant, Pre-emergence, At Planting, Hooded Sprayers in Row-Middles, Shielded Sprayers in Row-Middles, Wiper Applications in Row-Middles, and Post-Harvest Treatments.

Additional application types may be specified or allowed in individual Crop Categories.

### **USE DIRECTIONS**

Apply this product during fallow intervals preceding planting, prior to planting or transplanting, at planting, or pre-emergent to annual and perennial crops listed in this label, except where specifically limited. For any crop NOT listed in this label, applications must be made at least 30 days prior to planting.

Unless otherwise specified weed control applications must be made according to the rates listed in the "Annual Weeds", Perennial Weeds", and "Woody Brush & Trees" rate tables in this label.

Post-directed hooded sprayers and wiper equipment capable of preventing all crop contact with herbicide solutions may be used in mulched or unmulched row middles after crop establishment. Where specifically noted below, wipers may also be used above certain crops to control tall weeds. Refer to the "SELECTIVE EQUIPMENT" section of this label for essential precautions when using hooded sprayers or wipers to avoid crop injury caused by leakage of spray mists or dripping onto crops. Crop injury is possible with these applications and hall be the sole responsibility of the applicator.

The maximum use rates stated throughout this product's labeling apply to this product combined with the use of all other herbicides containing glyphosate or sulfosate as the active ingredient, whether applied as mixtures or separately. Calculate the application rates and ensure that the total use of this and other glyphosate or sulfosate containing products does not exceed stated maximum use rate.

### PRECAUTIONS

• Avoid contact of herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops because severe injury or destruction may result.

• Apply before seed germination in coarse sandy soils to further minimize the risk of injury.

### RESTRICTIONS

- Unless otherwise specified in this product's labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest.
- In crops where spot treatments are allowed, do not treat more than 10 percent of the total field to be harvested. The crop receiving spray in treated area will be killed. Take care to avoid drift or spray outside the target area for the same reason.
- When making pre-emergence and at planting applications, applications must be made before crop emergence to avoid severe crop injury. Broadcast applications made at emergence will result in injury or death to emerged seedlings.
- Post-harvest or fallow applications must be made at least 30 days prior to planting any non-labeled crop.
- For broadcast post-emergent treatments, do not harvest or feed treated vegetation for 8 weeks following application, unless otherwise specified.

	9.1 – CEREAL CROPS				
TYPES OF APPLICATIONS	ABELED CROPS: Barley, Buckwheat, Millet (Pearl and Proso), Oats, Rice, Rye, Quinoa, Teff, Teosinte, Triticale, Wheat (All), Wild rice				
	USE DIRECTIONS	RESTRICTIONS			
See Section 9.0	See Use Directions in Section 9.0	See Section 9.0			
Pre-Plant, Pre-Emergence, At-Planting	This product may be applied before, during or after planting of cereal crops. Appli- cations must be made prior to emergence of the crop.	Do not treat rice fields or levees when the field contains floodwater			
Red Rice Control	Apply 2.25 pints (36 fl. oz.) of this product in 5 to 10 gallons of water per acre.	Do not treat rice field or levees when the fields contain flood water.			
(prior to planting rice)	Flush fields prior to application to obtain uniform germination and stand of red rice. Make application when the majority of the red rice plants are in the 2-leaf stage and no more than 4 inches tall. Red rice plants with less than 2 true leaves may only be partially controlled.	Do not re-flood treated fields for 8 days following application.			
	Avoid spraying during low humidity conditions, as reduced control may result.				
Spot treatment (except rice)	This product may be applied as a spot treatment in cereal crops. Apply this product before heading in small grains.	Do not treat more than 10 percent of the total field area to be harvested.			
		The crop receiving spray in the treated area will be killed. Do not spray or allow drift outside target area for the same reason.			
Over the Top Wiper applications	Wiper applications may be used in wheat. To control common rye or cereal rye,	Allow at least 35 days between application and harvest.			
(Feed barley & wheat only)	apply after the weeds have headed and achieved maximum growth, when the rye is at least 6 inches above the wheat crop.	Do not use roller applicators.			
Pre-harvest	This product provides weed control when applied prior to harvest of wheat. Apply	Do not apply more than 1.5 pints of this product per acre.			
(Feed barley & wheat only)	after the hard-dough stage of grain (30% or less grain moisture) and at least 7 days	Do not apply to wheat or barley grown for seed.			
	prior to harvest. Wheat stubble may be grazed immediately after harvest. This product may be applied using either aerial or ground spray equipment. For ground applications, apply this product in 10 to 20 gallons of water per acre. For aerial applications, apply this product in 3 to 10 gallons of water per acre.	Allow 7 days between application and harvest or grazing.			
Post-harvest	This product may be applied after harvest of cereal crops. Higher rates may be required for control of large weeds which were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.	For any crop not listed on this label, applications must be made at least 30 days prior to planting the next crop. Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.			

9.2 – CORN (Non-Roundup® Ready)					
LABELED CROPS: Field corn	LABELED CROPS: Field corn, Seed corn, Silage corn, Sweet corn and Popcorn				
<b>TYPES OF APPLICATIONS</b>	USE DIRECTIONS	RESTRICTIONS			
See Section 9.0	See Use Directions in Section 9.0	See Section 9.0			
Pre-plant, Pre-emergence, At planting	This product may be applied before, during or after planting corn. Applications must be made prior to emergence of the crop.         TANK MIXTURES: Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.         2,4-D       Distinct       Lariat         Aim       Dual Magnum       Intro         Atrazine       Dual II Magnum       Linex/Lorox         Axiom       Epic       Marksman         Balance       Frontier/Outlook       Micro-Tech         Bicep Magnum       Fultime       Prowl         Bullet       Harness       simazine         Degree       Harness Xtra       Topnotch         Degree       Harness Xtra 5.6L       For difficult to control annual weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signal grass up to 2 inches tall and Pennsylvania smartweed up to 6 inches tall, apply this product at 1.5 pints (24         fl. oz.). per acre in these tank mixtures. For other labeled weeds, apply 1–1.5 pints (16–24 fl. oz.) of this product per acre when weeds are less than 6 inches tall, 1.5–2.25 pints (24–36 fl. oz.) when weeds are over 6 inches tall.	Do not apply in nitrogen solutions to tough-to- control grasses such as barnyardgrass, fall panicum, broadleaf signalgrass, annual ryegrass and any perennial weeds in the following area: From Route 50 South in Illinois and Indiana and the following states: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, New Jersey, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia.			
Spot treatment	for acceptable weed control. For spot treatments, apply this product prior to silking of corn.	Do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in the treated area will be killed. Do not spray or allow drift outside target area			
Hoodod aprovera	This product may be used through hooded sprayers for weed control between the rows of corn.	for the same reason. Corn must be at least 12 inches tall, measured			
Hooded sprayers	Only hooded sprayers that completely enclose the spray pattern may be used.	without extending leaves.			
	See additional instructions for the use of hooded sprayers in the "Application Equipment and Techniques" section of this label.	Do not apply more than 1.5 pints (24 fl. oz.) of this product per acre for each application and no more than 2.25 quarts (72 fl. oz.) per acre per year for			
	Precaution: Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. To the extent consistent with applicable law, such damage shall be the sole responsibility of the applicator.	hooded sprayer applications.			
Pre-harvest	Make applications at 35 percent grain moisture or less. Ensure that maximum kernel fill is complete and the corn is physiologically mature (black layer formed).	Allow a minimum of 7 days between application and harvest.			
	For ground applications, apply up 2.25 quarts (72 fl. oz.) of this product per acre.	Do not make applications to corn grown for seed.			
	For aerial applications, apply up to 3 pints (48 fl. oz.) of this product per acre. Allow a minimum of 7 days between application and harvest.				
Post-harvest	This product may be applied after harvest of corn. Higher rates may be required for control of large weeds which were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.	Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.			

9.3 – COTTON				
LABELED CROPS: Cotton (non-Roundu	p Ready)			
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS		
See Section 9.0	See Use Directions in Section 9.0 This product may be applied before, during or after planting cotton.	See Section 9.0 Applications must be made prior to emergence of the crop.		
Pre-Plant, Pre-Emergence, At-Planting				
Hooded sprayer, Selective equipment	This product may be applied through hooded sprayers, shielded applicators or wiper applicators in cotton.	See the "Selective Equipment" part of the "Application Equipment and Tech- niques" section of this label for information on proper use and calibration of this equipment.		
		Allow at least 7 days between application and harvest.		
Spot treatment	For spot treatments, apply this product prior to boll opening of cotton.	Do not treat more than 10 percent of the total field area to be harvested.		
		The crop receiving spray in the treated area will be killed. Do not spray or allow drift outside target area for the same reason.		
Pre-harvest	<ul> <li>This product provides weed control and cotton regrowth inhibition when applied prior to harvest of cotton. For weed control, apply at rates given in the annual, perennial and woody brush tables. Apply 12–48 fl. oz. of this product per acre for cotton regrowth inhibition.</li> <li>Apply up to 3 pints (48 fl. oz.) of this product using either aerial or ground spray equipment. Apply after sufficient bolls have developed to produce the</li> </ul>	Do not apply to cotton grown for seed, as a reduction in germination or vigor may occur. The use of additives other than those listed on this label, for preharvest appli- cation to cotton is prohibited.		
	<ul> <li>desired yield of cotton. Applications made prior to this time could affect maximum yield potential.</li> <li>TANK MIXTURES:</li> <li>This product may be tank mixed with DEF<sup>®</sup> 6, Folex<sup>®</sup>, Ginstar or Prep<sup>™</sup> to provide additional enhancement of cotton leaf drop. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.</li> </ul>			

	9.4 – FALLOW SYSTEMS			
LABELED CROPS: This product may be applied during the fallow period prior to planting or emergence of any crop on this label.				
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS		
Chemical Fallow	See Use Directions in Section 9.0	See Section 9.0		
	This product may be applied during the fallow period prior to planting or emergence of any crop listed on this label.	For any crop not listed on this label, applications must be made at least 30 days prior to planting.		
	This product may be used as a substitute for tillage to control annual weeds in fallow fields. Also, broadcast or spot treatments will control or suppress many perennial weeds in fallow fields. Ground or aerial application equipment may be used. Tank mixtures with 2,4-D and dicamba may be used. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.			
	Applications up to 3 pints (48 fl. oz.). per acre may be made by aerial application in fallow sites where there is sufficient buffer to prevent injury due to drift onto adjacent crops.			
Pre-Plant Fallow Beds	This product may be applied to fallow beds prior to planting or emergence of any crop listed on this label. This product will control weeds listed in the annual, perennial and woody brush tables.			
	TANK MIXTURES: It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.			
	In addition, 9 fl. oz. of this product plus the labeled rate of Goal <sup>®</sup> 2XL (or generic equivalent) per acre will control the following weeds with the maximum height or length indicated: 3" – common cheeseweed, chickweed, groundsel; 6" – London rocket, shepherdspurse.			
	12 fl. oz. of this product plus the labeled rate of Goal <sup>®</sup> 2XL (or generic equivalent) per acre will control the following weeds with the maximum height or length indicated: 6" – common cheeseweed, groundsel, marestail <i>(Conyza canadensis)</i> , 12" – chickweed, London rocket, shepherdspurse.			
	PRECAUTION: Some crop injury may occur if dicamba is applied within 45 days of planting.			
Aid-to-Tillage	This product may be used in conjunction with tillage practices in fallow systems or pre-plant to labeled crops to control downy brome, cheat, volunteer wheat, tansy mustard and foxtail. Apply 9 fl. oz. of this product in 3 to 10 gallons of water per acre. Make applications before weeds are 6 inches in height. Application must be followed by conventional tillage practices no later than 15 days after treatment and before regrowth occurs.			
	PRECAUTION: Tank mixtures with residual herbicides may result in reduced performance. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.			

# 9.5 - GRAIN SORGHUM (Milo)

LABELED CROPS: Grain Sorghum (Milo)					
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS			
See Section 9.0	See Use Directions in Section 9.0	See Section 9.0			
Pre-Plant, Pre-Emergence,	This product may be applied alone or in tank mixture before, during or after planting grain sorghum. Applications must be made prior to emergence of the crop.	For spot treatment, do not treat more than 10 percent of the total field area to be harvested.			
At-Planting	TANK MIXTURES: Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved	The crop receiving spray in the treated area will be killed. Do not spray or allow drift outside target area for the same reason.			
	in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.	For wiper applicators, allow at least 40 days between application and harvest.			
	atrazine Bullet Lariat Micro-Tech Bicep II Magnum Dual II Magnum Lasso Milo-Pro	Do not use roller applicators.			
	For difficult-to-control annual weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf	Do not feed or graze treated milo fodder.			
	signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 1.5 pints (24 fl. oz.) per acre in these tank mixtures. For other labeled annual weeds, apply 18–24 fl. oz. of this product per acre when weeds are less than 6 inches tall, and 1.5–2.25 pints (24–36 fl. oz.) when weeds are over 6 inches tall. When using nitrogen solutions as the carrier, the 2.25 pints (36 fl. oz.) use rate may need to be increased for acceptable weed control.	Do not ensile treated vegetation.			
Spot Treatment,	This product may be applied as a spot treatment in grain sorghum. Make spot treatments before heading of milo.				
Over-the-Top Wiper Applications	This product may be applied with wiper applicators to control or suppress the weeds listed under "WIPER APPLICATORS" in the "SELECTIVE EQUIPMENT" section of this label.				
Hooded Sprayers	This product may be used through hooded sprayers for weed control between the rows of milo. Only hooded sprayers that completely enclose the spray pattern may be used. See additional instruction for the use of hooded sprayers in the "APPLICATIONS EQUIPMENT AND TECHNIQUES" section of this label.	Milo must be at least 12 inches tall, measured without extending leaves.			
	Treat before milo sends tillers between the drill rows. If such tillers are contacted with the spray solution, the	Do not graze or feed milo forage or fodder following applications of this product through hooded sprayers.			
	main plant may be killed. Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. To the extent consistent with applicable law, such damage is the responsibility of the applicator.	Do not apply more than 1.5 pints (24 fl. oz.) of this product per acre per application and no more than 2.25 quarts (72 fl. oz.) per acre for hooded sprayer			
	Crop injury may occur when the foliage of treated weeds comes into direct contact with leaves of the crop. Droplets, mist, foam or splatter of the herbicide solution may contact the crop and cause discoloration, stunting	applications.			
	or destruction.	Do not apply this product when the leaves of the crop are growing in direct contact with weeds to be treated.			
Pre-Harvest	Make applications at 30% grain moisture or less.	Do not apply more than 3 pints (48 fl. oz.) of this product per acre.			
	As with other herbicides that cause sudden plant death, avoid pre-harvest applications of this product to milo infected with charcoal rot as lodging can occur.	Allow a minimum of 7 days between application and harvest of sorghum.			
		The use of this product for pre-harvest grain sorghum (milo) is not registered in California.			
		Do not make applications to sorghum grown for seed.			
Post-Harvest	This product may be applied after harvest of grain sorghum. A 2.25 pints (36 fl. oz.) rate may be required for control of large weeds which were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.	Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.			
	This product may be applied to grain sorghum (milo) stubble following harvest to suppress or control regrowth. Apply 1.5 pints (24 fl. oz.) of this product per acre for control, or 18 fl. oz. of this product per acre for suppression.				

### 9.6 – HERBS AND SPICES

LABELED CROPS: Allspice, Angelica, Star anise, Annatto (seed), Balm, Basil, Borage, Burnet, Chamomile, Caper buds, Caraway, Black caraway, Cardamom, Cassia bark, Cassia buds, Catnip, Celery seed, Chervil (dried), Chive, Chinese chive, Cilantro (seed), Cinnamon, Clary, Clove buds, Coriander leaf (cilantro or Chinese parsley), Coriander seed (cilantro), Costmary, Culantro (leaf), Cumin, Curry (leaf), Dill (dillweed), Dill (seed), Epazote, Fennel seed (common and Florence), Fenugreek, White ginger flower, Grains of paradise, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage (leaf and seed), Mace, Marigold, Marjoram (including oregano), Mexican oregano, Miaga flower, Mustard (seed), Nasturtium, Nutmeg, Parsley (dried), Pennyroyal, Pepper (black and white), Pepper leaves, Peppermint, Perilla, Poppy (seed), Rosemary, Rue, Saffron, Sage, Savory (summer and winter), Spearmint, Stevia leaves, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood.

<b>TYPES OF APPLICATIONS</b>	USE DIRECTIONS	RESTRICTIONS
See Section 9.0	See Use Directions in Section 9.0	See Section 9.0
	PRECAUTION: This product could cause crop injury. When applying this product prior to transplanting or direct-seeding crops into plastic mulch, care must be taken to remove product residues from the plastic prior to planting. Residual product can be removed by a single 0.5-inch application of water, either by natural rainfall or via a sprinkler system. Care must be taken to ensure that the washwater flushes off the plastic mulch and does not enter transplant holes. Applications made at emergence will result in injury or death to emerged seedlings. For some crops below, applications must be made 3 days before transplanting or planting.	
Over-the-Top Wiper	This product may be applied as a spot treatment or over the top of peppermint or spearmint with wiper appli-	Allow at least 7 days between application and harvest.
Application, Spot Treatment	cations in spearmint and peppermint. Apply spot treatments on a spray-to-wet basis with hand-held equipment, such as backpack sprayers, pump-up pressure sprayers, hand-guns, hand-wands or any other hand-held or motorized spray equipment used to direct the spray solution to a limited area.	In spot treatment applications, no more than 10 percent of the total field area to be harvested can be treated at one time.
(Peppermint and Spearmint only)	In wiper applications, the applicator must be adjusted so that the wiper contact point is at least 2 inches above the crop. Weeds should be a minimum of 6 inches taller than the crop.	The crop receiving spray in the treated area will be killed. Do not spray or allow drift outside target area for the
	PRECAUTION: Contact of the herbicide solution with the crop may result in discoloration, stunting, or destruction.	same reason.
	Further applications may be made in the same area at 30-day intervals.	

	9.7 – OIL SEED CROPS				
LABELED CROPS: Borage, B	LABELED CROPS: Borage, Buffalo gourd (seed), Canola (non-Roundup Ready), Crambe, Flax, Jojoba, Lesquerella, Meadowfoam, Mustard (seed), Rape, Safflower, Sesame, Sunflower				
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS			
See Section 9.0	See Use Directions in Section 9.0	See Section 9.0			
	between the rows once the crop is established. TANK MIXTURES: For sunflowers, a tank mixture with Prowl may be applied according to the labeled directions for that product.	For use with sunflowers, do not apply more than 0.75 quart (24 fl. oz) of this product per acre as a single pre- plant or pre-emergence application per year.			
		Do not feed or graze sunflower forage following applica- tion of this product.			
Pre-Harvest	This product provides weed control when applied as a harvest aid to a physiologically mature crop prior to harvest of sunflower or safflower.	Allow a minimum of 7 days between treatment and harvest or livestock feeding.			
(Sunflower & Safflower)	For safflower, apply when seed has lost its opaque character, approximately 20 to 30 days after the end of flowering of the secondary branches.	Apply no more than 72 fl. oz. (2.25 quarts) of this product at a pre-harvest timing to safflower.			
	For sunflower, apply when the backsides of sunflower heads are yellow and bracts are turning brown and seed moisture content is less than 35%.	Apply no more than 1.5 pints (24 fl. oz.) of this product at a pre-harvest timing to sunflower.			
Post-Harvest	This product may be applied after harvest of safflower or sunflower. A 2.25 pints (36 fl. oz.) per acre rate may be required for control of large weeds, which are growing in the crops at the time of harvest. Tank mixtures	Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.			
(Sunflower & Safflower)	with 2,4-D or dicamba may be used. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.	Applications must be made at least 30 days prior to planting any crop not listed on the ClearOut <sup>™</sup> 5 Extra label booklet.			

			9.8 – SOYBEANS		
LABELED CROPS: Soybeans	LABELED CROPS: Soybeans (non-Roundup Ready)				
TYPES OF APPLICATIONS		USE D	IRECTIONS	RESTRICTIONS	
See Section 9.0	See Use Directions i	in Section 9.0		See Section 9.0	
Pre-Plant, Pre-Emergence,	This product may b made prior to emerg		or after planting soybeans. Applications must be	The tank mix directions in this section are not registered in California.	
At-Planting	pesticide user's res Read and follow the labels involved in ta	ponsibility to ensure that applicable restrictions a	arOut <sup>™</sup> 5 Extra are in the table below. It is the t all products are registered for the intended use nd limitations and directions for use on all produc follow the most restrictive directions for use and the tank mixture.	e. t	
	This product may I between application		-D or 2,4-DB. See the 2,4-D label for intervals	S	
	broadleaf signalgras this product at 1.5 weeds, apply 18–24	ss up to 2 inches tall, and pints (24 fl. oz.) per acre	nicum, barnyardgrass, crabgrass, shattercane and Pennsylvania smartweed up to 6 inches tall, apply e in these tank mixtures. For other labeled annual r acre when weeds are less than 6 inches tall, and re over 6 inches tall.		
	TANK MIXES: Aim Assure II Authority Boundry Canopy Canopy XL Command Domain Dual Dual II Magnum	Firstrate Flexstar Frontline/Outlook Fusion Gauntlet Intrro Linex Lorox/Linuron Lorox Plus Magnum	Micro Tech Prowl Pursuit Pursuit Plus Reflex Scepter Sencor/Lexone Squadron Steel Valor		
Spot Treatment	For spot treatments,	, apply this product prior	to initial pod set in soybeans.	Do not treat more than 10 percent of the total field area to be harvested.	
	The crop receiving s	spray in the treated area	will be killed.	Do not spray or allow drift outside target area for the same reason.	
Pre-Harvest			plied prior to harvest of soybeans. and woody brush tables.	Do not apply more than 3.75 quarts (120 fl. oz.) per acre of this product for pre-harvest applications.	
	This product may be	e applied using either aei	rial or ground spray equipment.	Do not apply more than 3 pints (48 fl. oz.) per acre of this product by air.	
	Apply after pods have set and lost all green color. Care should be taken to avoid excessive seed shatter loss due to ground application equipment.		olor. Care should be taken to avoid excessive see		
			ment.	Do not graze or harvest treated hay or fodder for livestock feed within 25 days of last pre-harvest application.	
				(If the application rate is 1.5 pints (24 fl. oz.) per acre or lower, the grazing restriction is reduced to 14 days after the last pre-harvest application.)	
				Do not apply to soybeans grown for seed.	
Selective Equipment	This product may be or sponge bars in so		ed applicators, hooded sprayers, wiper applicators	s Allow at least 7 days between application and harvest.	
			Application and Equipment Techniques" section o calibration of this equipment.	f	

	9.9 – SUGARCANE			
<b>LABELED CROPS:</b> S	ugarcane			
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS		
See Section 9.0	See Use Directions in Section 9.0	See Section 9.0		
Pre-Plant, Pre-Emergence, At-Planting	This product may be applied in or around sugarcane fields or in fields prior to the emergence of plant cane.	Do not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation.		
Spot Treatment	This product may be applied as a spot treatment in sugarcane. For control of volunteer or diseased sugarcane, make a 1 percent solution of this product in water and spray to wet the foliage of vegetation to be controlled. Volunteer or diseased sugarcane should have at least 7 new leaves.	Do not feed or graze treated sugar- cane foliage following application.		
	Avoid spray contact with healthy cane plants since severe damage or destruction may result.			
Fallow treatments	This product may be used as a replacement for tillage in fields that are lying fallow between sugarcane crops. This product may also be used to remove the last stubble of ratoon cane. For removal of last stubble of ratoon cane, apply 3 to 3.75 quarts (96–120 fl. oz.) of this product in 10 to 40 gallons of water per acre to new growth having at least 7 new leaves.			
	Ground or aerial application equipment may be used. Applications up to 4.5 pints (72 fl. oz.) per acre may be made by aerial application in fallow sites where there is sufficient buffer to prevent injury due to drift onto adjacent crops. Tank mixtures with 2,4-D and dicamba may be used. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.			
Hooded sprayers	This product may be used through hooded sprayers for weed control between the rows of sugarcane. See Section 8.0 for "Application Equipment and Techniques" for additional USE DIRECTIONS.	Do not allow treated weeds to come into contact with the crop.		
	Minimize the potential for spray particles to escape from under the hood by operating the sprayer at appropriate ground speeds, nozzle pressures and wind speeds. Operation on rough or sloping ground may result in spray particles escaping from the hood.			
	When applying to sugarcane that is grown on raised beds, ensure that the hood is designed to completely enclose the spray. If necessary, extend the front and rear flaps of the hoods to reach the ground in furrows between the rows.			
	PRECAUTION: Droplets, mist, foam or splatter of the herbicide solution settling on the crop may result in discoloration, stunting or destruction.			
	To the extent consistent with applicable law, such damage shall be the sole responsibility of the applicator.			

(continued)

	9.9 – SUGARCANE <i>(cont.)</i>			
<b>LABELED CROPS:</b> S	Igarcane			
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS		
For AID IN Sugarcane	This product is a foliar-applied plant growth regulator to hasten ripening and increase the level of sucrose in sugarcane. It is effective in both low and high-tonnage sugarcane.	Do not make application to sugar- cane grown for seed.		
	When applied as directed under the conditions described, this product will hasten ripening and extend the period of high sucrose level in sugarcane. As a result of leaf desiccation, improved trash burn can be expected.	Do not feed or graze treated sugar- cane forage following application.		
(Florida, Hawaii, Louisiana,	Most of the sucrose increase is concentrated in the top nodes of the treated cane stalk. In order to recover the maximum sugar where topping is practiced during harvest, top at the base of the fourth leaf.	Do not apply for enhanced ripening to any crops other than sugarcane.		
PUERTO RICO AND TEXAS)	Prior to application, consult your state sugarcane authority or local Albaugh, LLC representative regarding the degree of sucrose response anticipated from the variety of sugarcane to be treated.	Do not plant subsequent crops in treated fields other than the		
	APPLICATION RATES: Use the following application rates and timing instructions according to the State in which the sugarcane is grown.	following for 30 days after appli- cation: alfalfa or other forage		
	PRECAUTION: Application of this product may initiate development of shooting eyes. This product may not increase the sucrose content of sugarcane under conditions of good nature ripening. Within 2 to 3 weeks after application, this product may product a slight yellowing to pronounced browning and drying of leaves, and a shortening of upper internodes. Spindle death may occur.	legumes, beans (all types), corn		
	Rainfall within 6 hours after application may reduce effectiveness.	potatoes (Irish or sweet), sorghum		
	<b>NOTE:</b> Use the higher rate within the labeled range when treating sugarcane under adverse ripening conditions or when less responsive varieties are to be treated.	(milo), soybeans, squash (all types) or wheat.		
	FLORIDA – Apply 3.75–9 fl. oz. of this product per acre 3 to 6 weeks before harvest of LAST RATOON CANE ONLY. HAWAII – Apply 6.75–15.75 fl. oz. of this product per acre 4 to 10 weeks before harvest. LOUISIANA – Apply 2.6–9 fl. oz. of this product per acre 3 to 7 weeks before harvest of RATOON CANE ONLY. PUERTO RICO – Apply 3.75 fl. oz. of this product per acre 3 to 5 weeks before harvest of RATOON CANE ONLY. TEXAS – Apply 3.75–9 fl. oz of this product per acre 3 to 5 weeks before harvest of RATOON CANE ONLY.			

# 9.10 – VEGETABLE CROPS

This "VEGETABLE CROPS" section gives directions that apply to all listed vegetable crops within section 9.10 grouped alphabetically below. See the individual crop categories for specific instructions, preharvest intervals, precautions and restrictions.

TYPES OF APPLICATIONS: Chemical Fallow, Preplant Fallow Beds, Preplant, Preemergence, Prior to Transplanting Vegetables, At-Planting, Hooded Sprayers in Row Middles, Shielded Sprayers in Row Middles, Wiper Applications in Row Middles, and Post Harvest, Directed Applications (Non-Bearing Ginseng), Over-the-top Wiper Applications (Rutabagas Only).

### PRECAUTIONS:

- When applying this product prior to transplanting or direct-seeding crops into plastic mulch, care must be taken to remove residues of this product, which could cause crop injury, from the plastic prior to planting.
- Residues can be removed by single 0.5-inch application of water, either by natural rainfall or via a sprinkler system. Care must be taken to insure that the wash water flushed off the plastic mulch and does not enter transplant holes.
- Applications made at emergence will result in injury or death to emerged seedlings.
- Apply before seed germination in coarse sandy soils to further minimize the risk of injury.
- Avoid contact of herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops because severe injury or destruction may result.

### **RESTRICTIONS:**

- When making pre-emergence and at planting applications, applications must be made before crop emergence to avoid severe crop injury.
- In crops with vines, hooded sprayer, shielded sprayer and wiper applications to row middles must be made prior to vine development to prevent severe injury or destruction.
- Unless otherwise specified in this product's labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest.
- Post-harvest or fallow applications must be made at least 30 days prior to planting any non-labeled crop.

See "Application Equipment and Techniques" section of this label for additional information.

### 9.10.1 – BRASSICA VEGETABLES LABELED CROPS: Broccoli, Broccoli (raab), Brussels sprouts, Cabbage, Cabbage (Chinese), Cabbage (Chinese mustard), Cauliflower, Cavalo broccolo, Chinese broccoli (gai lon), Chinese cabbage (bok choy & napa), Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Section 9.10	See Use Directions under Section 9.0	See Section 9.10

9.10.2 – BULB VEGETABLES			
LABELED CROPS: Garlic, Great-headed garlic, Leek, Onion (dry bulb & green), Shallot, Welsh onion, Shallot			
TYPES OF APPLICATIONS	TYPES OF APPLICATIONS USE DIRECTIONS RESTRICTIONS		
See Section 9.10         See Use Directions under Section 9.0         See Section 9.10			

# 9.10.3 - CUCURBIT VEGETABLES & FRUITS

LABELED CROPS: Chayote (fruit), Chinese waxgourd, Citron melon, Cucumber, Gherkin, Gourds, Gourds (edible including hyotan, cucuzza, hechima, Chinese okra), Melons (All), *Momordica* spp. (includes balsam apple, balsam pear, bittermelon, Chinese cucumber), Muskmelon (cantaloupe, casaba, Crenshaw, golden pershaw, honeydew, honey ball, mango melon and Persian, pineapple, Santa Claus, snake), Pumpkin, Summer Squash (including crookneck, scallop, straightneck, vegetable marrow, zucchini), Winter squash (including butternut, calabaza, hubbard, acorn, spaghetti), Watermelon

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Section 9.10		For Cantaloupe, Casaba melon, Crenshaw melon, Cucumber, Gherkin, Gourds, Honeydew melon, Honey ball melon, Mango melon, Melons (all) Muskmelon, Persian melon, Pumpkin, Squash (summer & winter), AND Watermelon, allow at least 3 days between application and planting.

9.10.4 – LEAFY VEGETABLES				
LABELED CROPS: Amaranth (Chinese spinach), Arrugula (roquette), Beet greens, Cardoon, Celery, Celery (Chinese), Celtuce, Chaya, Chervil, Chrysanthemum (edible leaved), Chrysanthemum (Garland), Corn salad, Cress (garden & upland), Dandelion, Dock (sorrel), Dokudami, Endive (escarole), Fennel (Florence), Gow kee, Lettuce (head & leaf), Orach, Parsley, Purslane (garden & winter), Radicchio (red				
	chicory), Rhubarb, Spinach (All), Swiss Chard, Watercress (upland), Water Spinach			
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS		
See Section 9.10	See Use Directions under Section 9.0	See Section 9.10		
	For Watercress, avoid application within 3 days prior to seeding and during the period between seeding and emergence to minimize the risk of injury.			

9.10.5 – FRUITING VEGETABLES			
LABELED CROPS: Eggplant, Ground cherry (Physalis spp.), Pepino, Pepper (includes bell, chili, cooking, pimento, sweet), Tomatillo, Tomato			
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS	
See Section 9.10	See Use Directions under Section 9.0	See Section 9.10	
		For Eggplant, Ground cherry, Pepino, Pepper (all), Tomatillo and Tomato, allow at least 3 days between application and planting.	
		Do not use hooded or shielded sprayer applications in row middles of tomatoes.	

# 9.10.6 - LEGUME VEGETABLES (succulent or dried)

LABELED CROPS: Bean (Lupinus: includes grain lupin, sweet lupin, white lupin, and white sweet lupin), Bean (Phaseolus: includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean), Bean (Vigna: includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean), Broad bean (fava), Chickpea (garbanzo), Guar, Jackbean, Lablab bean, Lentil, Pea (Pisum: includes dwarf pea, edible-podded pea, English pea, field pea, garden pea, green pea, snowpea, sugar snap pea), Pigeon pea, Soybean (immature seed), Sword bean

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Section 9.10	See Use Directions under Section 9.0	See Section 9.10
Pre-Harvest Broadcast Spray (Dry Beans)	This product may be applied as an over the top broadcast spray to control labeled weeds prior to the harvest of dry beans. Apply up to 1.5 pints (24 fl. oz.) stage of the legume seed (30 percent grain moisture or less). Either ground broadcast or aerial applications may be made.	Only make one application per year.
Pre-harvest broadcast spray (Dry Peas, Lentils & Chickpeas)	This product may be applied as an over the top broadcast spray to control labeled weeds prior to the harvest of dry peas, lentils, and chickpeas. Apply up to 3 pints (48 fl. oz.) in 3 to 20 gallons of water per acre at the hard dough stage of the legume seed (30 percent grain moisture or less). Either ground broadcast or aerial applications may be made.	product through any type of irrigation system.
Spot treatment (Dry beans, Dry Peas, Lentils, Chickpeas)	This product may be applied as spot treatment to control troublesome weeds such as Canada thistle, quackgrass, mayweed (dog fennel), and milkweed in dry beans. Apply up to 19.5 fl. oz. in 10 to 20 gallons of water through ground spray equipment or use a 2 percent solution in a handheld sprayer. For best results, applications should be made at or beyond the bud stage of growth. The crop receiving spray in treated areas will be killed.	Only one application per year may be made. Do not combine a pre-harvest spray with a spot treatment on the same crop area.

# 9.10.7 - ROOT & TUBER VEGETABLES

LABELED CROPS: Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Beet (garden), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote (root), Chervil, Chicory, Chufa, Dasheen, Galangal, Ginger, Ginseng, Horseradish, Leren, Kava, Parsley, Parsnips, Potato (Irish), Radish, Radish (Oriental), Rutabaga, Salsify, Salsify (Black and Spanish), Skirret, Sweet potato, Tanier, Turmeric, Turnip, Wasabi, Yacon, Yams, Yam bean, Yam (True)

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Section 9.10	See Use Directions under Section 9.0	See Section 9.10
Direct Application (Non-Bearing Ginseng)	This product may be used for weed control in established non-bearing ginseng. Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high volume wands, lances, and orchard guns or with wiper application equipment.	
	PRECAUTION: Extreme care must be exercised to avoid contact of herbicide solution, spray, drift or mist with foliage or green bark of trunk, branches, suckers, fruit or other parts of desirable plants. Contact of this product with other than matured brown bark can result in serious crop damage.	
Over-the-Top Wiper Application (Rutabaga Only)	Wiper applicators may be used over-the-top of rutabagas.	Allow at least 14 days between application and harvest of rutabagas.

9.11 – MISCELLANEOUS CROPS					
LABELED CROPS: Aloe vera, As	ABELED CROPS: Aloe vera, Asparagus, Bamboo shoots, Globe artichoke, Okra, Peanut (ground nut), Pineapple, Strawberry, Sugar Beet (non-Roundup Ready)				
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS			
See Section 9.10	See Use Directions under Section 9.0	See Section 9.10			
	Avoid contact of herbicide with foliage, green shoots or stems. Bark, exposed roots (including those emerging from plastic mulch), or fruit of crops because severe injury or destruction may result.	When making pre-emergence and at planting applications, applications must be made before crop emergence to avoid serious crop injury. Apply before seed germination in coarse sandy soils to further minimize the risk of injury. In crops with vines, hooded sprayer, shielded sprayer and wiper applications to row middles must be made prior to vine development.			
		Treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest.			
		Post-harvest or fallow applications must be made at least 30 days prior to planting any non-labeled crop.			
Weed control,	This product may be applied for weed control or for site preparation prior to planting or	Do not apply within a week before the first asparagus spears emerge.			
Site preparation	transplanting crops listed in this section.	Do not feed or graze treated pineapple forage following application.			
	When applying this product prior to transplanting or direct seeding crops into plastic mulch, care must be taken to remove residues of this product from the plastic prior to transplanting. Residues can be removed by 0.5 inch natural rainfall or by applying water via a sprinkler system. Care must be taken to insure that the wash water flushes off the plastic mulch and does not enter transplant holes. Injury made at emergence will result in injury or death to emerged seedlings.				
Spot Treatment	This product may be applied immediately after cutting, but prior to the emergence of	Do not treat more than 10 percent of the total field area to be harvested.			
(Asparagus)	new spears.	Do not harvest within 5 days of treatment.			
Post-Harvest (Asparagus)	This product may be applied after the last harvest and all spears have been removed. If spears are allowed to re-grow, delay application until ferns have developed. Delayed treatments should be applied as a directed or shielded spray in order to avoid contact of the spray with ferns, stems or spears.	Do not allow direct contact of the spray with the asparagus which will result in serious crop injury.			
	Select and use recommended types of spray equipment for post-emergence postharvest applications. A directed spray is any application where the spray pattern is aligned in such a way as to avoid direct contact of the spray with the crop. A shielded spray is any application where a physical barrier is positioned and maintained between the spray and the crop to prevent contact of spray with the crop.				

# **10.0 – TREE, VINE, & SHRUB CROPS (Alphabetical)**

This section gives directions that apply to all listed tree, vine & shrub crops within section 10 crop groups. Individual crops may have more specific instructions, pre-harvest intervals, precautions and restrictions.

**TYPES OF APPLICATIONS:** Pre-plant (Site Preparation) Broadcast Sprays, Weed control, Middles (between rows of trees, vines or shrubs), Strips (within rows of trees, vines or shrubs), Selective Equipment (shielded sprayers, wiper treatments), Directed Sprays, Spot Treatments, Perennial Grass Suppression, Cut Stump.

Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high-volume wands, lances, orchard guns or with wiper applicator equipment, except as directed.

### **USE DIRECTIONS:**

This product may be applied in middles (between rows of trees or vines), strips (within rows of trees or vines), and for weed control or perennial grass suppression in established tree fruit and tree nut groves, orchards, berries and vineyards. This product may also be used for site preparation prior to planting or transplanting these crops. Apply at 12–120 fl. oz. per acre according to the "Annual Weeds" and "Perennial Weeds" rate tables sections of this label. Utilize rates at the higher end of the labeled rate range when weeds are stressed, growing in dense populations or are greater than 12 inches tall. Repeat applications may be made up to a maximum of 7.8 quarts (250 fl. oz.) per acre per year.

The maximum use rates stated throughout this product's labeling apply to this product combined with the use of all other herbicides containing glyphosate or sulfosate as the active ingredient, whether applied as mixtures or separately. Calculate the application rates and ensure that the total use of this and other glyphosate or sulfosate containing products does not exceed stated maximum use rate.

### **PRECAUTIONS:**

- Extreme care must be exercised to avoid contact of herbicide solution, spray, drift or mist with foliage or green bark of trunk, branches, suckers, fruit or other part of the trees, canes and vines.
- · Avoid applications when recent pruning wounds or other mechanical injury has occurred.
- Contact of this product other than matures brown bark can result in serious crop damage or destruction.
- For applications in strips (within rows of trees), only selective equipment (directed sprays, hooded sprayers, shielded applicators, or wipers) must be used to minimize the potential for leakage or drift of herbicide sprays onto crop.

See "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional directions and precautions.

### **RESTRICTIONS:**

- Only wipers or shielded applicators capable of preventing all contact with crop may be used.
- Only shielded or directed sprayers may be used in crops with potential for crop contact, and then only where there is sufficient clearance.
- · For berry crops, hooded or shielded sprayers must be fully enclosed including top, sides, front and back.
- Allow a minimum of 3 days between applications and transplanting.

### Middles (between rows of trees, vines or bushes)

**USE DIRECTIONS:** This product will control or suppress annual and perennial weeds and ground covers growing between the rows of labeled tree and vine crops. If weeds are under drought stress, irrigate prior to application. Reduced control may result if weeds have been mowed prior to application.

**TANK MIXTURES:** It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

A tank mixture of this product plus Goal<sup>®</sup> 2XL (or generic equivalent) may be used for annual weeds in middles between rows of citrus crops, tree fruits, tree nuts and vine crops. This mixture is recommended when weeds are stressed or growing in dense populations. 12–24 fl. oz./A of this product plus the labeled rate of Goal<sup>®</sup> 2XL will control annual weeds with a maximum height or diameter of 6 inches, including crabgrass, common groundsel, junglerice, common lambsquarters, redroot pigweed, London rocket, common ryegrass, shepherdspurse, annual sowthistle, common cheeseweed (malva), filaree (suppression), horseweed/marestail (*Conyza canadensis*), stinging nettle and common purslane (suppression). 12–24 fl. oz./A of this product plus labeled rate of Goal<sup>®</sup> 2XL will control common cheeseweed (malva) or hairy fleabane (*Conyza bonariensis*), with a maximum height or diameter of 3 inches.

### Strips (in rows of trees, vines or bushes)

**TANK MIXTURES:** This product may be applied in rows of tree or vine crops and may also be tank mixed with the following products (or generic equivalent). It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

DEVRINOL <sup>®</sup> 50 DF	Karmex® DF	PRINCEP <sup>®</sup> CALIBER 90	SIMAZINE 80W	SURFLAN® AS
DIREX <sup>®</sup> 4L	KROVAR <sup>®</sup> I	PROWL®	SIM-TROL™ 4L	SURFLAN <sup>®</sup> 75W
GOAL <sup>®</sup> 2XL	KROVAR® II	SIMAZINE 4L	SOLICAM <sup>®</sup> DF	

**Restriction:** Do not apply these tank mixtures in Puerto Rico.

### PERENNIAL GRASS SUPPRESSION

This product will suppress perennial grasses such as bahiagrass, bermudagrass, tall fescue, orchardgrass, Kentucky bluegrass, and quackgrass that are grown as ground covers in tree and vine crops.

For suppression of tall fescue, fine fescue, orchardgrass and quackgrass, apply 6 fluid ounces of this product in 10 to 20 gallons of water per acre.

For suppression of Kentucky bluegrass covers, apply 4.5 fl. oz. of this product per acre. Do not add ammonium sulfate.

For best results, mow cool season grass covers in the spring to even their height and apply this product 3 to 4 days after mowing.

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 4.5 fl. oz. of this product in 10 to 25 gallons of water per acre. Apply 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. This application must be made prior to seedhead emergence.

For suppression up to 120 days, apply 3 fl. oz. of this product per acre, followed by an application of 1.5–3 fl. oz.per acre about 45 days later. Make no more than 2 applications per year.

For burndown of bermudagrass, apply 1.5–3 pints (24 – 48 fl. oz.) of this product in 3 to 20 gallons of water per acre. Use this treatment only if reduction of the bermudagrass stand can be tolerated. When burndown is required prior to harvest, allow at least 21 days to ensure sufficient time for burndown to occur.

For suppression of bermudagrass, apply 4.5–12 fl. oz. of this product per acre east of the Rocky Mountains and 12 fl. oz. of this product per acre west of the Rocky Mountains. Apply in a total spray volume of 3 to 20 gallons per acre, no sooner than 1 to 2 weeks after full green-up. If the bermudagrass is mowed prior to application, maintain a minimum of 3 inches in height. Sequential applications up to the maximum labeled rate may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated. East of the Rocky Mountains, rates of 4.5–7.5 fl. oz. per acre should be used in shaded conditions or where a lesser degree of suppression is desired.

### **CUT STUMPS (Tree crops)**

### LABELED CROPS:

<u>Citrus Trees:</u> Calamondin, Chironja, Citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (Tangerine), Orange (all), Pummelo, Tangelo, Tangor. <u>Fruit Trees:</u> Apple, Apricot, Cherry (sweet, sour), Crabapple, Loquat, Mayhaw, Nectarine, Olive, Peach, Pear, Plum/Prune (all), Quince.

Nut Trees: Almond, Beechnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory Nut, Macadamia, Pecan, Pistachio, Walnut (black, English).

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Suitable Hand-Held Equipment	Cut stump applications of this product may be made during site preparation or site renovation, prior to transplanting tree crops. This product will control regrowth of cut stumps and resprouts of many types of tree species, some of which are listed below. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion.	adjacent desirable trees may be grafted to the roots of the cut stump. Injury resulting from root grating may occur in adjacent trees.
	PRECAUTION: Some sprouts, stems, or trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots. Whether grafted or shared, injury is likely to occur to non-treated stems/trees when one or more trees sharing common roots are treated.	

# **10.1 – BERRY CROPS**

LABELED CROPS: Blackberry (including bingleberry, black satin berry, boysenberry, Cherokee blackberry, chesterberry, Cheyenne blackberry, coryberry, darrowberry, dewberry, Dirksen thronless berry, Himalayaberry, hullberry, juneberry, lavacaberry, lowberry, lucretiaberry, marionberry, nectarberry, olallie berry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, and youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Raspberry (Black, Red), Salal

<b>TYPES OF APPLICATIONS</b>	USE DIRECTIONS	RESTRICTIONS
See Section 10.0	See Use Directions under Section 10.0	See Section 10.0
		Do not permit herbicide solution to contact desirable vege- tation, including green shoots, canes or foliage.
		Allow a minimum of 14 days between last application and harvest of labeled berry crops.
		Allow a minimum of 30 days between last application and harvest of cranberries.
		Do not make directed sprays within the cranberry bush areas prior to berry harvest.
Spot Treatment (Cranberry production)	May be used to control weeds growing in dry ditches (interior and perimeter) of cranberry production areas. Handheld sprayers or other appropriate application equipment listed under "Application Equipment and Tech-	Allow a minimum of 30 days between last application and harvest of cranberries.
	niques" in this label may be used. Drop water level to remove standing water in ditches prior to application.	Do not apply this material through irrigation system.
	In hand-held sprayers, use 1 to 2 percent solution of this product. Spray to wet vegetation, not to run-off.	Do not make applications by air.
	For treatments after draw down of water in dry ditches, allow 2 or more days after treatment before reintro- duction of water to achieve maximum weed control.	Do not apply directly to water.
	Apply this product within 1 day after draw down to ensure application to actively growing weeds.	
	Use nozzles that emit medium- to large-sized droplets to minimize drift in order to avoid crop injury.	

# 10.1 - BERRY CROPS (cont.)

LABELED CROPS: Blackberry (including bingleberry, black satin berry, boysenberry, Cherokee blackberry, chesterberry, Cheyenne blackberry, coryberry, darrowberry, dewberry, Dirksen thronless berry, Himalayaberry, hullberry, juneberry, lavacaberry, lowberry, lucretiaberry, marionberry, nectarberry, olallie berry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, and youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Raspberry (Black, Red), Salal

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
		Do not treat more than 10 percent of the total bog.
(Cranberry Production)	Hand-held sprayers, wipers or other appropriate application equipment listed under "Application Equipment and Techniques" in this label may be used. If using hand-held sprayers, use a 0.5 to 1 percent solution of this	Allow a minimum of 6 months after the last application and next harvest of cranberries.
	product. Spray to wet vegetation, not to run off. If using hand-held boom sprayers, apply 1.5–3 quarts (48–96 fl. oz.) of this product per acre.	Do not apply this product through the irrigation system.
	PRECAUTION: Even though vines appear dormant, contact of the herbicide solution with desirable vegetation	Do not make applications by air.
	may result in damage or severe plant injury. Cranberry plants that are directly sprayed may be killed.	Do not apply directly to water.
		Make applications only after cranberries have been har- vested to control weeds growing within the field.

		10.2 -	CITRUS		
LABELED CROPS: Calamono	din, Chironja, Citron, Citrus Hybrids, Grapefi	ruit, Kumquat, Lemon, Lime	, Mandarin (tangerine), Or	range (All), Pumm	elo, Satsuma Mandarin, Tangelo (ugli), Tangor
<b>TYPES OF APPLICATIONS</b>		<b>USE DIRECTIONS</b>			RESTRICTIONS
See Section 10.0	See Use Directions under Section 10.0				See Section 10.0
	Florida and Texas only: For burn down product in 3 to 40 gallons of water per a				Allow a minimum of 1 day between last application and harvest.
	acre.				For citron groves apply as directed sprays only.
	For goatweed, apply 1.5–2.25 quarts (48–72 fl. oz.) of this product per acre. Apply in 20 to 30 gallons of water per acre when plants are actively growing. Use 3 pints (48 fl. oz.) per acre when plants are less than 8 inches tall and 2.25 pints (72 fl. oz.) per acre when plants are greater than 8 inches tall. If goatweed is greater than 8 inches tall, the addition of Krovar <sup>®</sup> II or Karmex <sup>®</sup> may improve control.				
	It is the pesticide user's responsibility to and follow the applicable restrictions an tank mixing. Users must follow the most product in the tank mixture.	d limitations and directions	for use on all product la	bels involved in	
	Perennial weeds:	S=Suppression B=	Burndown PC=Parti	al Control C	C=Control
Weed Species		GLY STAR® 5 EXTRA R	ate Per Acre		
	1.5 pints	1.5 quarts	2.25 quarts	3.75 qua	
Bermudagrass	<b>(24 fl. oz.)</b> B	(48 fl. oz.)	<b>(72 fl. oz.)</b> PC	(120 fl. o	Z.)
Guineagrass	b		10	0	
Texas and Florida Ridge	В	С	С	С	
Florida Flatwoods	_	В	С	С	
Paragrass	В	С	С	С	
Torpedograss	S	-	PC	С	

# **10.3 – MISCELLANEOUS TREE FOOD CROPS**

LABELED CROPS: Cactus (fruits & pads), Palm (heart, leaves), Palm (oil)

TYPES OF APPLICATIONS See Section 10.0

See Use Directions under Section 10.0

**USE DIRECTIONS** 

See Section 10.0

RESTRICTIONS

	10.4 – NON-FOOD TREE CROPS			
LABELED CROPS: Pine, Pop	lar, Eucalyptus, Other Non-food Tree Crops			
<b>TYPES OF APPLICATIONS</b>	USE DIRECTIONS	RESTRICTIONS		
See Section 10.0	See Use Directions under Section 10.0	See Section 10.0		
Directed sprays, Spot treatments, Wiper applications	This product may be used as a post-directed spray and spot treatment around established poplar, eucalyptus, and other non-food tree crops.	Do not use this product as an over- the-top broadcast spray in Christmas trees and other pine tree.		
	PRECAUTION: Care must be exercised to avoid contact of spray drift or mist with foliage or green bark of established pine trees. Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material.			
Site Preparation	This product may be used prior to planting non-food tree crops.			
	Precautions must be taken to protect non-target plants during site preparations applications.			
Directed Spray	This product can be used around established eucalyptus and poplar trees to control undesirable vegetation.	Do not allow herbicide spray to con-		
(Eucalyptus and Poplar Production)	Use a 1 to 2 percent spray solution to control herbaceous weeds in eucalyptus farms. Use a 2 percent spray solution for control of undesirable woody brush and trees. For "hard-to-control" weeds, use a 5 to 10 percent spray solution. Avoid contact of spray, drift, or mist with foliage, green bark or non-woody surface roots of plants.			
Wiper Application	This product may be used through wick or other suitable wiper applicators for control or partial control of grass and broadleaf weeds listed in the "WEEDS CONTROLLED" section of this label. For wick applicators, mix 3 quarts (96 fl. oz.) of this product with			
(Eucalyptus and Poplar Production)	2 gallons water to make a 33% solution. For wiper systems that can handle thicker solutions, such as force-fed systems, a 33 to 100% solution may be used. For best results, ensure that the herbicide solution is allowed to contact the maximum amount of leaf surface. As weed densities increase, decrease equipment speed to allow sufficient herbicide flow to wet all weed surfaces contacted. Weeds not contacted will be unaffected.			

10.5 – POME FRUIT			
LABELED CROPS: Apple, Cra	LABELED CROPS: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince		
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS	
See Section 10.0	See Use Directions under Section 10.0	See Section 10.0	
		Allow a minimum of 1 day between last application and harvest in pome fruits.	

10.6 – STONE FRUIT			
LABELED CROPS: Apricot, Cherry (Sweet, Tart), Nectarine, Olive, Peach, Pear, Plum/Prune (All types), Plumcot			
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS	
See Section 10.0	See Use Directions under Section 10.0	See Section 10.0	
	Avoid application near trees with recent pruning wounds or other mechanical injury.	Allow a minimum of 17 days between last application and harvest in stone fruit crops.	
		For olive groves, apply as directed sprays only.	

### **RESTRICTIONS ON APPLICATION EQUIPMENT:**

For cherries, any application equipment listed in Section 10.0 may be used in all states.

Any application equipment listed in Section 10.0 may be used in apricots, nectarines, peaches and plums/prunes growing in Arizona, California, Colorado, Idaho, Kansas, Kentucky, New Jersey, North Dakota, Oklahoma, Oregon, Texas, Utah and Washington, except for peaches grown in the states specified in the following paragraph. In AK, AL, AR, CT, DE, FL, GA, HI, IA, IL, IN, LA, MA, MD, ME, MI, MN, MO, MS, MT, NC, NE, NH, NM, NV, NY, OH, PA, RI, SC, SD, TN, VA, VT, and WI, use wiper equipment only.

For Peaches grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee only, apply with a shielded boom spray or shielded wiper applicator, which prevents any contact of this product with the foliage or bark of trees. Apply no later than 90 days after first bloom. Applications made after this time may result in severe damage. Remove suckers and low hanging limbs at least 10 days prior to application. Apply only near trees that have been planted in the orchard for 2 or more years.

EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PEACH TREE IS CONTACTED.

# 10.7 – TREE NUTS LABELED CROPS: Almond, Beechnut, Betelnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Coconut, Filbert (Hazelnut), Hickory nut, Macadamia, Pecan, Pine nut, Pistachio, Walnut (Black, English) TYPES OF APPLICATIONS USE DIRECTIONS RESTRICTIONS See Section 10.0 See Use Directions under Section 10.0 See Section 10.0 Allow a minimum of 3 days between last application and harvest of tree nuts, except coconut. Allow 14 days between application and harvest in coconuts.

# **10.8 – TROPICAL CROPS & SUBTROPICAL TREES AND FRUITS**

LABELED CROPS: Ambarella, Atemoya, Avocado, Banana, Barbados Cherry (acerola), Biriba, Blimbe, Breadfruit, Cacao (cocoa) bean, Canistel, Carambola (starfruit), Cherimoya, Coffee, Custard apple, Dates, Durian, Feijoa, Figs, Governor's plum, Guava, Ilama, Imbe, Imbu, Jaboticaba, Jackfruit, Longan, Lychee, Mamey apple, Mango, Mangosteen, Marmaladebox (genip), Mountain papaya, Papaya, Pawpaw, Plantain, Persimmon, Pomegranate, Pulasan, Rambutan, Rose apple, Sapodilla, Sapote (black, mamey, white), Spanish lime, Soursop, Star apple, Sugar apple, Surinam cherry, Tamarind, Tea, Ti (roots and leaves), Wax jambu

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Section 10.0	See Use Directions under Section 10.0	See Section 10.0
	This product may be applied for weed control or for site preparation prior to transplanting crops listed in this section.	Allow a minimum of 1 day between last application and harvest of banana, guava, papaya and plantain crops.
		Allow a minimum of 14 days between last application and harvest of any other tropical or subtropical tree fruit.
		Allow a minimum of 28 days between last application and harvest in coffee crops.
		In coffee and banana, delay applications 3 months after transplanting to allow the new coffee or banana plant to become established.
Bananacide	See Use Directions under Section 10.0	See Section 10.0
(Banana only)	This product may be used to destroy banana plants infected with the Banana Bunchy Top Virus as well as non-infected banana plants to establish a disease free buffers around plantations. Remove all fruit from	Do not apply more than 11.25 mL of this product's concen- trate per mat (or units).
	the plants within the treatment area prior to treatment. Inject 1 mL of this product's concentrate per 2 to 3 inches of pseudostem diameter. Make the injection at least one foot above ground, except for very small	Remove all fruit from plants and mats (or units) prior to treatment.
	plants, which should be injected vertically into the top. Any subsequent regrowth must also be destroyed. All plants and mats (or units) adjacent (within a 4-foot radius) to a treated mat shall be mechanically destroyed.	Do not harvest any fruit or plant materials from treated mats (or units) following injection.
	For control of the Banana Bunchy Top Virus, it is critical that the grower follow a strict control program involving monitoring for diseased plants, spraying to control the aphid vector, and destruction of all infected	Do not allow livestock to consume treated materials.
	mats (or units). An infected plant may not show symptoms of the disease for up to 125 days, therefore it is critical that the entire mat (or unit) containing the diseased plant be destroyed immediately.	Following transplant of new banana plants into treated areas, allow plants to become established for 3 months before applying this product for weed control.

10.9 – VINE CROPS				
LABELED CROPS: Grapes (ra	LABELED CROPS: Grapes (raisin, table, wine), Hops, Kiwi, Passion fruit			
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS		
See Section 10.0	See Use Directions under Section 10.0	See Section 10.0		
	In the northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury, or make applications with shielded sprayers or wiper equipment.	Allow a minimum of 14 days between last application and harvest.		
		Do not use selective equipment in kiwi		
		Applications must not be made when green shoots, canes or foliage are in the spray zone.		

# **11.0 – PASTURE GRASSES, FORAGE LEGUMES & RANGELANDS**

11.1 – ALFALFA, CLOVER & OTHER FORAGE LEGUMES				
LABELED CROPS: Alfalfa, Clover, Kenaf, Kudzu, Lespedeza, Leucaena, Lupin, Sainfoin, Trefoil, Velvet bean, Vetch (all types)				
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS		
Pre-Plant, Pre-Emergence, At-Planting	This product may be applied before, during or after planting crops listed. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush & Trees rate tables in this label.	If a single application is made at rates of 1.5 quarts (48 fl. oz.) per acre or less, no waiting period between treatment and feeding or grazing is required. If application rates greater than 1.5 quarts (48 fl. oz.) per acre are made, remove domestic livestock before application and wait 8 weeks after appli- cation before grazing or harvesting.		
Spot Treatment, Over-the-Top Wiper applications (Alfalfa and Clover only) Dormant	This product may be applied as a spot treatment in alfalfa or clover. This product may be applied with wiper applicators to control or suppress the weeds listed under "WIPER APPLICATORS" in the "SELECTIVE EQUIPMENT" section of this label.Applications may be made in the same area at 30-day intervals.This product will control or suppress many weeds including quackgrass, downy	For spot treatment and wiper applications, apply in areas where the move- ment of domestic livestock can be controlled. No more than one-tenth of any acre can be treated at one time. Remove domestic livestock before application and wait 14 days after appli- cation before grazing livestock or harvesting. Do not use ammonium sulfate when spraying dormant alfalfa with		
(Alfalfa Only)	brome and cheatgrass in dormant alfalfa. Apply 6–9 fl. oz. per acre of this prod- uct. Apply in the spring to alfalfa that is dormant. Applications should be made after spring temperatures have warmed enough to encourage resumption of weed growth, but prior to initiation of trifoliate leaf expansion of the alfalfa. Applications made after expansion of the first trifoliate leaf of the alfalfa will cause growth reduction and reduced crop yield. Slight discoloration of the alfalfa may occur, but the alfalfa will regreen and regrow under moist soil conditions as effects of this product wear off. PRECAUTION: Application of this product can cause crop injury.	ClearOut™ 5 Extra. Do not use this product where a slight yield reduction in the first cutting of alfalfa cannot be tolerated. Do not make more than one application per year. Allow 36 hours after application before grazing livestock or harvesting.		
Pre-harvest (Alfalfa Only)	This product may be used in declining alfalfa stands or any stand of alfalfa where crop destruction is acceptable. This application will severely injure or destroy the stand of alfalfa. This product will control annual and perennial weeds including quackgrass, when applied prior to the harvest of alfalfa. Use up to 1.5 pints (24 fl. oz.) of this product per acre. Applications may be made at any time of the year. For control of quackgrass, apply in the spring, late summer or fall when quackgrass is actively growing. Treatments for quackgrass must be followed by deep tillage for complete control.	Make only one application to an existing stand of alfalfa per year. Do not apply more than 1.5 quarts (48 fl. oz.) of this product per acre as a pre-harvest treatment. Do not use for alfalfa grown for seed. Wait 36 hours before treated crop and weeds can be harvested and fed to livestock.		
Renovation	<ul> <li>This product may be applied as a broadcast spray to existing stands of alfalfa, clover, and other labeled forage legumes. Labeled crops may be planted into the treated area.</li> <li>Make applications according to the rates listed in Annual Weeds, Perennial Weeds and Wood Brush &amp; Trees Rate Tables in this label.</li> </ul>	Remove domestic livestock before application. If application rates of 1.5 quarts (48 fl. oz.) per acre or less are used wait 36 hours after application before grazing or harvesting. If application rates greater than 1.5 quarts (48 fl. oz.) per acre are used, wait 8 weeks after application before grazing or harvesting.		

# 11.2 - CONSERVATION RESERVE PROGRAM (CRP)

LABELED CROPS: Conservation Reserve Program (CRP) Acres			
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS	
Renovation (rotating out of CRP),	This product may be used to prepare CRP land for crop production. Refer to Federal, state or local use guides for CRP renovation recommendations.	Do not apply more than 2.25 quarts (72 fl. oz.) per acre per year onto CRP grasses.	
Site Preparation	Make applications according to the rates listed in Annual Weeds, Perennial Weeds and Wood Brush & Trees Rate Tables in this label.	For any crop not listed in the "CROPS" sections of this label applications must be made at least 30	
	PRECAUTION: Some stunting of CRP perennial grasses will occur if broadcast applications are made when plants are not dormant.	days prior to planting.	
Post-emergence Weed control in Dormant Acres, Over-the- Top Wiper Application	This product may be used to suppress competitive growth and seed production of undesirable vegetation in CRP acres. Such applications may be made with wiper application equipment or as a broadcast or spot treatment to dormant CRP grasses. For selective applications with broadcast spray equipment, apply 9–12 fl. oz. of this product per acre in early spring before desirable CRP grasses, such as crested and tall wheatgrass, break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy.		

	11.3 – GRASS or TURFGRASS SEED PRODUCTION				
LABELED CROPS: Any grass (Gramineae family) except corn, sorghum, sugarcane and those listed under "CEREAL CROPS"					
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS			
Pre-plant, Pre-emergence, Renovation, Site preparation	This product may be applied before, during, or after planting or for renovation of turf or forage grass areas grown for seed production. Make applications according to the rates listed in Annual Weeds, Perennial Weeds and Wood Brush & Trees Rate	Do not disturb soil or underground plant parts before treatment. Tillage or renovation techniques such as vertical mowing, coring or slicing must be delayed for 7 days after application to allow			
	Applications must be made prior to the emergence of the crop to avoid injury. For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall applications provide best control.	proper translocation into underground plant parts. If application rates total 2.25 quarts (72 fl. oz.) per acre or less, no waiting period between treatment			
		and feeding or livestock grazing is required. If the rate is greater 2.25 quarts (72 fl. oz.). per acre, remove domestic livestock and wait 8 weeks following application before grazing or harvesting.			
Shielded Sprayer	Apply 24–72 fl. oz.of this product as a broadcast spray in 10 to 20 gallons of total spray volume per acre. Uniform planting in straight rows aid in shielded sprayer applications. Best results are obtained when the grass seed crop is small enough to easily pass by or through the protective shields.				
	PRECAUTION: Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage.				
	To the extent consistent with applicable law, grower assumes all responsibility for crop losses from misapplication.				
Over-the-Top Wiper Applications	This product may be applied with wiper applicators to control or suppress the weeds listed under "WIPER APPLICA- TORS" in the "SELECTIVE EQUIPMENT" section of this label.				
	Contact of the herbicide solution with desirable vegetation may result in damage or destruction. Applicators must be adjusted so that the wiper contact point is at least 2 inches above the desirable vegetation.				
	Weeds should be a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations, or when weed height varies so that not all weeds are contacted. In these instances, repeat treatments up to the maximum application rate may be necessary. Better results may be obtained if 2 applications are made in opposite directions.				

11.3 – GRASS or TURFGRASS SEED PRODUCTION (cont.)         LABELED CROPS: Any grass (Gramineae family) except corn, sorghum, sugarcane and those listed under "CEREAL CROPS"				
Spot treatments	Use a 1- to 1.5 percent solution.	The crop receiving the spray in the treated area will be killed. Do not		
	Apply this product prior to heading of grasses.	allow drift or spray outside of the target area for the same reason.		
Creating Rows in Annual Ryegrass	Use 12–24 fl. oz. of this product per acre. Use the higher rate when the ryegrass is greater than 6 inches tall. Best results are obtained when applications are made before the ryegrass reaches 6 inches in height.			
	PRECAUTION: Set nozzle height to allow the establishment of the desired row spacing while preventing spray droplets, spray fines, or drift to contact the ryegrass plants not treated. Use low-pressure nozzles, or drop nozzles designed to target the application over a narrow band.			
	To the extent consistent with applicable law, grower assumes all responsibility for crop losses from misapplication.			

<b>11.4 – PASTURES LABELED CROPS:</b> Any grass ( <i>Gramineae</i> family) except corn, sorghum, sugarcane and those listed under "CEREAL CROPS". Including Bahiagrass, Bermudagrass, Bluegrass, Brome, Fescue, Guineagrass, Kikuygrass, Orchardgrass, Pangola grass, Ryegrass, Timothy, Wheatgrass.				
Spot Treatment, Over-the-Top Wiper Applications	<ul> <li>This product may be applied as a spot treatment or with wiper applicators in pastures.</li> <li>Applications may be made in the same area at 30-day intervals.</li> <li>For spot treatments or wiper application methods using rates of 2.25 quarts (72 fl. oz.).</li> </ul>	When spot treatment or wiper applications are made using rates above 2.25 quarts (72 fl. oz.). per acre, no more the 10 percent of the total pasture may be treated at any one time.		
	per acre or less, the entire field or any portion of it may be treated.	Remove domestic livestock before application and wait 7 days after application before grazing livestock or harvesting.		
Pre-Plant, Pre-Emergence, Pasture Renovation,	This product may be applied prior to planting or emergence of forage grasses. In addition, this product may be used to control perennial pasture species listed on this label prior to re-planting.	If application rates total 2.25 quarts (72 fl. oz.) per acre or less, no waiting period between treatment and feeding or livestock grazing is required.		
Stand Removal	Make applications according to the rates listed in Annual Weeds, Perennial Weeds and Wood Brush & Trees Rate Tables in this label.	If the rate is greater 2.25 quarts (72 fl. oz.) per acre, remove domestic livestock and wait 8 weeks following application before grazing or harvesting.		
Chemical Mowing (Bermudagrass Pastures Prior to Spring Growth or	This product may be applied at 12 fl. oz. per acre to control the weeds listed below and most other winter annual grass and broadleaf weeds in established coastal bermudagrass pastures.	Labeled application rates totaling 2.25 quarts (72 fl. oz.) per acre or less do not require a waiting period between treatment and feeding or livestock grazing.		
Immediately After First Cutting)	Annual bluegrass, Cheat, Crabgrass, Henbit, Johnsongrass seedling, Little barley, Oats, Ryegrass, Sandbur field, Wheat, Wild mustard	If the rate is greater than 2.25 quarts (72 fl. oz.) per acre, remove domestic livestock and wait 8 weeks following application before		
	<u>Applications prior to spring growth:</u> Apply this product in the late winter or early spring but before new coastal bermudagrass growth begins in the spring. Applications to new growth can damage the bermudagrass.	grazing or harvesting. Only make one application per year to treated fields.		
	<u>Applications following the first cutting:</u> Apply this product after the first bermudagrass cutting when the bermudagrass has not yet begun to regrow. Applications made after regrowth has begun can damage the bermudagrass.	Do not make a spring application prior to growth and an application following the first cutting on the field during the same year.		

# STATE SPECIFIC DIRECTIONS FOR PASTURES

### Colorado, Idaho, Iowa, Kansas, Montana, Nebraska, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming Only

**Bromus Species:** This product may be used to treat downy brome (*Bromus tectorum*), Japanese brome (*Bromus japonicus*), soft chess (*Bromus mollis*) and cheatgrass (*Bromus secalinus*) found in industrial, rangeland and pasture sites. Apply 6 to 12 fluid ounces of product per acre on a broadcast basis. For best results, treatment should coincide with early seedhead emergence of the most mature plants. Delaying the application until this growth stage will maximize the emergence of other weedy grass flushes. Applications should be made to the same site each year until seed banks are depleted and the desirable perennial grasses are able to become reestablished on the site.

Medusahead: To treat medusahead, apply 12 fl. oz. of this product per acre as soon as plants are actively growing, and prior to the 4 leaf stage. Applications may be made in the fall or spring.

Application Equipment and Techniques: Applications may be made using ground or aerial equipment. Aerial applications for these uses may be made using fixed wing or helicopter equipment. For aerial applications, apply in 2 to 10 gallons of water per acre. For applications using ground equipment, apply in 10 to 20 gallons of water per acre.

When applied as directed there are no grazing restrictions.

11.5 – RANGELANDS         LABELED CROPS: Rangeland (Perennial cool- and warm-season grass rangelands)				
Post-emergence	This product will control or suppress many annual weeds growing in perennial cool and warm-season grass rangelands.	Do not use ammonium sulfate when spraying rangeland grasses with this product.		
	Preventing viable seed production is key to the successful control and invasion of annual grassy weeds in rangelands. Follow-up applications in sequential years should eliminate most of the viable seeds.			
	Grazing of treated areas should be delayed to encourage growth of desirable peren- nials. Allowing desirable perennials to flower and reseed in the treated area will encourage successful transition.			
	Apply 9–12 fl. oz. per acre to control or suppress many annual weeds growing in perennial cool and warm-season grass rangelands including downy brome, cheat grass, cereal rye and jointed goatgrass. Apply when most mature brome plants are in early flower and before the plants, including seedheads, turn color. Allowing for secondary weed flushes to occur in the spring following rain events further depletes the seed reserve and encourage perennial grass conversion on weedy sites. Fall applications are possible, and recommended, where spring moisture is usually limited and fall germination allows for good weed growth.			
	For medusahead, apply 12 fl. oz. per acre at the 3-leaf stage. Delaying applications beyond this stage will result in reduced or unacceptable control. Fire may be useful in eliminating the thatch layer produced by slow decaying culms prior to application. Allow new growth to occur before spraying after a burn.			
	Slight discoloration of the desirable grasses may occur, but they will regreen and regrow under moist soil conditions as effects of this product wear off.			

# **11.6 – TURFGRASS SOD PRODUCTION**

LABELED CROPS: Turfgrass for Sod		
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Pre-Plant, Pre-Emergence, Renovation, Site Preparation	This product controls most existing vegetation prior to renovating turf grass areas or estab- lishing turf grass grown for sod. Broadcast of hand-held equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested. For maximum control of existing vegetation, delay planting or sodding to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses such as bermudagrass, sum- mer or fall applications provide the best control. Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray.	If application rates total 2.25 quarts (72 fl. oz.) per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 2.25 quarts (72 fl. oz.) per acre, remove domestic livestock and wait 8 weeks following application before grazing or harvesting. Do not disturb soil or underground plant before treatment. Tillage or renovation techniques such as vertical mowing, coring, or slicing must be delayed for 7 days after application
	<ul><li>Make applications according to the rates listed in Annual Weeds, Perennial Weeds and Wood Brush &amp; Trees Rate Tables in this label.</li><li>Desirable turfgrasses may be planted following the above procedures.</li></ul>	
Spot Treatment	Hand-held equipment may be used for spot treatment of unwanted vegetation growing in existing turfgrass.	
Turfgrass Renovation for Sod Production	This product controls most existing vegetation prior to renovating turfgrass areas or estab- lishing turfgrass grown for seed or sod. For maximum control of existing vegetation, delay planting or sodding to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses such as bermudagrass, summer or fall applications provide the best control. Where existing vegetation is growing under mowed turfgrass man- agement, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray.	treatment.
	Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow translocation into underground plant parts.	
	Desirable turfgrass may be planted following the above procedures. Hand-held equipment may be used for spot treatment of unwanted vegetation growing in existing turfgrass. Broadcast or hand-held equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.	

# **11.7 – RELEASE OF BERMUDAGRASS OR BAHIAGRASS**

### **Dormant applications**

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This product may be used to control or partially control many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. Treat only when turf is dormant and prior to spring greenup. This product may also be tank-mixed with Oust<sup>®</sup> for residual control. Tank mixtures of this product with Oust<sup>®</sup> may delay greenup. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is at or beyond the 4 to 6-leaf stage.

Apply 6–48 fl. oz. of this product per acre alone or in a tank mixture with the labeled rate of Oust<sup>®</sup>. Apply the labeled rates in 10 to 40 gallons of water per acre. Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated.

#### Actively growing bermudagrass

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass. Apply 12–36 fl. oz. of this product in 10 to 40 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or runner length). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species:

Bahiagrass	Fescue, tall	Trumpetcreeper
Bluestem, silver	Johnsongrass	Vaseygrass

This product may be tank-mixed with Oust<sup>®</sup>. If tank-mixed, use no more than 12–24 fl. oz. of this product with the labeled rate of Oust<sup>®</sup> per acre. These rates will also provide partial control of the following perennial weeds:

Bahiagrass	Dock, curly	Poorjoe
Bluestem, silver	Dogfennel	Trumpetcreeper
Broomsedge	Fescue, tall	Vaseygrass
Dallisgrass	Johnsongrass	Vervain, blue

#### RESTRICTIONS

• Use only on well-established bermudagrass.

- Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions.
- Do not repeat applications of the tank mix in the same season since severe injury may occur.

#### Actively growing bahiagrass

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 4.5 fluid ounces of this product in 10 to 40 gallons of water per acre. Apply 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. This application must be made prior to seedhead emergence.

For suppression up to 120 days, apply 3 fluid ounces of this product per acre, followed by an application of 1.5–3 fl. oz. per acre about 45 days later. Make no more than 2 applications per year.

A tank mixture of this product plus Oust<sup>®</sup> may be used. Apply 4.5 fl. oz. of this product plus the labeled rate of Oust<sup>®</sup> per acre 1 to 2 weeks following an initial spring mowing. Make only one application per year.

### **12.0 – ROUNDUP READY® CROPS**

The following instructions or those separately published on Albaugh, LLC. Supplemental labeling include all applications which can be made onto the specified Roundup Ready crops during the complete cropping season. Do NOT combine these instructions with those listed for crop varieties that do not contain the Roundup Ready gene, in the "ANNUAL AND PERENNIAL CROPS (ALPHABETICAL)" section of this label.

THIS PRODUCT IS TO BE USED FOR POSTEMERGENCE APPLICATION ONLY ON CROP VARIETIES DESIGNATED AS CONTAINING A ROUNDUP READY GENE OR GLYPHOSATE TOLERANT GENE.

Applying this product to crop varieties that are not designated as glyphosate tolerant will result in severe crop injury and yield loss. Avoid contact with foliage, green stems, or fruit of crops, or any desirable plants that do not contain a Roundup Ready or glyphosate tolerant gene, since severe injury or destruction will result.

The Roundup Ready designation indicates that the crop variety contains a patented gene that provides tolerance to this product. Information on Roundup Ready crop varieties may be obtained from your seed supplier.

**NOTE:** Roundup Ready seed, and the method of selectivity controlling weeds using glyphosate on a Roundup Ready crop, are protected under several U.S. Patents. A license to use Roundup Ready seed must be obtained prior to use.

For Ground Applications with broadcast equipment, apply this product in 5 to 20 gallons of spray solution per acre. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment use flat spray nozzles. Check for even distribution of spray droplets.

For Aerial Applications apply this product in 3 to 15 gallons of water per acre. See the "APPLICATION EQUIPMENT AND TECHNOLOGIES" section of this label for procedures to avoid spray drift that may cause injury to any vegetation not intended for treatment. Use of appropriate buffer zones will help prevent injury to adjacent vegetation.

#### ATTENTION: AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHICH DO NOT CONTAIN A GLY-PHOSATE TOLERANT GENE.

See the "MIXING and APPLICATION EQUIPMENT AND TECHNIQUES" sections of this label for additional directions and restrictions on the application of this product.

To prevent crop injury, tank mixtures with other herbicides, insecticides, fungicides, micronutrients or fertilizers may result in reduced weed control or crop injury and are not recommended for over-the-top applications of this product unless otherwise specified in this product label, or supplemental labeling published separately by Albaugh.

Ammonium sulfate may be mixed with this product for applications to Roundup Ready crops. Refer to the "MIXING" section for USE DIRECTIONS for ammonium sulfate.

**Sprayer Preparation:** It is important that sprayer and mixing equipment be clean and free of pesticide residue before making applications of this product. Follow the cleaning procedures specified on the label of the product(s) previously used. THOROUGHLY CLEAN THE SPRAY TANK AND ALL LINES AND FILTERS TO ELIMINATE POTENTIAL CONTAMINATION FROM OTHER HERBICIDES PRIOR TO MIXING AND APPLYING THIS PRODUCT.

**NOTE:** The following use directions are based on a clean start at planting by using a burndown application or tillage to control existing weeds before crop emergence. In no-till and stale seedbed systems, use a preplant burn-down treatment of this product to control existing weeds prior to crop emergence. Some weeds, such as black nightshade, broadleaf signalgrass, sicklepod, Texas panicum, sandbur, annual morningglory, woolly cupgrass, shattercane, wild proso millet, burcucumber, and giant ragweed with multiple germination times or suppressed (stunted) weeds may require a second application of this product for complete control. The second application should be made after some regrowth has occurred and at least 10 days after a previous application of this product.

12.1 – ROUNDUP READY <sup>®</sup> CANOLA (Spring Varieties)		
LABELED CROPS: Roundup Ready spring canola is defined as those Roundup Ready canola varieties that are seeded in the spring and harvested in the fall and do not enter a winter dormancy period.		
	ng canola with a Roundup Ready gene planted in the following states: Alabama, Delaware Florida, Georgia, Kentucky, Maryland, N irginia, except for uses in wildlife food plots that will not be for human or livestock food.	ew Jersey, North Carolina, South Carolina,
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Pre-Plant, At-Planting, Pre-Emergence	This product may be applied before, during or after planting Roundup Ready spring canola.	Maximum quantity of this product that may be applied for all pre-plant, at-planting and pre-emergence appli- cations combined is 3 pints (48 fl. oz.) per season.
Post-Emergence (In-crop)	This product may be applied post-emergence to Roundup Ready spring canola from emergence through the 6-leaf stage of development. Applications made during bolting or flowering may result in crop injury and yield loss. To maximize yield potential, make applications early to eliminate competing weeds.	No more than two in-crop (over-the-top) broadcast applications may be made from crop emergence through the 6-leaf
	<u>Single Application</u> – 8.25–12 fl. oz. of this product per acre no later than the 6-leaf stage for the control of annual weeds. Avoid overlapping applications as this may result in temporary yellowing, delayed flowering, and or growth reduction. Similar crop injury may result when applications of more than 8.25 fl. oz. per acre are applied after the 4-leaf stage.	stage of development and the total of all in-crop applications must not exceed 16.5 fl. oz. of this product per acre.
	<u>Sequential Application</u> – Apply 8.25 fl. oz. of this product per acre to 1- to 3-leaf canola followed by a sequential application at a minimum interval of 10 days, but no later than the 6-leaf stage. Sequential applications can be made for early emerged annual weeds and perennial weeds such as Canada thistle and quackgrass, or when multiple applications are needed for adequate weed control.	Allow a minimum of 60 days between last application and canola harvest.
MAXIMUM ALLOWABLE APPLICATION RATES		
Total of all Pre-plant, At-Planting, Pre-emergence applications 3 pints (48 t		3 pints (48 fl. oz.) per acre
Total of all In-crop applications	1.5 pints (24 fl. oz.) per acre	

### 12.2 - ROUNDUP READY® CANOLA (Fall & Winter Varieties)

LABELED CROPS: Roundup Ready winter canola is defined as those Roundup Ready canola varieties that are seeded in early fall and harvested the following spring or summer. Winter canola varieties are intended to enter a cold period dormancy in the winter.

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Pre-plant,	This product may be applied before, during or after planting Roundup Ready winter canola.	Maximum quantity of this product that may be applied for
At-Planting,		all pre-plant, at-planting and pre-emergence applications
Pre-emergence		combines is 3 pints (48 fl. oz.) per acre per season.

(continued)

#### 12.2 – ROUNDUP READY<sup>®</sup> CANOLA (Fall & Winter Varieties) (cont.)

LABELED CROPS: Roundup Ready winter canola is defined as those Roundup Ready canola varieties that are seeded in early fall and harvested the following spring or summer. Winter canola varieties are intended to enter a cold period dormancy in the winter.

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Post-emergence (In-crop)	This product may be applied to Roundup Ready winter canola varieties from emergence to canopy closure in the fall and prior to bolting in the spring. Applications made during or after bolting may result in crop injury and yield loss. To maximize yield potential, make applications early to eliminate competing weeds. Some weeds with multiple germination times, or suppressed (stunted) weeds, or weeds that have over- wintered may require sequential applications of this product for control. The second application should be made after some re-growth has occurred and at least 60 days after a previous application of this product. <u>Single Application</u> – Apply 16.5–24 fl. oz. of this product per acre in the fall. Applications in the fall should be made when weeds are small and actively growing. Use the higher rate in the labeled range when weed densities are high, when weeds have overwintered or when weeds become large and well established. Applications of greater than 12 fl. oz. per acre prior to the 6-leaf stage may result in reduced crop growth in the fall. Avoid overlaps. Spray overlaps may result in temporary yellowing and/or growth reduction.	
	<u>Sequential Applications</u> – Apply 12–24 fl. oz.of this product per acre to 2-leaf or larger canola in the fall, followed by a sequential application at the same rate and at a minimum interval of 60 days, but before bolting in the spring. Sequential applications can be made for early emerging annual weeds and winter emerging weeds such as downy brome, jointed goatgrass and ryegrass, and for weeds that have overwintered. This product will control or suppress most of perennial weeds. For some perennial weeds, sequential applications may be required to reduce competition with the crop.	
MAXIMUM ALLOWABLE APPLICATION RATES		
Total of all Pre-plant, At-Plantin	otal of all Pre-plant, At-Planting, Pre-emergence applications 3 pints (48 fl. oz.) per acre	
Total of all In-crop applications from emergence to canopy closure or prior to bolting in the spring 3 pints (48 fl. oz.) per acre		3 pints (48 fl. oz.) per acre

12.3 – ROUNDUP READY® CORN		
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Pre-plant, Pre-emergence, At-Planting	This product may be applied alone or in a tank-mixture before, during or after planting corn. TANK MIXTURES: This product may be tank mixed with Bullet, Degree, Degree Xtra, Harness, Harness Xtra, Harness Xtra 5.6L, Lariat, Lasso or Micro-Tech at 50 to 100 percent of labeled rate. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. If less than the maximum rates of the above listed residual products was used in pre-plant and pre-emer- gence treatment then a post-emergence (in-crop) application of this product should be applied for maximum weed control. Avoid drift. Extreme care must be used when applying this product to prevent injury to desirable plants and crops which do not contain glyphosate tolerant gene. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush & Trees rate tables in this label.	Do not apply this product to crop varieties that are not designated as glyphosate tolerant. Do not allow contact with foliage, green stems, or fruit of crops, or any desirable plants that do not contain a Roundup Ready or glyphosate tolerant gene, since severe injury or destruction will result. Avoid drift. Extreme care must be used when applying this product to prevent injury to desirable plants and crops which do not contain a glyphosate tolerant gene. See the "Mixing and Application Equipment and Tech- niques" sections of this label for additional directions and restrictions on the application of this product.

	12.3 – ROUNDUP READY® CORN <i>(cont.)</i>	
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Post-emergence (in-crop)	When applied as directed, this product controls labeled annual grass and broadleaf weeds in Roundup Ready corn. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more application of this product. The post-emergent application of 18–36 fl. oz. per acre of this product should be made before the weeds reach a height and/or density that the weeds become competitive with the crop, generally 4 inch tall weeds or less.	Single in-crop applications of this product are not to exceed 2.25 pints (36 fl. oz.) per acre. The maximum combined total of multiple
	This product may be applied over-the-top to Roundup Ready corn from emergence through the V8 stage (8 leaves with collars) or until corn height reaches 48 inches, whichever comes first.	in-crop applications from emergence through the 48-inch stage is 4.5 pints (72 fl. oz.) per acre
	Use drop nozzles when corn height is 24 to 30 inches (free standing), for optimum spray coverage and weed control.	Allow a minimum of 10 days between in-crop
	For corn heights 30 to 48 inches (free standing), apply this product ONLY using ground application equipment with drop nozzles adjusted to avoid spraying into the whorls of the corn plants.	applications of this product. Allow a minimum of 50 days between applica-
	If product is applied to whorls of corn, plant injury and yield reduction can occur.	tion of this product and harvest of corn forage.
	Maximum single in-crop application rate of this product up to 48-inch corn is 2.25 pints (36 fl. oz.) per acre.	
	See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use in Roundup Ready crops.	
	TANK MIXTURES: This product may be applied in tank mixture with Bullet, Degree, Degree Xtra, Harness, Harness Xtra, Harness Xtra 5.6L, and Micro-Tech at 50 to 100 percent of labeled rate. This product may be applied in tank mixture with Permit and Atrazine at labeled rates. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.	
	Tank-mix Partner         Degree         Degree Xtra         Harness         Harness Xtra         Harness Xtra 5.6L         Bullet*         Micro-Tech*         Atrazine         *Bullet and Micro-Tech are not registered for use as a post-emergence application in Texas.	
Pre-Harvest	In Roundup Ready corn, up to 1.5 pints (24 fl. oz.) per acre of this product can be applied pre-harvest. Make applica- tions at 35 percent grain moisture or less. Ensure that maximum kernel fill is complete and the corn is physiologically mature (black layer formed).	Allow a minimum of 7 days between application and harvest.
Post-Harvest	This product may be applied after harvest of corn. A 2.25 pints (36 fl. oz.) per acre rate may be required for control of	
	large weeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.	and harvest or feeding of treated vegetation.
<u> </u>	MAXIMUM ALLOWABLE APPLICATION RATES	
Combined total per year for all applications		6 quarts (192 fl. oz.) per acre
Total of all Pre-plant, Pre-emergence, At-Planting applications Total in-crop applications from emergence through 48-inch corn		3.75 quarts (120 fl. oz.) per acre
Maximum single in-crop application rate up to 48-inch corn		4.5 pints (72 fl. oz.) per acre 2.25 pints (36 fl. oz.) per acre
• • • •	tion rate after maximum kernel fill is complete and the crop is physiologically mature (black layer formation) until 7 days	1.5 pints (24 fl. oz.) per acre

#### **12.4 – ROUNDUP READY® COTTON**

Use of this product in accordance with label directions is expected to result in normal growth of Roundup Ready cotton. However, various environmental conditions, agronomic practices and other factors make it impossible to eliminate all risks associated with this product, even when application are made in conformance with the label specifications. In some cases, these factors can result in boll loss, delayed maturity and/or yield loss.

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Pre-plant,	This product may be applied before, during or after planting cotton.	
Pre-emergence, At-planting	Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush & Trees rate tables in this label.	
	See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use in Roundup Ready crops.	
Post-emergence (Over-the-Top)	application post-emergence to Roundup Ready cotton from the ground cracking stage until the 4-leaf (node) stage of development (until the fifth true leaf reaches the size of a quarter). Over-the-top applications made after the 4-leaf (node) stage of development may result in boll loss, delayed maturity and/or yield loss.	The combined total application of this product from cotton emergence until harvest must not exceed 4.5 quarts (144 fl. oz.) per acre. No more than two over-the-top broadcast applica- tions may be made from crop emergence through
	weeds threaten to cause the loss of the crop. 1.5 pints (24 fl. oz.) per acre may be applied either as an over-the-top applications or as a post-directed treatments sprayed higher on the cotton plants and over the weeds.	the 4-leaf (node) stage of development.
	Salvage treatments will result in significant boll loss, delayed maturity and/or yield loss. See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use in Roundup Ready	No more than two applications may be made from the 5-leaf stage through layby sequential in-crop over-the-top or post-directed applications of this product must be at least 10 days apart and cotton
	crops.	must have at least two nodes of incremental growth between applications. Allow a minimum of 7 days between application and harvest.
		Do not apply more than one salvage treatment per growing season.
Selective Equipment	This product may be applied using precision post-directed or hooded sprayers at rates up to 1.5 pints (24 fl. oz.) per acre per application to Roundup Ready cotton through layby. At this stage, post-directed equipment must be used which directs the spray to the base of the cotton plants. Contact of the spray with cotton leaves should be avoided to the maximum extent possible. To minimize spray onto the leaves of the cotton plants, place nozzles in a low position directing a horizontal spray pattern under the cotton leaves to contact weeds in the row, and maintain low spray pressure (less than 30 psi). For best results, make applications while weeds are small (less than 3 inches).	tion of this label for information on proper use and
Pre-harvest	This product may be applied for pre-harvest annual and perennial weed control as a broadcast treatment to Roundup Ready cotton after 20 percent boil crack. Up to 3 pints (48 fl. oz.) of this product may be applied using either aerial or ground spray equipment.	Allow a minimum of 7 days between application and harvest of cotton.
	Do not apply this product to cotton grown for seed, as a reduction in germination or vigor may occur.	
	TANK MIXTURES: This product may be tank mixed with DEF <sup>TM</sup> 6, Folex <sup>TM</sup> , Ginstar, or Prep <sup>TM</sup> (or generic equivalents). It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.	
	Refer to manufacturers labels for use of additives (such as surfactants, stickers and spreaders) for preharvest application to cotton.	
	This product will not enhance the performance of these harvest aids when applied to Roundup Ready cotton.	

#### 12.4 - ROUNDUP READY® COTTON (cont.)

Use of this product in accordance with label directions is expected to result in normal growth of Roundup Ready cotton. However, various environmental conditions, agronomic practices and other factors make it impossible to eliminate all risks associated with this product, even when application are made in conformance with the label specifications. In some cases, these factors can result in boll loss, delayed maturity and/or yield loss.

#### MAXIMUM ALLOWABLE APPLICATION RATES

Combined total per year for all applications	6 quarts (192 fl. oz.) per acre
Total of all Pre-plant, Pre-emergence, At-Planting applications	3.75 quarts (120 fl. oz.) per acre
Total in-crop applications from ground cracking to layby	3 quarts (96 fl. oz.) per acre
Maximum pre-harvest application rate	1.5 quarts (48 fl. oz.) per acre

#### **12.5 – ROUNDUP READY® FLEX COTTON** ATTENTION: USE OF THIS PRODUCT IN ACCORDANCE WITH LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY COTTON; HOWEVER, VARIOUS ENVIRONMENTAL CONDITIONS, AGRONOMIC PRACTICES AND OTHER FACTORS MAKE IT IMPOSSIBLE TO ELIMINATE ALL RISKS ASSOCIATED WITH THIS PRODUCT, EVEN WHEN APPLICATIONS ARE MADE IN CONFORMANCE WITH THE LABEL SPECIFICATIONS. IN SOME CASES, THESE FACTORS CAN RESULT IN BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS. TYPES OF APPLICATIONS **USE DIRECTIONS** RESTRICTIONS This product may be applied before, during or after planting Roundup Ready Flex cotton. Always plant into a weed Pre-plant, free seedbed. In no-till and stale seedbed systems, always burn down existing weeds before cotton emerges. Pre-emergence, At-planting Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush & Trees rate tables in this label. See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use in Roundup Ready crops. When applied in accordance with this label, GLY STAR® PLUS herbicide will control labeled annual grasses and Post-emergence The maximum rate for any single in-crop applica-(Over-the-Top) broadleaf weeds in Roundup Ready Flex cotton. To maximize yield potential spray cotton early to eliminate compettion of this product is 2.25 pints (36 fl. oz.) per acre ing weeds. Many perennial weeds will be controlled or suppressed with one or more applications of this product. made using ground application equipment. In-crop application rates above 1.5 pints (24 fl. oz.) per acre made alone or with the addition of other crop chemical Except for pre-harvest use, do not exceed a maxproducts containing surfactant may cause a crop response including leaf speckling or leaf necrosis. imum rate of 1.5 pints (24 fl. oz.) per acre of this product when making applications by air. Make an initial application of 1.5 pints (24 fl. oz.) per acre on 1 to 3 inch tall annual grass and broadleaf weeds. This product may be applied by ground application equipment at rates up to 2.25 pints (36 fl. oz.) per acre per application Between layby and 60 percent open bolls, the maxpost-emergence to Roundup Ready Flex cotton. In addition to broadcast applications, post-directed equipment may imum combined total rate of this product that may be used to achieve weed coverage. be applied is 3 pints (48 fl. oz.) per acre. Application after 10th leaf or 10th node may result in plant injury and yield loss. The maximum combined total of all applications made from crop emergence through 60 percent NOTE: For specific rates of application and instructions, refer to the "ANNUAL WEEDS" and "PERENNIAL WEEDS open bolls must not exceed 144 oz (4.5 guarts) RATE SECTION" in the label booklet for GLY STAR PLUS herbicide. per acre. Pre-harvest This product may be applied for pre-harvest annual and perennial weed control as a broadcast treatment to Allow a minimum of 7 days between application Roundup Ready Flex cotton after 60 percent boll crack. Up to 3 pints (48 fl. oz.) of this product may be applied using and harvest of cotton. either aerial or ground spray equipment. Do not apply this product to cotton grown for seed, **NOTE:** This product will not enhance the performance of harvest aids when applied to Roundup Ready Flex cotton. as a reduction in germination or vigor may occur. The use of additives, other than those listed on this label, for preharvest application to cotton is prohibited.

#### 12.5 - ROUNDUP READY® FLEX COTTON (cont.)

**ATTENTION:** USE OF THIS PRODUCT IN ACCORDANCE WITH LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY COTTON; HOWEVER, VARIOUS ENVIRONMENTAL CONDITIONS, AGRONOMIC PRACTICES AND OTHER FACTORS MAKE IT IMPOSSIBLE TO ELIMINATE ALL RISKS ASSOCIATED WITH THIS PRODUCT, EVEN WHEN APPLICATIONS ARE MADE IN CONFORMANCE WITH THE LABEL SPECIFICATIONS. IN SOME CASES, THESE FACTORS CAN RESULT IN BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS.

MAXIMUM ALLOWABLE APPLICATION RATES	
Combined total per year for all applications	6 quarts (192 fl. oz.) per acre
(Calculate the combined rate to be used for all pre-plant, in-crop and pre-harvest applications)	
Total of all Pre-plant, At-planting, Pre-emergence applications	3.75 quarts (120 fl. oz.) per acre
Total in-crop applications from ground cracking to 60 percent open bolls	4.5 quarts (144 fl. oz.) per acre
Maximum allowed from 60 percent bolls open to 7 days prior to harvest	1.5 quarts (48 fl. oz.) per acre

#### **12.6 – ROUNDUP READY® SOYBEANS**

The use of this product for in-crop applications over Roundup Ready Soybeans may not be practiced in California unless the applicator has at the time of application a California approved supplemental label specifying the accepted directions for use.

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Pre-plant, Pre-emergence,	This product may be applied before, during or after planting soybeans. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush & Trees rate tables in this label.	
At-planting	See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use in Roundup Ready crops.	
Post-emergence (In-Crop)	When applied as directed, this product will control labeled annual grasses and broadleaf weeds in Roundup Ready soybeans. Applications of this product can be made in Roundup Ready soybeans from emergence (cracking) throughout flowering. Refer to the "ANNUAL WEEDS RATE TABLE" in this label for specific rates on various annual weeds.	gence through harvest must not exceed 4.5 pints
	Make an initial application of 1.5 pints (24 fl. oz.) per acre on 2- to 8-inch tall weeds for best results. Weeds will generally be 2 to 8 inches tall, 2 to 5 weeks after planting. If the initial application is delayed and weeds are larger, apply a higher rate of this product. This product may be used up to 3 pints (48 fl. oz.) per acre in any single in-crop application for control of annual weeds and where heavy weed densities exist.	acre per acre. The maximum combined total of this product that can be applied during flowering is 3 pints (48 fl. oz.) per acre.
	A 1.5–3 pints (24–48 fl. oz.) per acre per acre rate (single or multiple applications) of this product will control or suppress perennial weeds such as: bermudagrass, Canada thistle, common milkweed, field bindweed, hemp dogbane, horsenettle, marestail (horseweed), nutsedge, quackgrass, rhizome johnsongrass, redvine, trumpetcreeper, swamp smartweed and wirestem muhly. For best results, allow perennial weed species to achieve at least 6 inches of growth before spraying with this product.	
	Under adverse growing conditions such as drought, hail, wind damage or a poor soybean stand that slows or delays canopy closure, a sequential application of this may be necessary to control late flushes of weeds. In the Southern States, a sequential application of this product will be required to control new flushes of weeds in the Roundup Ready Soybean crop. To control giant ragweed, apply up to 1.5 pints (24 fl. oz.) per acre of this product when the weed is 8 to 12 inches tall to increase control and possibly avoid the need for a sequential application.	

#### **12.7 – ROUNDUP READY® SUGAR BEETS**

The Roundup Ready designation indicates that the sugar beet contains a patented gene, which provides tolerance to this product. Information on Roundup Ready sugarbeet may be obtained from your seed supplier or Albaugh representative. Roundup Ready crop varieties must be purchased from an authorized licensed seed supplier.

Do NOT combine these instructions with those listed for crop varieties that do not contain a Roundup Ready gene listed in the "ANNUAL AND PERENNIAL CROPS (Alphabetical)" sections of the ClearOut™ 5 Extra herbicide label booklet.

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Pre-plant, At-Planting, Pre-emergence	This product may be applied before, during or after planting of Roundup Ready sugar beets. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush & Trees rate tables in this label.	Maximum quantity of this product that may be applied for all pre-plant, at-planting and pre-emergence applications combined is 3.75 quarts (120 fl. oz.) per acre per season.
Post-emergence (In-crop)	This product may be applied over the top of Roundup Ready sugar beets for control of annual grasses and broadleaf weeds from emergence to 30 days prior to harvest. To maximize yield potential, spray sugar beets early to eliminate competing weeds. Up to 4 sequential applications of this product may be made with at least 10 days between applications. This product will control or suppress most perennial weeds. For some perennial weeds, repeat applications may be required to eliminate crop competition throughout the growing season.	The combined total application from crop emergence through harvest must not exceed 6.75 pints (108 fl. oz.) per acre. The maximum rate for any single application between emergence to the 8 leaf stage is 2.25 pints (36 fl. oz.) per acre. The maximum rate for any single application between the 8 leaf stage and canopy closure is 1.5 pints (24 fl. oz.) per acre. Allow a minimum of 30 days between last application and sugar beet harvest.
MAXIMUM ALLOWABLE APPLICATION RATES		
Combined total per year for all	application	6 quarts (192 fl. oz.) per acre
Total of all Pre-plant, Pre-emergence applications		7.5 pints (120 fl. oz.) per acre
Emergence to 8 leaf stage		3.75 pints (60 fl. oz.) per acre
Between 8 leaf stage and canopy closure		3 pints (48 fl. oz.) per acre

#### **12.8 – ROUNDUP READY® ALFALFA**

#### FOR POSTEMERGENCE APPLICATION ONLY ON ALFALFA VARIETIES DESIGNATED AS CONTAINING A ROUNDUP READY GENE.

The Roundup Ready designation indicates that the alfalfa contains a patented gene, which provides tolerance to this product. Information on Roundup Ready alfalfa varieties may be obtained from your seed supplier or Albaugh representative. Roundup Ready crop varieties must be purchased from an authorized licensed seed supplier.

<b>TYPES OF APPLICATIONS</b>	USE D	IRECTIONS	RESTRICTIONS
Pre-plant, At-planting, Pre-emergence and Post-emergence	select proper nozzle and spray pressure to avoid spraying	his product in 3 to 40 gallons of spray solution per acre. Carefully a fine mist. For best results with ground application equipment,	Do not exceed 3 pints (48 fl. oz.) of this product per acre when making applica- tions by air.
	contain the Roundup Ready gene and will not survive after effects of stand gaps created by the loss of plants not conta pints (24 fl. oz.) per acre of this product should be applied a In both newly seeded and established stands, in order to ma of this product should be made after weeds have emerged l spray coverage of the target weeds. In addition to those weeds listed in the ClearOut <sup>™</sup> 5 Extra parasitic weed, Dodder <i>(Cuscuta</i> spp.) in Roundup Ready alf	<ul> <li>in 3 to 15 gallons of spray solution per acre.</li> <li>3 pints (48 fl. oz.) per acre</li> <li>ling constraints of alfalfa, up to 10% of the seedlings may not the first application of this product. To eliminate the undesirable aining a Roundup Ready gene, a single application of at least 1.5 at or before the 3 to 4 trifoliate growth stage.</li> <li>aximize yield and quality potential of forage and hay, applications but before alfalfa growth or re-growth interferes with application the falfa. Repeat applications may be necessary for complete control.</li> </ul>	Any single over-the-top application of this product must not exceed 3 pints (48 fl. oz.) per acre. Sequential applications of this production must be at least 7 days apart. The combined total per year for all in-crop applications in newly established and established stands must not exceed 4.5 quarts (144 fl. oz.) per acre. Remove domestic livestock before appli- cation and wait a minimum of 5 days after last application before grazing, or cutting and feeding of Roundup Ready alfalfa for- age and hay.
Over-the-top applications	single over-the-top applications of this product must not ex	ompanion or cover crop, or is over seeded with a second species,	Sequential applications of this production must be at least 7 days apart. Tank mixtures with other herbicides, insec- ticides, or fungicides may result in crop injury or reduced weed control and must not be used for over-the-top applications of this product.
	MAXIMUM AL	LLOWABLE APPLICATION RATES	, ·
Combined total per year for al	I applications, including pre-plant during year of establishme	ent	5.8 quarts (186 fl. oz.) per acre
Combined total per year for in	-crop applications for newly established and established sta	nds	4.5 quarts (144 fl. oz.) per acre
Pre-plant, At-planting and Pre	-emergence single applications		3 pints (48 fl. oz.) per acre

### **13.0 – NON-CROP USES AROUND THE FARMSTEAD**

		13.1 –	WEED CONTROL & TRIM-AND-EDGE	
LABELED SITES: Non-crop A	Areas including building	foundations, along and in	fences, in dry ditches and canals, along ditchbanks, farm roads, shelterbelts, and ec	uipment storage areas.
TYPES OF APPLICATIONS		RESTRICTIONS		
TYPES OF APPLICATIONS Any suitable application equipment described in Section 8.0 of this label	Make applications ac TANK MIXTURES: This for approved farmste for the intended use. in tank mixing. Users mixture. For annual weeds, us	cording to the rates listed in a product may be tank mixe ad sites and application rat Read and follow the applica must follow the most rest are 1.5 pints (24 fl. oz.) per	<b>USE DIRECTIONS</b> Is, perennials weeds and woody brush which are found in any part of the farmstead. In Annual Weeds, Perennial Weeds, and Woody Brush & Trees rate tables in this label. Id with the following products (or generic equivalents). Refer to these product labels es. It is the pesticide user's responsibility to ensure that all products are registered able restrictions and limitations and directions for use on all product labels involved rictive directions for use and precautionary statements of each product in the tank acre of this product when weeds are less than 6 inches tall and 2.25 pints (36 fl. inches tall. For perennial weeds, apply 1.5–3.75 quarts (48–120 fl. oz.) per acre in	Do not apply this product with dicamba tank mixtures by air in California.
	"HAND-HELD AND HI Arsenal Barricade 65WG Diuron Endurance Escort Karmex DF Krovar DF	GH VOLUME EQUIPMENT" so Oust Pendulum 3.3 EC Pendulum WDG Plateau Princep DF Princep Liquid Ronstar 50 WP	ackpack sprayers, handguns or other high-volume spray-to-wet applications, see the ection of this label for allowable application rates. Sahara Simazine Surflan Telar Vanquish 2,4-D ennial weeds, apply 1.5–3 pints (24–48 fl. oz.) of this product plus the labeled rate Poorjoe Quackgrass Vaseygrass Vervain, blue	

13.2 – CHEMICAL MOWING					
LABELED USES: Farm Ditches and Other	er Parts of Farmsteads				
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS			
Any suitable application equipment described in Section 8.0 of this label	This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 6 fl. oz. of this product per acre when treating tall fescue, fine fescue, orchardgrass or quackgrass covers. Use 4.5 fl. oz. of this product per acre when treating Kentucky bluegrass. Use 12 fl. oz. of this product when treating bermudagrass. Use 3 pints (48 fl. oz.) of this product when treating torpedograss or paragrass. Apply treatments in 10 to 20 gallons of spray solution per acre.	injury or discoloration of perennial grasses can be tolerated.			

	13.3 – CUT STUMPS						
LABELED USES: Cut Stumps (on any	non-crop site liste	d on this label)					
TYPES OF APPLICATIONS			USE DIREC	TIONS	RESTRICTIONS		
Suitable Hand-Held Equipment	some of which cambium. Cut freshly-cut sur	ill control regrowth of cu are listed below. Apply trees or resprouts close t face immediately after c ttions should be made du	ire he				
	spacing may s	stems, or trees may sha ignal shared roots. Whet lore trees sharing comm					
	Alder Eucalyptus Madrone	Oak Pepper, Brazilian Pine, Austrian	Reed, giant Salt cedar Sweetgum	Tan oak Willow			

	13.4 – HABITAT MANAGEMENT						
LABELED USES: Habitat Restoration &	Maintenance, Wildlife Food Plots						
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS					
Any suitable application equipment described in Section 8.0 of this label	This product may be used to control exotic and other undesirable vegetation in rangeland and wildlife refuges. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broad spectrum vegetation control requirements in habitat management areas. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush & Trees rate tables in this label.	If tillage is needed to prepare a seedbed, wait 7 days after application before till- age to allow translocation into underground plant parts.					
	Spot treatments can be made to selectively remove unwanted plants for habitat maintenance and enhancement.						
	This product may be used as a site preparation treatment to control annual and perennial weeds prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area.						

## **14.0 – FORESTRY & INDUSTRIAL**

#### **14.1 – FORESTRY SITE PREPARATION**

TYPES OF APPLICATIONS	USE DIREC	CTIONS	RESTRICTIONS		
Boom Sprayers, Shielded Boom Sprayers, High-Volume Off-Center	This product can be used for the control or partial weeds in forestry, as well as for use in preparing sites and maintaining logging roads.	Do not apply this product as an over-the-top broadcast spray for forestry conifer or hardwood release.			
Nozzles, Hand-Held Equipment, And Similar Equipment	Make applications according to the rates listed in Brush & Trees rate tables in this label.	n Annual Weeds, Perennial Weeds, and Woody			
	This product can be used in site preparation prior	r to planting.			
	Use higher rates of this product within the labeled range for control or partial control of woody brush, trees and hard-to-control perennial herbaceous weeds. For best results, apply to actively growing woody brush and trees after full leaf expansion and before fall color and leaf drop. Increase rates within the labeled range for control of perennial herbaceous weeds any time after emergence and before seedheads, flowers or berries appear.				
	Use the lower rates of this product within the lal weeds and actively growing perennial herbaceou appear. Apply to the foliage of actively growing emergence.				
	TANK MIXTURES: Tank mixtures of this product m tation controlled. It is the pesticide user's responsi for the intended use. Read and follow the applica for use on all product labels involved in tank m directions for use and precautionary statements of	ibility to ensure that all products are registered able restrictions and limitations and directions nixing. Users must follow the most restrictive			
	Any labeled rate of this product may be used ir generic equivalents) for forestry site preparation.	- · · ·			
		Imark XP or Oust XP			
	For control of herbaceous weeds, use the lower la stands or tough-to-control woody brush and trees				

#### **14.2 – NON-CROP AREAS & INDUSTRIAL SITES**

LABELED USES: Non-crop areas including airports, commercial sites, Conservation Reserve Program (CRP) areas, ditch banks, dry ditches, dry canals, fencerows, industrial sites, lumber yards, manufacturing sites, municipal sites, office complexes, parking areas, pastures, petroleum tank farms and pumping installations, railroads, rangeland, rights-of-way, roadsides, storage areas, substations, utility sites, warehouse areas, and wildlife management areas.

TYPES OF APPLICATIONS		USE DIRECTION	DNS	RESTRICTIONS
This product may be applied with any suitable application equipment	Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush & Trees rate tables in this label.			Do not apply this product with dicamba tank mixtures by air in California.
described in Section 8.0 of this label.	Repeated applications of th	nis product may be used, a	s weeds emerge, to maintain bare ground.	
	TANK MIXTURES: This product may be tank mixed with the following products (or generic equivalents) provided that the specific product is registered for use on the target site. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.			
	Arsenal <sup>™</sup> atrazine Barricade <sup>™</sup> 65WG Certainty Crossbow L dicamba* diuron Endurance <sup>™</sup> Escort <sup>™</sup> Escort XP Gallery 75DF	Garlon™ 3A Garlon 4 Goal 2XL Krovar™ I DF Landmark II Landmark II MP Oust Oust XP Outrider pendimethalin Plateau™	Poast Ronstar™ 50 WP simazine Surflan™ AS Surflan WDG Telar™ DF Transline Velpar DF Velpar L 2,4-D	
		• •	s product provides control of the emerged d perennial weeds, woody brush and trees.	
	For control or partial control of this product plus the lab		al weeds, apply 1.5–3 pints (24–48 fl. oz.) KP per acre.	
	Bahiagrass Bermudagrass Broomsedge Dallisgrass	Dock, curly Dogfennel Fescue, tall Johnsongrass	Poorjoe Quackgrass Vaseygrass Vervain, blue	

	14.3 – INJECTION & FRILL (Woody Brush & Trees)						
LABELED SITES: Woody brush & Trees	in non-crop areas						
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS					
Injection or Frill Applications	Apply this product using suitable equipment which must penetrate into the living tissue. Apply the equivalent of 0.75 mL of this product per each 2 to 3 inches of trunk diameter at breast height (DBH). This is best achieved by applying a 50 to 100 percent concentration of this product either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. For best results, application should be made during periods of active growth and after full leaf expansion. This product will control many species, some of which are listed below:	occur from frilled or cut areas in species that exude sap freely. In species such as this, make the frill or cuts at an oblique angle to produce a cupping effect and use a 100 percent concentration of this product.					
	ControlPartial ControlOakBlack gumPoplarDogwoodSweetgumHickorySycamoreMaple, red						

	14.4 – HOLLOW STEM INJECTION	
LABELED SITES: Hollow-stem plants	growing in any non-crop site specified on this label	1
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Hand-Held Injection Devices That Deliver Labeled Amounts	For control of the following hollow-stem plants, use the application rates below: Japanese Knotweed ( <i>Polygonum cuspidatum</i> )	The combined total for all treatments must not exceed 5.25 quarts (168 fl. oz.) of this product per acre.
of This Product	Inject 3.75 mL per stem of this product between second and third internode. Bohemian Knotweed <i>(Polygonum bohemicum)</i> Inject 3.75 mL per stem of this product between the second and third internode.	At 3.75 mL per stem, 5.25 quarts (168 fl. oz.) should trea approximately 1300 stems per acre.
	Giant Hogweed <i>(Hercleum mantegazzianum)</i> Inject one leaf cane per plant 12 inches above the root crown with 3.75 mL of a 5% v/v solution of this product.	
	Poison Hemlock (Conium maculatum) Inject one leaf cane per plant 10 to 12 inches above the root crown with 3.75 mL of a 5% v/v solution of this product.	
	Field horsetail <i>(Equisetum arvense)</i> Inject one segment above the root crown with 3.75 mL per stem of this product. Use a small syringe that calibrates to this rate.	
	Canada Thistle <i>(Cirsium arvense)</i> Cut 8 to 9 of the tallest plants at bud stage in a clump with clippers. Use a cavity needle that is pushed into the stem center and then slowly removed as 3.75 mL per stem of this product is injected into the stem.	

	14.5 – RAILROADS						
LABELED SITES: Railroad Rights-of-V	ABELED SITES: Railroad Rights-of-Way, Railroad Ballast Areas						
TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS					
Boom Sprayers,	Observe application precautions in Section 8.0.						
Shielded Boom Sprayers, High-Volume Off-Center Nozzles, Hand-Held Equipment	All of the instructions in the "NONCROP AREAS AND INDUSTRIAL SITES" section apply railroads.	to					
Nozzies, nanu-neiù Equipment	Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woo Brush & Trees rate tables in this label.	dy					
	This product may be used to maintain bare ground on railroad ballast and shoulders. Repe applications of this product may be used, as weeds emerge, to maintain bare ground. The product may be used to control tall-growing weeds to improve line-of-sight at railroad crossin and reduce the need for mowing along rights-of-way. For crossing applications, up to 80 gallo of spray solution per acre may be used.	nis gs					
	Avoid application to non-target plants due to drift, overspray or runoff.						
	TANK MIXTURES: This product may be tank mixed with the following products (or gene equivalent) for ballast, shoulder, spot, bare ground and crossing treatments provided that t specific product is registered for use on such sites. It is the pesticide user's responsibility ensure that all products are registered for the intended use. Read and follow the applicat restrictions and limitations and directions for use on all product labels involved in tank mixir Users must follow the most restrictive directions for use and precautionary statements of ea product in the tank mixture.	he to ole ng.					
	ARSENAL®GARLON® 4SPIKE®DicambaHYVAR® XTELAR®DIURONKROVAR® I DFVELPAR®ESCORT®OUST®2,4-DGARLON® 3ASAHARA®						
	Brush controlThis product may be used to control woody brush and trees on railroad rights-of-way. App 3–7.5 quarts (96–240 fl. oz.) of this product per acre as a broadcast spray, using boom-ty or boomless nozzles. Up to 80 gallons of spray solution per acre may be used. Apply a 3/4 to percent solution of this product when using high-volume spray-to-wet applications. Apply a 5 10 percent solution of this product when using low volume directed sprays for spot treatme This product may be mixed with the following products (or generic equivalent) for enhance control of woody brush and trees: ARSENAL® KRENITE TRANSLINE	pe 2 to nt.					
	ESCORT®TELAR DFVANQUISHGARLON® 3ATORDON 22KVELPARGARLON 4TORDON® K						

			14.6 – ROADSIDES		
LABELED SITES: Roadside Rights	of-Way areas (includ	ling Shoulders, Guardrails a	nd Signposts)		
<b>TYPES OF APPLICATIONS</b>			USE DIRECTIONS	RESTRICTIONS	
Boom Sprayers, Shielded Boom Sprayers,		precautions in Section 8.0. the "NONCROP AREAS AN	D INDUSTRIAL SITES" section apply to roadsides.		
High-Volume Off-Center Nozzles, Hand-Held Equipment,	Make applications a	ccording to the rates listed	in Annual Weeds, Perennial Weeds, and Woody Brush & Trees rate tables in this label.		
and Similar Equipment	This product may be used on road shoulders, under guardrails and around signposts and other objects along roadsides that may be obstacles to mowing.				
	Avoid application to non-target plants due to drift, overspray or runoff.				
	TANK MIXTURES: Th bare ground treatme		xed with the following products (or generic equivalent) for shoulder, guardrail, spot and		
	BANVEL® DIURON ENDURANCE® ESCORT® KROVAR® I DF OUST®	PENDULUM® 3.3 EC PENDULUM® WDG PRINCEP® DF PRINCEP® LIQUID RONSTAR® 50 WP SAHARA®	SIMAZINE SURFLAN® TELAR® VANQUISH® 2,4-D		
	restrictions and limit	tations and directions for u	re that all products are registered for the intended use. Read and follow the applicable use on all product labels involved in tank mixing. Users must follow the most restrictive s of each product in the tank mixture.		
	See the "NONCROP	Areas and industrial si	TES" section of this label for instructions for tank mixing.		
Spot treatment	This product may be	used as a spot treatment t	to control unwanted vegetation growing along roadsides.		

#### 14.7 – UTILITY SITES

LABELED USES: Electrical Power, Pipeline And Telephone Rights-Of-Way, And In Other Sites Associated With These Rights-Of-Way, Including Substations, Roadsides, Railroads Or Similar Rights-Of-Way That Run In Conjunction With Utilities.

TYPES OF APPLICATIONS			USE DIRECTIONS	RESTRICTIONS
Boom Sprayers,	Observe application preca	utions in Section 8.0.		
Shielded Boom Sprayers,	Make applications according	ng to the rates listed in Anni	ual Weeds, Perennial Weeds, and Woody Brush & Trees rate tables in this label.	
High-Volume Off-Center Nozzles, Hand-Held Equipment,	Avoid application to non-ta	rget plants due to drift, over	rspray or runoff.	
and Similar Equipment	A follow up application of	this product may be used, u	p to the maximum labeled rate, as weeds emerge, to maintain bare ground.	
	This product can also be u trimming along utility right		blishing wildlife openings within these sites, maintaining access roads and for side	
	For control of herbaceous and trees, use the higher I			
	trees. This product may be non-crop sites and applica Read and follow the applic	e tank mixed with the follow tion rates. It is the pesticide able restrictions and limitation	used to increase the spectrum of control for herbaceous weeds, woody brush and ving products or generic equivalent). Refer to these products' labels for approved user's responsibility to ensure that all products are registered for the intended use. ons and directions for use on all product labels involved in tank mixing. Users must autionary statements of each product in the tank mixture.	
	ARSENAL atrazine BARRICADE 65WG dicamba diuron ENDURANCE ESCORT ESCORT ESCORT XP GARLON 3A GARLON 4	KRENITE KROVAR 1 DF OUST OUST XP OUTRIDER pendimethalin PLATEAU PRINCEP RONSTAR 50WP SAHARA	simazine SURFLAN AS SURFLAN WDG TELAR DF TRANSLINE VANQUISH VELPAR DF VELPAR L 2,4-D	

### **15.0 – ANNUAL WEEDS RATE TABLES (Alphabetically by Species)**

Water carrier volumes of 3 to 10 gallons per acre for ground applications and 3 to 5 gallons per acre for aerial applications are required.

This product may be used up to 2.25 pints (36 fluid ounces) per acre where heavy weed densities exist.

For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment.

#### **RESTRICTIONS:**

Do not tank mix with soil residual herbicides when using these rates unless otherwise specified.

West Region	Alaska, Arizona, California, Colorado, Idaho, Kansas (west of Highway 83), Montana, Nebraska (west of Highway 83), Nevada, New Mexico, North Dakota (west of Highway 83), Oregon, South Dakota (west of Highway 83), Texas, Utah, Washington, Wyoming
North Region	Connecticut, Indiana (north of I-70), Iowa, Kansas (east of Highway 83 & north of I-35), Maine, Massachusetts, Minnesota, Missouri (north of I-44), Nebraska (east of Highway 83), New Hampshire, New Jersey, New York, North Dakota (east of Highway 83), Ohio, Pennsylvania, Rhode Island, South Dakota (east of Highway 83), Vermont, Wisconsin
South Region	Alabama, Arkansas, Delaware, Florida, Georgia, Hawaii, Illinois (south of I-70), Indiana (south of I-70), Kansas (east of Highway 83 & south of I-35), Kentucky, Louisiana, Maryland, Mississippi, Missouri (south of I-44), North Carolina, Oklahoma (east of I-35), South Carolina, Tennessee, Texas (east of I-35), Virginia, Washington DC, West Virginia

### ANNUAL WEEDS RATE TABLE – NORTH AND SOUTH REGIONS

				RATE (FLUID OU	NCES PER ACRE)				
WEED SPECIES	REGION	9	12	18	24	30	36		
		MAXIMUM HEIGHT/LENGTH							
Annoda, spurred		_	1"	2"	3"	5"	8"		
Barley		_	18"	18"+	-	_	-		
Barnyardgrass	South	_	3"	5"	7"	9"	12"		
	North	_	-	6"	12"	_	-		
Bassia, fivehook		_	-	-	6"	_	-		
Bittercress		_	12"	20"	_	_	-		
Bluegrass, annual		_	10"	_	_	_	-		
Brome, downy		6"	_	_	-	_	-		
Brome, Japanese		_	6"	_	24"	_	-		
Browntop panicum		_	6"	8"	12"	_	24"		
Burcucumber		_	_	6"	12"	_	-		
Buttercup		_	12"	20"	-	_	-		
Carolina foxtail		_	20"	-	-	_	-		
Carolina geranium		_	_	-	4"	_	9"		
Carpetweed		_	-	6"	12"	_	-		
Cheat		_	6"	20"	_	_	-		
Chervil		_	20"	-	_	_	_		
Chickweed		_	12"	18"	_	_	_		
Cocklebur		_	12"	18"	24"	_	_		
Copperleaf, hophornbeam		_	1"	2"	3"	4"	6"		
Copperleaf, Virginia		_	1"	2"	3"	4"	6"		
Corn		_	12"	20"	_	_	-		
Corn, speedwell		_	12"	-	-	_	-		
Crabgrass		_	12"	18"	-	_	-		
Cutleaf evening primrose		_	_	-	3"	3"	6"		
Dwarfdandelion		_	20"	-	-	_	-		
Eastern mannagrass		_	8"	12"	_	_	_		
Eclipta		_	4"	8"	12"	_	-		
Fall panicum	South	_	4"	6"	8"	12"	24"		
•	North	_	6"	12"	18"	_	_		
Falsedandelion		_	20"	_	_	_	_		
Falseflax, smallseed		_	12"	_	_	_	_		
Fiddleneck		_	_	_	6"	6"	12"		
Field pennycress		_	6"	12"	-		_		
Filaree		_	-	_	_	_	12"		

### ANNUAL WEEDS RATE TABLE – NORTH AND SOUTH REGIONS (cont.)

				RATE (FLUID OU	INCES PER ACRE)		
WEED SPECIES	REGION	9	12	18	24	30	36
		EIGHT/LENGTH		•			
Fleabane, annual		_	6"	20"	-	_	-
Fleabane, hairy <i>(Conyza bonariensis)</i>		_	6"	-	-	_	-
Fleabane, rough		_	3"	6"	12"	_	-
Florida pusley		_	-	-	4"	4"	6"
Foxtail	South	_	8"	12"	20"	_	-
	North	18"	18"+	-	-	_	-
Goatgrass, jointed		_	6"	-	-	_	-
Goosegrass		_	3"	5"	8"	_	18"
Grain sorghum (milo)		_	6"	12"	20"	_	-
Groundsel, common		_	6"	-	-	_	-
Hemp sesbania		_	-	2"	4"	6"	8"
Henbit		_	-	-	6"	_	20"
Horseweed/Marestail (Conyza canadensis)	South	_	-	12"	30"	_	-
	North	_	6"	12"	18"	_	-
Itchgrass		_	6"	12"	18"	_	-
Johnsongrass, seedling	South	_	_	18"	_	_	_
	North	_	12"	18"	_	_	_
Junglerice		_	3"	5"	7"	9"	12"
Knotweed		_	3"	8"	12"	_	20"
Kochia <sup>1</sup>		_	3 to 6"	12"	_	_	_
Lambsquarters		_	6"	8"	12"	_	20"
Little barley		_	20"	_	_	_	_
London rocket		_	6"	_	_	_	_
Mayweed		_	-	2"	6"	12"	18"
Morningglory <i>(Ipomoea</i> spp.)		_	-	2"	4"	_	6"
Mustard, blue		6"	-	-	-	_	_
Mustard, tansy		6"	12"	20"	-	_	_
Mustard, tumble		6"	-	-	_	_	_
Mustard, wild		6"	12"	18"	_	_	_
Nightshade, black		_	6"	12"	-	_	_
Nightshade, hairy		_	6"	12"	-	_	_
Oats		_	-	6"	20"	_	_
Pigweed		_	12"	18"	24"	_	_
Prickly lettuce		_	6"	12"	20"	_	_
Purslane		_		_	6"	6"	12"

### ANNUAL WEEDS RATE TABLE – NORTH AND SOUTH REGIONS (cont.)

				RATE (FLUID OU	NCES PER ACRE)		
WEED SPECIES	REGION	9	12	18	24	30	36
				MAXIMUM H	EIGHT/LENGTH		•
Ragweed, common	South	_	4"	6"	8"	_	11"
	North	_	6"	12"	18"	_	-
Ragweed, giant		_	-	4"	6"	_	11"
Red rice		_	-	-	4"	_	-
Russian thistle		_	_	-	6"	_	-
Rye	South	_	6"	20"	60"	_	-
	North	_	18"	18"+	-	_	-
Ryegrass		_	_	_	6"	_	7"+
Sandbur, field		12"	_	-	-	_	-
Shattercane		_	12"	18"	-	_	-
Shepherd's purse		_	6"	12"	-	_	-
Sicklepod		_	_	2"	4"	_	8"
Signalgrass, broadleaf		_	3"	5"	7"	9"	12"
Smartweed, ladysthumb		_	4"	6"	8"	_	12"
Smartweed, Pennsylvania		_	4"	6"	8"	_	12"
Sowthistle, annual		_	_	_	6"	_	12"
Spanishneedles		_	_	_	8"	_	18"
Speedwell, purslane		_	12"	_	-	_	_
Sprangletop		_	6"	12"	20"	_	_
Spurge, prostrate		_	6"	12"	20"	_	-
Spurge, spotted		_	6"	12"	20"	_	-
Spurry, umbrella		6"	_	_	-	_	-
Stinkgrass		12"	_	_	-	_	_
Sunflower		_	12"	18"	_	_	-
Teaweed/Prickly sida		_	1"	2"	3"	4"	6"
Texas panicum		_	6"	8"	12"	_	24"
Velvetleaf	South	_	2"	3"	4"	5"	8"
	North	_	3"	6"	12"	_	-
Virginia pepperweed		_	18"	-	-	_	_
Waterhemp		_	_	6"	12"	_	-
Wheat	South	_	6"	30"	-	_	_
	North	_	18"	18"+	-	-	-
Wheat (overwintered)		_	6"	18"	_	_	_
Wild oats		_	12"	-	-	_	_
Wild proso millet		_	_	6"	12"	12"	18"

### ANNUAL WEEDS RATE TABLE - NORTH AND SOUTH REGIONS (cont.)

		RATE (FLUID OUNCES PER ACRE)						
WEED SPECIES	REGION	9	12	18	24	30	36	
		MAXIMUM HEIGHT/LENGTH						
Witchgrass		-	12"	-	-	-	-	
Woolly cupgrass		-	6"	12"	-	-	-	
Yellow rocket		-	-	12"	20"	-	-	

<sup>1</sup>Do not treat kochia in the button stage.

#### **ANNUAL WEEDS RATE TABLE – WEST REGION**

	RATE (FLUID OUNCES PER ACRE)									
WEED SPECIES	9	12	18	24	36					
			MAXIMUM HEIGHT/LENGT	H	-					
Barley	12"	-	-	_	-					
Barnyardgrass	6"	-	-	_	-					
Bluegrass, annual	6"	-	-	_	-					
Bluegrass, bulbous	-	6"	-	_	-					
Brome, downy <sup>1</sup>	6"	-	-	_	-					
Buttercup	-	12"	-	_	-					
Cheat	-	6"	-	_	-					
Chickweed	-	6"	-	_	-					
Cocklebur	-	12"	-	_	-					
Corn	-	6"	-	_	-					
Crabgrass	-	12"	-	_	-					
Dwarfdandelion	-	12"	-	_	-					
Fall panicum	-	12"	-	_	-					
Falseflax, smallseed	-	12"	-	_	-					
Field pennycress	-	6"	-	_	-					
Filaree	-	-	-	_	12"					
Fleabane, hairy (Conyza bonariensis)	-	6"	-	_	-					
Florida pusley	-	-	-	12"	-					
Foxtail			6 fl. oz. for up to 12"							
Goatgrass, jointed	-	6"	-	_	-					
Groundsel, common	-	6"	-	_	-					
Henbit	-	6"	-	_	-					
Horseweed/Marestail (Conyza canadensis)	-	6"	-	_	-					
Johnsongrass, seedling	-	12"	-	_	-					
Lambsquarters	-	6"	-	_	-					

#### ANNUAL WEEDS RATE TABLE - WEST REGION (cont.)

		RAT	E (FLUID OUNCES PER A	CRE)	
WEED SPECIES	9	12	18	24	36
		ľ	MAXIMUM HEIGHT/LENGT	H	•
London rocket	-	6"	-	-	-
Morningglory (Ipomoea spp.)	_	2"	-	-	-
Mustard, blue	6"	-	-	-	-
Mustard, tansy	6"	-	-	_	-
Mustard, tumble	6"	-	_	_	-
Mustard, wild	6"	-	_	_	-
Pigweed	-	12"	-	-	-
Rye	12"	-	-	-	-
Ryegrass, Italian	-	6"	-	-	-
Sandbur, field	12"	-	-	-	-
Shattercane	12"	-	-	-	-
Shepherd's purse	-	6"	-	_	-
Sowthistle, annual	-	6"	-	-	-
Spurge, annual	_	6"	-	-	-
Stinkgrass	12"	-	-	-	-
Texas panicum	-	12"	-	_	-
Wheat	18"	-	-	_	-
Wild oats	-	12"	-	-	-
Witchgrass	-	12"	-	-	-

<sup>1</sup>For control of Downy brome in no-till systems, use 12 fluid ounces per acre.

#### 15.1 – Annual Weeds – 10 to 40 Gallons Per Acre in Water

Apply 1-1/2 pints to 2-1/4 pints of this product per acre. Use 1-1/2 pints per acre if weeds are less than 6 inches tall and 2-1/4 pints per acre if weeds are over 6 inches tall.

These rates will provide control of weeds listed in the annual weed control tables when water carrier volumes are 10 to 40 gallons per acre for ground applications.

#### 15.2 – Annual Weeds – Tank Mixtures with 2,4-D or Banvel®

9 to 12 fluid ounces of this product plus the labeled rate of Banvel<sup>®</sup> or the labeled rate of 2,4-D per acre will control the following weeds with the maximum height or length indicated: prickly lettuce, marestail/horseweed *(Conyza canadensis)*, morningglory *(Ipomoea* spp.), kochia (Banvel<sup>®</sup> only); cocklebur, lambsquarters, pigweed, Russian thistle.

12 fluid ounces of this product plus the labeled rate of 2,4-D per acre will control the following weeds when they are a maximum height or length of 6 inches: common ragweed, giant ragweed, Penn-sylvania smartweed, and velvetleaf.

9 fluid ounces of the product plus the labeled rate of Banvel® or the labeled rate of 2,4-D per acre will control foxtail.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### **RESTRICTION:**

DO NOT APPLY BANVEL® TANK MIXTURES BY AIR IN CALIFORNIA.

Apply to actively growing perennial weeds.

A second treatment may be necessary to control weeds regenerating from underground parts or seed.

The second treatment must be made prior to crop emergence.

Unless otherwise stated, allow 7 or more days after application before tillage.

#### **RESTRICTION:**

If weeds have been mowed or tilled, do not treat until plants have resumed active growth and have reached the labeled stages.

Best results are obtained when soil moisture is adequate for active weed growth.

WEED SPECIES	RATE (PT/A)	WATER VOLUME	HAND-HELD % SOLUTION	DIRECTIONS
Alfalfa	1.5-3	3-10	1.5%	Make applications after the last hay cutting in the fall.
				Allow alfalfa to regrow to a height of 6 to 8 inches or more prior to treatment.
				Applications should be followed with deep tillage at least 7 days after treatment, but before soil freeze-up.
Alligatorweed	6	3-20	1.25%	Partial control. Apply when most of the plants are in bloom.
				Repeat applications will be required to maintain control.
Anise (fennel)	-	-	.75-1.5%	Apply as a spray-to-wet treatment.
				Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth.
Bahiagrass	4.5-7.5	3-20	1.5%	Apply when most plants have reached the early head stage.
Bentgrass	2.25	10-20	1.5%	For suppression in grass seed production areas.
				For ground applications only.
				Ensure entire crown area has resumed growth prior to a fall application.
				Bentgrass should have at least 3 inches of growth. Tillage prior to treatment should be avoided.
				Till 7 to 10 days after application for best results.
Bermudagrass	4.5-7.5	3-20	1.5%	For control, apply 7.5 pints of this product per acre. For partial control, apply 4.5 pints per acre.
				Treat when bermudagrass is actively growing and seedheads are present.
				A second treatment may be necessary to maintain control.
Bermudagrass, water (knotgrass)	1.5-2.25	5-10	1.5%	Apply 2.25 pints of this product in 5 to 10 gallons of water per acre. Apply when water bermudagrass is 12 to 18 inches in length. Allow 7 or more days before tilling, flushing or flooding the field.
				Fall applications only: Apply 1.5 pints of this product in 5 to 10 gallons of water per acre.
				Fallow fields should be tilled prior to application.
				Apply prior to frost on water bermudagrass that is 12 to 18 inches in length.
				<b>RESTRICTION:</b> This product is not registered in California for use on water bermudagrass.

(continued)

WEED SPECIES	RATE (PT/A)	WATER VOLUME	HAND-HELD % SOLUTION	DIRECTIONS
Bindweed, field	.75-7.5	3-20	1.5%	Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth.
				For control, apply 6 to 7.5 pints of this product per acre west of the Mississippi River and 4.5 to 6 pints east of the Mississippi River.
				Apply when the weeds are at or beyond full bloom. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost.
				Also for control, apply 3 pints of this product plus the labeled rate of Banvel® in 10 to 20 gallons of water per acre. Do not apply by air.
				For suppression on irrigated agricultural land, apply 1.5 to 3 pints of this product plus the specified label rate of a 2,4-D product in 10 to 20 gallons of water per acre with ground equipment only.
				It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.
				Applications should be made following harvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least one irrigation will promote active bindweed growth.
				For suppression, apply 12 fluid ounces of this product plus the specified label rate of a 2,4-D product in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications.
				Apply by air in fallow and reduced tillage systems only. Delay applications until maximum emergence has occurred and when vines are between 6 to 18 inches in length.
				In California only, apply 1.5 to 7.5 pints of this product per acre.
				Actual rate needed for suppression or control will vary within this range depending on local conditions. For suppression on irrigated land where annual tillage is performed, apply 1.5 pints of this product in 3 to 10 gallons of water per acre.
				Apply to bindweed that has reached a length of 12 inches or greater.
				Allow maximum weed emergence and runner growth. Allow 3 or more days after application before tillage.
Bluegrass, Kentucky	1.5-3	3-40	1.5%	Apply 3 pints of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development.
				For partial control in pasture or hay crop renovation, apply 1.5 to 2.25 pints of this product in 3 to 10 gallons of water per acre.
				Apply to actively growing plants when most have reached 4 to 12 inches in height.
Blueweed, Texas	4.5-7.5	3-40	1.5%	Apply 6 to 7.5 pints of this product per acre west of the Mississippi River and 4.5 to 6 pints per acre east of the Mississippi River.
				Apply when plants are at or beyond full bloom. New leaf development indicates active growth. For best results, apply in late summer or fall.
				Fall treatments must be applied before a killing frost.
Brackenfern	4.5-6	3-40	.75-1.5%	Apply to fully expanded fronds which are at least 18 inches long.
Bromegrass, smooth	1.5-3	3-40	1.5%	Apply 3 pints of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development.
				For partial control in pasture or hay crop renovation, apply 1.5 to 2.25 pints of this product in 3 to 10 gallons of water per acre.
				Apply to actively growing plants when most have reached 4 to 12 inches in height.

(continued)

WEED SPECIES	RATE (PT/A)	WATER VOLUME	HAND-HELD % SOLUTION	DIRECTIONS
Bursage, woolly-leaf	-	3-20	1.5%	For control, apply 3 pints of this product plus the labeled rate of Banvel® per acre. For partial control, apply 1.5 pints of this product plus the labeled rate of Banvel® per acre.
				Apply when plants are producing new active growth which has been initiated by moisture for at least 2 weeks and when plants are at or beyond flowering.
Canarygrass, reed	3-4.5	3-40	1.5%	For best results, apply when most plants have reached the boot-to-head stage of growth.
Cattail	4.5-7.5	3-40	1.5%	Apply when most plants have reached the early head stage.
Clover; red, white	4.5-7.5	3-20	1.5%	Apply when most plants have reached the early bud stage.
Cogongrass	4.5-7.5	10-40	1.5%	Apply when cogongrass is at least 18 inches tall in late summer or fall.
				Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.
Dallisgrass	4.5-7.5	3-20	1.5%	Apply when most plants have reached the early head stage.
Dandelion	4.5-7.5	3-40	1.5%	Apply when most plants have reached the early bud stage of growth.
				Also for control, apply 12 fluid ounces of this product plus the specified label rate of a 2,4-D product in 3 to 10 gallons of water per acre.
				It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.
Dock, curly	4.5-7.5	3-40	1.5%	Apply when most plants have reached the early bud stage of growth.
				Also for control, apply 12 fluid ounces of this product plus the specified label rate of a 2,4-D product in 3 to 10 gallons of water per acre.
Dogbane, hemp	6	3-40	1.5%	Apply when most plants have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall.
				For suppression, apply 12 fluid ounces of this product plus the labeled rate of 2,4-D in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications.
				Delay applications until maximum emergence of dogbane has occurred.
Fescue (except tall)	4.5-7.5	3-20	1.5%	Apply when most plants have reached the early head stage.
Fescue, tall	1.5-4.5	3-40	1.5%	Apply 4.5 pints of this product per acre when most plants have reached boot-to-early seedhead stage of development.
				Fall applications only: Apply 1.5 pints of this product in 3 to 10 gallons of water per acre.
				Apply to fescue in the fall when plants have 6 to 12 inches of new growth.
				A sequential application of 12 fluid ounces per acre of this product will improve long-term control and control seedlings germi- nating after fall treatments or the following spring.
Guineagrass	4.5	3-40	.75%	Apply when most plants have reached at least the 7-leaf stage of growth.
				Ensure thorough coverage when using hand-held equipment.
Horsenettle	4.5-7.5	3-20	1.5%	Apply when most plants have reached the early bud stage.
Horseradish	6	3-40	1.5%	Apply when most plants have reached the late bud to flower stage of growth.
				For best results, apply in late summer or fall.

WEED SPECIES	RATE (PT/A)	WATER VOLUME	HAND-HELD % SOLUTION	DIRECTIONS
lceplant	-	-	1.5%	Iceplant should be at or beyond the early bud stage of growth.
				Thorough coverage is necessary for best control.
Jerusalem artichoke	4.5-7.5	3-20	1.5%	Apply when most plants are in the early bud stage.
Johnsongrass	.75-4.5	3-40	.75%	In annual cropping systems apply 1.5 to 3 pints of this product per acre.
				Apply 1.5 pints of this product in 3 to 10 gallons of water per acre. Use 3 pints of this product when applying 10 to 40 gallons of water per acre. In noncrop, or areas where annual tillage (no-till) is not practiced, apply 3 to 4.5 pints of this product in 10 to 40 gallons of water per acre.
				For best results, apply when most plants have reached the boot-to-head stage of growth or in the fall prior to frost.
				Allow 7 or more days after application before tillage. Do not tank-mix with residual herbicides when using the 1-quart per acre rate.
				For burndown of Johnsongrass, apply 12 fluid ounces of this product in 3 to 10 gallons of water per acre before the plants reach a height of 12 inches.
				For this use, allow at least 3 days after treatment before tillage.
				Spot treatment (partial control or suppression) – Apply a 3/4 percent solution of this product when Johnsongrass is 12 to 18 inches in height.
				Coverage must be uniform and complete.
Kikuyugrass	3-4.5	3-40	1.5%	Spray when most kikuyugrass is at least 8 inches in height (3 or 4-leaf stage of growth). Allow 3 or more days after application before tillage.
Knapweed	6	3-40	1.5%	Apply when most plants have reached the late bud to flower stage of growth.
				For best results, apply in late summer or fall.
Lantana	-	-	.75-1.0%	Apply at or beyond the bloom stage of growth.
				Use the higher application rate for plants that have reached the woody stage of growth.
Lespedeza	4.5-7.5	3-20	1.5%	Apply when most plants have reached the early bud stage.
Milkweed, common	4.5	3-40	1.5%	Apply when most plants have reached the late bud to flower stage of growth.
Muhly, wirestem	1.5-3	3-40	1.5%	Use 1.5 pints of this product in 3 to 10 gallons of water per acre. Use 3 pints of this product when applying 10 to 40 gallons of water per acre or in pasture, sod, or noncrop areas.
				Spray when the wirestem muhly is 8 inches or more in height.
				Do not till between harvest and fall applications or in the fall or spring prior to spring applications.
				Allow 3 or more days after application before tillage.
Mullein, common	4.5-7.5	3-20	1.5%	Apply when most plants are in the early bud stage.
Napiergrass	4.5-7.5	3-20	1.5%	Apply when most plants are in the early head stage.
Nightshade,	3	3-10	1.5%	Applications should be made when at least 60 percent of the plants have berries.
silverleaf				Fall treatments must be applied before a killing frost.

(continued)

WEED SPECIES	RATE (PT/A)	WATER VOLUME	HAND-HELD % SOLUTION	DIRECTIONS
Nutsedge; purple, yellow	.75-4.5	3-40	.75-1.5%	Apply 4.5 pints of this product per acre or apply a 3/4 to 1-1/2 percent solution for control of nutsedge plants and immature nutlets attached to treated plants.
				Treat when plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment.
				Repeat treatments will be required for long-term control of ungerminated tubers.
				Sequential applications: 1.5 to 3 pints of this product in 3 to 10 gallons of water per acre will also provide control. Make appli- cations when a majority of the plants are in the 3 to 5-leaf stage (less than 6 inches tall). Repeat this application, as necessary, when newly emerging plants reach the 3 to 5-leaf stage. Subsequent applications will be necessary for long-term control.
				For partial control of existing plants, apply 12 fluid ounces to 3 pints of this product in 3 to 40 gallons of water per acre.
				Treat when plants have 3 to 5 leaves and most are less than 6 inches tall.
				Repeat treatments will be required to control subsequent emerging plants or regrowth of existing plants.
Orchardgrass	1.5-3	3-40	1.5%	Apply 3 pints of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development.
				For partial control in pasture or hay crop renovation, apply 1.5 to 2.25 pints of this product in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height.
				Orchardgrass sods going to no-till corn: Apply 1.5 to 2.25 pints of this product in 3 to 10 gallons of water per acre.
				Apply to orchardgrass that is a minimum of 12 inches tall for spring applications and 6 inches tall for fall applications.
				Allow at least 3 days following application before planting. A sequential application of atrazine will be necessary for optimum results.
Pampasgrass	-	_	1.5%	Pampasgrass should be at or beyond the boot stage of growth. Thorough coverage is necessary for best control.
Paragrass	4.5-7.5	3-20	1.5%	Apply when most plants are in the early head stage.
Phragmites	4.5-7.5	10-40	.75-1.5%	For partial control. For best results, treat during late summer or fall months or when plants are actively growing and in full bloom.
				Treatment before or after this stage may lead to reduced control.
				Due to the dense nature of the vegetation, which may prevent good spray coverage or uneven stages of growth, repeat treat- ments may be necessary to maintain control.
				Visual control symptoms will be slow to develop.
Poison hemlock	-	_	.75-1.5%	Apply as a spray-to-wet treatment.
				Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth.
Pokeweed, common	1.5	3-40	1.5%	Apply to actively growing plants up to 24 inches tall.

(continued)

WEED SPECIES	RATE (PT/A)	WATER VOLUME	HAND-HELD % SOLUTION	DIRECTIONS
Quackgrass	1.5-4.5	3-40	1.5%	In annual cropping systems, or in pastures and sods followed by deep tillage:
				Apply 1.5 pints of this product in 3 to 10 gallons of water per acre. For 10 to 40 gallons of water per acre, apply 3 pints of this product. Do not tank mix with residual herbicides when using the 1.5 pint rate.
				Spray when quackgrass is 6 to 8 inches in height. Do not till between harvest and fall applications or in fall or spring prior to spring application.
				Allow 3 or more days after application before tillage.
				In pastures or sods, use a moldboard plow for best results.
				In pastures, sods or noncrop areas where deep tillage does not follow application: Apply 3 to 4.5 pints of this product in 10 to 40 gallons of water per acre when the quackgrass is greater than 8 inches tall.
Redvine	1.25-3	5-10	1.5%	For suppression, apply 18 fluid ounces of this product per acre at each of two applications 7 to 14 days apart or a single application of 3 pints per acre.
				Apply labeled rates in 5 to 10 gallons of water per acre.
				Apply in late September or early October to plants which are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.
Reed, giant	_	-	1.5%	Best results are obtained when applications are made in late summer to fall.
Ryegrass, perennial	1.5-4.5	3-40	.75%	In annual cropping systems apply 1.5 to 3 pints of this product per acre. Apply 1.5 pints of this product in 3 to 10 gallons of water per acre. Use 3 pints of this product when applying 10 to 40 gallons of water per acre. In noncrop, or areas where annual tillage (no-till) is not practiced, apply 3 to 4.5 pints of this product in 10 to 40 gallons water per acre.
				For best results, apply when most plants have reached the boot-to-head stage of growth or in the fall prior to frost. Do not tank-mix with residual herbicides when using the 1.5 pint per acre rate.
Smartweed, swamp	4.5-7.5	3-40	1.5%	Apply when most plants have reached the early bud stage of growth.
				Also for control, apply 12 fluid ounces of this product plus the specified label rate of a 2,4-D product in 3 to 10 gallons of water per acre in the late summer or fall.
				It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.
Sowthistle, perennial	3-4.5	3-40	1.5%	Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product.
				Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.
Spurge, leafy	-	3-10	1.5%	For suppression, apply 12 fluid ounces of this product plus the specified label rate of a 2,4-D product in 3 to 10 gallons of water per acre in the late summer or fall.
				If mowing has occurred prior to treatment, apply when most of the plants are 12 inches tall.
Starthistle, yellow	3	10-40	1.5%	Best results are obtained when applications are made during the rosette, bolting and early flower stages.
Sweet potato, wild	_	-	1.5%	Partial control. Apply to plants that are at or beyond the bloom stage of growth.
				Repeat applications may be required.
Thistle, artichoke	-	-	1.5%	Partial control. Apply to plants that are at or beyond the bloom stage of growth.
				Repeat applications may be required.

WEED SPECIES	RATE (PT/A)	WATER VOLUME	HAND-HELD % SOLUTION	DIRECTIONS
Thistle, Canada	3-4.5	3-40	1.5%	Apply when most plants are at or beyond the bud stage of growth.
				After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product.
				Fall treatments must be applied before a killing frost.
				Allow 3 or more days after application before tillage.
				For suppression, apply 1.5 pints of this product, or 12 fluid ounces of this product plus the specified label rate of a 2,4-D product in 3 to 10 gallons of water per acre in the late summer or fall after harvest, mowing or tillage. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.
				Allow rosette regrowth to a minimum of 6 inches in diameter before treating.
				Applications can be made as long as leaves are still green and plants are actively growing at the time of application.
				Allow 3 or more days after application before tillage. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.
Timothy	3-4.5	3-40	1.5%	For best results, apply when most plants have reached the boot-to-head stage of growth.
Torpedograss	6-7.5	3-40	1.5%	For partial control. Apply when most plants are at or beyond the seedhead stage of growth.
				Repeat applications will be required to maintain control. Fall treatments must be applied before frost.
Trumpetcreeper	3	5-10	1.5%	Partial control. Apply in late September or October, to plants which are at least 18 inches tall and have been growing 45-60 days since the last tillage operation. Make applications at least 1 week before a killing frost.
Vaseygrass	4.5-7.5	3-20	1.5%	Apply when most plants are in the early head stage.
Velvetgrass	4.5-7.5	3-20	1.5%	Apply when most plants are in the early head stage.
Wheatgrass, western	3-4.5	3-40	1.5%	For best results, apply when most plants have reached the boot-to-head stage of growth.

### **17.0 – WOODY BRUSH AND TREES RATE TABLE (Alphabetically by Species)**

Apply this product after full leaf expansion, unless otherwise directed. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when applications are made in the spring to early summer when brush species are at high moisture content and are flowering.

Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. A second treatment may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

WEED SPECIES	RATE (PT/A)	WATER Volume	HAND-HELD % SOLUTION	DIRECTIONS
Alder	4.5-6	3-40	.75-1.5%	For control
Ash	3-7.5	3-40	.75-1.5%	Partial control
Aspen, quaking	3-4.5	3-40	.75-1.5%	For control
Bearmat (Bearclover)	3-7.5	3-40	.75-1.5%	Partial control
Beech	3-7.5	3-40	.75-1.5%	Partial control
Birch	3	3-40	.75%	For control
Blackberry	4.5-6	10-40	.75-1.5%	For control. Make applications after plants have reached full leaf maturity. Best results are obtained when applications are made in late summer or fall. Applications may also be made after leaf drop and until a killing frost or as long as stems are green. After berries have set or dropped in late fall, blackberry can be controlled by applying a 3/4 percent solution of this product. For control of blackberries after leaf drop and until a killing frost or as long as stems are green, apply 4.5 to 6 pints of this product in 10 to 40 gallons of water per acre.
Blackgum	3-7.5	3-40	.75-1.5%	For control
Bracken	3-7.5	3-40	.75-1.5%	For control
Broom; French, Scotch	-	_	1.5%	For control
Buckwheat, California	-	-	.75-1.5%	For partial control. Thorough coverage of foliage is necessary for best results.
Cascara	3-7.5	3-40	.75-1.5%	Partial control
Catsclaw	_	-	.75-1.5%	Partial control
Ceanothus	3-7.5	3-40	.75-1.5%	Partial control
Chamise	_	-	.75%	For control. Thorough coverage of foliage is necessary for best results.
Cherry; bitter, black, pin	3-4.5	3-40	.75-1.5%	For control
Coyote brush	_	-	1.5%	For control. Apply when at least 50 percent of the new leaves are fully developed.
Dogwood	3-7.5	3-40	.75-1.5%	Partial control
Elderberry	3	3-40	.75%	For control
Elm	3-7.5	3-40	.75-1.5%	Partial control
Eucalyptus	-	-	1.5%	For control of eucalyptus resprouts, apply when resprouts are 6 to 12 feet tall. Ensure complete coverage. Avoid application to drought-stressed plants.
Florida holly (Brazilian Peppertree)	3-7.5	3-40	.75-1.5%	Partial control
Gorse	3-7.5	3-40	.75-1.5%	Partial control
Hasardia	_	-	.75-1.5%	Partial control. Thorough coverage of foliage is necessary for best results.

## 17.0 – WOODY BRUSH AND TREES RATE TABLE (Alphabetically by Species) (cont.)

WEED SPECIES	RATE (PT/A)	WATER VOLUME	HAND-HELD % SOLUTION	DIRECTIONS
Hawthorn	3-4.5	3-40	.75-1.5%	For control
Hazel	3	3-40	.75%	For control
Hickory	3-7.5	3-40	.75-1.5%	Partial control
Honeysuckle	3-6	3-40	.75-1.5%	For control
Hornbeam, American	3-7.5	3-40	.75-1.5%	Partial control
Kudzu	6	3-40	1.5%	For control. Repeat applications may be required to maintain control.
Locust, black	3-6	3-40	.75-1.5%	Partial control
Madrone resprouts	_	-	1.5%	Partial control. Apply to resprouts that are 3 to 6 feet tall. Best results are obtained with spring/early summer treatments.
Manzanita	3-7.5	3-40	.75-1.5%	Partial control
Maple, red	3-6	3-40	.75-1.5%	For control, apply a 0.75 to 1.5 percent solution when at least 50 percent of the new leaves are fully developed. For partial control, apply 3 to 6 pints of this product per acre.
Maple, sugar	_	-	.75-1.5%	For control. Apply when at least 50 percent of the new leaves are fully developed.
Monkey flower	_	-	.75-1.5%	Partial control. Thorough coverage of foliage is necessary for best results.
Oak; black, white	3-6	3-40	.75-1.5%	Partial control
Oak, post	4.5-6	3-40	.75-1.5%	For control
Oak, northern, pin	_	-	.75-1.5%	For control. Apply when at least 50 percent of the new leaves are fully developed.
Oak; southern, red	3-4.5	3-40	.75-1.5%	For control
Persimmon	3-7.5	3-40	.75-1.5%	Partial control
Pine	3-7.5	3-40	.75-1.5%	For control
Poison ivy/ Poison oak	6-7.5	3-40	1.5%	For control. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.
Poplar, yellow	3-7.5	3-40	.75-1.5%	Partial control
Redbud, eastern	3-7.5	3-40	.75-1.5%	For control
Rose, multiflora	3	3-40	.75%	For control. Treatments should be made prior to leaf deterioration by leaf-eating insects.
Russian olive	3-7.5	3-40	.75-1.5%	Partial control
Sage, black	_	-	.75%	For control. Thorough coverage of foliage is necessary for best results.
Sage, white	3-7.5	3-40	.75-1.5%	Partial control
Sage brush, California	_	-	.75%	For control. Thorough coverage of foliage is necessary for best results.
Salmonberry	3	3-40	.75%	For control
Salt-cedar	3-7.5	3-40	.75-1.5%	For control
Sassafras	3-7.5	3-40	.75-1.5%	Partial control
Sourwood	3-7.5	3-40	.75-1.5%	Partial control
Sumac; poison, smooth, winged	3-6	3-40	.75-1.5%	Partial control

# 17.0 – WOODY BRUSH AND TREES RATE TABLE (Alphabetically by Species) (cont.)

WEED SPECIES	RATE (PT/A)	WATER VOLUME	HAND-HELD % SOLUTION	DIRECTIONS
Sweetgum	3-4.5	3-40	.75-1.5%	For control
Swordfern	3-7.5	3-40	.75-1.5%	Partial control
Tallowtree, Chinese	—	-	.75%	For control. Thorough coverage of foliage is necessary for best results.
Tan oak resprouts	_	-	1.5%	For partial control. Apply to resprouts that are less than 3 to 6 feet tall. Best results are obtained with fall applications.
Thimbleberry	3	3-40	.75%	For control
Tobacco, tree	_	-	.75-1.5%	Partial control
Trumpetcreeper	3-4.5	3-40	.75-1.5%	For control
Vine maple	3-7.5	3-40	.75-1.5%	Partial control
Virginia creeper	3-7.5	3-40	.75-1.5%	For control
Waxmyrtle, southern	3-7.5	3-40	.75-1.5%	Partial control
Willow	4.5	3-40	.75%	For control

### **18.0 – CONDITIONS OF SALE AND WARRANTY**

The DIRECTIONS FOR USE of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of ALBAUGH, LLC, its Supplemental Distributors, or the Seller. All such risks shall be assumed by the Buyer.

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