



RIMSULFURON GROUP 2 HERBICIDE

Water Soluble Granule
For Weed Control in Field Corn, Citrus Fruit Group 10-10, Stone Fruit Group 12-12, Tree Nuts Group 14-12, Pome Fruit Group 11-10, Grapes, Blueberry (High and Low Bush), Caneberry (Raspberry, Blackberry), Potatoes, Potatoes Grown for Seed, Field-Grown Tomatoes. *Pre-plant Weed Control in Cotton and Soybeans, Rangeland Restoration, Non-Crop Sites including Industrial Sites, Roadsides, Highway Medians, Utility Substations, Non-Cropland Wildlife Habitats.
*NOT FOR USE ON PRE-PLANT BURNDOWN IN COTTON AND SOYBEAN IN THE STATE OF CALIFORNIA.

ACTIVE INGREDIENT:

Rimsulfuron N-((4,6-dimethoxypyrimidin-2-yl)aminocarbonyl)-3-(ethylsulfonyl)-2-pyridinesulfonamide..... 25.0%

OTHER INGREDIENTS:

TOTAL: 100.0%

**KEEP OUT OF REACH OF CHILDREN
CAUTION / PRECAUCIÓN**

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

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300
SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS.

EPA Reg. No.: 89167-75-89391

EPA Est. No.: 5905-CA-001(HC); 87489-GA-001(U)

First letter(s) in lot number correspond to letter(s) following the EPA Est. No.

NET WEIGHT: 20 OUNCES



HERBICIDE



Distributed By:
INNICTIS® CROP CARE, LLC
1880 Fall River Drive, Suite 100
Loveland, CO 80538

062024RD070124

FIRST AID	
If swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. • DO NOT induce vomiting unless told to do so by a poison control center or doctor. • DO NOT give anything by mouth to an unconscious person.
If on skin:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue to rinse eye. • Call a poison control center or doctor for treatment advice.
HOTLINE NUMBER	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information concerning this product, call the National Pesticides Information Center (NPIC) at 1-800-858-7378 or your poison control center at 1-800-222-1222.</p> <p>For Chemical Spill, Leak, Fire or Exposure, call CHEMTREC 800-424-9300.</p>	

PRECAUTIONARY STATEMENTS HAZARD TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing.. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- long-sleeved shirt and long pants
- shoes plus socks
- chemical resistant gloves

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

USER SAFETY RECOMMENDATIONS
<p>Users Should:</p> <ul style="list-style-type: none"> • Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove and wash contaminated clothing before reuse. • Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Engineering Control Statements

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR, Part 170, Section 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

ENVIRONMENTAL HAZARDS

DO NOT apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

Groundwater Advisory

This chemical has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Advisory

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential loading of rimsulfuron from runoff water and sediment. Runoff of this product will be greatly reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

Non-target Organism Advisory

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. Protect the forage and habitat of non-target organisms by minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the Spray Drift Management section of this label.

Windblown Soil Particles Advisory

This product has the potential to move off-site due to wind erosion. Soils that are subject to wind erosion usually have a high silt and/or fine to very fine sand fractions and low organic matter content. Other factors which can affect the movement of windblown soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying this product if prevailing local conditions may be expected to result in off-site movement.

PHYSICAL AND CHEMICAL HAZARDS

DO NOT mix or allow to come in contact with oxidizing or reducing agents. Hazardous chemical reaction may occur.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with the terms of this label.

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

PRODUCT INFORMATION

Use *REVOLT* only in accordance with instructions on this label. To the extent required by applicable law, Innvictis will not be responsible for losses or damage resulting from the use of this product in any manner not specifically instructed by Innvictis. This product is a water-soluble granule formulation that selectively controls certain grass and broadleaf weeds in pome fruit group 11-10, citrus fruit group 10-10, tree nut group 14-12, stone fruit group 12-12, and grape crops that have been established for at least one full growing season, and in blueberries and caneberries. This product selectively controls certain grass and broadleaf weeds in potatoes, potatoes grown for seed, field-grown tomatoes (direct-seeded and transplant), and field corn. *REVOLT* restores rangeland infested with invasive weed species and along roadsides and highway medians, at industrial plant sites, utility substations, other non-agricultural areas (including airports, highway, railroad and utility rights-of-way, sewage disposal areas), uncultivated agricultural areas – non-crop producing (including farmyards, fuel storage areas, fence rows, non-irrigation ditch-banks, barrier strips); industrial sites – outdoor (including lumberyards, pipeline and tank farms), and non-cropland wildlife habitats. Apply this product 30 days or more pre-plant to cotton or soybeans for winter vegetation management.

REVOLT has post-emergence and residual (pre-emergence to weeds) activity. Rainfall or sprinkler irrigation is needed within 2 weeks of application to activate this product in the soil. For the most effective weed control, rainfall or sprinkler irrigation is needed within 5 to 7 days after application to move *REVOLT* into the soil.

Optimum post-emergence control is reached when *REVOLT* is applied to young, actively growing weeds. The degree and duration of control depends on:

- weed spectrum and infestation intensity;
- weed size at application;
- environmental conditions at and following treatment.

Check with your state extension service or Department of Agriculture before use to be certain this product is registered in your state.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and 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, including plants, soil or water, is:

- Coveralls
- shoes plus socks
- chemical resistant gloves.

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 Standards 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. Use on non-crop sites and turf (unimproved) are not within the scope of the Worker Protection Standard. **DO NOT** enter or allow worker entry into treated areas until sprays have dried.

RESISTANCE-MANAGEMENT

For resistance management, this product is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 2 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

Weed Management

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of this product or other Group 2 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in the field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates;

precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.

- Scout before and after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method including hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact INNICTIS CROP CARE, LLC at 855-466-8428.

Management of Resistant Biotypes

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

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

- If a naturally occurring resistant biotype is present in your application site, 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.
- Scout treated application site 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.
- Contact your local sales representative, crop advisor, or extension agent to find out if suspected resistant weeds to this Mode of Actions have been found in your region. **DO NOT** assume that each listed weed is being controlled by multiple mechanisms of action. Co-formulated active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled only one of the active ingredients in this product.

Integrated Pest (Weed) Management

This product may be integrated into an overall weed pest management strategy whenever the use of an herbicide is required. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding) should be followed wherever possible. Consult local agricultural and weed authorities for additional IPM strategies established for your area.

RUNOFF PREVENTION

To protect the environment, **DO NOT** allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area.

Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

Restrictions

Injury to or loss of desirable trees or vegetation may result from failure to observe the following:

- **DO NOT** apply, drain, or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- **DO NOT** use on lawns, walks, driveways, tennis courts, or non-agriculture areas not listed on this label.
- Prevent drift of spray to desirable plants.

- **DO NOT** contaminate any body of water, including irrigation water that may be used on other crops.
- Carefully observe sprayer cleanup instructions, as spray tank residue may damage crops other than potatoes or tomatoes.
- **DO NOT** apply using Air Assisted (Air Blast) field-crop sprayers.

MANDATORY SPRAY DRIFT

Aerial Applications:

- When applying aerially to crops, **DO NOT** release spray at a height greater than 10 feet above the crop canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use an Extremely Coarse droplet size (ASABE S572.1).
- When applying to crops via aerial application equipment, the spray boom must be mounted on the aircraft so as to minimize drift caused by wing tip or rotor blade vortices. The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.
- When applying to crops via aerial application equipment, applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

Ground Boom Applications:

- When using ground application equipment, apply with nozzle height no more than 2 feet above the ground or crop canopy.
- Applicators are required to use an Extremely Coarse droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size – Ground Boom

- **Volume** - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size – Aircraft

- **Adjust Nozzles** - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, parallel with the airflow in flight.

Boom Height – Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

Release Height - Aircraft

Higher release heights increase the potential for spray drift. When applying aerially to crops, **DO NOT** release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

Shielded Sprayers

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

Temperature and Humidity

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

Temperature Inversions

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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. Avoid applications during temperature inversions.

Wind

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

TANK MIXTURES

To broaden the weed control spectrum and/or extend the residual effectiveness of *REVOLT*, tank mix this product with other registered herbicides affecting a different site of action (mode of action) and/or adjuvants registered for use on the crops listed on this product labeling. 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. **DO NOT use *REVOLT* in a spray solution with additives that buffer the pH to below 4.0 or above 8.0 to avoid degradation of this product.**

Tank Mix Compatibility Testing

Perform a jar test prior to tank mixing to ensure compatibility of *REVOLT* and other pesticides. Use a clear quart jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludge, gel, oily film or layers, or other precipitates, **DO NOT** use it because it is not compatible.

See section: "ADDITIONAL USE INFORMATION – ALL CROPS AND USES" for additional information.

CROP USES

FIELD CORN

BURNDOWN AND RESIDUAL CONTROL OF CERTAIN ANNUAL GRASS AND BROADLEAF WEEDS WHEN APPLIED PRE-EMERGENCE AND POST-EMERGENCE TO FIELD CORN APPLICATION INFORMATION

REVOLT is a selective herbicide for burndown and residual control of certain annual grass and broadleaf weeds when applied pre-emergence and post-emergence to field corn. Apply to Roundup Ready or glyphosate resistant corn in tank mix combinations with glyphosate herbicides to add residual control for later emerging weeds. Residual weed control is dependent on rainfall or sprinkler irrigation for herbicide activation.

If cultivation is necessary because of soil crusting, soil compaction, or weed germination before rain or irrigation occurs, use shallow tillage including a rotary hoe to lightly incorporate *REVOLT* and make certain corn seeds are below the tilled area.

Use *REVOLT* in a planned sequential application herbicide program followed by an in-crop application of this product and/or other post-emergence-applied corn herbicides. Refer to the label of the respective sequential partner for specific use directions.

Allow at least 4 weeks between pre-emergence applications of *REVOLT* and post-emergence applications of this product. Make sequential applications after the corn has reached the 2-collar stage and before the corn exceeds the maximum application height listed on the respective product labels.

Apply *REVOLT* to field corn hybrids with a relative maturity (RM) of 77 days or more, including "food grade" (yellow dent, hard endosperm), waxy, and High-Oil corn. Not all field corn hybrids of less than 77 RM and not all white corn hybrids or Hi-Lysine hybrids have been tested for crop safety, nor does Innvictis have access to all seed company data. Consequently, injury arising from the use of this product on these types of corn is the responsibility of the user. Consult with your seed supplier before applying this product to any of these corn types. Seed company publications indicate "Warning", "Crop Response Warning", or "Sensitive" notations for the use of some ALS herbicides on corn hybrids of 77 RM or higher. As noted in the seed company publications, use sulfonylurea herbicides, including this product with caution on these hybrids.

Field Corn Restrictions

- **DO NOT** apply to field corn grown for seed or to popcorn or sweet corn.
- **DO NOT** apply pre-emergence to coarse-textured soils (sand, loamy sand or sandy loam) with less than 1% organic matter.
- **DO NOT** apply by air in the States of California and New York.
- **DO NOT** apply more than 2 ounces (0.0313 lb ai) per acre per application.
- **DO NOT** apply more than 4 ounces (0.0625 lb ai) per acre per year from all sources. In California, **DO NOT** apply more than 2 ounces (0.0313 lb ai) per acre per year.
- **DO NOT** make more than 8 applications per year, this includes combination of pre-emergence or post-emergence applications, when using reduced application rates.
- Allow a minimum of 14 days between applications.

FALLOW (BURNDOWN)

Use Rates

Apply 1 to 2 ounces (0.0156 to 0.0313 lb ai) per acre of *REVOLT*.

Application Timing

Apply *REVOLT* as a fallow treatment in the spring or fall when the majority of weeds have emerged and are actively growing. Field corn may be planted to this treated area at any time.

Tank Mixtures in Fallow

Use *REVOLT* as a fallow treatment and tank mix with other herbicides that are registered for use in fallow. 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.

PRE-EMERGENCE TO FIELD CORN

Pre-emergence Restrictions

- **DO NOT** apply more than 2 ounces (0.0313 lb ai) per acre per application.
- **DO NOT** apply more than 2 ounces (0.0313 lb ai) per acre per year from all sources.
- **DO NOT** make more than 4 applications per year, when using reduced application rates.
- Allow a minimum of 14 days between applications.

Pre-Emergence Rates

Apply 0.5 to 2.0 ounces (0.0078 to 0.0313 lb ai) per acre of *REVOLT* before corn emergence. Apply 1 to 1.5 ounces (0.0156 to 0.0234 lb ai) per acre for most applications.

In California, apply 1.0 to 1.5 oz (0.0156 to 0.0234 lb ai) product per acre *REVOLT* before corn emergence.

Application Timing

Apply *REVOLT* pre-emergence or pre-plant to corn. Applications of this product made before weed emergence will provide residual control of labeled weeds. Control of emerged weeds require the addition of spray adjuvants as noted below.

POST-EMERGENCE TO FIELD CORN

Post-Emergence Restrictions

- **DO NOT** apply more than 2 ounces (0.0313 lb ai) per acre per application.
- **DO NOT** apply more than 2 ounces (0.0313 lb ai) per acre per year.
- **DO NOT** apply more than 4 ounces (0.0625 lb. ai) rimsulfuron per acre during the year from all sources. This includes combinations of pre-emergence and post-emergence applications of *REVOLT* or other rimsulfuron-containing products.
- **DO NOT** make more than 4 applications per year, when using reduced application rates.
- Allow a minimum of 14 days between applications.

Post-Emergence Rates

Apply 0.5 to 2 ounces (0.0078 to 0.0313 lb ai) per acre *REVOLT* as a post-emergence broadcast application. Apply 1 ounce (0.0156 lb ai) per acre for most applications.

In California, apply 0.5 to 1.0 oz (0.078 to 0.0156 lb ai) per acre *REVOLT* as a post-emergence broadcast application. Apply 1 ounce (0.0156 lb ai) for most applications.

Application Timing

To crop: Apply *REVOLT* to corn that is up to 12 inches tall. **DO NOT** apply to corn taller than 12 inches or exhibiting 6 or more leaf collars, whichever is more restrictive. Post-emergent applications of this product will provide contact control of labeled weeds and limited residual control of later emergence.

To weeds: Apply tank mixtures of *REVOLT* with glyphosate or glufosinate herbicides after weeds emerge and before they reach the maximum size listed on the glyphosate and glufosinate herbicide labels.

SPRAY ADJUVANTS

Apply *REVOLT* to control emerged weeds with a nonionic surfactant and an ammonium nitrogen fertilizer. If applied in a tank mix combination with a glyphosate herbicide product or a glufosinate product that contains a built-in adjuvant system, **DO NOT** add surfactant. Use a crop oil concentrate in place of nonionic surfactant for burndown applications of *REVOLT* made before crop emerges. Products must contain only EPA-exempt ingredients (40 CFR 910 or 40 CFR 920).

Petroleum Crop Oil Concentrate (COC) or Modified Seed Oil (MSO)

- Apply at 1% v/v (1 gallon per 100 gallons spray solution) or 2% under arid conditions.
- Use MSO adjuvants 0.5% v/v (0.5 gallon per 100 gallons spray solution) if specifically noted on adjuvant product labeling.
- Oil adjuvants must contain at least 80% high quality, petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.

Nonionic Surfactant (NIS)

- Apply at 0.25% v/v (1 quart per 100 gallons spray solution).
- Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12.

Ammonium Nitrogen Fertilizer

- Use 2 quarts per acre of a high-quality urea ammonium nitrate (UAN) including 28% N or 32% N, or 2 lbs. per acre of a spray-grade ammonium sulfate (AMS).
- **DO NOT** use liquid nitrogen fertilizer as the total carrier solution after crop emergence.

Special Adjuvant Types

- Use of combination adjuvant products at doses that provide the required amount of NIS and ammonium nitrogen fertilizer is allowed.

Consult product labeling for use rates and restrictions.

- **DO NOT** use any other adjuvant rates or mixtures with *REVOLT* unless instructed to do so on Innvictis labeling.

WEEDS CONTROLLED/SUPPRESSED IN FIELD CORN

Pre-Emergence Control	
Grass Weeds	
Barnyardgrass	Panicum, fall*
Bluegrass, annual*	Signalgrass, broadleaf*
Crabgrass, large*	Wheat, Volunteer
Foxtail (bristly, giant, green, yellow)	Wild Oat*
Broadleaf Weeds	
Carpetweed*	Mustard (birdsrape, black)
Chamomile, false	Nightshade* (hairy, black)
Cocklebur*	Palmer, amaranth*
Filaree, Redstem	Pigweed (prostrate, redroot, smooth)
Henbit	Purslane, common
Jimsonweed*	Ragweed, common*
Kochia (ALS-sensitive)	Russian thistle, seedling*
Lambsquarters, common	Smartweed, Pennsylvania*
Morningglory, ivyleaf*	Velvetleaf*
Post-Emergence Control	
Grass Weeds (1 to 2 inches)	
Barley, volunteer	Quackgrass*
Barnyardgrass	Ryegrass, Italian*
Bluegrass, annual	Shattercane (4")
Crabgrass, large (1/2")	Signalgrass, broadleaf*
Cupgrass, woolly (1")	Stinkgrass*
Foxtail (bristly, giant, green, yellow)	Wheat, volunteer
Johnsongrass, seedling*	Wild oat*
Millet, wild-proso*	Yellow nutsedge*
Panicum, fall	
Broadleaf Weeds (1 to 3 inches) In California (1 to 2 inches)	
Alfalfa, volunteer^	Mustard (birdsrape, black, wild)
Canada, thistle*	Nightshade, hairy*
Chickweed, common	Pigweed, (prostrate, redroot, smooth)
Cocklebur*	Purslane, common*

Dandelion (6" diameter)	Ragweed, common*
Henbit	Shepherd's purse
Kochia	Smartweed, Pennsylvania*
Post-Emergence Control (cont'd)	
Lambsquarters, common*	Wild radish
Morningglory, ivyleaf*	Velvetleaf*
* Partial control/suppression. ^ Except in California.	

TANK MIXTURES

Tank mix *REVOLT* with full or reduced rates of other products registered for use in corn. 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 the instructions conflict with this product's label, **DO NOT** use a tank mixture with *REVOLT*.

Pre-Emergence to Corn

For Additional Control of Grass and Broadleaf Weeds

Tank mix *REVOLT* with full or reduced rates of pre-emergence grass and broadleaf herbicides including atrazine, metolachlor, S-Metolachlor, acetochlor, dimethenamid, isoxaflutole, and Metolachlor / S-Metolachlor + mesotrione + atrazine to provide added residual activity or burndown activity on emerged weeds. Consult tank mix partner labeling for rate and soil-type restrictions.

Post-Emergence Application to Corn

Tank Mixtures with Glyphosate

Tank mix *REVOLT* with glyphosate herbicides if applications are made to corn hybrids containing the "Roundup Ready" or glyphosate resistant gene. Consult with your seed supplier to confirm the corn hybrid is "Roundup Ready" or glyphosate resistant before making any herbicide application containing glyphosate herbicides.

When used in a tank mixture with glyphosate herbicides, 1 ounce (0.0156 lb ai) *REVOLT* will deliver improved burndown and/or residual activity on the following weeds, as compared to glyphosate used alone:

Alfalfa, volunteer*	Nightshade, hairy
Barley, volunteer	Panicum, fall
Barnyardgrass	Pigweed (prostrate, redroot, smooth)
Bluegrass, annual	Purslane, common
Canada thistle	Quackgrass
Chamomile, false	Ragweed, common
Chickweed, common	Ryegrass, Italian
Cocklebur	Sandbur (field, longspine)
Crabgrass	Shepherd's purse
Dandelion (6" diameter)	Signalgrass, broadleaf
Filaree, redstem	Smartweed, Pennsylvania
Foxtail (bristly, giant, green, yellow)	Stinkgrass

(cont'd next page)

Post-Emergence Application to Corn (cont'd)

Henbit	Velvetleaf
Johnsongrass, seedling	Wheat, volunteer
Kochia	Wild buckwheat
Lambsquarters, common	Wild oat
Millet, wild-proso	Wild radish
Morningglory, ivyleaf	Yellow nutsedge
Mustard (birdsrape, black, wild)	
*Except in California.	

Tank Mixtures with Glufosinate

Tank mix **REVOLT** with glufosinate herbicides if applications are made to corn hybrids containing the "Liberty Link" or glufosinate resistant gene. Consult with your seed supplier to confirm the corn hybrid is "Liberty Link" or glufosinate resistant before applying any herbicide containing glufosinate.

When used in tank mixtures with glufosinate herbicide, 0.75 ounce (0.0117 lb ai) **REVOLT** will deliver improved burndown and/or limited residual activity on the following weeds, as compared to glufosinate used alone:

Foxtail (giant, yellow)	Pigweed, redroot
Lambsquarters, common	Velvetleaf

For Additional Control of Kochia

Tank mix **REVOLT** with fluroxypyr at specified label rates for improved control of kochia. Use higher rates within the specified rate range if weed infestation is heavy. Refer to the specific fluroxypyr label for application timing and restrictions. Tank mix **REVOLT** with fluroxypyr and dicamba for broader spectrum weed control.

For Additional Control of Broadleaf Weeds

Tank mix **REVOLT** with Metolachlor / S-Metolachlor + mesotrione + atrazine at specified label rates for improved burndown or residual control of several broadleaf weeds including common waterhemp, common ragweed, common lambsquarters, and velvetleaf. When applying mixtures of this product plus Metolachlor / S-Metolachlor + mesotrione + atrazine, use a nonionic surfactant. Refer to Metolachlor / S-Metolachlor + mesotrione + atrazine labels for additional information regarding application timing, tank mixtures, adjuvants, and rotational crops.

For Additional Control of Broadleaf Weeds

Tank mix **REVOLT** with topramezone plus atrazine at specified label rates for improved burndown or residual control of several broadleaf weeds including common waterhemp, common ragweed, common lambsquarters, and velvetleaf. When applying mixtures of this product plus topramezone use methylated seed oil. Refer to topramezone label for additional information regarding application timing, tank mixtures, adjuvants, and rotational crops.

Broadleaf Weed Precautions

- This product can interact with certain insecticides previously applied to the crop. Crop response varies with field corn type, insecticide used, insecticide application methods, and soil type.
- This product can be applied to corn previously treated with non-organophosphate soil insecticides regardless of soil type.
- Allow at least 60 days between a pre-emergence or pre-plant application of this product and application of organophosphate insecticide.
- Crop injury may occur following an application of this product if there is a prolonged period of cold weather and/or in conjunction with wet soils.

Broadleaf Weed Restrictions

- **DO NOT** apply this product within 45 days of crop emergence where an organophosphate insecticide was applied as in-furrow treatment.
- **DO NOT** tank mix this product with foliar-applied organophosphate insecticides including chlorpyrifos, malathion, parathion, etc.
- **DO NOT** tank mix this product with bentazon.
- **DO NOT** graze, feed forage, grain or fodder (stover) from treated areas to livestock within 30 days of application of this product.
- **DO NOT** irrigate this product into coarse soils at planting time when soils are saturated.
- **DO NOT** apply this product on drain or flush application equipment on or near desirable trees or other plants, or in areas where their roots may extend or in locations where the chemical may be washed or moved into contact with their roots.
- **DO NOT** use on lawns, walks, driveways, tennis courts, or non-agriculture areas not listed on this label.
- **DO NOT** allow spray mixture to drift or contact desirable plants.
- **DO NOT** contaminate any body of water.
- **DO NOT** use application equipment until it has been thoroughly cleaned.
- **DO NOT** treat frozen soil.
- **DO NOT** apply through any type of irrigation system.
- **DO NOT** use flood or furrow irrigation to apply this product.

CHEMIGATION

DO NOT apply **REVOLT** through any type of irrigation system in field corn.

GROUND APPLICATION

Use a minimum of 15 gallons of water per acre (GPA) to ensure thorough coverage of weeds and the best performance.

Use a minimum of 10 GPA for light, scattered stands of weeds. Ensure that equipment is set up to avoid applying an excessive rate directly over the rows and into the corn plant whorl. Overlaps or starting, stopping, slowing, and turning while spraying may result in crop injury.

AERIAL APPLICATION

Aerial application is prohibited in the States of California and New York.

See "Additional Use Information" section of this label.

COTTON/SOYBEAN – PRE-PLANT ONLY*

***Not for use in California.**

APPLICATION INFORMATION

Rate

Apply 1.0 ounce (0.0156 lb ai) per acre **REVOLT**.

Timing to Crop

Apply **REVOLT** pre-plant after fall harvest through early spring 30 days or more prior to planting, whenever the ground is not frozen, to control emerged weeds and to provide limited residual control of early-emerging spring weeds.

Burndown Tank Mixtures

Use **REVOLT** as a pre-plant residual burndown treatment and tank mix with other herbicides that are registered for pre-plant in cotton/soybean, including glyphosate, paraquat, glufosinate, 2,4-D LVE, and dicamba. Read and follow all instructions on this label and the labels of any tank mix partner before using in mixtures with this product. If the instructions on the tank mix label conflict with this **REVOLT** label, **DO NOT** use in a tank mixture with this product. Always follow directions of the most restrictive label.

Sequential Application – Soybeans

Use **REVOLT** in a sequential herbicide program in soybean. Apply this product for burndown and residual weed control 30 days or more prior to planting. Refer to the product labels for use restrictions, application information, rotational crop guidelines, and cautionary statements prior to application. **Additional Control of Grass and Broadleaf Weeds**

Tank mix **REVOLT** with full or reduced rates of pre-plant herbicides registered for cotton and soybean.

SPRAY ADJUVANTS

To control of emerged weeds, apply **REVOLT** with an appropriate adjuvant. If applied in a tank mix combination with a glyphosate herbicide product or a glufosinate product that contains a built-in adjuvant system, no additional surfactant needs to be added. Product must contain only EPA-exempt ingredients.

Petroleum Crop Oil Concentrate (COC) or Modified Seed Oil (MSO)

Apply at 1% v/v (1 gallon per 100 gallons spray solution) or 2% under arid conditions.

- Use MSO adjuvants at 0.5% v/v (0.5 gallon per 100 gallons spray solution) if specifically noted on adjuvant product labeling.
- Oil adjuvants must contain at least 80% high quality, petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.

Nonionic Surfactant (NIS)

- Apply at 0.25% v/v (1 quart per 100 gallons spray solution).
- Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12.

Ammonium Nitrogen Fertilizer

In addition to a spray adjuvant, an ammonium nitrogen fertilizer may be used.

- Use 2 quarts per acre of a high-quality urea ammonium nitrate (UAN) including 28% N or 32% N, or 2 lbs. per acre of a spray-grade ammonium sulfate (AMS).

Special Adjuvant Types

- Combination adjuvant products can be used at doses that provide the required amount of NIS and ammonium nitrogen fertilizer. Consult product labeling for use rates and restrictions.
- **DO NOT** use any other adjuvant rates or mixtures with this product unless instructed to do so on the labeling.

Mixing Instructions

Fertilizer Carrier Instructions

Mix **REVOLT** with water or pre-dissolve in water and add to liquid fertilizer for pre-emergence application.

When using liquid fertilizer as the carrier, always pre-slurry **REVOLT** in water before adding fertilizer solutions. Add the **REVOLT** slurry to the final complete liquid fertilizer mixture – **DO NOT** add this product during the fertilizer mixing process.

Always maintain good agitation while adding the **REVOLT** slurry to liquid fertilizers and maintain good agitation until sprayed. When using liquid fertilizer as the carrier, conduct a compatibility test with all components prior to mixing.

DO NOT use with spray additives or liquid fertilizer carriers that alter the pH of the spray solution below pH 5.0 or above pH 9.0 as rapid product degradation can occur. Spray solutions of pH 6.0 to 8.0 allow for optimum stability of **REVOLT**.

Ground Application

Use a minimum of 15 gallons of water per acre (GPA) to ensure thorough coverage of the weeds and the best performance. Use a minimum of 10 GPA for light, scattered stands of weeds.

Aerial Application

Use nozzle types and arrangements that will provide optimum spray distribution and maximum coverage at a minimum of 5 GPA.

Cotton/Soybean Precautions

- Allow at least 3 weeks between pre-emergence applications of this product and post-emergence applications of rimsulfuron containing products.
- This product may interact with certain insecticides applied to soybean, cotton, or corn. Crop response varies with field crop, insecticide used, insecticide application method, and soil type.
- This product may be applied to crops previously treated with fipronil, tebufosphos + cyfluthrin, or tefluthrin insecticides or other non-organophosphate (OP) soil insecticides regardless of soil type.

- Pre-plant/Pre-emergence applications of this product where an application of chlorpyrifos or phorate is planned may cause unacceptable crop injury, especially on soils of less than 4% organic matter.
- Thoroughly clean application equipment immediately after use. (See "Sprayer Cleanup" section of this label for instructions.)
- Crop injury may occur following an application of this product if there is a prolonged period of cold weather and/or in conjunction with wet soils.

Cotton/Soybean Restrictions

- **DO NOT** apply more than 4 ounces (0.0625 lb ai) rimsulfuron per acre per year from all sources.
- **DO NOT** apply more than 1 ounce (0.0156 lb ai) per acre per application.
- **DO NOT** make more than 4 applications per year.
- Allow a minimum of 14 days between applications.
- **DO NOT** plant cotton or soybean fewer than 30 days following an application of this product.
- **DO NOT** apply pre-emergence to crops planted into coarse-textured soils (sand, loamy sand, or sandy loam) with less than 1% organic matter.
- **DO NOT** apply through any type of irrigation system
- **DO NOT** graze, feed forage, grain, or fodder (stover) from treated areas to livestock within 30 days of this product application.
- **DO NOT** tank mix this product with bentazon.
- **DO NOT** apply to frozen soil.
- **DO NOT** contaminate any body of water.
- **DO NOT** apply this product or drain or flush application equipment on or near desirable trees or other plants, on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- **DO NOT** allow spray to drift or contact desirable plants (See "Spray Drift" section of this label for instructions)
- **DO NOT** use on lawns, walks, driveways, tennis courts, or non-agriculture areas not listed on this label.

REVOLT ROTATIONAL CROP GUIDELINES

(COTTON, FIELD CORN, SOYBEAN)

The following rotational intervals must be observed when using **REVOLT**:

1 OUNCE (0.0156 lb ai) MAXIMUM USE RATE	
Rotation Crop	Interval (Months)
Field Corn, Potatoes	Anytime
Cotton, Soybeans, Tomato	1
Cereals, Winter (wheat)	3
Cereals, Spring (wheat, oats, barley)	9
Alfalfa†, Beans (dry and snap), Canola†, Corn (pop or sweet), Cucumber, Flax, Peas, Rice**, Red Clover†, Sorghum†, Sunflower, Sugarbeets†	10
Crops Not Listed	18
* On sprinkler irrigated fields in Idaho, Utah, and Northern Nevada it is best to use deep fall tillage including plowing prior to planting alfalfa. Product degradation may be less on furrow-irrigated soils and may result in some crop injury.	
† 18 months in the Red River Valley region of ND and MN. In all other areas, the rotation intervals must be extended to 18 months if drought conditions prevail after application and before the rotational crop is planted, unless sprinkler irrigation has been applied and totals greater than 15 inches during the growing season.	
** For soils with pH less than 6.5.	

2 OUNCES (0.0313 lb ai) MAXIMUM USE RATE	
Rotation Crop	Interval (Months)
Corn (field), Potatoes, Optimum GAT Soybeans	Anytime
Tomato	1
STS Soybeans***, Cereals, Winter (wheat)	4
Cereals, Spring (wheat, oats, barley)	9
Beans (dry and snap), Corn (pop or sweet), Cotton†, Cucumber, Flax, Soybeans, Sunflower	10
Crops Not Listed	18
† The rotation interval must be extended to 18 months if drought conditions prevail after application and before the rotation crop is planted, unless sprinkler irrigation has been applied and totals greater than 15 inches during the growing season.	
** STS Soybean.	

NOTE: DO NOT use *REVOLT* in a tank-mix or sequential application program with other soil residual ALS-inhibiting herbicides as the combined effects of these herbicides on the planting of subsequent crops have not been thoroughly investigated and injury to the following rotation crop may occur.

ROTATIONAL CROP GUIDELINES FOR SPECIFIC COUNTIES OF OREGON AND WASHINGTON

Field corn grown under sprinkler irrigation with a minimum of 18 inches of water per year. This rotation interval is for sand, loamy sand, and sandy loam soils having not more than 1.5% organic matter where a minimum of 18 inches of sprinkler irrigation is used on the previous corn crop. Injury to the rotated crop may occur if less than 18 inches of irrigation is used on the previous field corn crop. For tank mixtures, follow the most restrictive rotational crop guideline.

The following rotational intervals must be observed when using *REVOLT* on field corn in Oregon and Washington:

Rotation Crop	Interval (Months)
Alfalfa, Grass, pasture, hay, seed, mint (peppermint and spearmint)	4
Carrots, Cucumber, Onions	10
Peas	8

For Rotation to Alfalfa:

- *REVOLT* in field corn not to exceed 1 ounce (0.0156 lb ai) per acre per year in the following Washington counties: Adams, Grant, Douglas and Lincoln.
- *REVOLT* in field corn not to exceed 1.5 ounces (0.0234 lb ai) per acre per year in the following Washington counties: Benton, Franklin, Klickitat, Walla Walla and Yakima.
- *REVOLT* in field corn not to exceed 1.5 ounces (0.0234 lb ai) per acre per year in the following Oregon counties: Morrow and Umatilla.

For Rotation to Onions and Carrots:

- *REVOLT* in field corn not to exceed 1.5 (0.0234 lb ai) ounces per acre per year in the following Washington counties: Adams, Grant, Douglas and Lincoln.
- *REVOLT* in field corn not to exceed 2.0 ounces (0.0313 lb ai) per acre per year in the following Washington counties: Benton, Franklin, Klickitat, Walla Walla and Yakima.
- *REVOLT* in field corn not to exceed 2.0 ounces (0.0313 lb ai) per acre per year in the following Oregon counties: Morrow and Umatilla.

For Rotation to Grass Crops Grown for Seed, Hay or Pasture:

- *REVOLT* in field corn not to exceed 1.5 ounces (0.0234 lb ai) per acre per year in the following Washington counties: Adams, Grant, Douglas and Lincoln.
- *REVOLT* in field corn not to exceed 2.0 ounces (0.0313 lb ai) per acre per year in the following Washington counties: Benton, Franklin, Klickitat, Walla Walla and Yakima.
- *REVOLT* in field corn not to exceed 2.0 ounces (0.0313 lb ai) per acre per year in the following Oregon counties: Morrow and Umatilla.

For Rotation to Peas and Mints (Peppermint and Spearmint):

- *REVOLT* in field corn not to exceed 1.5 ounces (0.0234 lb ai) per acre per year in all areas.

CITRUS FRUIT GROUP 10-10, TREE NUTS GROUP 14-12, POME FRUIT GROUP 11-10, STONE FRUIT GROUP 12-12, GRAPES APPLICATION INFORMATION

Apply *REVOLT* as a uniform broadcast application to the orchard or vineyard floor or as a uniform band application directed at the base of the trunk or vine.

For broadcast applications, make a single application of 4 ounces (0.0625 lb ai) per acre per year of *REVOLT*. For improved weed management, apply *REVOLT* in tank mixture with other registered pre-emergence herbicides.

When applied as a banded treatment (50% band or less), make two applications of *REVOLT* in a year. However, **DO NOT** apply more than 4 ounces (0.0625 lb ai) per acre on a broadcast application basis per year. Unless otherwise specified on this label, allow a minimum of 30 days between applications.

To help ensure uniform coverage, use a minimum of 10 gallons of spray solution per acre. Nozzle selection must meet manufacturer's spray volume and pressure instructions for pre-emergence or post-emergence herbicide applications. Apply with ground application equipment only. **DO NOT** apply *REVOLT* by air.

Apply only to crops that have been established for one full growing season and are in good health and vigor.

For optimum results, apply when the soil is moist at the time of application, and 1/2 inch of rainfall or sprinkler irrigation occurs within 2 weeks after application. Time the application(s) to take advantage of normal rainfall patterns and cool temperatures. Moisture for activation must occur within 2-3 weeks after application.

REVOLT can be applied by certain chemigation methods, including micro-sprinkler. However, **DO NOT** apply by overhead, flood, or drip irrigation. Avoid direct or indirect spray contact with crop foliage or fruit, except undesirable suckers.

DO NOT use *REVOLT* in a spray solution with a pH of below 4.0 or above 8.0 with spray additives that buffer the pH to below 4.0 or above 8.0, since degradation of this product may occur.

PREHARVEST INTERVAL (PHI)

CROP GROUP	PREHARVEST INTERVAL (PHI)
Citrus Fruit Group 10-10: Calamondin; Citrus citron; Citrus hybrids (includes chironja, tangelo, tangor); Grapefruit; Kumquat; Lemon; Lime; Mandarin (tangerine); Orange (sweet and sour); Pummelo; Satsuma mandarin	3 days
Pome Fruit Group 11-10: Apple; Azarole; Crabapple; Loquat; Mayhaw; Hook. & Arn; Medlar; Pear; Asian pear; Quince; Chinese Quince; Japanese Quince; Tejocote; Cultivars, varieties and/or hybrids of these.	7 days
Tree Nuts Group 14-12: African nut-tree; Almond; Beech nut; Brazil nut; Brazilian pine; Bunya; Bur oak; Butternut; Cajou nut; Candlenut; Cashew; Chestnut; Chinquapin; Coconut; Coquito nut; Ginkgo; Guiana chestnut; Hazelnut (Filbert); Heartnut; Hickory nut; Japanese horse-chestnut; Macadamia nut; Mongongo nut; Monkey-pot; Monkey puzzle nut; Okari nut; Pachira nut; Peach palm nut; Pecan; Pequi; Pili nut; Pine nut; Pistachio; Sapucaia nut; Tropical almond; Walnut (black and English); Yellowhorn; Cultivars, varieties, and/or hybrids of these.	14 days
Stone Fruit Group 12-12: Apricot; Cherry (sweet and tart); Nectarine; Peach; Plum; Plum (Chickasaw); Plum (Damson); Plum (Japanese); Plumcot; Prune (fresh)	14 days
Grapes	14 days

WEEDS CONTROLLED

Susceptible weeds are controlled for 60 to 90 days after application of **REVOLT**. Rainfall or irrigation is needed for herbicide activation. Length of control is a function of moisture for activation, soil temperature, soil texture, and amount of moisture after application.

When weeds are present at application, include a labeled burndown herbicide, including glyphosate, paraquat, or glufosinate, with an appropriate adjuvant. **REVOLT** will help provide post-emergence control of the weeds listed in this label. For best results, make post-emergence applications to young, actively growing weeds and include a spray adjuvant.

Residual weed control is reduced when **REVOLT** is applied where heavy crop trash and/or weed residue exists.

Weed control is reduced when applications of **REVOLT** are made to weeds under stress from drought, excessive water, temperature extremes, disease, or low humidity.

PRE-EMERGENCE WEED CONTROL

Grass Weeds	
Barnyardgrass (<i>Echinochloa crus-galli</i>)	Foxtail, yellow (<i>Setaria pumila</i>)
Crabgrass, large (<i>Digitaria sanguinalis</i>)	Quackgrass (<i>Elymus repens</i>)
Foxtail, giant (<i>Setaria faberi</i>)	Wheat, volunteer (<i>Triticum aestivum</i>)
Foxtail, green (<i>Setaria viridis</i>)	
Broadleaf Weeds	
Chamomile, false (<i>Matricaria maritima</i>)	Mustard, birdsrape (<i>Brassica rapa</i>)
Dandelion, common (seedling) (<i>Taraxacum officinale</i>)	Mustard, black (<i>Brassica nigra</i>)
Filaree, redstem (<i>Erodium cicutarium</i>)	Pigweed, redroot (<i>Amaranthus retroflexus</i>)

Fleabane, hairy (<i>Conyza bonariensis</i>)	Pigweed, smooth (<i>Amaranthus hybridus</i>)
Groundsel, common (<i>Senecio vulgaris</i>)	Puncturevine (<i>Tribulus terrestris</i>)
Henbit (<i>Lamium amplexicaule</i>)	Purslane, common (<i>Portulaca oleracea</i>)
Kochia (<i>Kochia scoparia</i>)	Spurge, prostrate (<i>Chamaesyce prostrata</i>)
Mallow, common (<i>Malva neglecta</i>)	Spurge, spotted (<i>Chamaesyce maculata</i>)
Marestail/horseweed (<i>Conyza canadensis</i>)	

PRE-EMERGENCE PARTIAL WEED CONTROL ‡

Grass Weeds	
Wild Oat (<i>Avena fatua</i>)	
Broadleaf Weeds/Sedges	
Cocklebur (<i>Xanthium spp.</i>)	Nutsedge, yellow (<i>Cyperus esculentus</i>)
Dandelion, common (established) (<i>Taraxacum officinale</i>)	Pigweed, prostrate (<i>Amaranthus blitoides</i>)
Lambsquarters, common (<i>Chenopodium album</i>)	Ragweed, common (<i>Ambrosia artemisiifolia</i>)
Nightshade, black (<i>Solanum nigrum</i>)	Velvetleaf (<i>Abutilon theophrasti</i>)
Nightshade, hairy (<i>Solanum sarachoides</i>)	
‡ Weed partial control is a reduction in weed competition (reduced population and/or vigor) as visually compared to an untreated area.	

POST-EMERGENCE WEED CONTROL

Grass Weeds (1 to 2 inches)	
Barley, volunteer (<i>Hordeum vulgare</i>)	Foxtail, giant (<i>Setaria faberi</i>)
Barnyardgrass (<i>Echinochloa crus-galli</i>)	Foxtail, green (<i>Setaria viridis</i>)
Bluegrass, annual (<i>Poa annua</i>)	Foxtail, yellow (<i>Setaria pumila</i>)
Crabgrass, large (½ inch) (<i>Digitaria sanguinalis</i>)	Panicum, fall (<i>Panicum dichotomiflorum</i>)
Foxtail, bristly (<i>Setaria verticillata</i>)	Wheat, volunteer (<i>Triticum aestivum</i>)
Broadleaf Weeds (1 to 3 inches)	
Chamomile, false (<i>Matricaria maritima</i>)	Pigweed, redroot (<i>Amaranthus retroflexus</i>)
Chickweed, common (<i>Stellaria media</i>)	Pigweed, smooth (<i>Amaranthus hybridus</i>)
Henbit (<i>Lamium amplexicaule</i>)	Puncturevine (<i>Tribulus terrestris</i>)
Kochia (<i>Kochia scoparia</i>)	Purslane, common (<i>Portulaca oleracea</i>)
Mustard, black (<i>Brassica nigra</i>)	Shepherd's purse (<i>Capsella bursa-pastoris</i>)
Mustard, wild (<i>Sinapsis arvensis</i>)	Wild Radish (<i>Raphanus raphanistrum</i>)

POST-EMERGENCE WEED CONTROL ‡

Grass Weeds	
Johnsongrass, seedling (<i>Sorghum halepense</i>)	Quackgrass (<i>Elymus repens</i>)
Millet, wild-proso (<i>Panicum miliaceum</i>)	Stinkgrass (<i>Eragrostis cilianensis</i>)

Post-Emergence Weed Control ‡ (cont'd)

Oat, wild (<i>Avena fatua</i>)	
Broadleaf Weeds	
Cocklebur (<i>Xanthium</i> spp.)	Pigweed, prostrate (<i>Amaranthus blitoides</i>)
Dandelion, common (>6 inches in diameter) (<i>Taraxacum officinale</i>)	Ragweed, common (<i>Ambrosia artemisiifolia</i>)
Lambsquarters, common (<i>Chenopodium album</i>)	Smartweed, Pennsylvania (<i>Polygonum pennsylvanicum</i>)
Mallow, common (<i>Malva neglecta</i>)	Thistle, Canada (<i>Cirsium arvense</i>)
Nightshade, hairy (<i>Solanum sarrachoides</i>)	Velvetleaf (<i>Abutilon theophrasti</i>)
Nutsedge, yellow (<i>Cyperus esculentus</i>)	

SPECIFIC WEED PROBLEMS

COMMON DANDELION AND MALLOW: *REVOLT* provides excellent pre-emergence control of common dandelion and mallow germinating from seed. Make a second application in high rainfall areas or where sprinkler irrigation is used to extend residual control throughout the growing season. If application is made post-emergence to these weeds, add a suitable burndown herbicide including glyphosate or paraquat. Small and medium-sized plants (up to 6 inches in diameter) are controlled by post-emergence applications of *REVOLT* plus a burndown herbicide; however, plants that are larger than 6 inches in diameter may only be suppressed and may require a second application 4 to 6 weeks later.

MARESTAIL/HORSEWEED AND FLEABANE: Where marestail (horseweed) and fleabane are the target weeds, apply pre-emergence for best results. This may require a fall application to help prevent fall-germinating seedlings from becoming established during the winter. A foliar active herbicide with activity on fleabane and marestail/horseweed (including paraquat, glyphosate, and glufosinate) must be tank mixed with *REVOLT* for best control and resistance management. After fall application, a second application in the spring may be required to provide extended weed control in the summer. If this product is applied to control marestail/horseweed and fleabane, include another soil-residual herbicide as a tank mix or rotational partner to aid in resistance management.

PUNCTUREVINE: Apply early in the spring when you can expect rainfall or overhead irrigation to move *REVOLT* into the weed root zone before puncturevine germinates. Puncturevine emerges over a long period of time and late-season germinations may not be controlled.

YELLOW NUTSEDGE: *REVOLT* suppresses yellow nutsedge. For optimum results, use the highest rate within the specified rate range based on width of your spray band and make two applications. For applications made post-emergence to nutsedge, always add the appropriate rate of glyphosate and an effective adjuvant if required. On soils with high organic matter (6% or higher) always apply post-emergence to weeds since preemergence applications are not as effective on these soils.

Application Timing – Yellow Nutsedge

Pre-emergence plus Early Post-emergence: Make the pre-emergence application when rainfall or overhead irrigation will move *REVOLT* into the nutsedge root zone prior to nutsedge emergence. Make a second application when emerging nutsedge is 2 to 4 inches tall.

Post-Emergence plus Post-Emergence: Make first application when emerging nutsedge is 2 to 4 inches tall. Repeat application 14 days later. **Note:** If yellow nutsedge is greater than 6 inches tall at the first application, weed control is greatly reduced.

ANNUAL SUMMER GRASS Weeds (including Barnyardgrass, Green Foxtail, and Crabgrass): If sprinkler irrigation is used, a fall or early spring application of *REVOLT* will not provide season-long control of summer grasses like foxtail, barnyardgrass, and crabgrass. For optimum results, use this product with a suitable tank mix herbicide including oryzalin or pendimethalin. Make a second application to provide extended control of summer grasses.

Use Precautions

- Direct sprays to minimize spray contact with fruit or foliage.

- Draining or flushing equipment on or near desirable trees or other plants, or in areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots may injure these plants.
- Trees or desirable plants whose roots extend into a treated crop use area may be injured.
- For best results, maintain spray tank solution at pH 5 to 7.
- If the selected companion herbicide has a ground or surface water advisory, consider the advisory when using the companion herbicide.

Use Restrictions

- **DO NOT** apply more than 4 ounces (0.0625 lb ai) per acre per application.
- **DO NOT** apply more than 4 ounces (0.0625 lb ai) per acre per year.
- **DO NOT** make more than 2 applications per year when applied as a banded treatment (50% band or less).
- **DO NOT** make more than 1 application per year when applied as a broadcast treatment.
- Allow a minimum of 30 days between applications.
- **Preharvest Interval (PHI):**
 - For **Citrus Fruit Group 10-10**: **DO NOT** apply within 3 days of first harvest.
 - For **Pome Fruit Group 11-10**: **DO NOT** apply within 7 days of first harvest.
 - For **Tree Nuts Group 14-12**, **Stone Fruit Group 12-12**, and **Grapes**: **DO NOT** apply within 14 days of first harvest.
 - **DO NOT** spray adjacent crops or desirable plants as injury may occur.
 - **DO NOT** apply to frozen or snow-covered soil. Crop injury may occur from applications made to poorly drained soils.

Diuron-Containing Products (Washington and Oregon): On coarse-textured soils where crops are grown under sprinkler irrigation, **DO NOT** use diuron-containing products as a tank-mix partner with *REVOLT* between June 1st and September 30th. Tank mix this product with diuron products can be used in the fall (after September 30th) or early spring when temperatures are cool to moderate.

CROP ROTATION

(Citrus Fruit Group 10-10, Pome Fruit Group 11-10, Tree Nuts Group 14-12, Stone Fruit Group 12-12, and Vine Crops (Amur river grape; Gooseberry; Grape; Kiwifruit, hardy; Maypop; schisandra berry; Cultivars varieties, and/or hybrids of these.))

DO NOT plant any crops, except field corn, tomatoes, potatoes, and those listed on this label in the PRODUCT INFORMATION section, within one year of the last *REVOLT* application. Prior to planting, fields to be rotated to the above crops must have a thorough soil mixing – for example, two diskings, or a plowing and a disking. To help ensure rotational crop safety, complete a field bioassay prior to planting any other desired crops. The results of this bioassay may require the crop rotation interval to be extended. A successful field bioassay means growing to maturity a test strip of the crop(s) intended for production. The test strip must cross the entire field including knolls and low areas.

MICRO-SPRINKLER CHEMIGATION

(Citrus Fruit Group 10-10, Pome Fruit Group 11-10, Tree Nuts Group 14-12, Stone Fruit Group 12-12, and Vine Crops (Amur river grape; Gooseberry; Grape; Kiwifruit, hardy; Maypop; schisandra berry; Cultivars varieties, and/or hybrids of these.))

REVOLT can be applied via micro-sprinkler chemigation. The chemigation system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must also contain a functional (normally closed) solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticide(s) and capable of being fitted with a system interlock. **DO NOT** apply *REVOLT* through any other chemigation equipment.

USE PRECAUTIONS FOR CHEMIGATION – (Citrus Fruit Group 10-10, Pome Fruit Group 11-10, Tree Nuts Group 14-12, Stone Fruit Group 12-12, and Vine Crops)

- Distributing treated water in an uneven manner results in crop injury, lack of effectiveness, or over-tolerance pesticide residues in the crop. Therefore, to ensure that the mixture is applied evenly at the labeled rate, use sufficient water, apply the mixture for the proper length of time and ensure sprinkler produces a uniform water pattern.
- Continuous agitation in the mix tank is needed to keep the product from settling. If settling does occur, thoroughly re-agitate the tank mixture before using.

USE RESTRICTIONS FOR CHEMIGATION – (Citrus Fruit Group 10-10, Pome Fruit Group 11-10, Tree Nuts Group 14-12, Stone Fruit Group 12-12, and Vine Crops)

- **DO NOT** connect an irrigation system used for applications of this product to a public water system.
- **DO NOT** permit run-off during chemigation.

**POTATOES
APPLICATION INFORMATION**

Potato Restrictions

- **DO NOT** apply more than 1.5 ounces (0.0234 lb ai) per acre per application.
- **DO NOT** apply more than 2.5 ounces (0.0391 lb ai) per acre per year.
- **DO NOT** make more than 5 applications per year, when using reduced application rates.
- Allow a minimum of 14 days between applications.
- **Preharvest Interval (PHI): DO NOT** apply on potatoes within 30 days of harvest.
- **DO NOT** apply to sweet potatoes or yams.
- **DO NOT** use this product on potatoes grown for seed, except as directed on this labeling or supplemental labeling.
- **DO NOT** apply to potatoes growing in greenhouses, cold frames, pot cultures, etc. Apply only to potatoes growing in fields.

PRE-EMERGENCE APPLICATIONS

Apply 1 to 1.5 ounces (0.0156 to 0.0234 lb ai) of **REVOLT** per acre immediately after hilling, drag-off, or reservoir tillage (dam/dike operation) to a clean, newly prepared seedbed.

To activate **REVOLT** in the soil, supply moisture by a single rainfall event or apply sprinkler irrigation of 1/3 to 1 inch (sandy soils apply at least 1/3 inch, sandy loams apply at least 1/2 inch, silt soils apply at least 3/4 inch, clay soils apply at least 1 inch), within 5 days after application to move this product 3 inches deep into the soil profile. Activation is required regardless of the soil moisture level at planting or the cumulative precipitation that occurs over the next 5 days (unless rainfall occurs in a single event and equals the activation moisture requirement). If rainfall or sprinkler activation cannot be managed, wait for weeds to emerge and apply this product post-emergence for better weed control.

If a clean, newly prepared seedbed free of emerged or germinating weeds does not occur, and weeds are present at the application, add a spray adjuvant to the spray mix. Control may not be adequate for weeds that have an established root system before activation of **REVOLT**.

TANK MIXTURES – PRE-EMERGENCE APPLICATIONS

Tank mix **REVOLT** with herbicides labeled for use on potatoes (including eptam, pendimethalin, linuron, metolachlor, S-Metolachlor, or glyphosate products registered for potatoes) in accordance with the most restrictive label limitations and precautions. If tank mixing this product with another potato herbicide(s), read and follow all use directions, restrictions, and precautions of both **REVOLT** and the tank mix partner(s). This product can be used in three-way tank mix combinations with the above herbicide(s). If these instructions conflict with this **REVOLT** label, **DO NOT** use as a tank mix with this product. 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.

REVOLT plus Metribuzin

Apply 1 to 1.5 ounces (0.0156 to 0.0234 lb ai) per acre **REVOLT** and metribuzin at specified label rates in a tank mix combination for better control of kochia, Russian thistle, and common lambsquarters. For optimum results, apply after hilling or drag-off to a clean, newly prepared seedbed before potatoes emerge and weeds germinate. Read and follow the metribuzin label for your area.

REVOLT plus Eptam

Apply 1 to 1.5 ounces (0.0156 to 0.0234 lb ai) per acre **REVOLT** in a tank mix with eptam at specified label rates for better control of hairy nightshade and crabgrass. For optimum results, apply after hilling or drag-off to a clean, newly prepared seedbed before potatoes emerge and weeds germinate. Since the rates and incorporation methods of eptam vary by region, follow the instructions for your region. The procedure is to incorporate a tank mix of eptam + **REVOLT** using irrigation, and not equipment, to prevent poor weed control from deep incorporation of this product.

If your area does not allow incorporation using irrigation, then apply eptam and **REVOLT** in a split application. Read and follow both product labels for your area.

REVOLT plus Pendimethalin

Apply 1 to 1.5 ounces (0.0156 to 0.0234 lb ai) per acre **REVOLT** as a tank mix combination with pendimethalin at specified label rates for better control of kochia, crabgrass, and common lambsquarters. For optimum results, apply after hilling or drag-off to a clean, newly prepared seedbed before potatoes emerge and weeds germinate. Read and follow the pendimethalin label for your area.

REVOLT plus Linuron

Apply 1 to 1.5 ounces (0.0156 to 0.0234 lb ai) per acre **REVOLT** in a tank mix combination with linuron at specified label rates for better control of common lambsquarters and common ragweed. For optimum results, apply after hilling or drag-off to a clean, newly prepared seedbed, before potatoes emerge and weeds germinate. Read and follow the linuron label for your area.

REVOLT plus Metolachlor / S-Metolachlor

Apply 1 to 1.5 ounces (0.0156 to 0.0234 lb ai) per acre **REVOLT** in a tank mix combination with Metolachlor / S-Metolachlor at specified label rates for better control of yellow nutsedge and black nightshade. For optimum results, apply after hilling or drag-off to a clean, newly prepared seedbed before potatoes emerge and weeds germinate. Read and follow both product labels for your area.

POST-EMERGENCE APPLICATIONS – POTATOES

Apply 1 to 1.5 ounces (0.0156 to 0.0234 lb ai) per acre **REVOLT** to young, actively growing weeds after crop emergence. Typically, small weeds (less than 1 inch in height or diameter) that are actively growing at application are most easily controlled. Under growing conditions that promote crop stress (including drought, frost, cold temperatures, high temperatures, or extreme temperature variations), temporary chlorosis (lime green color) may occur after application of this product. Symptoms usually disappear within 5 to 15 days.

For optimum results with **REVOLT** post-emergence, rainfall or sprinkler irrigation of 1/3 to 1 inch (sandy soils apply at least 1/3 inch, sandy loams apply at least 1/2 inch, silt soils apply at least 3/4 inch, clay soils apply at least 1 inch), no sooner than 4 hours, but not more than 5 days after application, will activate this product in the soil and help provide control of subsequent flushes of annual weeds.

TANK MIXTURES (POTATOES) – POST-EMERGENCE APPLICATIONS

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 **REVOLT** with pesticide products labeled for use on potatoes (including eptam and metribuzin) in accordance with the most restrictive of label limitations and precautions. If tank mixing this product with another potato pesticide(s), read and follow all use directions, restrictions, and precautions of both **REVOLT** and the tank mix partner(s).

REVOLT can be used in three-way tank mix combinations with the above pesticide(s). If these instructions conflict with this **REVOLT** label, **DO NOT** use as a tank mix with this product.

REVOLT plus Foliar Fungicides

Tank mix **REVOLT** with other suitable registered fungicides on potatoes (including mancozeb and chlorothalonil).

Read and follow all manufacturers' label instructions for the companion fungicide. If these instructions conflict with this **REVOLT** label, **DO NOT** use as a tank mix with this product.

REVOLT plus Metribuzin

Apply 1 to 1.5 ounces (0.0156 to 0.0234 lb ai) per acre **REVOLT** in a tank mix combination with metribuzin at specified label rates for improved weed control of Russian thistle, common lambsquarters and triazine-resistant weeds. Use a nonionic surfactant (NIS) at 0.125% v/v (1 pint per 100 gallons of water). The addition of adjuvants to post-emergence metribuzin applications reduces crop safety. Use adjuvants with caution.

When possible, avoid post-emergence applications on metribuzin-sensitive varieties or if the crop is under stress. Read and follow both product labels for your area.

Note: DO NOT use crop oil concentrate (COC) or methylated seed oil (MSO) for tank mix combinations with **REVOLT** plus metribuzin.

REVOLT plus Eptam

Apply 1 to 1.5 ounce (0.0156 to 0.0234 lb ai) per acre **REVOLT** in tank mix with eptam at specified label rates. Include 1% volume/volume (1 gallon per 100 gallons spray solution) of either a modified seed oil adjuvant (MSO) or 0.5% volume/volume (0.5 gallon per 100 gallons spray solution) of an organo-silicon/modified seed oil blend (OS/MSO). Include a 2 pounds per acre of a spray-grade ammonium sulfate (AMS).

For optimum results, rainfall or sprinkler irrigation of 1/3 to 1 inch (sandy soils apply at least 1/3 inch, sandy loams apply at least 1/2 inch, silt soils apply at least 3/4 inch, clay soils apply at least 1 inch), no sooner than 4 hours after application, but not more than 1 day after application.

Additional eptam can be added during the water in process if desired (read and follow all use directions, restrictions, and precautions on the eptam label before use. If these instructions conflict with this **REVOLT** label, **DO NOT** use as a tank mix with this product).

NOTE: Crop injury can occur (leaf burn and temporary yellowing) when applications are made under high temperatures. Addition of fungicides may increase the level of crop injury. In warm, moist conditions, the expression of herbicide symptoms is accelerated; in cold, dry conditions, expression of herbicide symptoms is delayed and may be more variable in weed control.

SEQUENTIAL APPLICATIONS – POTATOES

Depending upon rainfall or other environmental conditions, and the density of the top growth of the potato variety (those with poor top growth including Norkotah), annual weeds may have a second flush of germinating seedlings, and treated perennials may produce new growth from underground roots or stems. To maximize control, apply **REVOLT** a second time 14 to 28 days after the first application (typically, make applications to small weeds that are less than 1 inch in height or diameter that are actively growing). The combined rate of the applications must not exceed 2.5 ounces (0.0391 lb ai) **REVOLT** per acre during the same year.

POTATOES GROWN FOR SEED

Use **REVOLT** on potatoes grown for seed that use field-grown tubers as the planted seed piece and are at least the progeny of the first field planting. (First field planting utilizes laboratory-tested stocks, which may be tissue cultured plantlets, greenhouse-produced micro-tubers, mini-tubers, stem cuttings, or line selections.)

Apply **REVOLT** by any of the following methods:

- Pre-emergence: 1.5 ounces (0.0234 lb ai) per acre;
- Post-emergence: 1 to 1.5 ounces (0.0156 to 0.0234 lb ai) per acre;
- Sequential application pre-emergence: 1 to 1.5 ounces (0.0156 to 0.0234 lb ai) per acre, followed by post-emergence at 1 ounce (0.0156 lb ai) per acre;
- Post-emergence: 1 ounce (0.0156 lb ai) per acre followed by post-emergence at 1 ounce (0.0156 lb ai) per acre.

To activate **REVOLT** pre-emergence, supply moisture by a single rainfall event, or apply sprinkler irrigation of 1/3 to 1 inch (sandy soils apply at least 1/3 inch, sandy loams apply at least 1/2 inch, silt soils apply at least 3/4 inch, clay soils apply at least 1 inch) within 5 days after application to move **REVOLT** 2 to 3 inches deep into the soil profile.

Potatoes Grown for Seed Precautions

- The rotational crop interval listed in the label for this product may need to be extended to 18 months if seed potato production practices decrease water and/or time for breakdown of this product. Practices that may shorten the breakdown are late planting or less frequent irrigations as compared to commercial production practices. Potatoes can be planted at any time.
- Consider informing your state seed certification agency or inspector that this product has been applied. Under growing conditions that promote crop stress (including drought, frost, cold temperatures, high temperatures, or extreme temperature variations), temporary chlorosis (lime green color) may occur after application. These symptoms may appear similar to virus-like symptoms (including chlorosis, leaf crinkling, pinching of terminal leaflet) but will usually disappear within 5 to 15 days of application.
- The rotational crop interval for Spring Barley is extended to 18 months due to the generally shorter growing seasons and different cultural practices in seed production in the states of California, Idaho, Oregon, Montana, South Dakota, Washington, Colorado, and parts of North Dakota (all counties in North Dakota except Pembina, Towner, Walsh, Grand Forks, Trail, and Cass).

Potatoes Grown for Seed Restrictions

- **DO NOT** make more than one pre-emergence at greater than 1.5 ounces (0.0234 lb ai) and one postemergence no greater than 1 ounce (0.0156 lb ai).
- **DO NOT** exceed 2.5 ounces (0.0391 lb ai) per acre per year.
- **DO NOT** make more than 2 applications per year.
- Allow a minimum of 14 days between applications.
- **DO NOT** apply to plants suffering stress from lack of moisture, cold, herbicide injury, and insect or disease injury.
- **DO NOT** use on potatoes grown for seed if these are grown from micro-tubers or transplants. Depending on geography, these may be referred to as Generation 1, Nuclear, Elite 1, or Pre-Elite.

WEEDS CONTROLLED - POTATO

PRE-EMERGENCE WEED CONTROL

Grass Weeds	
Barnyardgrass (<i>Echinochloa crus-galli</i>)	Foxtail, yellow (<i>Setaria pumila</i>)
Foxtail, giant (<i>Setaria faberi</i>)	Wheat, volunteer (<i>Triticum aestivum</i>)
Foxtail, green (<i>Setaria viridis</i>)	
Broadleaf Weeds	
Chamomile, false (<i>Matricaria maritima</i>)	Pigweed, prostrate (<i>Amaranthus blitoides</i>)
Filaree, redstem (<i>Erodium cicutarium</i>)	Pigweed, redroot (<i>Amaranthus retroflexus</i>)
Henbit (<i>Lamium amplexicaule</i>)	Pigweed, smooth (<i>Amaranthus hybridus</i>)

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Pre-Emergence Weed Control (cont'd)

Kochia (<i>Kochia scoparia</i>)	Purslane, common (<i>Portulaca oleracea</i>)
Mustard, birdsrape (<i>Brassica rapa</i>)	Spurge, prostrate (<i>Chamaesyce prostrata</i>)*
Mustard, black (<i>Brassica nigra</i>)	Spurge, spotted (<i>Chamaesyce maculata</i>)*
* Not for use in California.	

PRE-EMERGENCE PARTIAL WEED CONTROL‡

Grass Weeds	
Crabgrass (<i>Digitaria</i> spp.)	Oat, wild (<i>Avena fatua</i>)
Broadleaf Weeds	
Cocklebur (<i>Xanthium</i> spp.)	Pigweed, prostrate (<i>Amaranthus blitoides</i>)
Lambsquarters, common (<i>Chenopodium album</i>)	Ragweed, common (<i>Ambrosia artemisiifolia</i>)
Nightshade†, black (<i>Solanum nigrum</i>)	Velvetleaf (<i>Abutilon theophrasti</i>)
Nightshade, hairy (<i>Solanum sarraoides</i>)	

‡ Weed partial control is a reduction in weed competition (reduced population and/or vigor) as visually compared to an untreated area.

† Eastern Black Nightshade (*Solanum ptycanthum*) is NOT controlled or suppressed.

POST-EMERGENCE WEED CONTROL

Grass Weeds	
Barley, volunteer (<i>Hordeum vulgare</i>)	Foxtail, giant (<i>Setaria faberi</i>)
Barnyardgrass (<i>Echinochloa crus-galli</i>)	Foxtail, green (<i>Setaria viridis</i>)
Bluegrass, annual (<i>Poa annua</i>)	Foxtail, yellow (<i>Setaria pumila</i>)
Crabgrass, large (<i>Digitaria sanguinalis</i>)	Panicum, fall (<i>Panicum dichotomiflorum</i>)
Foxtail, bristly (<i>Setaria verticillata</i>)	Wheat, volunteer (<i>Triticum aestivum</i>)
Broadleaf Weeds	
Chamomile, false (<i>Matricaria maritima</i> L.)	Mustard, wild (<i>Sinapis arvensis</i>)
Chickweed, common (<i>Stellaria media</i>)	Pigweed, redroot (<i>Amaranthus retroflexus</i>)
Henbit (<i>Lamium amplexicaule</i>)	Pigweed, smooth (<i>Amaranthus hybridus</i>)
Kochia (<i>Kochia scoparia</i>)	Purslane, common (<i>Portulaca oleracea</i>)
Mustard, birdsrape (<i>Brassica rapa</i> L.)	Shepherd's purse (<i>Capsella bursa-pastoris</i>)
Mustard, black (<i>Brassica nigra</i>)	Wild Radish (<i>Raphanus raphanistrum</i>)

POST-EMERGENCE PARTIAL WEED CONTROL‡

Grass Weeds	
Johnsongrass, seedling (<i>Sorghum halepense</i>)	Stinkgrass (<i>Eragrostis cilianensis</i>)
Millet, wild-proso (<i>Panicum miliaceum</i>)	Yellow nutsedge (<i>Cyperus esculentus</i>)
Oat, wild (<i>Avena fatua</i>)	

Broadleaf Weeds	
Cocklebur (<i>Xanthium</i> spp.)	Quackgrass † (<i>Elymus repens</i>)
Lambsquarters, common (<i>Chenopodium album</i>)	Ragweed, common (<i>Ambrosia artemisiifolia</i>)
Morningglory, ivyleaf (<i>Ipomoea hederacea</i>)	Smartweed, Pennsylvania (<i>Polygonum pensylvanicum</i>)
Nightshade, hairy (<i>Solanum sarraoides</i>)	Thistle, Canada† (<i>Cirsium arvense</i>)
Nightshade*, black† (<i>Solanum nigrum</i>)	Velvetleaf (<i>Abutilon theophrasti</i>)
Pigweed, prostrate (<i>Amaranthus blitoides</i>)	Volunteer Alfalfa** (<i>Medicago sativa</i>)
* Eastern black nightshade (<i>Solanum ptycanthum</i>) is NOT controlled or suppressed.	
**Except in California.	
‡ Weed partial control is a reduction in weed competition (reduced population and/or vigor) as visually compared to an untreated area. The degree of partial control varies with the rate used, the size of weeds, and the environmental conditions following treatment.	
† See "Specific Weed Problems"	

Aerial Application Precautions (See also Spray Drift):

- Use nozzle types and arrangements that provide optimum spray distribution and maximum coverage at a minimum of 5 GPA. In California use a minimum of 10 GPA.

Aerial Application Restrictions (See Also Spray Drift):

- **DO NOT** apply by air in the state of California, except in Modoc or Siskiyou counties.
- **DO NOT** apply by air in the state of New York.

CHEMIGATION – POTATOES

Apply *REVOLT* using center-pivot, lateral-move, solid-set, or hand-move irrigation systems in potatoes. **DO NOT** apply this product using any other type of irrigation system. Check irrigation systems to ensure uniform application of water to all areas. Failure to apply this product uniformly may result in crop injury and/or poor weed control.

For optimum results, use the highest labeled rate within the specified rate range and apply pre-emergence to early post-emergence to the weeds (weeds less than 1 inch tall). If weeds are present at application, add a nonionic surfactant containing at least 80% active ingredient to the spray mix at 16 to 32 ounces per acre.

REVOLT may be mixed in a supply tank with water, fertilizer, or other appropriate agricultural chemicals. Maintain continuous agitation in the injection nurse tanks during application.

For solid set and hand move irrigation systems, apply *REVOLT* at the beginning of the set and then apply 1/3 to 1 inch of water for activation (sandy soils apply at least 1/3 inch, sandy loams apply at least 1/2 inch, silt soils apply at least 3/4 inch, and clay soils apply at least 1 inch).

If you have questions about calibrating chemigation equipment, contact State Extension Service specialists, equipment manufacturers, or other experts. If the chemigation equipment needs adjustment, only the custodian responsible for its operation or someone under the supervision of that custodian must make the necessary adjustments.

IRRIGATION SYSTEM REQUIREMENTS

The irrigation system must contain the following:

- A functional check valve;
- Vacuum relief valve;
- A low-pressure drain (to prevent water source contamination from backflow; must be located on the irrigation pipeline);
- Functional interlocking controls (to automatically shut off the pesticide injection pump when the water pump motor stops);
- A metering pump, including positive-displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

The pesticide injection pipeline must contain the following:

- A functional, automatic, quick-closing check valve (to prevent the flow of fluid back toward the injection pump);
- A functional, solenoid-operated valve (normally closed) located on the intake side of the injection pump (needs to be connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is shut down either automatically or manually).

The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when pesticide distribution is adversely affected by a decrease in water pressure.

Chemigation Precautions

- Distributing treated water in an uneven manner can result in crop injury, lack of effectiveness, and pesticide residues in the crop that may be above tolerance limits. Therefore, to ensure that the mixture is applied evenly at the labeled rate, use sufficient water and apply the mixture for the proper length of time.

Chemigation Restrictions

- **DO NOT** permit run-off during chemigation.
- **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.
- **DO NOT** connect an irrigation system (including greenhouse systems) used for application of this product to a public water system.

REVOLT ROTATIONAL CROP GUIDELINES – POTATO

For crops listed below, planting prior to the interval shown can result in crop injury when using this product. Rotation intervals may need to be extended to 18 months if drought conditions prevail after application and before the rotational crop is planted unless supplemental sprinkler irrigation has been applied and totals greater than 15 inches during the growing season. For tank mixtures, follow the most restrictive rotational crop guideline.

Rotation Crop Interval (Months)	Interval (Months)
Corn (Field), Potatoes, Tomato	Anytime
Alfalfa**, Carrots (Kern County, CA)**, Cover Crops (erosion control), Grass, pasture, hay, seed**, Mint (peppermint and spearmint)**, Soybeans, Winter Wheat	4
Garlic	6
Peas**	8
Barley (Spring*), Oats (Spring), Wheat (Spring)	9
Beans (Dry), Carrots**, Corn (Popcorn/Sweet), Cotton, Cucumber, Onions**, Sunflowers	10
Crops Not Listed	18

* Idaho – 18 months for Teton County, Caribou County, Madison County East of Hwy. 20, and Fremont County East of Hwy. 20.
 Colorado –Alamosa, Conejos, Costilla, Rio Grande and Saguache Counties: 1.5 ounces (0.0234 lb ai) or less of this product per acre per year – 9 months; greater than 1.5 ounces (0.0234 lb ai) of this product per acre per year – 18 months.

Potatoes grown in the counties listed below in OR and WA under sprinkler irrigation with a minimum of 18 inches of water per year. All other areas may be rotated to alfalfa at 18 months after application. This rotation interval is for sand, loamy sand, and sandy loam soils having not more than 1.5% organic matter where a minimum of 18 inches of sprinkler irrigation is used on the previous potato crop. Injury to the rotated crop may occur if less than 18 inches of irrigation is used on the previous potato crop. For tank mixtures, follow the most restrictive rotational crop guideline.

** Specific Rotation for Crops marked **:

- **For Rotation to Alfalfa:** *REVOLT* in potatoes not to exceed 1 ounce (0.0156 lb ai) per year in the following Washington counties: Adams, Grant, Douglas, and Lincoln.
- **For Rotation to Alfalfa:** *REVOLT* in potatoes not to exceed 1.5 ounces (0.0234 lb ai) per acre per year in the following Washington counties: Benton, Franklin, Klickitat, Walla Walla, and Yakima.
- **For Rotation to Alfalfa:** *REVOLT* in potatoes not to exceed 1.5 ounces (0.0234 lb ai) per acre per year in the following Oregon counties: Morrow and Umatilla.
- **For Rotation to Onions and Carrots:** *REVOLT* in potatoes not to exceed 1.5 ounces (0.0234 lb ai) per acre per year in the following Washington counties: Adams, Grant, Douglas, and Lincoln Counties of Washington
- **For Rotation to Onions and Carrots:** *REVOLT* in potatoes not to exceed 2.5 ounces (0.0391 lb ai) per acre per year in the following Washington counties: Benton, Franklin, Klickitat, Walla Walla, and Yakima.
- **For Rotation to Onions and Carrots:** *REVOLT* in potatoes not to exceed 2.5 ounces (0.0391 lb ai) per acre per year in the following Oregon counties: Morrow and Umatilla.
- **For Rotation to Grass Crops Grown for Seed, Hay or Pasture:** *REVOLT* in potatoes not to exceed 1.5 ounces (0.0234 lb ai) per acre per year in the following Washington counties: Adams, Grant, Douglas, and Lincoln.
- **For Rotation to Grass Crops Grown for Seed, Hay or Pasture:** *REVOLT* in potatoes not to exceed 2.5 ounces (0.0391 lb ai) per acre per year in the following Washington Counties: Benton, Franklin, Klickitat, Walla Walla, and Yakima.
- **For Rotation to Grass Crops Grown for Seed, Hay or Pasture:** *REVOLT* in potatoes not to exceed 2.5 ounces (0.0391 lb ai) per acre per year in the following Oregon Counties: Morrow and Umatilla.
- **For Rotation to Peas and Mints (peppermint and spearmint):** *REVOLT* in potatoes not to exceed 1.5 ounces (0.0234 lb ai) per acre per year in all areas.

NOTE: DO NOT use *REVOLT* in a tank mix or sequential application program with other soil residual ALS-inhibiting herbicides on potatoes as the combined effects of these herbicides on the planting of subsequent crops have not been thoroughly investigated and crop injury may occur.

TOMATOES (DIRECT-SEEDED AND TRANSPLANT) PRE-EMERGENCE APPLICATIONS

Apply *REVOLT* after seeding at 2 to 4 ounces (0.0313 to 0.0625 lb ai) product per acre.

To activate *REVOLT* in the soil, supply moisture by a single rainfall event, or apply sprinkler irrigation of 1/2 to 1 inch (sandy soils apply at least 1/2 inch, sandy loams apply at least 1/2 inch, silt soils apply at least 3/4 inch, clay soils apply at least 1 inch) within 5 days after application to move this product 2 to 3 inches deep into the soil profile.

Activating sprinkler irrigation is required regardless of the soil moisture level at planting or the cumulative precipitation that occurs over the next 5 days (unless rainfall occurs in a single event and equals the activation moisture requirement).

If rainfall or sprinkler activation cannot be managed, waiting for weeds to emerge and applying *REVOLT* post-emergence may result in better weed control.

If a clean, newly prepared seedbed, free of emerged or germinating weeds does not occur and weeds are present at application, add a spray adjuvant to improve weed control (see the "Spray Adjuvant" section of this label for additional information). Control may not be adequate for weeds that are greater than 1 inch in height or diameter or weeds that have an established root system before activation of *REVOLT*.

POST-EMERGENCE APPLICATIONS

For post-emergence applications, apply *REVOLT* at 1 to 2 ounces (0.0156 to 0.0313 lb ai) of product per acre (use 2 ounces (0.0313 lb ai) per acre for longer residual) to young, actively growing weeds after the crop has reached the cotyledon stage. Optimum performance is obtained when weeds are less than 1 inch in height or diameter and are actively growing.

Use a surfactant at a minimum rate of 0.25% V/V (2 pints per 100 gallons of water). The use of crop oil concentrate, methylated seed oils, nitrogen fertilizer solution, or nonionic surfactant rates above 0.25% V/V may result in temporary crop chlorosis (yellowish color). Symptoms usually disappear within 5 to 15 days.

Under growing conditions that promote crop stress (including drought, frost, cold temperatures, high temperatures, extreme temperature variations, or saturated or water-logged soils), temporary crop chlorosis (yellowish color) may occur after application with *REVOLT*. Symptoms usually disappear within 5 to 15 days.

For optimum results with *REVOLT* post-emergence, rainfall or sprinkler irrigation of 1/2 to 1 inch (sandy soils apply at least 1/2, sandy loams apply at least 1/2, silt soils apply at least 3/4 inch, clay soils apply at least 1 inch), no sooner than 4 hours but not more than 5 days after application, will activate this product in the soil and help provide control of subsequent flushes of annual weeds.

Make post-emergence applications of *REVOLT* after the tomatoes reach the cotyledon stage.

SEQUENTIAL APPLICATIONS TOMATOES

Annual weeds at times may have multiple flushes of seedlings, or treated weeds may sometimes regrow from underground stems or roots, depending upon rainfall and other environmental conditions. For optimum control, make a sequential application of *REVOLT*.

PRE-EMERGENCE FOLLOWED BY POST-EMERGENCE

Applications of *REVOLT* may be applied pre-emergence followed by a single or multiple applications postemergence.

Restriction

- For sequential applications the total amount of this product must not exceed 4 ounces (0.0625 lb ai) product per acre per year on a broadcast basis.

POST-EMERGENCE FOLLOWED BY POST-EMERGENCE

Multiple applications of *REVOLT* can be applied post-emergence, optimum control is seen when the first application is made to small actively growing weeds, followed by a second application 7 to 14 days later.

Restriction

- For sequential applications the total amount of this product must not exceed 4 ounces (0.0625 lb ai) product per acre per year on a broadcast basis.

BAND APPLICATIONS – TOMATOES

REVOLT can be applied pre-emergence and post-emergence as a banded application. Use proportionally less spray mixture based on the soil area actually sprayed. See the "Pre-emergence Applications" and "Post-emergence Applications" sections of this label for additional details on the use of this product.

TANK MIXTURES – TOMATOES

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.

REVOLT may be tank mixed with pesticide products labeled for use on tomatoes in accordance with the most restrictive of label limitations and precautions. This product may also be used in three-way tank mix combinations with the above pesticide(s). If these instructions conflict with this product's label, **DO NOT** use as a tank mix with *REVOLT*. Tank mixtures with products that lower the spray solution pH may reduce weed control (for example IVC 5150 surfactant).

REVOLT plus Foliar Fungicides

REVOLT can be tank mixed with suitable registered fungicides (including mancozeb and chlorothalonil) on tomatoes. Tank mixtures with copper-containing fungicides may reduce weed control.

Read and follow all manufacturers' label instructions for the companion fungicide. If these instructions conflict with this *REVOLT* label, **DO NOT** use as a tank mix with this product.

TOMATOES: CALIFORNIA PRE-EMERGENCE APPLICATIONS

Apply 2 to 4 ounces (0.0313 to 0.0625 lb ai) *REVOLT* per acre after seeding. To activate this product in the soil, supply moisture by a single rainfall event, or apply sprinkler irrigation of 1/2 to 1 inch (sandy soils apply at least 1/2 inch, sandy loams apply at least 1/2 inch, silt soils apply at least 3/4 inch, clay soils apply at least 1 inch) within 5 days after application to move this product 2 to 3 inches deep into the soil profile. Activating sprinkler irrigation is required regardless of the soil moisture level at planting, or the cumulative precipitation that occurs over the next 5 days (unless rainfall occurs in a single event and equals the activation moisture requirement). If rainfall or sprinkler activation cannot be managed, waiting for weeds to emerge and applying *REVOLT* post-emergence may result in better weed control.

If a clean, newly prepared seedbed, free of emerged or germinating weeds does not occur and weeds are present at application, add a spray adjuvant to improve weed control (see the "Spray Adjuvant" section of this label for additional information). Control may not be adequate for weeds that are greater than 1 inch in height or diameter or weeds that have an established root system before activation of *REVOLT*.

POST-EMERGENCE APPLICATIONS

For post-emergence applications, apply 2 ounces (0.0313 lb ai) *REVOLT* per acre to young, actively growing weeds after the crop has reached the cotyledon stage. Optimum performance is obtained when weeds are less than 1 inch in height or diameter and are actively growing.

Use a surfactant at a minimum rate of 0.25% V/V (2 pints per 100 gallons of water). The use of crop oil concentrate, methylated seed oils, nitrogen fertilizer solution or nonionic surfactant rates above 0.25% V/V may result in temporary crop chlorosis (yellowish color). Symptoms usually disappear within 5 to 15 days.

Under growing conditions that promote crop stress (including drought, frost, cold temperatures, high temperatures, extreme temperature variations, or saturated or water-logged soils), temporary crop chlorosis (yellowish color) may occur after application of *REVOLT*. Symptoms usually disappear within 5 to 15 days.

For optimum results with *REVOLT* post-emergence, rainfall or sprinkler irrigation of 1/2 to 1 inch (sandy soils apply at least 1/2 inch, sandy loams apply at least 1/2 inch, silt soils apply at least 3/4 inch, clay soils apply at least 1 inch) no sooner than 4 hours but not more than 5 days after application will activate this product in the soil and help provide control of subsequent flushes of annual weeds.

Make post-emergence applications of *REVOLT* after the tomatoes reach the cotyledon stage.

SEQUENTIAL APPLICATIONS

Annual weeds at times may have multiple flushes of seedlings, or treated weeds may sometimes regrow from underground stems or roots, depending upon rainfall and other environmental conditions. To optimize control make a sequential application of *REVOLT*.

PRE-EMERGENCE FOLLOWED BY POST-EMERGENCE

Apply *REVOLT* pre-emergence followed by single or multiple applications of post-emergence.

Restriction

- For sequential applications the total amount of this product must not exceed 4 ounces (0.0625 lb ai) product per acre year on a broadcast basis.

POST-EMERGENCE FOLLOWED BY POST-EMERGENCE

Multiple applications of *REVOLT* can be made post-emergence; optimum control is seen when the first application is made to small actively growing weeds followed by a second application 7 to 14 days later.

Restriction

- For sequential applications the total amount of this product must not exceed 4 ounces (0.0625 lb ai) product per acre per year on a broadcast basis.

BAND APPLICATIONS – TOMATOES:

Apply 2 to 4 ounces (0.0313 to 0.0625 lb ai) per acre **REVOLT** in a pre-emergence band at (For example, 0.5 to 1 ounce (0.00078 to 0.0156 lb ai) of product per conventional broadcast acre assuming 25% banding) followed by two separate post-emergence band applications applied at 2 ounces (0.0313 lb ai) product per acre (For example, 0.5 ounce (0.00078 lbs. ai) of product per conventional broadcast acre assuming 25% banding) over the same sprayed area.

Restriction:

- **DO NOT** make any more than three band applications of this product in one year.

WEEDS CONTROLLED - TOMATO**PRE-EMERGENCE WEED CONTROL**

Grass Weeds	
Barnyardgrass (<i>Echinochloa crus-galli</i>)	Foxtail, yellow (<i>Setaria pumila</i>)
Foxtail, giant (<i>Setaria faberi</i>)	Wheat, volunteer (<i>Triticum aestivum</i>)
Foxtail, green (<i>Setaria viridis</i>)	
Broadleaf Weeds	
Filaree, redstem (<i>Erodium cicutarium</i>)	Pigweed, redroot (<i>Amaranthus retroflexus</i>)
Henbit (<i>Lamium amplexicaule</i>)	Pigweed, smooth (<i>Amaranthus hybridus</i>)
Kochia (<i>Kochia scoparia</i>)	Purslane, common (<i>Portulaca oleracea</i>)
Mustard, black (<i>Brassica nigra</i>)	

PRE-EMERGENCE PARTIAL WEED CONTROL‡

Grass Weeds	
Crabgrass, large (<i>Digitaria spp.</i>)	Wild Oat (<i>Avena fatua</i>)
Broadleaf Weeds	
Cocklebur (<i>Xanthium spp.</i>)	Pigweed, prostrate (<i>Amaranthus blitoides</i>)
Lambsquarters, common (<i>Chenopodium album</i>)	Ragweed, common (<i>Ambrosia artemisiifolia</i>)
Nightshade*, black† (<i>Solanum nigrum</i>)	Velvetleaf (<i>Abutilon theophrasti</i>)
Nightshade, hairy (<i>Solanum sarrachoides</i>)	

* Eastern black nightshade (*Solanum ptycanthum*) is NOT controlled or suppressed. Black nightshade partial control is only for use in Tomatoes in California.

† See "Specific Weed Problems".

‡ Weed partial control is a reduction in weed competition (reduced population and/or vigor) as visually compared to an untreated area.

**POST-EMERGENCE WEED CONTROL
(weeds not to exceed 1 inch in height)**

Grass Weeds	
Barley, volunteer (<i>Hordeum vulgare</i>)	Foxtail, giant (<i>Setaria faberi</i>)
Barnyardgrass (<i>Echinochloa crus-galli</i>)	Foxtail, green (<i>Setaria viridis</i>)
Bluegrass, annual (<i>Poa annua</i>)	Foxtail, yellow (<i>Setaria pumila</i>)

Crabgrass (<i>Digitaria spp.</i>)	Panicum, fall (<i>Panicum dichotomiflorum</i>)
Foxtail, bristly (<i>Setaria verticillata</i>)	Wheat, volunteer (<i>Triticum aestivum</i>)
Broadleaf Weeds	
Chamomile, false (<i>Matricaria maritima</i>)	Mustard, wild (<i>Sinapsis arvensis</i>)
Chickweed, common (<i>Stellaria media</i>)	Pigweed, redroot (<i>Amaranthus retroflexus</i>)
Henbit (<i>Lamium amplexicaule</i>)	Pigweed, smooth (<i>Amaranthus hybridus</i>)
Kochia (<i>Kochia scoparia</i>)	Purslane, common (<i>Portulaca oleracea</i>)
Mustard, birdsrape (<i>Brassica rapa L.</i>)	Shepherd's purse (<i>Capsella bursa-pastoris</i>)
Mustard, black (<i>Brassica nigra</i>)	Wild Radish (<i>Raphanus raphanistrum</i>)

POST-EMERGENCE PARTIAL WEED CONTROL‡

Grass Weeds	
Johnsongrass, seedling (<i>Sorghum halepense</i>)	Quackgrass (<i>Elymus repens</i>)
Millet, wild-proso (<i>Panicum miliaceum</i>)	Stinkgrass (<i>Eragrostis ciliaris</i>)
Oat, wild (<i>Avena fatua</i>)	Yellow Nutsedge (<i>Cyperus esculentus</i>)
Broadleaf Weeds	
Cocklebur (<i>Xanthium spp.</i>)	Quackgrass † (<i>Elymus repens</i>)
Lambsquarters, common (<i>Chenopodium album</i>)	Ragweed, common (<i>Ambrosia artemisiifolia</i>)
Morningglory, ivyleaf (<i>Ipomoea hederacea</i>)	Smartweed, Pennsylvania (<i>Polygonum pensylvanicum</i>)
Nightshade*, black† (cotyledon stage only) (<i>Solanum nigrum</i>)	Thistle, Canada† (<i>Cirsium arvense</i>)
Nightshade, hairy (<i>Solanum sarrachoides</i>)	Velvetleaf (<i>Abutilon theophrasti</i>)
Pigweed, prostrate (<i>Amaranthus blitoides</i>)	Volunteer Alfalfa** (<i>Medicago sativa</i>)

* Eastern black nightshade (*Solanum ptycanthum*) is NOT controlled or suppressed. Black nightshade partial control is only for use in Tomatoes in California.

** Except in California.

‡ Weed partial control is a reduction in weed competition (reduced population and/or vigor) as visually compared to an untreated area. The degree of partial control varies with the rate used, the size of weeds, and the environmental conditions following treatment.

† See "Specific Weed Problems".

REVOLT ROTATIONAL CROP GUIDELINES – TOMATO

For crops listed below, planting prior to the interval shown may result in crop injury when using **REVOLT**. Rotation intervals may need to be extended to 18 months if drought conditions prevail after application and before the rotational crop is planted, unless supplemental sprinkler irrigation has been applied and totals greater than 15 inches during the growing season. For tank mixtures, follow the most restrictive rotational crop guideline.

Rotation Crop	Interval (Months)
Corn (Field), Potatoes, Tomatoes	Anytime
Wheat, Winter	4

(cont'd next page)

Rotation Crop	Interval (Months)
Garlic	6
Beans (Dry/Snap), Corn (Sweet), Cotton, Cucumber, Soybeans	10
Crops Not Listed	12
Note: Where drip-irrigated tomatoes are grown, rotate only to tomato, potato, or field corn as crop injury may result.	

Rotational crops may be planted at indicated intervals provided the fields are deep disked or plowed and thorough soil mixing is achieved prior to planting the rotational crop.

Tomato Restrictions

- **DO NOT** apply more than 4 ounces (0.0625 lb ai) per acre per application.
- **DO NOT** apply more than 4 ounces (0.0625 lb ai) per acre per year.
- **DO NOT** apply more than 4 ounces (0.0625 lb ai) per acre (broadcast basis) on tomatoes during the same year.
- **DO NOT** make more than 4 applications per acre per year, when using reduced application rates.
- Allow a minimum of 7 days between applications.
- **Preharvest Interval (PHI): DO NOT** apply within 45 days of tomato harvest.
- **DO NOT** apply by air on tomatoes.
- **DO NOT** apply using assisted (Air Blast) field crops sprayers on tomatoes.
- **DO NOT** apply to tomatoes growing in greenhouses, cold frames, pot cultures, etc. Apply only to tomatoes growing in fields.
- **DO NOT** apply through any type of irrigation system.

CULTIVATION

A timely cultivation may be necessary to control suppressed weeds, weeds that were beyond the maximum size at application, or weeds that emerge after an application of **REVOLT**.

- Cultivation up to 7 days before the post-emergence application of **REVOLT** may decrease weed control by pruning weed roots, placing the weeds under stress or covering the weeds with soil and preventing coverage by this product.
- To allow **REVOLT** to fully control treated weeds, **DO NOT** cultivate for 7 days after application.
- Optimizing timing for cultivation is 7 to 14 days after a post-emergence application of **REVOLT**.

SPECIFIC WEED PROBLEMS

Quackgrass: Apply **REVOLT** post-emergence to quackgrass that is 4 to 8 inches tall. Quackgrass not emerged at the time of application will not be controlled or suppressed and will require a second post-emergence application for acceptable control.

Black Nightshade (Tomatoes): For optimum results, apply **REVOLT** pre-emergence (prior to weed germination) at 2 to 4 ounces (0.0313 to 0.0625 lb ai) per acre followed by a post-emergence application at 1 to 2 ounces (0.0156 to 0.0313 lb ai) per acre to small actively growing weeds.

Canada Thistle: For optimum results, apply **REVOLT** post-emergence to small actively growing Canada thistle. Canada thistle not emerged at the time of application will not be controlled or suppressed and will require a second post-emergence application for acceptable control.

SPRAY ADJUVANTS

Include a spray adjuvant with applications of **REVOLT** when applied by itself and post-emergence to the weeds. Consult your Ag dealer or applicator prior to using an adjuvant system. If another herbicide is tank mixed with this product, select adjuvants authorized for use with both products. Products must contain only EPA-exempt ingredients (40 CFR 910 or 40 CFR 920).

Nonionic Surfactant (NIS)

- Apply 0.125 to 0.25% v/v (1 to 2 pints per 100 gallons of water). Use the 0.25% v/v rate in arid or drought conditions.
- Surfactant products must contain at least 80% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12.

Petroleum Crop Oil Concentrate (COC) or Modified Seed Oil (MSO)

- Apply at 1% volume/volume (1 gallon per 100 gallons spray solution) or 2% under arid conditions.
- Oil adjuvants must contain at least 80% high-quality, petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.
- Blended products that contain both MSO and silicone are acceptable at labeled rates.

Ammonium Nitrogen Fertilizer

- Use 2 quarts per acre of a high-quality urea ammonium nitrate (UAN), including 28% N or 32% N, or 2 pounds per acre of a spray-grade ammonium sulfate (AMS). Use 4 quarts per acre UAN or 4 pounds per acre AMS under arid conditions.
- **DO NOT** use liquid nitrogen fertilizer as the total carrier solution.

Special Adjuvant Types

- Combination adjuvant products may be used at doses that provide the required amount of NIS and ammonium nitrogen fertilizer. Consult product literature for use rates and restrictions.
- **DO NOT** use any other adjuvant rates or mixtures with **REVOLT** unless instructed to do so by an Innvictis representative.

Precautions

- Using a silicone polymer-type surfactants is not suggested as reduced weed control may result.
- Avoid using crop oil concentrate (COC) or methylated seed oil (MSO) when tomatoes are under heat stress (>85°F) as multiple stresses may cause crop injury.

EQUIPMENT—SPRAY VOLUMES

Agitate the spray tank continuously to keep the material in suspension.

DO NOT use equipment and/or spray volumes that will cause damage from spray by drift onto nontarget sites. **DO NOT** make applications when weather conditions are likely to cause spray to drift onto nontarget sites. (See the "Spray Drift Management" section of this label for additional information.)

GROUND APPLICATION – POTATOES AND TOMATOES

To ensure optimum spray distribution and thorough coverage, apply **REVOLT** with a properly calibrated, low-pressure (20 to 40 psi) boom sprayer equipped with flat fan, "Twinjet", under-leaf banding nozzles or flood jet nozzles. Nozzle screens must be no finer than 50 mesh. When using flood nozzles, the spray pattern must overlap 100% for optimum product performance. For banded applications even-flow flat fan or twin jet spray nozzles may provide a more uniform spray distribution.

For maximum pre-emergence activity, prior to application, the bed or soil surface must be smooth and relatively free of crop and weed trash (dead weeds, decaying leaves, clippings, etc.). Remove leaves and trash by blowing the area to be treated or by thoroughly mixing the trash into the soil through cultivation prior to herbicide application. Cultural practices that result in redistribution or disturbance of the soil surface after treatment will decrease the herbicidal effectiveness of **REVOLT**. Cutting water furrows or cultivations that mix untreated soil into the treated areas will also reduce the effectiveness of the herbicide treatment.

For optimum results, apply **REVOLT** with another suitable residual herbicide registered for that crop on all soil types, but especially on coarse-textured soils under standard sprinklers or micro-sprinklers.

More than one banded application of this product may be needed to provide extended weed control.

Potatoes and Tomatoes Precautions

- Potato and tomato varieties may differ in their response to various herbicides. Consult your state experiment station, university, or extension agent as to sensitivity to any herbicide. If no information is available, limit the initial use to a small area.
- Pre-emergence use on soils containing more than 6% organic matter may not provide adequate soil-residual weed control and may result in reduced weed control.

- Pre-emergence and post-emergence use on till-irrigated potatoes and tomatoes (furrow or gravity) may not provide adequate weed control in the absence of rainfall. If sprinklers are used for frost protection, delay the application of this product until stress from environmental conditions has passed.
- Avoid spray drift to any adjacent crops or desirable plants as injury may occur.
- Crop injury may occur following an application of this product if there is a prolonged period of cold weather and/or cold weather in conjunction with wet soils caused by poor drainage or excessive use of sprinkler irrigation for frost protection.
- Draining or flushing equipment on or near desirable trees or other plants, or in areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots may injure these plants. Trees or other desirable plants whose roots extend into a treated crop use area may be injured.
- For best results, maintain spray tank solution at pH 5 to 7.
- If the selected companion herbicide has a ground or surface water advisory, consider the advisory when using the companion herbicide.
- Tank mixing this product with organophosphate insecticides in tomatoes may result in crop injury.

Potatoes and Tomatoes Restrictions:

- **DO NOT** apply to frozen or snow-covered soil. Crop injury may occur from applications made to poorly drained soils.

BLUEBERRY (HIGH AND LOW BUSH) AND CANEBERRY (RASPBERRY AND BLACKBERRY)

BLUEBERRY (High Bush)

For broadcast applications, make a single application of *REVOLT* pre-emergence or early post-emergence to actively growing weeds at 4 ounces (0.0625 lb ai) per acre per year. Use a directed spray application adjusted to provide complete coverage of the weeds while minimizing the amount of spray coming into contact with the blueberry plants.

When applied as a banded treatment (50% treated band or less), *REVOLT* may be applied twice per year.

- Allow a minimum of 30 days between applications.
- Applications made after bud break may cause temporary chlorosis and/or stunting of leaves contacted by the spray.
- Use this product on high bush blueberries that have gone through at least one growing season and are in good health and vigor.
- This product may be applied in tank mixture with other herbicides registered for use in high bush blueberries.

Blueberry (High Bush) Restrictions

- **DO NOT** apply more than 4 ounces (0.0625 lb ai) per year per application.
- **DO NOT** apply more than 4 ounces (0.0625 lb ai) per acre per year.
- **DO NOT** make more than 2 applications per year when applied as a banded treatment (50% band or less).
- **DO NOT** make more than 1 application per year when applied as a broadcast treatment.
- Allow a minimum of 30 days between applications.
- **Preharvest Interval (PHI): DO NOT** apply within 21 days of first harvest.
- **DO NOT** apply by air.
- **DO NOT** use on soils classified as sand.
- **DO NOT** apply more than 4 ounces (0.0625 lb ai) of product per acre on a broadcast application basis per year.

BLUEBERRY (Low Bush)

All applications of *REVOLT* are to be applied in the vegetative year growth stage of low bush blueberries. Make a single broadcast application of this product pre-emergence or early post-emergence to actively growing weeds at 4 ounces (0.0625 lb ai) per acre per year. When applied as a banded treatment (50% treated band or less), this product may be applied twice per year.

- Allow a minimum of 30 days between applications.
- For broadcast treatments, make the application prior to bud break of the blueberries. After bud break, use a directed spray application

adjusted to provide complete coverage of the weeds while minimizing spray contact with the blueberry plants.

- Applications made after bud break may cause temporary chlorosis and/or stunting of leaves contacted by the spray.
- Use *REVOLT* on low bush blueberries that have gone through at least one growing season and are in good health and vigor.
- *REVOLT* may be applied in tank mixture with other herbicides registered for use in low bush blueberries.

Blueberry (Low Bush) Restrictions

- **DO NOT** apply more than 4 ounces (0.0625 lb ai) per acre per application.
- **DO NOT** apply more than 4 ounces (0.0625 lb ai) per acre per year.
- **DO NOT** make more than 2 applications per acre per year when applied as a banded treatment (50% band or less).
- **DO NOT** make more than 1 application per year when applied as a broadcast treatment.
- Allow a minimum of 30 days between applications.
- **Preharvest Interval (PHI): DO NOT** apply within 21 days of first harvest.
- **DO NOT** apply by air.
- **DO NOT** use on soils classified as sand.
- **DO NOT** apply more than 4 ounces (0.0625 lb ai) per acre on a broadcast application basis per year.

CANEERRY (Raspberry, Blackberry)

For broadcast applications, make a single application of *REVOLT* pre-emergence or early post-emergence to actively growing weeds at 4 ounces (0.0625 lb ai) per acre per year. Use a directed spray application adjusted to provide complete coverage of the weeds while minimizing the amount of spray coming into contact with the caneberry plants. When applied as a banded treatment (50% treated band or less), *REVOLT* may be applied twice per year.

- Allow a minimum of 30 days between applications.
- If primocanes are up at time of treatment, temporary chlorosis of foliage and/or stunting of primocane growth may occur. These symptoms are temporary and **DO NOT** affect the overall health and vigor of primocane development.
- Use *REVOLT* on caneberry plants that have gone through at least one growing season and are in good health and vigor.
- *REVOLT* may be applied in tank mixture with other herbicides registered for use in caneberry.

Caneberry (Raspberry, Blackberry) Restrictions

- **DO NOT** apply more than 4 ounces (0.0625 lb ai) per acre per application.
- **DO NOT** apply more than 4 ounces (0.0625 lb ai) per acre per year.
- **DO NOT** make more than 2 applications per year when applied as a banded treatment (50% band or less).
- **DO NOT** make more than 1 application per year when applied as a broadcast treatment.
- Allow a minimum of 30 days between applications.
- **Preharvest Interval (PHI): DO NOT** apply within 21 days of first harvest.
- **DO NOT** apply by air.
- **DO NOT** use on soils classified as sand.
- **DO NOT** apply more than 4 ounces (0.0625 lb ai) per acre on a broadcast application basis per year.

RANGELAND RESTORATION WEST OF THE MISSISSIPPI RIVER

PRODUCT INFORMATION

A restoration management program that includes *REVOLT* may be used when rangeland has become severely infested with invasive weed species such that the land has deteriorated to a point that it is no longer suitable for grazing or forage production. To reclaim these lands, the invasive weed species must first be controlled to allow native grasses to reestablish or to be replanted with desirable forage grasses. The grasses must be allowed time to reestablish before grazing or forage production is resumed. A typical restoration management program will take one to two years. This product may be used to control grass and broadleaf weeds listed in this section under Weeds Controlled. The residual activity of *REVOLT* will also help prevent the reemergence of many of these weeds while desirable grasses are being reestablished.

At the maximum application rate of 4.0 ounces (0.0625 lb ai) of **REVOLT** per acre per year, desirable rangeland perennial grasses in the treated area may exhibit a temporary chlorosis (yellowing of foliage) following application. The use of an adjuvant with this product can increase desirable perennial grass injury.

DO NOT graze treated sites or cut for forage or hay for a minimum of 1 year after application in order to allow newly emerged grasses sufficient time to become established. Where practical, fencing or other measures are to be used to prevent early grazing of re-established sites to help promote active grass restoration.

RESTORATION PROGRAM

An effective restoration program may include one or more of the following steps (A through F):

- Identify and inventory weeds and desired grass densities.
- Consult and plan the entire program with personnel experienced in herbicide programs and range restoration. Make applications of **REVOLT** prior to soil freeze or after spring thaw.
- Make sure all label precautions are followed.
- Include a tank mix partner labeled for use on rangeland to broaden the spectrum of weeds controlled.
- Plant grass seed as needed to improve the site, per the Grass Replant Interval in this section of the label.
 - Plant to obtain the highest possible grass stand establishment.
 - Plant a selected grass mixture to improve the desired stand.
 - Use a properly fitted drill to help ensure correct seed placement and depth.
 - Seed in late fall to best ensure moisture for seed germination. Seeding in the spring has the highest risk of stand failure.
 - Consult with a knowledgeable grass seed supplier to select the best-suited varieties for your area.
- Treat for second year forbs (if necessary): Treat with 75% chlorsulfuron + bromoxynil at specified label rates to weeds at the early growth stage.

GRASS REPLANT INTERVAL

The replant interval is for soils with a pH of less than 7.5. Soils having a pH greater than 7.5 will require a longer interval. The replant interval is for applications made in the spring. Because **REVOLT** degradation is slowed by cold, dry, or frozen soils, the replant interval for applications made in the fall must begin the spring following treatment.

Following a treatment with **REVOLT** at use rates up to 4 ounces (0.0625 lb ai) of product per acre, the following grasses may be replanted at least 7 months after a spring application. Rainfall or irrigation of at least 1/2 inch following treatment is necessary to replant 7 months after an application of this product. If the treated site does not receive at least 1/2 inch of rainfall or irrigation within 4 weeks after **REVOLT** application, then the grass replant interval is 12 months.

Crested wheatgrass (<i>Agropyron cristatum</i>)	Beadless (creeping) wild rye (<i>Leymus triticoides</i>)
Intermediate wheatgrass (<i>Thinopyrum intermedium</i>)	Big bluegrass (<i>Poa ampla</i>)
Blue bunch wheatgrass (<i>Pseudoroegneria spicata</i>)	Idaho fescue (<i>Festuca idahoensis</i>)
Squirreltail (<i>Elymus elymoides</i>)	Smooth brome (<i>Bromus inermis</i>)

Testing has indicated that there is considerable variation in response among species and types of grasses when seeded into areas treated with **REVOLT**. If species other than those listed above are to be planted into areas treated with this product, a field bioassay must be performed, or previous experience may be used to determine the feasibility of replanting treated areas. To conduct a field bioassay, grow to maturity test strips of the grass species you plan to grow the following year. The test strips must cross the entire field including knolls and low areas. Crop response to the bioassay will indicate whether or not to plant the grass species grown in the test strips.

APPLICATION EQUIPMENT

Apply **REVOLT** using ground or aerial spray equipment. Fixed-wing aircraft and helicopters can be used to apply this product; however, **DO NOT** make applications by fixed-wing aircraft unless appropriate buffer zones can be maintained to prevent spray drift out of the target area or, when treating open tracts of land, spray drift as a result of fixed-wing aircraft application can be tolerated. Aerial equipment designed to minimize spray drift, including a helicopter equipped with a Microfoil® boom or raindrop nozzles, must be used and calibrated. Except when applying with a Microfoil® boom, a drift-control agent may be added at the labeled rate.

APPLICATION RATES AND TIMING

Apply 2 to 4 ounces (0.0313 to 0.0625 lb ai) per acre **REVOLT** in the fall or spring, prior to moisture expectation and plant growth. **DO NOT** apply when soil is frozen. For residual activity, moisture is required to activate this product. When applied at lower rates in the spring, this product provides suppression* of weeds listed. When applied at higher rates in the fall, weed control is afforded.

*Weed suppression is a visual reduction in weed competition (reduced population and/or vigor) as compared to an untreated check. The degree of actual control that may occur will vary with the size of the weeds, the degree of weed or desirable grass competition, and environmental conditions.

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.

REVOLT may be tank mixed with other herbicides registered for rangeland use. Refer to the label of the tank mix partner(s) for any additional use instructions or restrictions. This product may be mixed with chlorsulfuron at specified label rates to broaden the spectrum of broadleaf and grass weed control. Refer to the chlorsulfuron label for additional information on weed species controlled, use rates, and instructions or restrictions.

WEEDS CONTROLLED

When applied at 2 ounces (0.0313 lb ai) per acre in the spring, **REVOLT** suppresses the following weeds and when applied at 3 ounces (0.0469 lb ai) per acre in the fall, this product controls the following weeds:

Brome, downy (cheatgrass) (<i>Bromus tectorum</i>)	Cheat (<i>Bromus secalinus</i>)
Brome, Japanese (<i>Bromus japonicus</i>)	

When applied at 4 ounces (0.0625 lb ai) per acre, **REVOLT** controls the following additional weeds:

Barnyardgrass (<i>Echinochloa crus-galli</i>)	Mallow, common (<i>Malva neglecta</i>)
Crabgrass, large (<i>Digitaria sanguinalis</i>)	Horseweed/marestail* (<i>Conyza canadensis</i>)
Foxtail, giant (<i>Setaria faberi</i>)	Medusahead (<i>Taeniatherum caput-medusae</i>)
Foxtail, green (<i>Setaria viridis</i>)	Mustard, black (<i>Brassica nigra</i>)
Foxtail, yellow (<i>Setaria pumila</i>)	Pigweed, redroot (<i>Amaranthus retroflexus</i>)
Filaree redstem (<i>Erodium cicutarium</i>)	Pigweed, smooth (<i>Amaranthus hybridus</i>)
Fleabane, hairy (<i>Conyza bonariensis</i>)	Puncturevine (<i>Tribulus terrestris</i>)
* Naturally occurring resistant biotypes of this weed are known to exist in some areas of the U.S. REVOLT will not control these biotypes.	

Precautions

- Treatment of powdery, dry soil or light sandy soil when there is little likelihood of rainfall soon after treatment may result in off-target movement and possible damage to susceptible crops when soil particles are moved by wind or water.
- Injury to crops may result if treated soil is washed, blown, or moved onto land used to produce crops.
- Exposure to this product may injure or kill most crops. Injury may be more severe when the crops are irrigated.

- In order to reduce the potential for off-site movement of this product from wind or water-related soil erosion, **DO NOT** burn, disk, or otherwise disturb treated sites between the time of application and reseeding or re-establishment of native grasses.
- Pre-emergence use on soils containing more than 6% organic matter may result in reduced weed control.
- Minimize spray drift to any adjacent crops or planned crop planting areas or desirable plants since injury may occur.
- Draining or flushing equipment on or near desirable trees or other plants or in areas where their roots may extend or in locations where the chemical may be washed or moved into contact with their roots may injure these plants. Crops (especially crops other than pome fruit, tree nuts, stone fruit, citrus, grapes, potatoes, tomatoes, and field corn) whose roots may extend into a treated area may be injured.

Restrictions

- **DO NOT** apply more than 4 ounces (0.0625 lb ai) per acre per application.
- **DO NOT** apply more than 4 ounces (0.0625 lb ai) per acre per year.
- **DO NOT** make more than 2 applications per year, when using reduced application rates.
- Allow a minimum of 14 days between applications.
- **DO NOT** graze treated sites or cut for forage or hay for a minimum of 1 year after application in order to allow newly emerged grasses sufficient time to become established.
- **DO NOT** apply this product when these conditions are identified and where powdery, dry soil or light or sandy soil is known to be prevalent in the area to be treated.
- **DO NOT** contaminate any body of water, including irrigation water that may be used on other crops.
- **DO NOT** treat frozen soil.
- **DO NOT** apply in or on irrigation ditches or canals including their outer banks.
- **DO NOT** 25% are to be converted to an agricultural use other than rangeland, consult this product label for all rotational crop instructions.

SELECTIVE WEED CONTROL AND INVASIVE SPECIES MANAGEMENT IN NON-CROP SITES (Not for use in New York State)

REVOLT is a water dispersible granule formulation to be mixed with water and sprayed for weed control on private, public, and military lands as follows: non-agricultural areas (including airports, highway, railroad and utility rights-of-way, sewage disposal areas); uncultivated agricultural areas – non-crop producing (including farmyards, fuel storage areas, fence rows, non-irrigation ditch-banks, barrier strips); industrial sites – outdoor (including lumberyards, pipeline and tank farms), and non-cropland wildlife habitats.

INVASIVE SPECIES MANAGEMENT

REVOLT may be used on public, private, and tribal lands to treat certain weed species infestations that have been determined to be invasive, consistent with the Federal Interagency Committee for Management of Noxious and Exotic Weeds (FICMNEW) and National Early Detection and Rapid Response (EDRR) System for invasive plants.

Effective EDNR systems address invasions by eradicating the invader where possible, and controlling them when the invasive species is too established to be feasibly eradicated. Once an EDNR assessment has been completed and action is specified, a Rapid Response needs to be taken to quickly contain, deny reproduction, and if possible, eliminate the invader. Consult your appropriate state extension service, forest service, or regional multidisciplinary invasive species management coordination team to determine the appropriate Rapid Response provisions and allowed treatments in your area.

REVOLT is non-corrosive to spray equipment, non-flammable and non-volatile. **DO NOT** use this product in a spray solution or with spray additives that buffer the pH to below 4.0 or above 8.0 as degradation of **REVOLT** may occur.

REVOLT may be used in weed management programs on non-crop sites to provide residual preemergence and early post-emergence control of the following weeds:

Barnyardgrass (<i>Echinochloa crus-galli</i>)	Mallow, common (<i>Malva neglecta</i>)
Browne, downy (<i>Bromus tectorum</i>)	Horseweed/marestail* (<i>Conyza canadensis</i>)

Crabgrass, large (<i>Digitaria sanguinalis</i>)	Medusahead (<i>Taenatherum caput-medusae</i>)
Foxtail, giant (<i>Setaria faberi</i>)	Mustard, black (<i>Brassica nigra</i>)
Foxtail, green (<i>Setaria viridis</i>)	Pigweed, redroot (<i>Amaranthus retroflexus</i>)
Foxtail, yellow (<i>Setaria pumila</i>)	Pigweed, smooth (<i>Amaranthus hybridus</i>)
Filaree redstem (<i>Erodium cicutarium</i>)	Puncturevine (<i>Tribulus terrestris</i>)
Fleabane, hairy (<i>Conyza bonariensis</i>)	
* Naturally occurring resistant biotypes of this weed are known to exist in some areas of the U.S. REVOLT will not control these biotypes.	

Refer to the rest of the label for other weeds controlled.

To provide a broader spectrum of residual weed control, **REVOLT** may be applied in a tank mixture with other registered pre-emergence herbicides. When weeds are present at application, include a labeled burndown herbicide, including glyphosate.

For best results, make post-emergence applications to young, actively growing weeds and include a spray adjuvant. Refer to the label of the tank mixture partner(s) for any additional use instructions or restrictions. Follow the most restrictive labeling of any of the tank-mix component products.

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.

REVOLT may be mixed with other herbicides registered for non-crop use. It may also be tank mixed with any adjuvants registered for non-crop use.

APPLICATION INFORMATION

Apply **REVOLT** at 4 ounces (0.0625 lb ai) broadcast per acre. **DO NOT apply more than 4.0 ounces (0.0625 lb ai) of REVOLT per acre per year.**

For best pre-emergence and residual activity, **REVOLT** must be activated by rainfall and applied when soil temperatures are cool. Make applications to take advantage of normal rainfall patterns (minimum of 1/2 inch) and cooler temperatures. For best results, moisture for activation must occur within 2 to 3 weeks after application.

To help ensure uniform coverage, use a minimum of 10 gallons of spray solution per acre.

REVOLT may be applied using ground or aerial spray equipment. Fixed wing aircraft and helicopters can be used to apply this product; however, **DO NOT** make applications by fixed wing aircraft unless appropriate buffer zones can be maintained to prevent spray drift out of the target area or, when treating open tracts of land, spray drift as a result of fixed wing aircraft application can be tolerated. Aerial equipment designed to minimize spray drift, including helicopter equipped with a Microfoil® boom or raindrop nozzles, must be used and calibrated. Except when applying with a Microfoil® boom, a drift control agent may be added at the labeled rate.

NON-CROPLAND RESTORATION

REVOLT is labeled for the control of downy brome (cheatgrass), medusahead, and certain broadleaf weeds in non-cropland. In order to release desirable, perennial grass species for site restoration, this product may be applied at 3 to 4 ounces (0.0469 to 0.0625 lb ai) of product per acre in the fall, within 6 weeks before the expected date when the soil freezes. Use the higher rate for medusahead control.

To provide broader spectrum broadleaf weed control in non-crop land restoration, a tank mixture of **REVOLT** and chlorsulfuron may be used at specified label rates.

Precautions

- Treatment of powdery, dry soil or light, sandy soil when there is little likelihood of rainfall soon after treatment may result in off-target movement and possible damage to susceptible crops when soil particles are moved by wind or water.
- Injury to crops may result if treated soil is washed, blown, or moved onto land used to produce crops.
- Exposure to this product may injure or kill most crops. Injury may be more severe when the crops are irrigated.
- Pre-emergence use on soils containing more than 6% organic matter may result in reduced weed control.
- Avoid spray drift to any adjacent crops or planned crop planting areas or desirable plants since injury may occur.
- Draining or flushing equipment on or near desirable trees or other plants or in areas where their roots may extend or in locations where the chemical may be washed or moved into contact with their roots may injure these plants.
- Crops (especially crops other than pome fruit, tree nuts, stone fruit, citrus, grapes, potatoes, tomatoes, and field corn) whose roots may extend into a treated area may be injured
- Where food and/or feed crops are grown, or in areas where food and/or feed crops are planned to be grown, care must be taken to prevent any direct spray of this product onto, or drift to, these crops or planned planting areas since severe crop injury may occur.

Restrictions

- **DO NOT** apply more than 4 ounces (0.0625 lb ai) per acre per application.
- **DO NOT** apply more than 4 ounces (0.0625 lb ai) per acre per year.
- **DO NOT** make more than 1 application per year.
- **DO NOT** apply this product when these conditions are identified and powdery, dry soil or light, or sandy soil is known to be prevalent in the area to be treated.
- **DO NOT** contaminate any body of water, including irrigation water that may be used on other crops.
- **DO NOT** apply in or on irrigation ditches or canals including their outer banks.
- **DO NOT** apply when the soil is frozen.

If non-crop sites treated with *REVOLT* are to be converted to an agriculture use, consult the *REVOLT* package label for all rotational crop instructions.

ADDITIONAL USE INFORMATION – ALL CROPS AND USES

MIXING INSTRUCTIONS

REVOLT must be completely dissolved in clean water before adding to spray tanks that **DO NOT** have continuous agitation during loading and mixing. (This is common for airplanes with turbine engines).

1. Fill the tank 1/4 to 1/3 full of water.
2. While agitating, add the required amount of *REVOLT*.
3. Continue agitation until the *REVOLT* is fully dissolved, at least 5 minutes.
4. Once the *REVOLT* is fully dissolved, maintain agitation and continue filling tank with water.
5. As the tank is filling, add tank mix partners (if desired) then add the required amount of spray adjuvant (if needed). Always add the spray adjuvant last.
6. Dispersed tank mix partners can settle if the tank mixture is not continually agitated. If settling occurs, thoroughly re-agitate before using.
7. Apply *REVOLT* spray mixture within 24 hours of mixing to avoid product degradation.
8. If *REVOLT* and a tank mix partner are to be applied in multiple loads, fully dissolve this product in clean water prior to adding to the tank.

If the selected companion herbicide has a ground or surface water advisory, consider this advisory when using the companion herbicide

AT THE END OF THE DAY

After each day of spraying multiple loads of *REVOLT*, the interior of the tank must be rinsed with fresh water and then partially filled and the boom and hoses flushed. This will prevent the buildup of dried pesticide deposits from accumulating in the application equipment.

After Spraying *REVOLT* and Before Spraying Other Crops

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of *REVOLT* as follows:

1. Empty the tank and drain the sump completely.
2. Spray the tank walls with clean water using a minimum volume of 10% of the tank volume. Circulate the water through the lines, including all by-pass lines, for at least two minutes. Flush the boom well and empty the sprayer. Completely drain the sump.
3. Repeat step 2.
4. Remove the nozzles and screens and clean separately in a bucket containing water.

The rinsate solution may be applied back to the crop(s) listed on this label. **DO NOT** exceed the maximum labeled use rate.

If cleaners are used, consult the cleaner label for rinsate disposal instructions. If no instructions are given, dispose of the rinsate on site or at an approved waste disposal facility.

Notes:

1. Always start with a clean spray tank.
2. Steam-cleaning aerial spray tanks must be done to facilitate the removal of any caked deposits.
3. When *REVOLT* is tank mixed with other pesticides, all cleanout procedures for each product must be examined and the most rigorous procedure must be followed.
4. Follow any pre-cleanout guidelines specified on other product labels.

BIOLOGICAL ACTIVITY AND ENVIRONMENTAL CONDITIONS

REVOLT is absorbed through the roots and foliage of plants, rapidly inhibiting the growth of susceptible weeds. For pre-emergence weed control, rainfall or sprinkler irrigation is needed to move this product into the soil. Weeds will generally not emerge from pre-emergence applications. In some cases, susceptible weeds may germinate and emerge a few days after application, but growth then ceases and leaves become chlorotic (yellowish) three to five days after emergence. Death of leaf tissue and growing point will follow in some species, while others will remain green but stunted and noncompetitive.

One to three weeks after post-emergence application to weeds, leaves of susceptible plants appear chlorotic, and the growing point subsequently dies. In warm, moist conditions, the expression of herbicide symptoms is accelerated; in cold, dry conditions, expression of herbicide symptoms is delayed. Death of leaf tissue and growing point will follow in some species, while others will remain green but stunted and noncompetitive.

REVOLT provides the best control of weeds in vigorously growing crops that shade competitive weeds.

Weed control in areas of thin crop stand or seeding skips may not be satisfactory. However, a crop canopy that is too dense at application can intercept spray and reduce weed control.

The herbicidal action of *REVOLT* may be less effective on weeds stressed from adverse environmental conditions including abnormally hot or cold temperatures, abnormal soil conditions including extremely dry or water saturated soil, or hail or frost damage. Incomplete control may also result on plants injured from disruptive cultural practices, herbicide carryover from a previous crop, or injury from insects, diseases, or other pests. Additionally, weeds hardened-off by drought stress are less susceptible to this product. It is best to delay applications until stress has been alleviated.

Post-emergence weed control may be reduced if rainfall occurs soon after application. Several hours of dry weather are needed to allow *REVOLT* to be sufficiently absorbed by weed foliage (generally *REVOLT* is rainfast in 4 hours).

STORAGE AND DISPOSAL

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

Pesticide Storage

Store in a tightly closed container in a cool, dry place. Store in original container and out of reach of children, preferably in a locked storage area.

Pesticide Disposal

Pesticide spray mixture or rinsate that cannot be used should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Handling

Bag: Nonrefillable outer bag. **DO NOT** reuse or refill the outer bag. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Plastic Container: Nonrefillable container. **DO NOT** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of INNVICTIS CROP CARE, LLC or Seller, TO THE EXTENT CONSISTENT WITH APPLICABLE LAW All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold INNVICTIS CROP CARE, LLC and Seller harmless for any claims relating to such factors.

INNVICTIS CROP CARE, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or INNVICTIS CROP CARE, LLC, and TO THE EXTENT CONSISTENT WITH APPLICABLE LAW Buyer and User assume the risk of any such use. INNVICTIS CROP CARE, LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither INNVICTIS CROP CARE, LLC nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF INNVICTIS CROP CARE, LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF INNVICTIS CROP CARE, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

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