

CLOPYRALID	GROUP	4	HERBICIDE
MESOTRIONE	GROUP	27	HERBICIDE

### CONTROLS ANNUAL BROADLEAF WEEDS IN CORN (FIELD, SEED, YELLOW POP, SWEET)

ACTIVE INGREDIENTS:	% BY WT.
Clopyralid MEA Salt (CAS No. 57754-85-5)	12.5%
Mesotrione (CAS No. 104206–82–8)	18.0%
OTHER INGREDIENTS:	<u>69.5%</u>
TOTAL:	100.0%
Contains 0.02 pound Clopyralid Acid (0.7%) and 1.70 pounds Masstrians per gallon	

## SHAKE WELL BEFORE USING

# 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.

Not for Sale, Sale into, Distribution and/or Use in Nassau and Suffolk Counties of New York State.

EPA Reg. No.: 89168-83-89391

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





IF SWALLOWED:	Call a poison control center or doctor immediately for treatmer advice.     Have person sip a glass of water if able to swallow.     Do not induce vomiting unless told to do so by the poison controcenter or doctor.     Do not give anything by mouth to an unconscious person.
IF ON SKIN:	Take off contaminated clothing.     Rinse skin immediately with plenty of water for 15-20 minutes.     Call a poison control center or doctor for treatment advice.
IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15-2t minutes.     Remove contact lenses, if present, after the first 5 minutes, the continue rinsing eye.     Call a poison control center or doctor for treatment advice.
IF INHALED:	Move person to fresh air.     If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.

FIRST AID

#### HOTI INF NUMBER

Call a poison control center or doctor for further treatment advice.

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.

For Chemical Spill, Leak, Fire or Exposure, call CHEMTREC 800-424-9300.

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed or 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 PROTECTION EQUIPMENT (PPE)

#### Applicators and Other Handlers much wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride ≥ 14 mils or Viton ≥ 14 mils.
- · Protective evewear
- Shoes plus socks

#### **User Safety Requirements**

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

#### **Engineering 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 170.240(d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### USER SAFETY RECOMMENDATIONS

#### Users Should:

- 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.

#### **ENVIRONMENTAL HAZARDS**

Do not apply directly to water or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate.

#### Ground Water Advisory

Clopyralid is a chemical which can travel (seep or leach) through soil and under certain conditions contaminate groundwater which may be used for irrigation or drinking purposes. Users are advised not to apply clopyralid where soils have a rapid to very rapid permeability throughout the profile (such as loamy sand to sand) and the water table of an underlying aquifer is shallow, or to soils containing sinkholes over limestone beforck, severely fractured surfaces, and substrates which would allow direct introduction into an aquifer. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

#### Surface Water Advisory

This product may contaminate water through drift or spray in wind and impact surface water quality due to runoff of rain water. This product has a high potential for runoff for several weeks after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as prods, streams, and springs will reduce the potential for contamination of water from runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

#### PHYSICAL AND CHEMICAL HAZARDS

**Combustible.** Do not use or store near heat or open flame. Do not mix or allow contact with oxidizing 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 its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and 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 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is: coveralls, chemical-resistant gloves made of waterproof material, shoes plus socks.

#### PRODUCT INFORMATION

This product is a preplant, preemergence and postemergence herbicide for selective contact and residual control of broadleaf weeds in field corn, seed corn, yellow popcorn and sweet corn.

This product will not control most species of grass weeds. This product can be tank-mixed with other herbicides registered to control grass weeds (see tank-mix information in this label for additional information). This product can be used in combination with a burndown herbicide prior to planting to provide weed control in field corn, seed corn, yellow popcorn and sweet corn.

#### Use Precautions

- Severe corn injury can result from postemergent application of this product to corn treated with chlorpyrifos or terbufos.
- Severe corn injury and/or yield loss can occur if an organophosphate or carbamate insecticide is applied foliar postemergence within 7 days before or 7 days after application of this product.
- When weeds are stressed due to drought, heat, lack of fertility, flooding, or prolonged cool temperatures, control can be reduced or delayed since the weeds are not actively

growing. Weed escapes or regrowth may occur when application is made under prolonged stress conditions. Optimum weed control will be obtained if an application of this product is made following label directions when weeds are actively growing.

- This product may be applied with pyrethroid type insecticides (e.g., Lambda cyhalothrin). When applied postemergence in a tank mix with emulsifiable concentrate grass
- herbicides crop injury can occur. Where reference is made to weeds partially controlled, partial control means either
- erratic control (good to poor control) or control that is below what is generally regarded as acceptable control for commercial weed control.

#### **Use Restrictions**

- Do not apply this product to white popcorn or ornamental (Indian) corn.
- . Do not cultivate corn within 7 days before or after application of this product as weed control may be reduced.
- Do not exceed 0.25 lb clopyralid acid equivalent per acre per year in New York State.
- Not for Sale. Sale into. Distribution and/or Use in Nassau and Suffolk Counties of New
- Chemidation: Do not apply this product through any type of irritation system.
- . Aerial Application: Do not make aerial applications of this product unless specified in the specific crop directions of this label.
- . Do not apply this product with suspension fertilizers as the carrier.
- Do not contaminate irrigation ditches or water used for irrigation or domestic purposes.
- Do not use in greenhouses.
- Do not spray pastures containing desirable forbs, especially legumes, unless injury can he tolerated
- . Do not transfer livestock from treated grazing areas (or feeding of treated hay) to sensitive broadleaf crop areas without first allowing 7 days of grazing on an untreated pasture (or feeding of treated hav). If livestock are transferred within less than 7 days of grazing untreated pasture or eating untreated hay, urine and manure may contain enough clopyralid to cause injury to sensitive broadleaf plants.
- When applying alone or tank mixing, do not apply more than 0.25 lb clopyralid acid equivalent or 0.24 lb mesotrione per acre per year.
- In California and New York do not apply more than 18 fluid ounces CENTAVO (0.13 lb ai clopyralid and 0.24 lb ai mesotrione) per acre per year.

#### RESISTANCE MANAGEMENT

For resistance management, this product contains both a Group 4 (Clopyralid) and Group 27 (Mesotrione) herbicide. Any weed population may contain plants naturally resistant to Group 4 and/or Group 27 herbicides. The resistant individual may dominate the weed population if these herbicides are used repeatedly in the same fields. 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 4 and Group 27 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 resistanceprone 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 such as 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 INNVICTIS 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, 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

- . 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 these 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 by 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.

#### **Aerial Applications**

#### MANDATORY SPRAY DRIFT

- Do not release spray at a height greater than 10 feet above the vegetative canopy. unless a greater application height is necessary for pilot safety.
- For all applications, applicators are required to use a coarse to ultra coarse spray droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- 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 Applications

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a coarse to ultra coarse spray 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, to reduce fine droplets, nozzles should be oriented 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 heliaghts increase the potential for spray drift. 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.

#### 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.

#### **Avoid Injury to Non-Target Plants**

This product can affect susceptible broadleaf plants directly through foliage and indirectly by root uptake from treated soil. Therefore, **D0 N0T** apply *CENTAVO* directly to, or allow spray drift to come in contact with, yegetables, flowers, fornatoes, potatoes, beans, lentils, peas, alfalfa, sunflowers, soybeans, safflower, or other desirable broadleaf crops or ornamental plants or soil where sensitive crops will be planted the same season. (See Crop Rotation Intervals.)

Residues in Plants or Manure: DO NOT use plant residues, including hay or straw from treated areas, or manure or bedding straw from animals that have grazed or consumed forage from treated areas, for composting or mulching where susceptible plants may be grown the following season. DO NOT spread manure from animals that have grazed or consumed forage or hay from treated areas on land used for growing susceptible broadleaf plants or apply such materials to land used for growing broadleaf crops, ornamentals, orchards, or other susceptible desirable plants. Plant materials or manure may contain enough clopyralid to cause injury to susceptible plant species. To promote herbicidal decomposition, plant residues must be evenly incorporated or burned. Breakdown of clopyralid in crop residues or manure is more rapid under warm, moist soil conditions and may be enhanced by supplemental irrication.

#### Avoid Movement of Treated Soil

Avoid conditions under which soil from treated areas may be moved or blown to areas containing susceptible plants. Wind-blown dust containing clopyralid may produce visible symptoms, such as epinasty (downward curving or twisting of leaf petioles or stems), when deposited on susceptible plants; however, serious injury is unlikely. To minimize potential movement of clopyralid on wind-blown dust, avoid treatment of powdery dry or light sandy soils until soil is settled by rainfall or irrigation or irrigate the treated soil shortly after anolication.

#### APPLICATION DIRECTIONS

#### Spray Equipment

#### Ground Application - Preplant or Preemergence

Space spray nozzles of the same size and type uniformly to provide accurate and uniform coverage. Apply in a spray volume of 10 to 60 gallons per acre with water or liquid fertilizer (not suspension fertilizer) as the carrier. Use a pump that will maintain pump pressure of 35 to 40 psi at the nozzles and provide proper agitation within the tank to keep the product dispersed. Lower pressures can be used with extended range or drift reduction nozzles. Maintain constant agitation until spraying is complete, even if stopping for brief periods of time. If agitation is stopped for longer than 5 minutes, re-suspend the spray solution by running on full agitation prior to spraying.

#### **Ground Application - Postemergence**

Space språy nozzles of the same Size and type uniformly to provide accurate and uniform coverage. Complete weed coverage is essential for optimum weed control. Boom height for broadcast over-the-top applications must be based on the height of the crop, at least 15 inches above the crop canopy. Apply in a spray volume of 10 to 30 gallons per acre with water as the carrier. Use a pump that will maintain pump pressure of 35 to 40 psi at the nozzles and provide proper agitation within the tank to keep the product dispersed. Lower pressures can be used with extended range or drift reduction nozzles. If weed foliage is dense, use a minimum of 20 gallons. Apply with flat fan nozzles of 80° or 100° for optimum postemergent coverage. **DO NOT** use flood jet nozzles or controlled droplet application equipment for postemergence applications. Angle nozzles forward 45° to enhance product penetration and provide better coverage. In-line strainers and nozzle screens must be a minimum of 50 mesh or coarser. Maintain constant agitation until spraying is complete, even if stopping for brief periods of time. If agitation is stopped for longer than 5 minutes, re-suspend the spray solution by running on full adiation or noir or soravier or inorir or soravier.

#### Carriers Liquids

- Preemergence Applications: Either clean water or liquid fertilizers, excluding suspension fertilizers, may be used as liquid carriers for preplant or preemergence applications of this product. If fluid fertilizers are used, a physical compatibility test must be done before combining in the spray tank. For directions on how to conduct a compatibility test, see the "Compatibility Test Procedure" section of this label. Even if this product is physically compatible with a fluid fertilizer, constant agitation is necessary to maintain a uniform mixture during application.
- Postemergence Applications: Use only clean water as the carrier when applying
  this product after field corn emergence; DO NOT make postemergence applications
  using liquid fertilizer as the carrier or severe crop injury may occur.

#### Adjuvants

#### Preemergence Adjuvant Use

Any adjuvant approved for use on agriculture is permitted when making preplant or preemergence applications of this product. MSO adjuvants perform better than COC and INS adjuvants under preplant/preemergence conditions. UAN and AMS adjuvants will provide better weed control than not using any adjuvant. If this product is being tank-mixed with another registered herbicide, refer to the tank mix partner label for adjuvant precautions and restrictions.

#### Postemergence Adjuvants

#### Adjuvant Use in Postemergence applications to Field and Seed Corn

After corn has emerged, a non-ionic surfactant (NIS) at 0.25% v/v (1 quart per 100 gallons) may be used. A Crop Oil Concentrate (COC) may also be used at a rate not to exceed 1% v/v (1 gallon per 100 gallons). Better weed control is achieved with the use of a COC compared to NIS.

In addition to COC, add 2.5% (v/v) a spray grade UAN (e.g., 28-0-0) to the spray solution, or 8.5 pounds per 100 gallons of ammonium sulfate (AMS), except if precluded elsewhere on this label or a state-specific supplemental label.

#### Restrictions

- Do not use methylated seed oil (MSO) or MSO adjuvant blends for postemergence applications of this product or severe crop injury can occur.
- Do not use MSO adjuvants unless it is specifically permitted in the Tank Mixtures for Corn section of this label, or if permitted by a state-specific supplemental label.

#### Adjuvant Use Postemergence to Sweet and Yellow Corn

Use a NIS instead of a COC to reduce the likelihood of crop injury. COCs will maximize weed control under dry growing conditions, but will significantly injure crops under lush growing conditions. To optimize weed control, add atrazine wherever rotational or local atrazine restrictions allow.

#### Restriction

. Do not use UAN or AMS on sweet and yellow corn as severe crop injury can occur.

#### Cleaning Equipment After Application

It is important to follow the procedures below for cleaning equipment before spraying a crop other than corn. Mix only as much spray solution as is needed.

- Flush tank, hoses, boom, and nozzles with clean water.
- Prepare cleaning solution of 1 gallon of household ammonia per 25 gallons of water.
   Commercial spray tank cleaners can be used in lieu of ammonia/water solution.
- 3. Using a pressure washer, clean the inside of the spray tank with the cleaning solution. Wash all parts of the tank, including the inside top surface. If a pressure washer is not available, fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation in the spray and recirculate the cleaning solution for a minimum of 15 minutes. All visible deposits of spray solution must be removed from the spray tank before making any other applications.
- 4. Flush hoses, spray lines, and nozzles with cleaning solution for a minimum of 1 minute.
- Dispose of rinsate from steps 1 to 3 in an appropriate manner.
- Repeat steps 2 to 5.
- Remove nozzles, screens, and strainers and clean separately in the ammonia solution after completing the previous steps.
- 8. Rinse the complete spray system with clean water.

#### MIXING INSTRUCTIONS

See the "Crop Use Directions" sections of the label for specific tank mix instructions.

#### Tank Mixing

This product may be applied in tank mix combination with labeled rates of other products provided (1) the tank mix product is labeled for the timing and method of application for the use site to be treated; and (2) tank mixing with products containing mesotrione or clopyralid is not prohibited by the label of the tank mix 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 tabels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### Mixing Procedure

- Use sprayers in good operating condition with good agitation. Ensure that the sprayer is cleaned according to the label instructions of the product label used prior to this product. For postemergence applications, use clean water only for the spray solution. Ensure that all in-line strainers and nozzle screens in the sprayer are 50mesh or coarser. **DN** OTV use screens finer than 50-mesh.
- Use liquid fertilizer (not suspension fertilizer) as the carrier for preemergence applications.
- Start filling spray tank or pre-mix tank with clean water and begin agitation. Maintain constant agitation.
- When sprayer or pre-mix is half full of water, add AMS, maintaining agitation until dispersed.
- Add this product slowly and agitate until completely dissolved. Wait at least 1 minute after the last of this product has been added to allow for complete dispersion. If using cold water, a longer agitation period may be required to ensure adequate dispersing.

- If tank mixing, add the tank mix product.
- 7. Add the adjuvant and UAN, if needed, and continue to fill tank to desired level with water.

#### Mixing Restrictions

- . Do not exceed any dosage rates specified on labels.
- Do not mix this product with any product containing a label prohibition against such mixing.
- Do not tank mix this product with any other insecticide, fungicide, fertilizer, or adjuvant not specified on this label without first testing compatibility, as poor mixing can occur. Test compatibility on a small scale (such as a lar test) before actual tank mixing.

#### Tank Mix Compatibility Test (Jar Test)

Complete a compatibility test before tank mixing to ensure compatibility of this product with other pesticides. The following test assumes a spray volume of 25 gallons per acre. For other spray volumes, make appropriate changes in the ingredients.

Note: Nitrogen solutions or complete liquid fertilizers, excluding suspension fertilizers, may replace all or part of the water in the spray. Because liquid fertilizers vary, even within the same analysis, always check compatibility with pesticide(s) before use. Incompatibility to tank mixtures is more common with mixtures of fertilizers and pesticides.

#### **Compatibility Test Procedure**

- Add 1 pint of water or fertilizer carrier to each of two 1 quart jars with tight lids. Use the same source of water that will be used for the tank mix and conduct the test at the temperature the tank mix will be applied.
- To one of the jars, add 1/4 teaspoon or 1.2 mL of a compatibility agent approved for the intended use, such as Innvictis Envelop" (1/4 teaspoon equals 2 pints per 100 gallons of spray). Shake or stir gently to mix.
- To both jars, add the appropriate amount of pesticide(s) in their relative proportions based on specified label rates. If more than one pesticide product will be used, add them separately with dry pesticides first, flowables next and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix.
- 4. After adding all ingredients, put lids on and tighten and invert each jar ten times to mix. Let the inthures stand 15 to 30 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (a) slurry the dry pesticides) in water before addition or (b) add one-half the compatibility agent to the fertilizer or water and the other one-half to the emulsifiable concentrate or flowable pesticide before addition to the mixture. If incompatibility is still observed, do not use the mixture.
- After compatibility testing is complete, dispose of any pesticide wastes in accordance with the STORAGE AND DISPOSAL section in this label.

#### WEEDS CONTROLLED

CENTAVO applied as directed in this label will control or partially control the weeds listed in Tables 1 and 2. Additional weeds may be controlled with tank mixtures. See the "CENTAVO Tank Mixtures for Corn" section for additional information.

Dry weather following preemergence applications may reduce efficacy of residual weed control. If irrigation is available, apply 1/2 to 1-inch water after preemergence application. If irrigation is not available, make a uniform shallow cultivation as soon as weeds emerge.

For best postemergence results, apply this product to actively growing weeds.

Refer to the crop section of this label for specific use directions and application rates.

Table 1. Weeds Controlled or Partially Controlled with Preplant or Preemergence
Applications of CENTAVO

Applications of CENTAVO

Applications of CENTAVO

Amaranth, palmer         C*           Amaranth, powell         C           Amaranth, spiny         C           Broadleaf signalgrass         PC           Buckwheat, wild         C*           Buffalobur         C           Carpetweed         C           Chickweed, common         C           Clover, spp         C           Cocklebur, common         PC*           Crabgrass, large         PC           Galinsoga         C           Horseweed (marestail)         C           Jimsonweed         C           Kochia         PC*           Lambsquarters, common         C           Morningglory, entireleaf         PC*           Morningglory, ivyleaf         PC*           Morningglory, pitted         PC*           Morningglory, pitted         PC*           Nightshade, black         C           Nightshade, black         C           Nightshade, redroot         C           Pigweed, redroot         C           Pigweed, smooth         C           C         Pigweed, smooth           C         C           Pigweed, spint         PC*           Sesbani	Common Name	Control (C) Partial Control (PC)
Amaranth, spiny         C           Broadleaf signalgrass         PC           Buckwheat, wild         C*           Buffalobur         C           Carpetweed         C           Chickweed, common         C           Clover, spp         C           Cocklebur, common         PC*           Crabgrass, large         PC           Galinsoga         C           Horseweed (marestail)         C           Jimsonweed         C           Kochia         PC*           Lambsquarters, common         C           Morningglory, entireleaf         PC*           Morningglory, ivyleaf         PC*           Morningglory, pitted         PC*           Morningglory, pitted         PC*           Morningglory, pitted         PC*           Morningglory, pitted         PC*           Mightshade, back         C           Nightshade, Eastern black         C           Nightshade, back         C           Nightshade, hairy         C           Pigweed, redroot         C           Pigweed, smooth         C           Pusley, Florida         C           Ragweed, common         C <th>Amaranth, palmer</th> <th>C*</th>	Amaranth, palmer	C*
Broadleaf signalgrass         PC           Buckwheat, wild         C*           Buffalobur         C           Carpetweed         C           Chickweed, common         C           Chickweed, common         PC*           Cocklebur, common         PC*           Crabgrass, large         PC           Galinsoga         C           Horseweed (marestail)         C           Jimsonweed         C           Kochia         PC*           Lambsquarters, common         C           Morningglory, entireleaf         PC*           Morningglory, ivyleaf         PC*           Morningglory, pitted         PC*           Nightshade, black         G           Nightshade, back         G           Nightshade, hairy         C           Pigweed, redroot         C           Pigweed, smooth         C           Pigweed, tumble         C           Pusley, Florida         C           Ragweed, jgint         PC*           Sesbania, hemp         C           Sesbania, hemp         C           Sesbania, hemp         C           Sicklepod         C*           Smartw	Amaranth, powell	С
Buckwheat, wild	Amaranth, spiny	С
Buffalobur         C           Carpetweed         C           Chickweed, common         C           Clover, spp         C           Cocklebur, common         PC*           Crabgrass, large         PC           Galinsoga         C           Horseweed (marestail)         C           Jimsonweed         C           Kochia         PC*           Lambsquarters, common         C           Morningglory, entireleaf         PC*           Morningglory, ivyleaf         PC*           Morningglory, pitted         PC*           Nightshade, black         C           Nightshade, Eastern black         C           Nightshade, kairy         C           Pigweed, redroot         C           Pigweed, smooth         C           Pigweed, tumble         C           Pusley, Florida         C           Ragweed, common         C           Ragweed, gjant         PC*           Sesbania, hemp         C           Sesbania, hemp         C           Sicklepod         C*           Smartweed, pale         C           Smartweed, Pennsylvania         C           Sunf	Broadleaf signalgrass	PC
Carpetweed         C           Chickweed, common         C           Clover, spp         C           Cocklebur, common         PC*           Crabgrass, large         PC           Galinsoga         C           Horseweed (marestail)         C           Jimsonweed         C           Kochia         PC*           Lambsquarters, common         C           Morningglory, entireleaf         PC*           Morningglory, ivyleaf         PC*           Morningglory, pitted         PC*           Mightshade, black         C           Nightshade, black         C           Nightshade, black         C           Nightshade, hairy         C           Pigweed, redroot         C           Pigweed, smooth         C           Pigweed, tumble         C           Pusley, Florida         C           Ragweed, common         C           Ragweed, giant         PC*           Sesbania, hemp         C           Sicklepod         C*           Smartweed, pale         C           Smartweed, Pennsykania         C           Sunflower, common         C           Vel	Buckwheat, wild	C*
Chickweed, common         C           Clover, spp         C           Cocklebur, common         PC*           Crabgrass, large         PC           Galinsoga         C           Horseweed (marestail)         C           Jimsonweed         C           Kochia         PC*           Lambsquarters, common         C           Morningglory, entireleaf         PC*           Morningglory, ivyleaf         PC*           Morningglory, ivyleaf         PC*           Molightshade, black         C           Nightshade, Eastern black         C           Nightshade, Eastern black         C           Nightshade, Eastern black         C           Nightshade, hairy         C           Pigweed, redroot         C           Pigweed, smooth         C           Pigweed, smooth         C           Pigweed, tumble         C           Pusley, Florida         C           Ragweed, gaint         PC*           Sesbania, hemp         C           Sicklepod         C*           Smartweed, ladysthumb         C           Smartweed, Pennsylvania         C           Sunflower, common	Buffalobur	С
Clover, spp         C           Cocklebur, common         PC*           Corabgrass, large         PC           Galinsoga         C           Horseweed (marestail)         C           Jimsonweed         C           Kochia         PC*           Lambsquarters, common         C           Morningglory, entireleaf         PC*           Morningglory, ivyleaf         PC*           Morningglory, pitted         PC*           Morningglory, pitted         PC*           Mightshade, black         G           Nightshade, Eastern black         C           Nightshade, hairy         C           Pigweed, redroot         C           Pigweed, smooth         C           Pigweed, smooth         C           Pigweed, tumble         C           Pusley, Florida         C           Ragweed, common         C           Ragweed, opamon         C           Ragweed, opamon         C           Sesbania, hemp         C           Sicklepod         C*           Smartweed, ladysthumb         C           Smartweed, Pennsylvania         C           Sunflower, common         C*	Carpetweed	С
Cocklebur, common         PC*           Crabgrass, large         PC           Galinsoga         C           Horseweed (marestail)         C           Jimsonweed         C           Kochia         PC*           Lambsquarters, common         C           Morningglory, entireleaf         PC*           Morningglory, ivyleaf         PC*           Morningglory, pitted         PC*           Nightshade, black         G           Nightshade, Eastern black         C           Nightshade, hairy         C           Pigweed, redroot         C           Pigweed, smooth         C           Pigweed, tumble         C           Pusley, Florida         C           Ragweed, common         C           Ragweed, gjant         PC*           Sesbania, hemp         C           Sicklepod         C*           Smartweed, ladysthumb         C           Smartweed, Pennsylvania         C           Sunflower, common         C           Velvetleaf         C           Waterhemp, common         C*	Chickweed, common	С
Crabgrass, large         PC           Galinsoga         C           Horseweed (marestail)         C           Jimsonweed         C           Kochia         PC*           Lambsquarters, common         C           Morningglory, entireleaf         PC*           Morningglory, ivyleaf         PC*           Morningglory, pitted         PC*           Nightshade, black         G           Nightshade, Eastern black         C           Nightshade, Bairy         C           Pigweed, redroot         C           Pigweed, smooth         C           Pigweed, tumble         C           Pusley, Florida         C           Ragweed, common         C           Ragweed, jiant         PC*           Sesbania, hemp         C           Sicklepod         C*           Smartweed, ladysthumb         C           Smartweed, pale         C           Smartweed, Pennsylvania         C           Sunflower, common         C*           Velvetleaf         C           Waterhemp, common         C*	Clover, spp	С
Galinsoga         C           Horseweed (marestail)         C           Jimsonweed         C           Kochia         PC*           Lambsquarters, common         C           Morningglory, entireleaf         PC*           Morningglory, ivyleaf         PC*           Morningglory, pitted         PC*           Nightshade, black         C           Nightshade, Eastern black         C           Nightshade, hairy         C           Pigweed, redroot         C           Pigweed, smooth         C           Pigweed, tumble         C           Pusley, Florida         C           Ragweed, common         C           Ragweed, giant         PC*           Sesbania, hemp         C           Sicklepod         C*           Smartweed, pale         C           Smartweed, Pennsywania         C           Sunflower, common         C*           Velvetleaf         C           Waterhemp, common         C*	Cocklebur, common	PC*
Horseweed (marestail)	Crabgrass, large	PC
Jimsonweed   C   Kochia   PC*	Galinsoga	С
Kochia         PC*           Lambsquarters, common         C           Morningglory, entireleaf         PC*           Morningglory, ivyleaf         PC*           Nightshade, black         C           Nightshade, back         C           C         Pigweed, redroot           C         Pigweed, redroot           C         Pigweed, smooth           C         C           Pligweed, smooth         C           Pusley, Florida         C           Ragweed, gomnon         C           Ragweed, giant         PC*           Sesbania, hemp         C           Sicklepod         C*           Smartweed, ladysthumb         C           Smartweed, Pennsylvania         C           Sunflower, common         C*	Horseweed (marestail)	С
Lambsquarters, common         C           Morningglory, entireleaf         PC*           Morningglory, ivyleaf         PC*           Morningglory, pitted         PC*           Mightshade, black         C           Nightshade, Eastern black         C           Nightshade, hairy         C           Pigweed, redroot         C           Pigweed, smooth         C           Pigweed, tumble         C           Pusley, Florida         C           Ragweed, common         C           Ragweed, jgint         PC*           Sesbania, hemp         C           Sicklepod         C*           Smartweed, ladysthumb         C           Smartweed, Pennsylvania         C           Sunflower, common         C*           Velvetleaf         C           Waterhemp, common         C*	Jimsonweed	С
Morningglory, entireleaf         PC*           Morningglory, ivyleaf         PC*           Morningglory, pitted         PC*           Nightshade, black         G           Nightshade, Eastern black         C           Nightshade, hairy         C           Pigweed, redroot         C           Pigweed, smooth         C           Pigweed, tumble         C           Pusley, Florida         C           Ragweed, common         C           Ragweed, jiant         PC*           Sesbania, hemp         C           Sicklepod         C*           Smartweed, ladysthumb         C           Smartweed, pale         C           Sunflower, common         C*           Velvetleaf         C           Waterhemp, common         C*	Kochia	PC*
Morningglory, ivyleaf         PC*           Morningglory, pitted         PC*           Nightshade, black         C           Nightshade, kairy         C           Pigweed, redroot         C           Pigweed, smooth         C           Pigweed, tumble         C           Pusley, Florida         C           Ragweed, common         C           Ragweed, giant         PC*           Sesbania, hemp         C           Sicklepod         C*           Smartweed, ladysthumb         C           Smartweed, pale         C           Smartweed, Pennsylvania         C           Sunflower, common         C*           Velvetleaf         C           Waterhemp, common         C*	Lambsquarters, common	С
Morningglory, pitted         PC*           Nightshade, black         C           Nightshade, Eastern black         C           Nightshade, halry         C           Pigweed, redroot         C           Pigweed, smooth         C           Pigweed, tumble         C           Pusley, Florida         C           Ragweed, common         C           Ragweed, giant         PC*           Sesbania, hemp         C           Sicklepod         C*           Smartweed, ladysthumb         C           Smartweed, pale         C           Smartweed, Pennsylvania         C           Sunflower, common         C*           Velvetleaf         C           Waterhemp, common         C*	Morningglory, entireleaf	PC*
Morningglory, pitted         PC*           Nightshade, black         C           Nightshade, Eastern black         C           Nightshade, halry         C           Pigweed, redroot         C           Pigweed, smooth         C           Pigweed, tumble         C           Pusley, Florida         C           Ragweed, common         C           Ragweed, giant         PC*           Sesbania, hemp         C           Sicklepod         C*           Smartweed, ladysthumb         C           Smartweed, pale         C           Smartweed, Pennsylvania         C           Sunflower, common         C*           Velvetleaf         C           Waterhemp, common         C*	Morningglory, ivyleaf	PC*
Nightshade, Eastern black         C           Nightshade, hairy         C           Pigweed, redroot         C           Pigweed, smooth         C           Pigweed, tumble         C           Pusley, Florida         C           Ragweed, common         C           Ragweed, giant         PC*           Sesbania, hemp         C           Sicklepod         C*           Smartweed, ladysthumb         C           Smartweed, Pennsylvania         C           Sunflower, common         C*           Velvetleaf         C           Waterhemp, common         C*		PC*
Nightshade, hairy         C           Pigweed, redroot         C           Pigweed, smooth         C           Pigweed, tumble         C           Pusley, Florida         C           Ragweed, common         C           Ragweed, giant         PC*           Sesbania, hemp         C           Sicklepod         C*           Smartweed, ladysthumb         C           Smartweed, pennsylvania         C           Sunflower, common         C*           Velvetleaf         C           Waterhemp, common         C*	Nightshade, black	C
Pigweed, redroot         C           Pigweed, smooth         C           Pigweed, tumble         C           Pusley, Florida         C           Ragweed, common         C           Ragweed, jiant         PC*           Sesbania, hemp         C           Sicklepod         C*           Smartweed, ladysthumb         C           Smartweed, pale         C           Smartweed, Pennsylvania         C           Sunflower, common         C*           Velvetleaf         C           Waterhemp, common         C*	Nightshade, Eastern black	C
Pigweed, smooth         C           Pigweed, tumble         C           Pusley, Florida         C           Ragweed, common         C           Ragweed, giant         PC*           Sesbania, hemp         C           Sicklepod         C*           Smartweed, ladysthumb         C           Smartweed, pale         C           Smartweed, Pennsylvania         C           Sunflower, common         C*           Velvetleaf         C           Waterhemp, common         C*	Nightshade, hairy	С
Pigweed, tumble         C           Pusley, Florida         C           Ragweed, common         C           Ragweed, giant         PC*           Sesbania, hemp         C           Sicklepod         C*           Smartweed, ladysthumb         C           Smartweed, pale         C           Smartweed, Pennsylvania         C           Sunflower, common         C*           Velvetleaf         C           Waterhemp, common         C*	Pigweed, redroot	С
Pusley, Florida         C           Ragweed, common         C           Ragweed, giant         PC*           Sesbania, hemp         C           Sicklepod         C*           Smartweed, ladysthumb         C           Smartweed, pale         C           Smartweed, Pennsylvania         C           Sunflower, common         C*           Velvetleaf         C           Waterhemp, common         C*	Pigweed, smooth	C
Ragweed, common         C           Ragweed, giant         PC*           Sesbania, hemp         C           Sicklepod         C*           Smartweed, ladysthumb         C           Smartweed, pale         C           Smartweed, Pennsylvania         C           Sunflower, common         C*           Velvetleaf         C           Waterhemp, common         C*	Pigweed, tumble	C
Ragweed, giant         PC*           Sesbania, hemp         C           Sicklepod         C*           Smartweed, ladysthumb         C           Smartweed, pennsylvania         C           Sunflower, common         C*           Velvetleaf         C           Waterhemp, common         C*	Pusley, Florida	C
Sesbania, hemp         C           Sicklepod         C*           Smartweed, ladysthumb         C           Smartweed, pale         C           Smartweed, Pennsylvania         C           Sunflower, common         C*           Velvetleaf         C           Waterhemp, common         C*	Ragweed, common	С
Sicklepod         C*           Smartweed, ladysthumb         C           Smartweed, pale         C           Smartweed, Pennsylvania         C           Sunflower, common         C*           Velvetleaf         C           Waterhemp, common         C*	Ragweed, giant	PC*
Smartweed, ladysthumb         C           Smartweed, pale         C           Smartweed, Pennsylvania         C           Sunflower, common         C*           Velvetleaf         C           Waterhemp, common         C*	Sesbania, hemp	С
Smartweed, pale         C           Smartweed, Pennsylvania         C           Sunflower, common         C*           Velvetleaf         C           Waterhemp, common         C*	Sicklepod	C*
Smartweed, Pennsylvania         C           Sunflower, common         C*           Velvetleaf         C           Waterhemp, common         C*	Smartweed, ladysthumb	С
Sunflower, common         C*           Velvetleaf         C           Waterhemp, common         C*	Smartweed, pale	С
Velwetleaf         C           Waterhemp, common         C*	Smartweed, Pennsylvania	С
Waterhemp, common C*	Sunflower, common	C*
	Velvetleaf	С
Waterhemp, tall	Waterhemp, common	C*
	Waterhemp, tall	C*

<sup>\*</sup> The addition of atrazine at specified label rates may improve control.

Common Name	Control (C) Partial Control (PC)
Amaranth, palmer <sup>1</sup>	PC*
Amaranth, powell	C
Amaranth, spiny	C
Atriplex	С
Broadleaf signalgrass <sup>1</sup>	C
Buckwheat, wild	C*
Buffalobur	C
Burcucumber	PC*
Carpetweed	C
Carrot, wild	PC*
Chickweed, common	C
Clover, spp	C
Cocklebur, common	С
Crabgrass, large <sup>1</sup>	С
Dandelion	PC*
Dock, curly	PC*
Galinsoga	С
Hemp	С
Horsenettle	PC*
Horseweed (marestail)	C*
Jimsonweed	С
Knotweed, prostrate	PC
Kochia	PC*
Lambsquarters, common	C*
Mallow, Venice	PC*
Morningglory, entireleaf	PC*
Morningglory, ivyleaf	PC*
Morningglory, pitted	PC*
Mustard, wild	C
Nightshade, black	C
Nightshade, Eastern black	С
Nightshade, hairy	С
Nutsedge, yellow	PC
Pigweed, redroot	С
Pigweed, smooth	С
Pigweed, tumble	C
Pokeweed, common	PC*
Prickly lettuce	C
Pusley, Florida <sup>1</sup>	C
Ragweed, common	PC*
Ragweed, giant1	C*

(cont'd on next page)

Common Name	Control (C) Partial Control (PC)
Sesbania, hemp	С
Sicklepod	C*
Sida, prickly (teaweed)	PC*
Smartweed, ladysthumb1	C*
Smartweed, pale <sup>1</sup>	С
Smartweed, Pennsylvania <sup>1</sup>	C*
Sunflower, common	C*
Thistle, Canada	С
Velvetleaf	С
Volunteer alfalfa	C*
Volunteer beans	C*
Volunteer lentils	C*
Volunteer peas	C*
Volunteer, Potatoes	С
Volunteer soybean	С
Waterhemp, common <sup>1</sup>	C*
Waterhemp, tall <sup>1</sup>	C*
Wormwood, biennial	C*

<sup>\*</sup> The addition of atrazine at specified label rates may improve control.

#### **CROP ROTATION INTERVALS**

Residues of this product in treated plant tissues, including the treated crop or weeds, which have not completely decayed may affect succeeding susceptible crops.

# Crop Rotation Intervals for All States Except California, Florida, Idaho, Nevada, Oregon, Utah and Washington

		$\overline{}$
Rotation Crops <sup>1</sup>	Rotation Interval <sup>4</sup> (Soils greater than 2% organic matter AND rainfall more than 15 inches during 12 months following application)	Rotation Interval <sup>4</sup> (Soils less than 2% organic matter AND rainfall less than 15 inches during 12 months following application)
Cole Crops (includes Brassica species grown for seed), Field Corn, Flax, Garden Beet, Grasses, Oats, Popcorn, Spinach, Sweet Corn, Turnip	Anytime	Anytime
Barley, Rye, Wheat	4 months	4 months
Canola	10 months	10 months
Alfalfa,Asparagus, Blueberry, Cotton, Currant, Grain Sorghum, Lingonberry, Okra, Onions, Peanuts, Peppermint, Rice, Safflower, Snap Beans <sup>5</sup> , Spearmint, Strawberry, Tobacco	10.5 months	10.5 months
Soybeans, Sunflowers	10.5 months	18 months <sup>2</sup>

(cont'd on next column)

Rotation Crops <sup>1</sup>	Rotation Interval <sup>4</sup> (Soils greater than 2% organic matter AND rainfall more than 15 inches during 12 months following application)	Rotation Interval <sup>4</sup> (Soils less than 2% organic matter AND rainfall less than 15 inches during 12 months following application)
Cucurbits, Dry Beans, Lentilis, Peas, Potatoes (including Potatoes grown for seed), and Broadleaf crops grown for seed (excluding <i>Brassica</i> species), Sugar Beets, and all other crops	18 months <sup>2</sup>	18 months <sup>2,3</sup>

- <sup>1</sup> For best results, conduct a field bioassay prior to planting any broadleaf crops that are not listed. **DO NOT** rotate to unlisted crops prior to 10.5 months following application.
- <sup>2</sup> Follow an 18-month crop rotation due to the potential for crop injury unless previous experience has shown no crop injury with the minimum 10.5-month rotation interval. Precaution: For these crops, a minimum 10.5-month rotation interval must be observed to avoid illenal residues in the harvested crop.
- <sup>3</sup> For best results, conduct a field bioassay prior to planting these sensitive crops.
- Precaution: The above intervals are based upon average annual precipitation regardless of irrigation practices. Observance of listed crop rotation intervals must result in adequate safety to rotational crops. However, this product is dissipated in the soil by microbial activity and the rate of microbial activity is dependent upon several interrelating factors including soil moisture, temperature and organic matter. Therefore, accurate prediction of rotational crop safety is not possible. In areas of low organic matter (<2%) and less than 15 inches average annual precipitation, potential for crop injury may be reduced by burning or removal of plant residues, supplemental fall irrigation and deep moldboard plowing prior to planting the sensitive crop.
- Plant snap bean crops ONLY if the criteria listed below have been met. If all criteria have NOT been met, plant snap beans a minimum of 18 months following application of this product.
- A minimum of 20 inches of rainfall plus irrigation has occurred between application and planting of the rotational crop.
- Soil pH is greater than 6.0.
- 3 fluid ounces per acre or less of this product has been applied no later than June 30<sup>th</sup> the year preceding rotational crop planting.
- No other HPPD herbicides (e.g., isoxaflutole, mesotrione, tembotrione or topramezone) were applied the year prior to planting peas and snap beans.

#### **Rotational Crop Restriction:**

 Do not plant peas or snap beans on sand, sandy loam, or loamy sand soils in Minnesota or Wisconsin.

#### Crop Rotation Intervals for California, Idaho, Nevada, Oregon, Utah and Washington Only

orep reduced medical or camering, radio, recading oregon, camerana tracinington on		
Rotation Crops¹  Rotation Crops¹  (Areas receiving greater than 18 inches of rainfall – not including irrigation)		Rotation Interval <sup>4</sup> (Areas receiving less than 18 inches of rainfall – not including irrigation)
Cole Crops (includes <i>Brassica</i> species grown for seed), Field Corn, Flax, Garden Beet, Grasses, Oats, Popcorn, Spinach, Sweet Corn, Turnip	Anytime	Anytime
Barley, Rye, Wheat	4 months	4 months
Canola	10 months	10 months
Asparagus, Grain Sorghum, Onions, Peppermint, Rice, Safflower, Snap Beans <sup>5</sup> , Spearmint, Strawberry	12 months	12 months

(cont'd on next page)

<sup>1</sup> Apply before weeds exceed 3 inches tall.

Rotation Crops <sup>1</sup>	Rotation Interval <sup>4</sup> (Areas receiving greater than 18 inches of rainfall – not including irrigation)	Rotation Interval <sup>4</sup> (Areas receiving less than 18 inches of rainfall – not including irrigation)
Alfalfa, Dry Beans, Soybean, Sunflower	12 months	18 months <sup>2,3</sup>
Broadleaf Crops grown for seed (excluding <i>Brassica</i> species), Carnot?, Celeny², Cotton², Cucurbits, Lentils, Lettuce², Melons², Peas, Potatoes (including Potatoes grown for seed), Safflower, Sugar Beets, Tomato² and all other crops	18 months <sup>2</sup>	18 months <sup>2,3</sup>

- For best results, conduct a field bioassay prior to planting any broadleaf crops that are not listed. **DO NOT** rotate to unlisted crops prior to 12 months following application.
- 2 Follow an 18-month crop rotation due to the potential for crop injury unless previous experience has shown no crop injury with the minimum 12-month rotation interval. Precaution: For these crops, a minimum 12-month rotation interval must be observed to avoid illegal residues in the harvested crop.
- 3 Crop injury and/or yield loss may occur up to 4 years after application. For best results, conduct a field bioassay prior to planting these sensitive crops. See instructions above.
- 4 Precaution: The above intervals are based upon average annual precipitation regardless of irrigation practices. Observance of listed crop rotation intervals must result in adequate safety to rotational crops. However, this product is dissipated in the soil by microbial activity and the rate of microbial activity is dependent upon several interrelating factors including soil moisture, temperature and organic matter. Therefore, accurate prediction of rotational crop safety is not possibile. In areas of low organic matter (<2%) and less than 15 inches average annual precipitation, potential for crop injury may be reduced by burning or removal of plant residues, supplemental fall irrigation and deep moldboard plowing prior to planting the sensitive crop.</p>
- 5 Plant snap bean crops ONLY if the criteria listed below have been met. If all criteria have NOT been met, plant snap beans a minimum of 18 months following application of this product.
  - A minimum of 20 inches of rainfall plus irrigation has occurred between application and planting of the rotational crop.
  - Soil pH is greater than 6.0.
  - 3 fluid ounces per acre or less of this product has been applied no later than June 30th the year preceding rotational crop planting.
  - No other HPPD herbicides (e.g., isoxaflutole, mesotrione, tembotrione or topramezone) were applied the year prior to planting peas and snap beans.

#### Crop Rotation Intervals for Florida Only

or op notation into valo for Florida only	
Rotation Crops <sup>1</sup>	Rotation Interval* (Soils less than 2% organic matter AND rainfall greater than 15 inches during 12 months following application)
Cole Crops (includes <i>Brassica</i> species grown for seed), Field Corn, Flax, Garden Beet, Grasses, Oats, Popcorn, Spinach, Sweet Corn, Turnip	Anytime
Barley, Rye, Wheat	4 months
Alfalfa, Asparagus, Canola, Cotton, Grain Sorghum, Onions, Peppermint, Safflower, Spearmint, Strawberry	10.5 monthss
Dry Beans, Soybean, Sunflower	182 months

(cont'd in next column)

Rotation Crops <sup>1</sup>	Rotation Interval <sup>4</sup> (Soils less than 2% organic matter <b>AND</b> rainfall greater than 15 inches during 12 months following application)	
Cucurbits, Lentils, Peas, Potatoes (including Potatoes Grown for Seed), and Broadleaf Crops grown for seed (excluding <i>Brassica</i> species), Sugar Beets and all other crops	18 months <sup>2,3</sup>	

- For best results, conduct a field bioassay prior to planting any broadleaf crops that are not listed. **D0 NOT** rotate to unlisted crops prior to 10.5 months following application.
- 2 Follow an 18-month crop rotation due to the potential for crop injury unless previous experience has shown no crop injury with the minimum 10.5-month rotation interval. Precaution: For these crops, a minimum 10.5-month rotation interval must be observed to avoid illegal residues in the harvested crop.
- 3 For best results, conduct a field bioassay prior to planting these sensitive crops.
- 4 Precaution: The above intervals are based upon average annual precipitation regardless of irrigation practices. Observance of listed crop rotation intervals must result in adequate safety to rotational crops. However, this product is dissipated in the soil by microbial activity and the rate of microbial activity is dependent upon several interrelating factors including soil moisture, temperature and organic matter. Therefore, accurate prediction of rotational crop safety is not possible. In areas of low organic matter (<2%) and less than 15 inches average annual precipitation, potential for crop injury may be reduced by burning or removal of plant residues, supplemental fall irrigation and deep moidboard plowing prior to planting the sensitive crop.</p>
- Field Bloassay Instructions: In fields previously treated with this product, plant short test rows of the intended rotational crop across the original direction of application in a manner to sample field conditions, such as soil texture, soil pH, drainage, and any other variable that could affect the seed bed of the new crop. Field bloassay at any time prior to the planting of the intended rotational crop. Observe the test crop for herbicidal activity, such as poor stand (effect on seed germination) chlorosis (yellowing), necrosis (dead leaves or shoots), or stunting (reduced growth). If herbicidal symptoms do not occur, the test crop can be grown, if there is apparent herbicidal activity, walt one year before repeating bloassay or plant only a labeled crop or crop listed in the table below for which the rotational interval has clearly hear met.

#### CROP USE DIRECTIONS

#### CORN (Not Registered for Use in Florida)

Apply *CENTAVO* by ground for early preplant, preplant surface, replant incorporated, preemergence or postemergence weed control in field corn, seed corn, yellow popcorn, and sweet corn. This product will not consistently control grasses that are emerged at the time of application. Utilize tank mixtures of sequential applications of herbicides registered for postemergence control of grass weeds in corn. Apply this product to field corn and yellow popcorn up to 24 inches tall and to sweet corn up to 18 inches tall to control broadleaf and grass weeds listed in Tables 1 and 2.

See seed company instructions for use on field corn inbred lines. Special adjuvant restrictions must be followed for postemergence applications of *CENTAVO* in yellow popcorn or sweet corn (see the "Spray Additives" section of this label).

#### Corn Inbred Lines or Breeding Stock

Susceptibility of corn to injury from *CENTAVO* is highly related to varietal response. Inbred lines or any breeding stock may be injured by this product. Contact your seed production agronomist for advice before aboving this product to inbred lines or breeding stock.

#### Tillage Systems

CENTAVO may be used in conventional, reduced and no-tillage com systems. Weed control will be greatest when applications are made as close to planting as possible. Thoroughly till soil to make an application of a burndown herbicide to control germinating or emerged weeds. Tank mix this product with a burndown herbicide, such as glufosinate, glyphosate, paraquat and/or 2,4-D in reduced, minimum and no-tillage systems if weeds are present at application and corn is not yet emerged.

#### CENTAVO Applied Alone

Apply 9 to 18 fluid ounces (0.06 to 0.13 lb ai clopyralid and 0.12 to 0.24 lb ai mesotrione) per acre.

#### **Early Preplant or Preplant Surface:**

Tank mix with a burndown herbicide, such as glufosinate, glyphosate, paraquat and/or 2,4-D is advised to control emerged weeds.

#### **Preplant Incorporated:**

Apply CENTAVO uniformly into the upper 2 inches of the soil using a field cultivator, disc or spring tooth harrow any time within 14 days prior to planting. Improper incorporation, excessive crop residues or poor soil titlt may result in erratic, streaked or otherwise unsatisfactory weed control. **DO NOT** mix this product deeper than 2 inches into the soil and avoid moving or shaping soil after incorporation.

#### Preemergence Surface

CENTAVO may be applied to the soil surface as a broadcast application after planting but prior to crop emergence. Apply as a single preemergence application. Apply to actively growing weeds. See Table 1 for a complete list of weeds controlled. Use a higher rate in the rate range for heavy infestations or when greater residual control is desired. CENTAVO can be tank mixed with other approved preemergence grass herbicides to control grasses. Refer to the tank mix section for additional information.

#### Postemergence

Apply uniformly with ground equipment as a broadcast or directed spray. See the "Spray Additives" section of this label for adjuvant recommendations. Apply to actively growing weeds less than 3 inches tall. See Table 2 for a complete list of weeds controlled. Susceptible weeds that emerge post-application may be controlled after the herbicide is absorbed into the soil. Use a higher rate in the rate range for heavy infestations or when greater residual control is desired.

Two postemergence applications of *CENTAVO* may be made under the following restrictions:

• Only one postemergence application may be made if this product has been applied preemergence.

 Allow at least 14 days between applications for field corn and 21 days for yellow popcorn and sweet corn.

Applications made at rates lower than 9 fluid ounces (0.06 lb ai clopyralid and 0.12 lb ai mesotrione) per acre postemergence may not provide adequate weed control and may result in reduced residual control. For control of emerged grass weeds, a grass herbicide tank mixture may be required.

If a postemergence application of CENTAVO was made to ground that received preemergence treatment of another mesotrione-containing herbicide, atrazine must be tank mixed with this product. If mixing this product with atrazine, do not along to corn taller trian 12 inches

Temporary transient bleaching may occur in field corn treated with *CENTAVO* postemergence under extreme weather conditions or when the crop is under stress. Field corn will quickly outgrow this condition and develop normally.

Postemergence application of *CENTAVO* to yellow popcorn and sweet corn hybrids may cause crop bleaching. Bleach is transitory and will not affect final yield or quality. Herbicide sensitivity, however, can vary widely in yellow popcorn and sweet corn, and all hybrids of these have not been tested. Contact your local popcorn/sweet corn company, fieldman, or University Specialist to learn about hybrid recommendations before making a postemergence application of *CENTAVO* to yellow popcorn or sweet corn.

#### **CENTAVO** Tank Mix Combinations

Apply CENTAVO in tank mix with other registered herbicides to improve spectrum of weed control in burndown, preemergence, or postemergence applications. These tank mixtures can also be used to include a different mode of action herbicide to control and manage the development of resistant weed biotypes. 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.

#### **Burndown Tank Mixtures in Corn**

Apply CENTAVO in tank mixture with other registered herbicides for burndown and residual weed control of emerged weeds. Apply this product plus paraquat, glyphosate, dicamba and 2,4-D ester for improved broadleaf weed control before planting corn and before corn emergence. Use the adjuvant system specified by the burndown herbicide. Refer to individual product labels for precautionary statements, restrictions, rates, approved uses, and a list of weeds controlled.

#### Preplant and Preemergence Tank Mixture in Corn

Apply CENTAVO in tank mixture with other registered herbicides for weed control in comprior to emergence. Refer to Table 1 for a list of weeds controlled by this product applied preemergence. Refer to individual product labels for precautionary statements, restrictions, rates, approved uses, and a list of weeds controlled.

#### Postemergence Tank Mixtures in Corn

Apply CENTAVO in tank mixture with other registered herbicides for postemergence weed control in corn. Refer to Table 2 for a list of weeds controlled by this product applied postemergence. Consult the "Spray Additives" section of this label for directions when applying this product alone or in tank mixtures to emerged corn. Refer to individual product labels for precautionary statements, restrictions, rates, approved uses, and a list of weeds controlled.

#### CENTAVO Programs for Glyphosate Resistant Corn

#### CENTAVO Preemergence Followed by Glyphosate Postemergence:

CENTAVO may be applied preemergence as part of a two-pass weed control system when followed by a postemergence application of a glyphosate product that is registered for use in glyphosate resistant field com. Use higher rates of this product if there is a history of glyphosate-resistant weeds in the field. Atrazine may also be tank mixed with this product to improve broadleaf and grass weed control. Follow all use directions and restrictions on the olyphosate and atrazine product labels.

#### CENTAVO + Glyphosate Tank Mixture Applied Postemergence:

CENTAVO may be applied postemergence in a tank mixture with a solo glyphosate product that is registered for use in glyphosate resistant field corn. To minimize weed competition effects on the crop, apply this mixture to 1 to 2-inch tall weeds and before the corn reaches 24 inches in height. If the glyphosate product includes an adjuvant system (does not call for additional adjuvants), only spray-grade ammonium sulfate (AMS) at 8.5 pounds per 100 gallons must be added to this tank mixture. If the glyphosate product label calls for an adjuvant in addition to AMS, add a non-ionic surfactant (NIS) at 0.25% v/v and AMS to the mixture. Do NOT add urea ammonium nitrate (UAN), crop oil concentrate (COC), or methylated seed oil (MSO) type adjuvants to the mixture or crop injury may occur. Follow all use directions and restrictions on the glyphosate product label.

#### CENTAVO Programs for Glufosinate Resistant Corn

#### CENTAVO Preemergence Followed by Glufosinate Postemergence:

CENTAVO may be applied preemergence as part of a two-pass weed control system when followed by a postemergence application of a glufosinate product that is registered for use in glufosinate resistant field corn. Use higher rates of this product if there is a history of glufosinate-resistant weeds in the field. Atrazine may also be tank mixed with this product to improve broadleaf and grass weed control. Follow all use directions and restrictions on the olufosinate and atrazine product labels.

#### • CENTAVO + Glufosinate Tank Mixture Applied Postemergence:

CENTAVO may be applied postemergence in tank mixture with a solo glufosinate product that is registered for use in glufosinate resistant field corn. To minimize weed competition effects on the crop, apply this mixture to 1 to 2-inch tall weeds and before the corn reaches 24 inches in height. Ammonium sulfate (AMS) may be added at 8.5 pounds per 100 gallons as a spray adjuvant as directed on the glufosinate product label but AMS needs be the only adjuvant added to this tank mixture. **DO NOT** add urea ammonium nitrate (LIAN), crop oil concentrate (COC), or methylated seed oil (MSO) type adjuvants to the mixture or crop injury may occur. Follow all use directions and restrictions on the glufosinate product label.

#### Restrictions – All Uses

- Do not apply more than 18 fluid ounces (0.13 lb ai clopyralid and 0.24 lb ai mesotrione) per acre per application.
- Do not apply more than 18 fluid ounces (0.13 lb ai clopyralid and 0.24 lb ai mesotrione) per acre per year.
- When using reduced application rates, do not make more than 2 applications per year (one preemergence followed by one postemergence or two postemergence applications).
- Only one postemergence application may be made if this product has been applied preemergence.
- Do not make a second application within 14 days for field corn and 21 days for yellow popcorn and sweet corn.
- Do not apply to white popcorn or ornamental (Indian) corn.
- Do not include nitrogen based adjuvants (UAN or AMS) when making postemergence applications to yellow popcorn or sweet corn.

#### . For Field Corn:

- Preharvest Interval (PHI): Do not feed or harvest forage, grain, or stover within 45 days after application.
- . Do not apply to field corn more than 24 inches tall.

#### . For Sweet Corn and Yellow Popcorn:

- Preharvest Interval (PHI): Do not apply within 30 days of harvest for ears and forage and within 60 days of harvest for stover.
- Do not apply to yellow popcorn more than 24 inches tall or sweet corn more than 18 inches tall.

# STORAGE AND DISPOSAL

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

Pesticide Storage: Keep container tightly closed when not in use. Keep away from heat and flame. Do not store near seed, fertilizers, or foodstuffs. Can be stored at temperatures as low as minus 20°F. Keep away from heat and flame.

**Pesticide Disposal:** Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Open dumping is prohibited.

#### **Container Handling:**

NONREFILLABLE CONTAINER (EQUIAL TO OR LESS THAN 5 GALLONS): 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 and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available or reconditioning if appropriate or pruncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

NONREFILABLE CONTAINER (GREATER THAN 5 GALLONS). 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. Replace and tighten closures. Tip container on its side and full it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling, if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Pressure rinse as follows (all sizes): Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing, orezole in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

(cont'd in next column)

# STORAGE AND DISPOSAL (cont'd)

REFILLABLE CONTAINER: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. After triple rinsing is complete, and the container is not suitable for refilling or reconditioning, offer the container for recycling if available, or puncture and dispose of in a samitary landfill, or by incineration, or by other procedures approved 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, unpowerful and the purchase price will be refunded.

The Directions for Use of this product must 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.

INNVCTIS 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 label instructions, or under abnormal conditions or under conditions not reasonably toreseable 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 use use. To the extent consistent with applicable law INNVICTIS CROP CARE, LLC MAKES NO WARRANTIES OF MECHANISTIC MECHANISTIC SERVICE OF 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 LCLAINS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BEBACH OF WARRANITY, 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 OR THE PRODUCT OR THE PRODUCT OR THE PRODUCT OR AT THE SELECTION OF INNVICTIS CROP CARE, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT OR THE PRODUCT OR AT THE SELECTION OF INNVICTIS CROP CARE, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT OR AT THE SELECTION OF INNVICTIS CROP CARE, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT OR AT THE SELECTION OF INNVICTIS CROP CARE, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT OR AT THE SELECTION OF INNVICTIS CROP CARE, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT OR AT THE SELECTION OF INNVICTIS CROP CARE, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT OR AT THE SELECTION OF INNVICTIS CROP CARE, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT OR AT THE SELECTION OF INNVICTIS CROP CARE, LLC OR SELLER, THE SELECTION OF THE PRODUCT OR AT THE SELECTION OR THE SELECTION OF THE PRODUCT OR AT THE SELECTION OR THE SELECTION O

LIBERTY CROP PROTECTION LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of Sale and Limitation of Warranty and Liability which may not be modified except by written agreement signed by a duly authorized representative of INNVCTIS CROP CARE, LLC.

All trademarks are the property of their respective owners.