

# COLTAS<sup>TM</sup>

## HERBICIDE

**For control of annual and perennial broadleaf weeds in wheat, barley, and oats not underseeded with a legume, field corn, and sweet corn.**

#### ACTIVE INGREDIENT(S):

Clopyralid MEA salt: 3,6-dichloro-2-pyridinecarboxylic acid, monoethanolamine salt .....	11.3%
Fluroxypyr 1-methylheptyl ester: ((4-amino-3,5-dichloro-6-fluoro-2-pyridinyl)oxy)acetic acid, 1-methylheptyl ester .....	12.3%
<b>INERT INGREDIENTS .....</b>	<b>76.4%</b>
<b>TOTAL .....</b>	<b>100.0%</b>

Contains Petroleum Distillates  
Acid Equivalents

clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid - 8.6% (0.75 lb/gal)  
fluroxypyr: ((4-amino-3,5-dichloro-6-fluoro-2-pyridinyl)oxy)acetic acid - 8.6% (0.75 lb/gal)

Store above 20°F or warm and agitate before use.

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

EPA REG. NO. 34704-895

EPA EST. NO. 34704-MS-01

NET CONTENTS 1 GAL. (3.78 L)

IHT

03P06

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
CAUTION**

**Causes Moderate Eye Irritation**

**Avoid contact with eyes or on clothing.**

#### Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category F or G on an EPA chemical resistance category selections chart.

**Applicators and other handlers must wear:** Long-sleeved shirt and long pants, chemical-resistant gloves such as Barrier Laminate or Viton, and shoes plus socks.

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

#### Engineering Controls 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:

Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

#### FIRST AID

<b>If in eyes:</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
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Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL:  
1-800-301-7976.**

**Note to Physician:** Contains aromatic petroleum distillate. Vomiting and aspiration may cause chemical pneumonitis.

#### ENVIRONMENTAL HAZARDS

This product is toxic to fish. Drift or runoff from treated areas may be hazardous to aquatic organisms and non-target plants. 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. Do not contaminate water used for irrigation or domestic purposes.

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 bedrock, 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.

#### PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 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 such as Barrier Laminate or Viton, and, shoes plus socks.

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### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store above 20°F or warm and agitate before use.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by 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 Disposal (Metal):** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in sanitary landfill, or by other procedures approved by state and local authorities.

**CONTAINER DISPOSAL (PLASTIC):** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC – 1-800-424-9300.

### GENERAL INFORMATION

Colt™ AS herbicide is recommended for selective control of annual and perennial broadleaf weeds in wheat, barley, and oats not underseeded with a legume, field corn, and sweet corn.

### APPLICATION PRECAUTIONS AND RESTRICTIONS

- Do not apply Colt AS directly to, or allow spray drift to come in contact with broadleaf crops or other susceptible broadleaf plants, including, but not limited to, alfalfa, canola, beans, cotton, flowers, grapes, lettuce, lentils, mustard, peas, potatoes, radishes, soybeans, sugar beets, sunflowers, tobacco, tomatoes, vegetables, or other desirable broadleaf crops or ornamental plants or soil where sensitive crops will be planted the same season.
- Avoid application where proximity of susceptible crops or other desirable plants is likely to result in exposure to spray or spray drift.
- Do not contaminate irrigation ditches or water used for domestic purposes.
- Chemigation:** Do not apply this product through any type of irrigation system.
- 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 un-treated hay). 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.
- Field Bioassay 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 variability in field conditions such as soil texture, soil organic matter, soil pH, or drainage. The field bioassay can be initiated at any time between harvest of the treated crop and the planting of the intended rotational crop. Observe the test crop for herbicidal activity, such as poor stand (effect on seed germination) chlorosis (yellowing), and 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, do not plant the field to the test rotational crop; plant only a labeled crop or crop listed in the table below for which the rotational interval has clearly been met.

### Crop Rotation Intervals

Residues of Colt AS 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, Idaho, Nevada, Oregon, Utah and Washington

**Note:** Numbers in parenthesis and † refer to footnotes following tables.

Rotation Crops (1)	Rotation Interval † (Soils greater than 2% organic matter AND rainfall more than 15 inches during 12 months following application)	Rotation Interval † (Soils less than 2% organic matter AND rainfall less than 15 inches during 12 months following application)
barley, grasses, field corn, oats, sweet corn, wheat	Anytime	Anytime
canola (rapeseed), cole crops ( <i>Brassica</i> species), flax, garden beet, popcorn, spinach, sugarbeet, turnip	120 days	120 days
alfalfa, asparagus, grain sorghum, mint, onions, safflower, strawberries	10.5 months	10.5 months
dry beans, soybeans, sunflowers	10.5 months	18 months (2)
lentils, peas, potatoes (including potatoes grown for seed), and broadleaf crops grown for seed (excluding <i>Brassica</i> species)	18 months (2)	18 months (2, 3)

- A field bioassay is recommended prior to planting any broadleaf crops that are not listed. Do not rotate to unlisted crops prior to 10.5 months following application.
- An 18-month crop rotation is recommended due to the potential for crop injury.  
**Note:** For these crops, a minimum 10.5 month rotation interval must be observed to avoid illegal residues in the harvested crop.
- A field bioassay is also recommended prior to planting these sensitive crops. See instructions above.

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

Rotation Crops (1)	Rotation Interval † (Areas receiving greater than 18 inches of rainfall - not including irrigation)	Rotation Interval † (Areas receiving less than 18 inches of rainfall - not including irrigation)
barley, grasses, field corn, oats, sweet corn, wheat	Anytime	Anytime
canola (rapeseed), cole crops (includes <i>Brassica</i> species grown for seed), flax, garden beet, popcorn, spinach, sugarbeet, turnip	120 days	120 days
asparagus, grain sorghum, mint, onions, strawberries	12 months	12 months
alfalfa, dry beans, soybeans, sunflower	12 months	18 months (2, 3)
broadleaf crops grown for seed (excluding <i>Brassica</i> species), carrots (2), celery (2), cotton (2), lentils, lettuce (2), melons (2), peas, potatoes (including potatoes grown for seed), safflower, and tomatoes (2)	18 months (2)	18 months (2, 3)

- A field bioassay is recommended prior to planting any broadleaf crops that are not listed. Do not rotate to unlisted crops prior to 12 months following application.
- An 18-month crop rotation is recommended due to the potential for crop injury.  
**Note:** For these crops, a minimum 12 month rotation interval must be observed to avoid illegal residues in the harvested crop.
- Crop injury and/or yield loss may occur up to 4 years after application. A field bioassay is also recommended prior to planting these sensitive crops. See instructions above.

† **Note:** The above intervals are based on average annual precipitation, regardless of irrigation practices. Observance of recommended crop rotation intervals should result in adequate safety to rotational crops. However, Colt AS is dissipated in the soil by microbial activity and the rate of microbial activity is dependent on several inter-relating factors including soil moisture, temperature and organic matter. Therefore, accurate prediction of rotational crop safety is not possible. In areas of low organic matter (<2.0%) 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.

### AVOIDING INJURY TO NON-TARGET PLANTS

This product can affect susceptible broadleaf plants directly through foliage and indirectly by root uptake from treated soil. Do not apply Colt AS herbicide directly to, or allow spray drift to come in contact with broadleaf crops, including, but not limited to alfalfa, canola, beans, cotton, flowers, grapes, lettuce, lentils, mustard, peas, potatoes, radishes, soybeans, sugar beets, sunflowers, tobacco, tomatoes, vegetables, or other desirable broadleaf crops or ornamental plants or soil where sensitive crops will be planted the same season. (See guidance in section entitled "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 crops. To promote herbicidal decomposition, plant residues should 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 irrigation.

**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 has been settled by rainfall or irrigation or irrigate shortly after application.

### PRECAUTIONS FOR AVOIDING SPRAY DRIFT

Spray drift, even very small quantities of the spray that may not be visible, may severely injure susceptible crops whether dormant or actively growing. When applying Colt AS, use low-pressure equipment capable of producing sprays of uniform droplet size with a minimum of fine spray droplets. Under adverse weather conditions, fine spray droplets

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that do not settle rapidly onto target vegetation may be carried a considerable distance from the treatment area. A drift control or spray thickening agent may be used with this product to improve spray deposition and minimize the potential for spray drift. If used, follow all use recommendations and precautions on the product label.

**Ground Applications:** To minimize spray drift, apply Colt AS in a total spray volume of 8 or more gallons per acre using spray equipment designed to produce large-droplet, low pressure sprays. Refer to the spray equipment manufacturer's recommendations for detailed information on nozzle types, arrangement, spacing and operating height and pressure. Spot treatments should be applied only with a calibrated boom to prevent over application. Operate equipment at spray pressures no greater than is necessary to produce a uniform spray pattern. Operate the spray boom no higher than is necessary to produce a uniformly overlapping pattern between spray nozzles. Do not apply with low cone-type insecticide nozzles or other nozzles that produce a fine-droplet spray.

**Aerial Application:** To minimize spray drift, apply Colt AS in a total spray volume of 3 or more gallons per acre. Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high potential for temperature inversion. Spray drift from aerial application can be minimized by applying a coarse spray at spray boom pressure no greater than 30 psi; by using straight-stream nozzles directed straight back; and by using a spray boom no longer than  $\frac{3}{4}$  the rotor or wing span of the aircraft. Spray pattern and droplet size distribution can be evaluated by applying sprays containing a water-soluble dye marker or appropriate drift control agents over a paper tape (adding machine tape). Mechanical flagging devices may also be used.

**Do not apply under conditions of a low level air temperature inversion.** A temperature inversion is characterized by little or no wind and lower air temperature near the ground than at higher levels. The behavior of smoke generated by an aircraft mounted device or continuous smoke column released at or near site of application will indicate the direction and velocity of air movement. A temperature inversion is indicated by layering of smoke at some level above the ground and little or no lateral movement.

### SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 75% the length of the wingspan or 90% of rotor width.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

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

The applicator should be familiar with and take into account the information covered in the following **Aerial Drift Reduction Advisory Information:**

#### Importance of Droplet Size

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

#### Controlling Droplet Size

**Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

**Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

**Number of nozzles** - Use the minimum number of nozzles that provide uniform coverage.

**Nozzle Orientation** - Orienting nozzles so that the spray is released backwards, parallel to the airstream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.

**Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

#### Boom Length

For some use patterns, reducing the effective boom length to less than 75% of the wingspan or 90% of rotor width may further reduce drift without reducing swath width.

#### Application

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

#### Swath Adjustment

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

#### Wind

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

#### Temperature and Humidity

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

#### Temperature Inversions

Applications should not occur during a temperature inversion, because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small-suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. A temperature inversion is characterized by increasing temperature with altitude and commonly develops at night when there is limited cloud cover and calm conditions. They begin to form as the sun sets and often continue into the morning. Presence of a temperature inversion is indicated by ground fog; however, if ground fog is not present, a temperature inversion can also be indicated by movement of smoke from a ground or an aircraft smoke generator. Smoke that forms a layer and moves laterally in a connected cloud (under low wind conditions) is an indication of inversion conditions, while smoke that moves upward and dissipates rapidly is an indication of good vertical air mixing.

#### Sensitive Areas

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

#### Sprayer Clean-Out

To avoid injury to desirable plants, equipment used to apply Colt AS should be thoroughly cleaned before re-using to apply any other chemicals.

1. Rinse and flush application equipment thoroughly at least 3 times with water after use. Dispose of rinse water by application to treatment area or in non-cropland area away from water supplies.
2. During the second rinse, add 1 qt of household ammonia for every 25 gallons of water. Circulate the solution through the entire system so that all internal surfaces are contacted (15-20 minutes). Let the solution stand for several hours, preferably overnight.
3. Flush the solution out of the spray tank through the boom.
4. Rinse the system twice with clean water, recirculating and draining each time.
5. Remove nozzles and screens and clean separately.

### MIXING INSTRUCTIONS

1. Fill spray tank with water equal to  $\frac{1}{2}$  to  $\frac{3}{4}$  of the required spray volume and start agitation.
2. Add the required amount of Colt AS.
3. Add any surfactants, adjuvants or drift control agents according to manufacturer's label.
4. Agitate during final filling of the spray tank and maintain sufficient agitation during application to ensure uniformity of the spray mixture.

**Note:** Allow time for thorough mixing of each spray ingredient before adding the next. If allowed to stand after mixing, agitate spray mixture before use.

#### 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 fluroxypyr or clopyralid is not prohibited by the label of the tank mix product.

#### Tank Mixing Precautions

- Read carefully and follow all applicable use directions, precautions, and limitations on the respective product labels.
- Do not exceed recommended application rates. Do not tank mix with another pesticide product that contains the same active ingredient as this product unless the label of either tank mix partner specifies the maximum dosages that may be applied.
- For products packaged in water soluble packaging, do not tank mix with products containing boron or mix in equipment previously used to apply a product mixture containing boron unless the tank and spray equipment has been adequately cleaned. (See instructions for Sprayer Clean-Out.)
- Always perform a (jar) test to ensure the compatibility of products to be used in tank mixture.

**Tank Mix Compatibility Testing:** A jar test is recommended prior to tank mixing to ensure compatibility of Colt AS and other pesticides. Use a clear glass 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  $\frac{1}{2}$  hour. If the mixture balls-up, forms flakes, sludges, jels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

#### Tank Mixing Instructions

Fill spray tank with water to  $\frac{1}{2}$  to  $\frac{3}{4}$  of the required spray volume. Start agitation. Add different formulation types in the order indicated, allowing time for complete mixing and dispersion after addition of each.

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1. Add dry flowables; wettable powders; aqueous suspensions, flowables or liquids.
2. Maintain agitation and fill spray tank to ¾ of total spray volume and then add Colt AS and other emulsifiable concentrates and any solutions.

Finish filling the spray tank. Maintain continuous agitation during mixing, final filling and throughout application. If spraying and agitation must be stopped before the spray tank is empty, the materials may settle to the bottom. Settled materials must be resuspended before spraying is resumed. A sparger agitator is particularly useful for this purpose. Settled material may be more difficult to resuspend than when originally mixed.

### APPLICATION DIRECTIONS

#### Application Timing

Apply to actively growing weeds. Extreme growing conditions such as drought or near freezing temperatures prior to, at, or following application may reduce weed control and increase the risk of crop injury at all stages of growth. **Only weeds that have emerged at the time of application will be controlled.** If foliage is wet at the time of application, control may be decreased. Applications of Colt AS herbicide are **rainfast within 6 hours after application.**

#### Effect of Temperature on Herbicidal Activity

Herbicidal activity of Colt AS is influenced by weather conditions. Optimum activity requires active plant growth. The temperature range for optimum herbicidal activity is 55°F to 75°F. Reduced activity will occur when temperatures are below 45°F or above 85°F. Frost before application (3 days) or shortly after (3 days) may reduce weed control and crop tolerance.

#### Application Rates

Generally, application rates at the lower end of the recommended rate range will be satisfactory for young, succulent growth of susceptible weed species. For less sensitive species, perennials, and under conditions where control is more difficult (plant stress conditions such as drought or extreme temperatures, dense weed stands and/or larger weeds), the higher rates within the rate range will be needed. Weeds in fallow land or other areas where competition from crops is not present will generally require higher rates for control or suppression.

#### Spray Coverage

Use sufficient spray volume to provide thorough coverage and a uniform spray pattern. Do not broadcast apply in less than 3 gallons of total spray volume per acre. For best results and to minimize spray drift, apply in a spray volume of 10 gallons or more per acre. As vegetative canopy and weed density increase, spray volume should be increased to obtain equivalent weed control. Use only nozzle types and spray equipment designed for herbicide application. To reduce spray drift, follow precautions under "Avoiding Injury to Non-Target Plants."

#### Adjuvants

Generally, this product does not require the use of an adjuvant to achieve satisfactory weed control. However, the addition of an adjuvant may optimize herbicidal activity when applications are made (a) at lower use rates or lower carrier volumes, (b) under conditions of cool temperature, low relative humidity or drought, or (c) to small, heavily pubescent kochia.

#### Use with Sprayable Liquid Fertilizer Solutions

Colt AS is compatible with most non-pressurized liquid fertilizer solutions, however, if liquid fertilizer solutions are to be applied with Colt AS, a compatibility test (jar test) should be made prior to mixing. Jar tests are particularly important when a new batch of fertilizer or pesticide is used, when the water source changes, or when tank mixture ingredients or concentrations are changed. A compatibility test is performed by mixing the spray components (in the desired order and proportions) into a clear glass jar before mixing in the spray tank. Use of a compatibility aid such as Unite or Compex may help obtain and maintain a uniform spray solution during mixing and application. Agitation in the spray tank must be vigorous to compare with jar test agitation. For best results, liquid fertilizer should not exceed 50% of the total spray volume. Premix Colt AS with water and add to the liquid fertilizer/water mixture while agitating contents of the spray tank. Apply the spray the same day it is prepared while maintaining continuous agitation.

**Advisory:** Foliar-applied liquid fertilizers, used as a carrier for Colt AS, can cause yellowing or leaf burn of crop foliage.

#### Spot Treatments

To prevent misapplication, it is recommended that spot treatments be applied only with a calibrated boom or with hand sprayers according to directions provided below.

**Hand-Held Sprayers:** Hand-held sprayers may be used for spot applications. Care should be taken to apply the spray uniformly and at a rate equivalent to a broadcast application. Application rates in the table are based on an area of 1,000 sq ft. Mix the amount of Colt AS (fl oz or ml) corresponding to the desired broadcast rate in 1 or more gallons of spray. To calculate the amount of Colt AS required for larger areas, multiply the table value (fl oz or ml) by the area to be treated in "thousands" of square feet, e.g., if the area to be treated is 3,500 sq ft, multiply the table value by 3.5 (calc. 3,500 ÷ 1,000 = 3.5). An area of 1000 sq ft is approximately 10.5 x 10.5 yards (strides) in size.

#### Amount of Colt AS per gallon of spray to Equal Specified Broadcast Rate

1.0 pt/acre	1.33 pt/acre
0.375 fl oz (11 ml)	0.50 fl oz (15 ml)

1 fl oz = 29.6 (30) ml

### Broadleaf Weeds Controlled or Suppressed

Note: Numbers in parentheses (-) refer to footnotes below.

#### Weeds Controlled

alfalfa, volunteer (from seed)  
 artichoke, Jerusalem (1)  
 beans, volunteer  
 bedstraw (cleavers) (2)  
 buckwheat, wild (3)  
 burdock, common chamomile, false (scentless)  
 chamomile, mayweed (dogfennel)  
 chickweed  
 clover, black medic  
 clover, hop  
 clover, red  
 clover, sweet  
 clover, white  
 cocklebur, common (1)  
 coffeeweed  
 cornflower (bachelor button)  
 daisy, oxeye  
 dandelion  
 dock, curly  
 flax, volunteer  
 galinsoga  
 grape species  
 groundsel, common  
 hawksbeard, narrowleaf  
 hawkweed, orange  
 hawkweed, yellow  
 hemp dogbane  
 horseweed (marestail)  
 jimsonweed (1)  
 kochia (4)  
 lentils, volunteer  
 lettuce, prickly  
 locoweed, Lambert  
 locoweed, white  
 mallow, Venice  
 marshelder (1)  
 morningglory  
 nightshade, black (5)  
 nightshade, cutleaf (5)  
 nightshade, Eastern black (5)  
 nightshade, hairy (5)  
 peas, volunteer  
 pineappleweed  
 puncturevine  
 purslane, common  
 ragweed, common (1)  
 ragweed, giant (1)  
 salsify, meadow (goatsbeard)  
 sicklepod  
 sorrel, red  
 sowthistle, annual starthistle, yellow  
 sunflower (1)  
 teasel, common  
 thistle, bull thistle, Canada (6)  
 thistle, musk  
 velvetleaf  
 vetch  
 wormwood, biennial

#### Weeds Suppressed †

alfalfa, volunteer (from perennial plants)  
 bindweed, field  
 buffalobur (5)  
 canola, volunteer  
 field horsetail  
 knapweed, Russian  
 knotweed  
 ladythumb (5)  
 mallow, common  
 mustard species  
 pennycress, field  
 potato, volunteer  
 smartweed, green (5)  
 sowthistle, perennial (6)  
 thistle, Russian

† **Suppression** is expressed as a reduction in weed competition (reduction population or vigor) as compared to untreated areas. The degree of weed control and duration of effect may vary with weed size, density, application rate, coverage, and growing conditions before, during and after treatment.

1. For best control, apply up to 5 leaf stage of growth.
2. For best control, apply in the 1 - 4 leaf "whorl" stage of growth.
3. For best control, apply in the 1 - 3 leaf stage of growth, before vining.
4. Includes herbicide tolerant or resistant biotypes. Best control is achieved when weeds are at least 1 inch tall.
5. For best control or suppression, apply at the 2 - 4 leaf stage of growth.
6. For best control or suppression, apply from rosette to bud (pre-flower) stage of growth.

**Perennial weeds:** Colt AS will control the initial top growth and inhibit regrowth during the season of application (season-long control). At higher use rates shown on this label, Colt AS may cause a reduction in shoot regrowth in the season following application; however, plant response may be inconsistent due to inherent variability in shoot regrowth from perennial root systems.

**Management of Kochia Biotypes:** Research has suggested that many biotypes of kochia can occur within a single field. While kochia biotypes can vary in their susceptibility to Colt AS, all will be suppressed or controlled by the 1 pint per acre labeled rate. Application of Colt AS at rates below the 1 pint per acre rate can result in a shift to more tolerant biotypes within a field.

**Best Resistance Management Practices:** Extensive populations of dicamba tolerant kochia have been identified in certain small grain and corn production regions (such as Chouteau, Fergus, Liberty, Toole, and Treasure counties in the state of Montana). For optimal control of dicamba tolerant kochia in these counties, Colt AS is recommended at a minimum rate of 1.33 pint per acre. In addition, use of Colt AS should be rotated with products that do not contain dicamba to minimize selection pressure. Use of these practices will preserve the utility of Colt AS for control of dicamba tolerant kochia biotypes.

### WHEAT (including Durum), BARLEY, OATS

**Application Timing:** Apply as a broadcast postemergence treatment to actively growing wheat, barley or oats, from the 3 leaf crop growth stage up to and including flag leaf emergence (Zadoks scale 39) for control of listed broadleaf weeds. Apply when weeds are actively growing, but before weeds are 4 inches tall or vining. To obtain season-long control of perennial weeds such as Canada thistle, apply when the majority of the basal leaves have emerged from the soil up to bud stage. For suppression of volunteer potatoes, apply before potato plants are 6 inches tall. Only weeds emerged at the time of application will be controlled. Extreme growing conditions such as drought or near freezing temperatures prior to, at, and following time of application may reduce weed control and increase the risk of crop injury at all stages of growth. **Do not use if cereal crop is underseeded with a legume.**

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**Spot Application:** Spot applications may be made, however, to prevent over-application spot treatments should be applied at rates and spray volumes equivalent to broadcast application. See instructions for "Spot Application" in "Application Directions" section.

### Broadcast Application Rates

(Numbers in parentheses (-) refer to footnotes following table.)

Weed Size or Species (1)	Application Rate (pt/acre)
Susceptible broadleaf weed seedlings less than 4 inches tall (2)	1.0
Susceptible broadleaf weed seedlings less than 8 inches tall or vining; dicamba tolerant kochia biotypes	1.33
Volunteer potatoes	1.33

- See "Weeds Controlled or Suppressed" section for a complete listing of weeds controlled or suppressed.
- A rate of 1 pint per acre will provide satisfactory control of kochia seedlings less than 4 inches tall (including ALS resistant biotypes). However, when conditions for control are less favorable, such as under drought or cool temperatures, a rate of 1.33 pints per acre will provide more consistent control of kochia seedlings 1 to 4 inches tall. Control of small kochia will be more consistent if kochia is at least 1 inch tall. A rate of 1.33 pints per acre should be used for optimal control of dicamba tolerant kochia populations (see "Management of Kochia Biotypes" in the "Broadleaf Weeds Controlled" section above).

### Tank Mixtures for Wheat (including Durum), Barley, Oats

Colt AS herbicide may be applied in tank mix combination with labeled rates of other products registered for postemergence application in wheat, barley, and oats. See "Tank Mixing Precautions" under "Mixing Instructions". When tank mixing, do not exceed recommended application rates and use only in accordance with the most restrictive precautions and limitations on the respective product labels.

### Restrictions

- Do not allow livestock to graze treated areas or harvest treated forage within 7 days of application.
- Do not apply more than 1.33 pint per acre of Colt AS per growing season.
- Preharvest Interval:** Do not apply closer than 14 days before cutting of hay or 40 days before harvesting of grain and straw.

## FIELD CORN

**Application Timing:** Apply as a broadcast or band treatment to field corn up to, and including, 5 fully exposed leaf collars (V5 growth stage). Do not broadcast apply to field corn with 6 fully exposed leaf collars (V6 growth stage). Applications to field corn beyond the V5 growth stage should be made as a directed spray using drop nozzles (see crop safety precaution below). Apply when broadleaf weeds are actively growing, but before weeds are 8 inches tall. To obtain season-long control of perennial weeds such as Canada thistle, apply after the majority of the weed's basal leaves have emerged up to bud stage. If wild buckwheat is present, apply before vining stage of growth. Only weeds emerged at the time of application will be controlled or suppressed.

### Broadcast Application Rates

(Numbers in parentheses (-) refer to footnotes following table.)

Weed Size or Species (1)	Application Rate (pt/acre)
Susceptible broadleaf weed seedlings less than 8 inches tall or vining; dicamba tolerant kochia biotypes (2)	1.33
Volunteer potatoes	1.33

- See "Weeds Controlled or Suppressed" section for a complete listing of weeds controlled or suppressed.
- A rate of 1.33 pints per acre will provide satisfactory control of kochia seedlings less than 8 inches tall (including ALS resistant biotypes). Control of small kochia will be more consistent if kochia is at least 1 inch tall. A rate of 1.33 pints per acre should be used for optimal control of dicamba tolerant kochia populations (see "Management of Kochia Biotypes" in the "Broadleaf Weeds Controlled" section above).

### Options for Suppression or Control of Volunteer Potatoes

- Pre plant Application (Suppression):** Apply 1.33 pints per acre prior to planting when the majority of volunteer potato plants are 4 to 8 inches tall. For best results, leave soil undisturbed and plant field corn two weeks following application.
- Post emergence Application (Suppression):** Apply 1.33 pints per acre when the majority of volunteer potato plants are 4 to 8 inches tall.
- Pre-Plant and Postemergence Application (Control):** To control heavy populations of volunteer potato, a pre-plant application of 1.33 pints per acre of Colt AS may be followed by a postemergence application of 1.33 pints per acre. Do not exceed two applications per season.

**Crop Tolerance Precaution:** Crop injury (stem curvature, stunting, brace root injury) may occur with some corn hybrids or lines when Colt AS is applied as a broadcast treatment. Hybrids or lines that are susceptible to phenoxy injury may also be susceptible to injury from Colt AS.

**Tank Mixtures for Field Corn:** Colt AS may be applied alone or in tank mix combination with other herbicides registered for pre emergence or post emergence application in field corn unless tank mixing is specifically prohibited by the label of the tank mix prod-

uct. See "Tank Mixing Precautions" under "Mixing Instructions". When Colt AS is tank mixed with a companion herbicide, follow applicable use directions, precautions, restrictions, and limitations listed on the manufacturer's label. If an adjuvant is added to the spray mixture as a requirement of the tank mix partner, follow label directions for both the tank mix partner and the adjuvant product.

### Restrictions

- Do not make more than two applications or apply more than 2.66 pints per acre per crop season.
- Do not allow livestock to graze treated areas or harvest treated forage within 47 days of application.
- Preharvest Interval:** Do not apply less than 90 days before harvest of grain and stover.

## SWEET CORN

**Application Timing:** Apply as a broadcast or band treatment to sweet corn up to, and including, 4 fully exposed leaf collars (V4 growth stage). Do not broadcast apply to sweet corn with 5 fully exposed leaf collars (V5 growth stage). Applications to sweet corn beyond the V4 growth stage should be made as a directed spray using drop nozzles (see crop tolerance precaution below). Apply when broadleaf weeds are actively growing, but before weeds are 8 inches tall. To obtain season-long control of perennial weeds such as Canada thistle, apply after the majority of the weed's basal leaves have emerged up to bud stage. If wild buckwheat is present, apply before vining stage of growth. Only weeds emerged at the time of application will be controlled or suppressed.

### Broadcast Application Rates

(Numbers in parentheses (-) refer to footnotes following table.)

Weed Size or Species (1)	Application Rate (pt/acre)
Susceptible broadleaf weed seedlings less than 8 inches tall or vining; dicamba tolerant kochia biotypes (2)	1.33
Volunteer potatoes	1.33

- See "Weeds Controlled or Suppressed" section for a complete listing of weeds controlled or suppressed.
- A rate of 1.33 pints per acre will provide satisfactory control of kochia seedlings less than 8 inches tall (including ALS resistant biotypes). Control of small kochia will be more consistent if kochia is at least 1 inch tall. A rate of 1.33 pints per acre should be used for optimal control of dicamba tolerant kochia populations (see "Management of Kochia Biotypes" in the "Broadleaf Weeds Controlled" section above).

### Options for Suppression or Control of Volunteer Potatoes

- Pre plant Application (Suppression):** Apply 1.33 pints per acre prior to planting when the majority of volunteer potato plants are 4 to 8 inches tall. For best results, leave soil undisturbed and plant field corn two weeks following application.
- Post emergence Application (Suppression):** Apply 1.33 pints per acre when the majority of volunteer potato plants are 4 to 8 inches tall.
- Pre-Plant and Postemergence Application (Control):** To control heavy populations of volunteer potato, a pre-plant application of 1.33 pints per acre of Colt AS may be followed by a postemergence application. Do not exceed two applications per season.

**Crop Tolerance Precaution:** All sweet corn hybrids have not been screened for tolerance to Colt AS herbicide. Crop injury (stem curvature, stunting, brace root injury) may occur with some hybrids or lines when Colt AS is applied as a broadcast treatment. Take particular care to manage for environmental conditions such as unfavorable combinations of temperature and humidity. Hybrids or lines that are susceptible to phenoxy injury may also be susceptible to injury from Colt AS.

**Tank Mixtures for Sweet Corn:** Colt AS may be applied alone or in tank mix combination with other herbicides registered for pre emergence or post emergence application in sweet corn unless tank mixing is specifically prohibited by the label of the tank mix product. When Colt AS is tank mixed with a companion herbicide, follow applicable use directions, precautions, restrictions, and limitations listed on the manufacturer's label. See "Tank Mixing Precautions" under "Mixing Instructions".

**Use of Spray Adjuvants in Tank Mixes:** The addition of spray adjuvants is not recommended when applying Colt AS alone. Use of an adjuvant may increase effectiveness on weeds but may reduce selectivity to the crop, particularly under conditions of plant stress such as drought or cold temperatures. If an adjuvant is added to the spray mixture as a requirement of a tank mix partner, follow all manufacturer guidelines. Do not apply Colt AS in combination with crop oil concentrates, petroleum-based oils or methylated seed oils unless the risk of injury is acceptable.

### Restrictions

- Do not make more than two applications or apply more than 2.66 pints per acre per crop season.
- Do not allow livestock to graze treated areas or harvest treated forage within 31 days of application.
- Preharvest Interval:** Do not apply less than 31 days before harvesting ears.

**COLT™ AS HERBICIDE**  
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