FLUMET	SULAM	GROUP	2	HERBICIDE
CLOPYR/	ALID	GROUP	4	HERBICIDE



# Broadleaf Blend Herbicide A selective herbicide for the control of broadleaf weeds in field corn.

Active Ingredients: flumetsulam: N-(2,6-difluorophenyl)-5-methyl-1,2,4-triazolo-[1,5a]-	
pyrimidine-2-sulfonamide	18.5%
clopyralid potassium salt: 3,6-dichloro-2-pyridinecarboxylic acid, potassium salt	60.0%
Other Ingredients	<u>21.5%</u>
Total Ingredients	100.0%

Acid Equivalent: clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid - 50%

Contains 0.185 pound flumetsulam active ingredient and 0.5 pound clopyralid acid equivalent per pound of product.

# Keep Out of Reach of Children WARNING AVISO

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.)

	First Aid		
If in eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes.		
	Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.		
,	Call a poison control center or doctor for treatment advice.		
If swallowed:	Call a poison control center or doctor immediately for treatment advice.		
	Have person sip a glass of water if able to swallow.		
	Do not induce vomiting unless told to do so by a poison control center or doctor.		
	Do not give anything by mouth to an unconscious person.		
If inhaled:	Move person to fresh air.		
	If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably		
mouth-to-mouth, if possible.			
	Call a poison control center or doctor for further treatment advice.		
If on skin or	Take off contaminated clothing.		
clothing:	Rinse skin immediately with plenty of water for 15-20 minutes.		
	Call a poison control center or doctor for treatment advice.		
	Emergency Information		
Have the product	container or label with you when calling a poison control center or doctor, or going for treatment.		
	FOR THE FOLLOWING EMERGENCIES, PHONE 24 HOURS A DAY:		
For Medical E	mergencies phone:1-888-681-4261		
For Transport	ation Emergencies, including spill, leak or fire, phone: CHEMTREC <sup>®</sup> 1-800-424-9300		
For Product U	se Information phone: AMVAC <sup>®</sup> 1-888-462-6822		

Refer to label booklet for Directions for Use.

EPA Reg. No. 5481-678 Net Contents: \_\_\_\_\_



Manufactured for: AMVAC Chemical Corporation 4695 MacArthur Court, Suite 1200 Newport Beach, CA 92660

# **Precautionary Statements**

# Hazards to Humans and Domestic Animals

# WARNING

Causes Substantial But Temporary Eye Injury • Harmful If Swallowed, Inhaled, Or Absorbed Through The Skin • May Cause Skin Sensitization Reactions In Certain Individuals

Do not get in eyes or on clothing. Avoid breathing vapors or spray mist and contact with skin.

# **Personal Protective Equipment (PPE)**

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

# User Safety Recommendations

Users should:

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

# **Environmental Hazards**

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

The active ingredients in this product are known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this product where soils are permeable, particularly where the water table is shallow, may result in leaching to ground water.

Caution should be exercised when handling this product at mixing and loading sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

#### **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. EPA Est. No.: \_\_\_\_\_



#### NOT FOR SALE, USE, OR DISTRIBUTION IN NASSAU AND SUFFOLK COUNTIES IN NEW YORK STATE.

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 48 hours.

**Exception:** If the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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
- Waterproof gloves
- Shoes plus socks
- Protective eyewear

#### **PRODUCT INFORMATION**

Hornet<sup>\*</sup> Herbicide is a selective herbicide for broadleaf weed control in field corn, including high oil and waxy varieties and field corn grown for ensilage. Hornet Herbicide may be applied as a preplant surface, preplant incorporated, preemergence, or postemergence treatment. Soil surface treatments may be applied with water, liquid fertilizer, or impregnated on dry fertilizer. Postemergence treatments should be applied with water. Absorption of Hornet Herbicide occurs from both shoot and root uptake. Susceptible weeds exposed to Hornet Herbicide stop growing and either die or remain non-competitive with the crop. Hornet provides residual control of weeds that may emerge after application. Adequate soil moisture is necessary for optimal activation because uptake and translocation of Hornet Herbicide involves uptake by emerging shoots and/or roots.

#### **Use Restrictions**

Not for sale, use, or distribution in Nassau and Suffolk Counties in New York State.

Do not mix or load within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

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

Do not use flood irrigation to apply or incorporate this product.

Product must be used in a manner that will prevent back-siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures, or rinsates.

#### **Use Precautions**

#### **Application Precautions**

• Uneven application or uneven incorporation of Hornet Herbicide can result in erratic weed control or crop injury.

#### Adverse Weather Conditions

- Soil Application Only: Extended cold, wet conditions (soil temperatures below 50°F and excessive rainfall with wet soil conditions), following soil application of Hornet Herbicide to field corn, which persist during germination and/or early crop development may result in crop injury. Injury symptoms, which include yellowing of leaves and/or crop stunting, are usually temporary and affected corn plants usually recover without affecting yield.
- When applications are made under adverse (dry or cold) conditions or when large weeds or less susceptible species are treated, only weed suppression may be observed. Weed suppression is a visual reduction in weed competition (reduced population, size, and/or vigor) as compared to an untreated area. Degree of control can be increased by applying Hornet Herbicide under favorable growing conditions (i.e., adequate moisture and temperature), and by using a higher rate in the specified rate range.
- Dry weather following preplant surface or preemergence applications of Hornet Herbicide may reduce effectiveness. If sufficient activating rainfall or overhead irrigation does not occur within 7 to 10 days of application, rotary hoe, harrow, or shallowly cultivate to incorporate the herbicide lightly into the soil. Use a preplant incorporated application when a period of dry weather is predicted after application.
- Avoid application when air temperature is near freezing or when freezing conditions are expected for several days following application.
- Postemergence application of Hornet to corn that is stressed or damaged by conditions such as cold weather, hot weather (>90°F), hail, drought, water saturated soil, disease, or insects may cause crop injury.

#### **Tank Mixing**

Hornet Herbicide may be tank mixed or followed by other preemergence or postemergence treatments registered for use on corn to broaden the spectrum of weeds controlled. 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 is not prohibited by the label of the tank mix product; and (3) the tank mix combination is compatible as determined by a "jar test" described in the "Tank Mix Compatibility Testing" section below.

#### **Tank Mixing Precautions:**

- Read carefully and follow all applicable use directions, precautions, and limitations on the respective product labels. It is the responsibility of the pesticide user to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.
- Do not tank mix Hornet Herbicide with Basagran herbicide or Lightning herbicide as severe crop injury may occur. (See instructions for Postemergence Treatments, Tank Mixing.)
- Do not exceed application rates specified on the label. 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 used.
- 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 Cleanup.)

Tank Mix Compatibility Testing: Conduct a jar test prior to tank mixing to ensure compatibility of Hornet Herbicide 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 1/2 hour. If the mixture balls-up, forms flakes, sludges, gels, [BC1][BC2]oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

#### Restrictions and Precautions for Soil Applications of Hornet (Not Applicable to Postemergence Use)

- Corn Planting Depth: Plant corn at least 1 1/2 inches deep.
- Do not soil-apply to peat or muck soils as reduced weed control will result. (May be used postemergence.)

- Do not apply to areas where the soil pH is greater than 7.8 as this may result in increased crop injury.
- Do not apply to a soil containing greater than 5% organic matter if the soil pH is below 5.9 as reduced weed control will result.
- Use of Hornet in soil-applied treatments on soils with less than 1.5% organic matter (O.M.) may result in crop injury. Apply as a soil-treatment to fields which have less than 1.5% O.M. only if the risk of crop injury is acceptable.
- If any herbicide with ALS (acetolactate synthase) inhibition mode of action was applied the previous year, apply Hornet Herbicide to corn only if the rotational restrictions applicable to corn for the preceding product has been met.
- Corn growing in calcareous soils or soils with historically high salt content (soil test results for salinity indicating electrical conductivity greater than 1.0 mmho/cm) may exhibit chlorosis and/or stunting resulting from reduced availability of iron, zinc, or other micro nutrients essential for normal crop vigor and growth. The presence of soil-active herbicides, such as Hornet Herbicide may cause additional stress under these conditions resulting in increased leaf chlorosis and/or crop stunting. This added stress may retard crop recovery, especially under conditions of limited rainfall. In fields, which contain calcareous or high salt content soils, growers should plant "IR" or "IMR" designated varieties, commonly referred to as "imidazolinone resistant" corn hybrids. On these type of soils, the likelihood of crop injury can also be reduced by using the lower end of the labeled rate range for the soil type and/or by applying Hornet Herbicide 10-14 days prior to planting.

#### Soil Insecticide Advisories for Soil Applications of Hornet® Herbicide:

When Hornet Herbicide is used for soil applied broadleaf weed control in corn:

- Apply soil applied organophosphate insecticides in a T-band or a band to avoid potential crop injury.
- Soil insecticides from other classes of chemistry may be applied in-furrow, T-banded, or banded.
- Do not use terbufos or phorate products.

#### Soil Insecticide Advisories for Postemergence Applications of Hornet® Herbicide:

- Do not apply Hornet Herbicide postemergence if corn was previously treated with terbufos or phorate\_insecticides as severe crop injury may result.
- Postemergence applications of Hornet to corn previously treated with T-band, band, or in-furrow applications of other organophosphate insecticides may cause temporary crop injury.

# Foliar Insecticide Advisories for Postemergence Applications of Hornet® Herbicide:

- Do not tank mix Hornet with foliar organophosphate insecticides as severe crop injury may result. To avoid crop injury, apply the foliar organophosphate insecticide treatment at least 10 days before or 10 days after the application of Hornet Herbicide.
- Hornet Herbicide may be tank mixed with non-organophosphate foliar insecticides provided they are labeled for use with postemergence corn herbicides.

#### Use with other Products:

- Corn previously treated with Hornet Herbicide that is stressed or damaged by conditions such as cold weather, hail, drought, water saturated soil, disease, or insects should not be treated with herbicides with ALS inhibition mode of action as this may cause further crop injury.
- Do not foliar apply Hornet Herbicide to corn that exhibits herbicide injury from previous applications made to the current or preceding crop.

#### Use with Genetically Modified Corn Varieties:

If an IR or IMR designated hybrid (commonly referred to as imidazolinone resistant) is planted, any organophosphate insecticide, including Counter® or Thimet®, can be applied according to label directions without increasing the likelihood of injury to corn from Hornet Herbicide. The adverse interaction between Counter or Thimet insecticide and Hornet Herbicide does not occur in corn hybrids identified as IR or IMR. This adverse interaction does occur in imidazolinone tolerant IT, PT hybrids which are considered as "standard" hybrids regarding this effect. IR or IMR hybrids may also be planted to reduce injury to corn from preemergence treatments of Hornet Herbicides on soils with less than 1.5% organic matter or pH greater than 7.8.

#### Maximum Application Rate

- Do not exceed a total application rate of 6.0 oz per acre of Hornet Herbicide (0.07 lb a.i. of flumetsulam) in a single crop year.
- Multiple applications of Hornet Herbicide within a growing season can be made as a soil application followed by a
  postemergence application, or as multiple postemergence applications. Do not exceed the cumulative rate of 0.07 lb per acre
  active ingredient of flumetsulam per single crop year if a postemergence application of Hornet Herbicide is made following a
  soil application of a flumetsulam-containing herbicide or with a postemergence herbicide containing flumetsulam (See table
  below to calculate cumulative flumetsulam amount per season.).
- Do not exceed a cumulative amount of 0.25 lb a.i. per acre of clopyralid per single crop year. (See table below to calculate cumulative clopyralid amount per season.)

Example: 4.0 ounces of Hornet Herbicide contains 0.047 lb flumetsulam and 0.125 lb clopyralid.

Herbicide	Unit of Measure	Flumetsulam (Ib a.i./ unit of measure)	Clopyralid (Acid) (Ib a.i./unit of measure)
Hornet	1 ounce	0.0145	0.039
Hornet Herbicide	1 ounce	0.0116	0.031
Python <sup>®</sup> Herbicide	1 ounce	0.05	
Stinger®	1 fluid ounce		0.023

The maximum active ingredient allowed per season in all states:

Flumetsulam = 0.07 lb/acre Clopyralid = 0.25 lb/acre

#### **Other Restrictions**

- Do not apply Hornet Herbicide to sweet corn or popcorn.
- Preharvest interval: An interval of at least 85 days is required between application of Hornet Herbicide and field corn harvested for grain. If field corn is grown for forage or ensilage, application must occur before corn reaches 20 inches in height or V6 growth stage (whichever occurs first) and an interval of at least 45 days is required between application and harvest.
- Do not aerially apply Hornet<sup>®</sup> Herbicide unless permitted by EPA approved supplemental labeling.
- Crop Residues from Treated Areas: Do not use crop residues from treated areas for composting or mulching on ground where susceptible crops may be grown the following season. To promote herbicide decomposition, evenly incorporate or burn plant material. Adequate moisture is also required to promote breakdown of plant residues, which contain clopyralid.
- **Do not move treated soil.** Do not allow soil particles to blow into areas where susceptible crops are grown. The hazard of movement of this product on dust is reduced if treated fields are irrigated or if rain occurs shortly after application.
- Do not apply under conditions that favor runoff or wind erosion of soil containing Hornet<sup>®</sup> Herbicide to nontarget areas. To prevent off-site movement due to runoff or wind erosion:
  - Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
  - Do not apply to impervious substrates such as paved or highly compacted surfaces or frozen or snow covered ground.
  - Do not apply to soils when saturated with water.
  - Do not use tailwater from the first flood or furrow irrigation of treated fields to treat nontarget crops unless at least 1/2 inch of rainfall has occurred between application and the first irrigation.
- Do not apply when weather conditions favor drift to nontarget sites.

#### **Other Precautions**

- **Hybrid Seed Production:** Corn inbred lines grown for hybrid seed production may be injured by Hornet Herbicide. Thoroughly test inbred lines for crop tolerance before treating large acreage.
- Avoid spray drift onto adjacent crop or noncrop areas.
- Spray drift of Hornet Herbicide to emerged soybeans or soil to which soybeans will be planted during the same growing season may cause soybean injury. Avoid all direct or indirect contact with nontarget plants.
- Do not apply near desirable vegetation.
- Avoid spray overlap as crop injury may result.

# **Spray Drift Management**

Avoid spray drift. Exposure to very small quantities of spray or drift, which may not be visible, may cause serious injury to susceptible plants during active growth or dormant periods. To minimize spray drift, apply as a coarse spray and use nozzles designed for herbicide application that minimize the production of fine droplets. To aid in further reducing spray drift, a drift control or deposition aid may be used with this product, but may not be effective after prolonged pumping of the spray mix. If a drift control aid is used, follow all use recommendations and precautions on the product label.

#### Ground Equipment

Spray drift can be lessened by keeping the spray boom as low as possible; by keeping the operating spray pressures at the manufacturer's recommended minimum pressures for the specific nozzle type used (low pressure nozzles are available from spray equipment manufacturers); by spraying when the wind velocity is low (follow state regulations). Avoid calm conditions which may be conducive to air inversions. Direct sprays no higher than the tops of target vegetation and keep spray pressures

low enough to provide coarse spray droplets to minimize drift. A drift control or deposition aid may be used to further reduce the potential for drift.

- Apply with the nozzle height recommended by the manufacturer.
- Do not use nozzles that produce a fine-droplet spray (ASABE S572.1).
- Do not apply when wind is gusting or wind speed exceeds 15 miles per hour at the application site as uneven spray coverage and drift may result.
- Do not apply during temperature inversions.

#### Susceptible Plants

Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use, or consumption. Susceptible crops include, but are not limited to, beans, cotton, field peas, flowers, fruit trees, fruit trees (foliage), grapes, okra, ornamentals, soybeans (vegetative stage), sunflowers, tomatoes and other vegetables, or tobacco. Small amounts of spray drift that may not be visible may injure susceptible broadleaf plants.

#### Sensitive Areas

Apply when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

#### **Spray Drift Advisories**

#### THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NONTARGET 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.
- Number of Nozzles Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from direction of air flow will reduce droplet size and increase drift potential.
- **Nozzle Type** Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift. With most nozzle types, narrower spray angles produce larger droplets.

#### BOOM HEIGHT – Ground Boom

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

#### 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 temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of the 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.

#### WIND

Drift potential generally increases with wind speed. DO NOT APPLY DURING GUSTY WIND CONDITIONS. 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. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

#### Sprayer Cleanup

To avoid injury to or exposure of nontarget crops, thoroughly clean and drain spray equipment used to apply Hornet Herbicide after use. Cleaning should occur as soon as possible after application of Hornet Herbicide. Spray equipment should be cleaned after use with Hornet Herbicide by the following procedure.

- 1. Drain any remaining Hornet Herbicide from the spray tank and dispose of according to label disposal instructions.
- 2. Hose down the interior surfaces of the tank. Flush tank, hoses, boom, and nozzles with clean water for 10 minutes. Fill the tank with water and recirculate for 15 minutes. Spray part of the mixture through the hoses, boom, and nozzles and drain the tank. All rinse water must be disposed of in compliance with local, state, and federal guidelines.
- 3. Fill the tank with water and recirculate for 15 minutes. For optimum cleaning, use a tank cleaner such as liquid ammonia (1 gallon per 100 gallons of water) or other commercial tank cleaner in the second rinse if the spray equipment will be used on crops other than field corn. Spray part of the mixture through the hoses, boom, and nozzles and drain the tank. All rinse water must be disposed of in compliance with local, state, and federal guidelines.
- 4. Remove the nozzles and screens and clean separately.
- 5. If the spray equipment will be used on crops other than field corn, repeat steps 1 and 2 again and thoroughly wash the spray mixture from the outside of spray tank and the boom.

#### **Herbicide Resistance Management**

This product contains the active ingredients clopyralid and flumetsulam. Based upon the mode of action classification system of the Weed Science Society of America, clopyralid is a growth regulator (Group 4) herbicide, and flumetsulam is an ALS mode of action (Group 2) herbicide. Any weed population may contain or develop plants naturally resistant to Group 2 and/or Group 4 herbicides. The resistant individuals may dominate the weed population if these herbicides are used repeatedly in the same field. Except where noted for weeds controlled by clopyralid, this product will not control known ALS (Group 2) resistant biotypes of labeled weeds. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance management strategies should be followed.

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

- For best resistance management stewardship, do not use more than once per season.
- Rotate the use of Hornet Herbicide or other ALS herbicides with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group when such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout 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.
- Contact your local extension specialist or certified crop advisers for any 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 an AMVAC customer service representative at 1-888-462-6822. [BC3][BC4][BC5]

#### **Rotational Crop Restrictions**

When tank mixing with companion herbicides, follow the most restrictive crop rotation guidelines on the label of each product used.

The following rotational crops may be planted after the indicated interval following application of rates up to 6.0 ounces per acre of Hornet Herbicide:

Numbers within parentheses (-) in table refer to Specific Rotational Crop Requirements below[BC6][BC7].

Rotational Crop	Interval (Months)
barley, oats, rye, wheat	4
alfalfa (1), dry beans (1), forage grasses (2), lima beans (1), popcorn, rice, seeding of cove crops (3), soybean (1)	r 10.5
grain sorghum	12
peas (1, 4), snap beans (1, 4)	18
cotton, peanuts, potatoes, sunflower, sweet corn (5), tobacco	18
sugar beets, canola and all other crops (6)	26

#### Specific Rotational Crop Requirements:

- 1. When annual rainfall and/or irrigation is less than 15 inches on soils with less than 2% organic matter, alfalfa, dry beans, lima beans, peas, snap beans, and soybeans should not be planted until 18 months after treatment.
- 2. Excludes forage grasses grown for commercial seed production.
- 3. The following cover crops may be planted for establishment of Federal Conservation Reserve Programs and Agricultural Reserve Programs no sooner than 10.5 months following application of Hornet Herbicide at rates up to 4.0 oz per acre: legumes including alfalfa, clovers, crownvetch, birdsfoot trefoil, and lespedeza; and grasses, including big bluestem, little bluestem, switchgrass, Russian wildrye, green needle, smooth bromegrass, Garrison creeping foxtail, canary grass, orchardgrass, intermediate wheatgrass, tall wheatgrass, crested wheatgrass, western wheatgrass, and Indian grass. Some stand reduction or temporary stunting of legume seedlings is possible.
- 4. An 18-month crop rotation is required following application of Hornet Herbicide at rates **greater** than 4 oz per acre. Peas and snap beans may be planted 10.5 months following application of Hornet Herbicide at rates up to 4 oz per acre.
- 5. Certain sweet corn varieties may be planted 10.5 months following soil or postemergence application of up to 4.0 oz per acre of Hornet Herbicide. This interval applies only to the following varieties of sweet corn grown for processing: Bonus, Challenger, Chase, Cornucopia, Crisp 'N Sweet 710, Crisp 'N Sweet 710A, DMC 20-04, DMC 20-35, Eliminator, Empire, Excalibur, Excellency, GH 0937, GH 2547, GH 2628, GH 2690, GG 5, GG 8, GG 22, GG 23, GG 40, GG 43, GG 46, GG 55, GG 246, GG 255, GG 256, GG 539, HM 701, 781 Ultra, Lumina, Reward, Sheba, Spirit, Sprint, Viking, and Zenith. The rotational interval is 18 months for other sweet corn varieties not listed here, except as provided in updated listings of sweet corn varieties tolerant to this product.
- 6. Rotation to sugar beets, canola, and all other crops requires a 26-month rotation interval and a successful field bioassay.

**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 field conditions such as soil texture, soil pH, drainage, and any other variable that could affect the seed bed of the new crop. Field bioassay at any time between harvest of the treated crop and the planting of the 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 above for which the rotational interval has clearly been met.

#### **Mixing and Application**

#### Spray Volume

Apply Hornet Herbicide in sufficient spray volume to provide uniform coverage using properly calibrated ground equipment. Apply in a total spray volume of 10 to 60 gallons per acre using low pressure (20-40 PSI). Maintain sufficient agitation during mixing and spraying to ensure a uniform spray mixture. More thorough coverage is possible when making soil applications to minimum or no-till corn by using a total spray volume of 20 or more gallons per acre.

Hornet® Herbicide (oz/acre)	Acres Per 6-lb Jug <sup>†</sup>
2.0	48
3.0	32
4.0	24
5.0	19.2

<sup>+</sup> If the number of acres to be treated results in the use of a partial container, use the measuring device provided with the container to measure out product according to the scale indicated on the measuring device.

#### **Band Application**

Calculate the amount of herbicide needed for band treatment by the formula:

Band width in inches				
X	Broadcast rate =	Amount needed		
Row width in inches	per acre	per acre of field		

#### **Mixing Directions**

#### Hornet<sup>®</sup> Herbicide – Alone

Hornet Herbicide is a water dispersible granule formulation. Thorough mixing is required.

- 1. Fill the spray tank to 1/2 of the total spray volume required with water or liquid fertilizer.
- 2. Start agitation.
- 3. Add the required amount of Hornet Herbicide for acreage being treated by opening the bottle(s) and measuring directly into the spray tank. Allow the product to fully disperse.
- 4. After product has completely dispersed, add required adjuvants.
- 5. Continue agitation while filling the spray tank to the required volume.
- 6. To ensure a uniform spray mixture, continuous agitation is required during mixing and application. Apply within 24 hours after mixing. If product is allowed to settle, thoroughly agitate to resuspend the mixture before spraying.

#### Hornet<sup>®</sup> Herbicide – Tank Mix

Hornet Herbicide 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 Hornet Herbicide is not prohibited by the label of the tank mix product. Do not exceed the label dosage rates. See "Tank Mixing" under "Use Precautions" section.

Vigorous, continuous agitation during mixing, filling, and throughout application is required for all tank mixes. Sparger pipe agitators generally provide the most effective agitation in spray tanks. To prevent foaming in the spray tank, avoid stirring or splashing air into the spray mixture.

#### Mixing Order for Tank Mixes

- 1. Fill the spray tank to 1/4 to 1/3 of the total spray volume required with water or liquid fertilizer.
- 2. Start agitation.
- 3. Add the required amount of Hornet Herbicide for acreage being treated by opening the bottle(s) and measuring directly into the spray tank.
- After adding Hornet Herbicide, add different formulation types in the following order: (1) water soluble packets; (2) compatibility agent, if required; (3) dry flowables; (4) wettable powders; (5) aqueous suspensions, flowables and liquids. Maintain agitation and fill spray tank to 3/4 of total spray volume and add: (6) emulsifiable concentrates; (7) solutions; and (8) adjuvants. Allow time for complete mixing and dispersion after each addition.
- 5. 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.

Line screens in the spray tank should be no finer than 50 mesh (100 mesh is finer than 50 mesh).

#### **Application with Liquid Fertilizer**

When necessary, a compatibility agent can be used to ensure that Hornet Herbicide mixes properly. The use of appropriate compatibility agents is especially important when tank mixing Hornet Herbicide and dry flowables, wettable powders, flowables, liquids, aqueous suspensions, or solutions with emulsifiable concentrates in liquid fertilizers. If the emulsifiable concentrate formulation rises to the surface of the fertilizer as an oil ("oils out"), the oil may combine with the wettable powder, flowable, or suspension to form oily curds (viscous phase) which are difficult to disperse. For best results, conduct a jar test utilizing relative proportions of the tank mix ingredients prior to mixing with liquid fertilizers.

Note: Do not use liquid fertilizer as the carrier when Hornet Herbicide is applied postemergence to corn.

#### Application with Dry Bulk Fertilizer

Dry bulk fertilizer may be impregnated or coated with Hornet Herbicide. Application of dry bulk fertilizer impregnated with Hornet Herbicide provides weed control equivalent to the same rates of Hornet Herbicide applied in liquid carriers. Apply 200 to 700 pounds of the fertilizer/herbicide mixture per acre. For best results, apply the mixture uniformly to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential to prevent possible crop injury. Non-uniform application may also result in unsatisfactory weed control. In areas where conventional tillage is practiced, a shallow incorporation of the mixture into the soil may improve weed control.

Most dry fertilizers can be used for herbicide impregnation with Hornet Herbicide. When coated ammonium nitrate and/or limestone are used alone, do not impregnate with Hornet Herbicide; these materials will not absorb the herbicide. Fertilizer blends containing coated ammonium nitrate and/or limestone as a part of the fertilizer mixture can be impregnated.

Compliance with all federal and state regulations relating to blending pesticide mixtures with dry bulk fertilizer, registration, labeling, and application are the responsibility of the individual and/or company offering the fertilizer and chemical mixture for sale.

**Impregnation:** Hornet Herbicide must be pre-mixed or slurried with water prior to impregnation of dry bulk fertilizer. For best results, use a minimum of 2 pints of water per 6.0 oz Hornet WDG. To make the water slurry, add the required rate of Hornet Herbicide (see formula below) to enough water to give a total volume of at least 6 pints of solution per ton of fertilizer. Make sure the Hornet Herbicide is thoroughly dispersed in the water before spraying onto the fertilizer. Spray nozzles should be placed to provide uniform spray coverage onto the fertilizer. Care should be taken to aim the spray directly onto the fertilizer and avoid spraying the walls of the blender. Use any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender.

Calculate amounts of Hornet Herbicide by the following formula:

#### 2,000

X	Pounds/acre of =	Pounds of product
Pounds/acre of fertilizer	Hornet WDG	per ton of fertilizer

**Note:** Thoroughly clean dry fertilizer blending equipment prior to use with other herbicides. It is important to clean the blender, herbicide spray tank, and spraying apparatus thoroughly. Rinse the sides of the blender and the herbicide tank with water. Then, impregnate the rinsate onto a load of dry fertilizer intended for an approved crop. Use a maximum rate of 1 gallon of rinsate per ton of fertilizer. Follow with 1 to 2 loads of unimpregnated fertilizer in the blender before switching herbicides. The fertilizer application equipment must be empty, clean, and dry before applying any material to crops other than corn.

# Crop-Specific Use Directions FIELD CORN

#### **Soil Applied Treatments**

Broadcast Application Rates (Preplant Surface Applied, Preplant Incorporated, Postplant Preemergence, and Spike Stage Treatments)

	Hornet Herbicide (oz/acre)		
Soil Texture	< 3.0% Organic matter > 3.0% Organic matter		
Coarse	4.0	4.0 - 5.0	
Medium or Fine	4.0 - 5.0	5.0	

**Note:** Use the high end of the rate range on soils with greater than 3% organic matter and/or when applications are made 14 to 30 days before planting.

#### Broadleaf Weeds Controlled by Hornet Herbicide when Soil Applied

Hornet Herbicide will control "triazine tolerant" biotypes of these weeds, commonly known as "triazine resistant."

Note: Numbers within parentheses (-) in weeds list refer to "Use Information for Specific Weeds" below.

amaranth, Palmer anoda, spurred beggarweed, Florida buckwheat, wild carpetweed chickweed, common cocklebur, common clover, red henbit horseweed (marestail) jimsonweed kochia (1, 5) ladysthumb lambsquarters, common mallow, Venice morningglory, entireleaf (1) morningglory, ivyleaf (1) morningglory, tall (1) mustard, wild nightshade species (2) pigweed, redroot

pigweed, smooth poinsettia, wild puncturevine purslane, common ragweed, common ragweed, giant (1) shepherd's purse sicklepod sida, prickly smartweed, Pennsylvania spurge, nodding spurge, prostrate spurge, spotted sunflower, common thistle, Canada (3) velvetleaf waterhemp species (4, 5) wormwood, biennial

#### Use Information for Specific Weeds:

- 1. Partially controlled.
- 2. Control of moderate to heavy infestations of nightshade will be improved with a tank mixture of the appropriate labeled rate of an atrazine premix product or a surface applied acetanilide product.
- 3. Burndown control of Canada thistle in minimum and no-till corn only.
- 4. To aid in control of waterhemp, apply Hornet WDG in tank mix combination with the appropriate labeled rate of a surface applied acetanilide product.
- 5. Hornet Herbicide will not control ALS resistant or tolerant biotypes of kochia.

Hornet Herbicide may be soil applied as a preplant surface, preplant incorporated, or preemergence treatment. Apply alone or in tank mix combination with a grass control product registered for use in field corn.

Tank Mixing Limitations: Hornet Herbicide may be applied in tank mix combination with other products provided (1) the timing and method of application is the same as labeled for Hornet Herbicide; and (2) tank mixing with Hornet Herbicide is not prohibited by the label of the tank mix product. When tank mixing, do not exceed labeled application rates and use only in accordance with the most restrictive precautions and limitations on the respective product labels.

#### **Soil Application Directions**

#### Applications may be made from 30 days prior to planting through V6 stage or 20" tall corn, whichever occurs first.

- 1. **Preplant Incorporated Application:** For best results, apply and incorporate Hornet Herbicide from 0 to 30 days before planting. Preplant incorporated treatments may be applied in water or liquid fertilizer. Uniformly incorporate the herbicide treatment into the top 2 to 3 inches of the final seedbed.
- 2. Preplant Surface Applied: For best results in minimum-tillage or no tillage systems, Hornet Herbicide alone and with certain tank mixtures may be applied up to 30 days before planting. If weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide such as glyphosate. When tank mixing, do not exceed labeled application rates and use only in accordance with the most restrictive precautions and limitations on the respective product labels. To the

extent possible do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.

**Canada Thistle Control in Minimum and No-Till Corn:** Hornet Herbicide may be applied as a burndown treatment for control of emerged Canada thistle in minimum and no-till corn. The application will result in reduced late season competition. Delay the application until most of the thistle has emerged and averages 4 to 8 inches in height. For applications to Canada thistle, always include crop oil concentrate (See "Use of Adjuvants" in "Postemergence Treatments" section). Tank mix Hornet Herbicide with glyphosate and non-ionic surfactant for burndown control of existing grass and annual broadleaf weeds. When tank mixing, do not exceed labeled application rates and use only in accordance with the most restrictive precautions and limitations on the respective product labels. Do not cultivate for at least 14 days after application to allow for thorough translocation of the herbicide treatment.

**Note:** Hornet Herbicide will not control Canada thistle that has not emerged at the time of application in minimum or conventional tillage systems.

- 3. Burndown Application: When used as a burndown application, Hornet Herbicide will provide foliar control of broadleaf weeds listed in the "Postemergence Treatments" section of this label and residual control of weeds listed under soil application. Foliar burndown applications should always include crop oil concentrate (see "Use of Adjuvants" in "Postemergence Treatments" section). To broaden the spectrum of weeds controlled, Hornet Herbicide may be tank mixed with other herbicides such as glyphosate.
- 4. Preemergence Application: Apply at the time of planting or after planting, but prior to crop or weed emergence. Adequate soil moisture following application is required for optimum herbicidal activity. For surface applications, rainfall, or overhead sprinkler irrigation is necessary to move Hornet Herbicide into the weed germination zone. The amount of rainfall or irrigation required following application depends on existing soil moisture, soil texture, and organic matter content. Sufficient water to moisten the soil to a depth of 2 inches is generally adequate. If adequate soil moisture is not received within 7 to 10 days after a surface applied treatment, a shallow cultivation is recommended to control established weeds and move the herbicide into the weed germination zone. When adequate soil moisture is received following dry conditions, performance may vary with weed species and the depth of the weed root system in the soil.
- 5. Spike Stage Application: Apply from corn emergence (ground cracking stage) until corn is 2 inches in height and before the first leaf is unfurled. Adequate soil moisture is required for optimum herbicidal activity. For those weeds that have not emerged at the time of application, rainfall or overhead sprinkler irrigation is necessary to move Hornet Herbicide into the weed germination zone. The amount of rainfall or irrigation required following application depends on existing soil moisture, soil texture, and organic matter content. Sufficient water to moisten the soil to a depth of 2 inches is generally adequate. If adequate soil moisture is not received within 7 to 10 days after a surface applied treatment, a shallow cultivation is recommended to control established weeds and mix the herbicide into the weed germination zone. When adequate soil moisture is received following dry conditions, performance may vary with weed species and rooting depth of target weeds.

#### **Tank Mixing**

#### (Preplant Surface Applied, Preplant Incorporated, and Postplant Preemergence Treatments)

**Note:** When tank mixing with a companion herbicide, read and follow each manufacturer's label for weeds controlled, applicable use directions, precautions, and limitations.

#### 1. Reduced Rates of Hornet Herbicide Plus Atrazine-Containing Pre-Mix Products

Reduced rates of Hornet Herbicide can be tank mixed with labeled rates of atrazine-containing pre-mix herbicide products such as Surpass® NXT herbicide, FulTime® NXT herbicide, Keystone® NXT herbicide, or Keystone LA NXT herbicide for improved control of certain broadleaf weeds not consistently controlled by atrazine pre-mix products. Hornet Herbicide may be applied in tank mix combination with other products provided (1) the timing and method of application is the same as labeled for Hornet Herbicide; and (2) tank mixing with Hornet Herbicide is not prohibited by the label of the tank mix product. When tank mixing, do not exceed labeled application rates and use only in accordance with the most restrictive precautions and limitations on the respective product labels. Reduced rates of Hornet Herbicide tank mixed with labeled rates of these atrazine pre-mix products will provide consistent preemergence control of velvetleaf, lambsquarters, pigweed species, waterhemp, and triazine "resistant" varieties (triazine tolerant biotypes) of these species. These tank mixtures will also provide improved control of large-seeded broadleaf weeds such as cocklebur, common ragweed, giant ragweed, common sunflower, and jimsonweed.

On soils with less than 3% organic matter, tank mix Hornet Herbicide at 3.0 oz/A with the listed label rate of the atrazine pre-mix product. On soils with greater than 3% organic matter, tank mix Hornet Herbicide at 4.0 oz/A with the listed label rate of the atrazine pre-mix product.

Soil Organic Matter	Hornet Herbicide (oz/acre)	Acres per 6-lb Jug	
< 3%	3.0	32	
> 3%	4.0	24	

#### 2. Hornet® Herbicide plus Glyphosate for Minimum-tillage or No-tillage Systems

In minimum-tillage or no-tillage situations where corn is planted directly into a cover crop, stale seedbed, or previous crop residues, herbicides such as glyphosate (Durango® DMA) may be tank mixed with Hornet Herbicide. Apply in 10 to 60 gallons of water or fluid fertilizer per acre with ground equipment. The higher end of the carrier rate will provide better coverage under high residue situations. When tank mixing, do not exceed labeled application rates and use only in accordance with the most restrictive precautions and limitations on the respective product labels.

Application Timing: Apply before, during (behind the planter), or after planting, but before the crop emerges.

**Durango® DMA:** See the product label for Durango DMA (or other labeled glyphosate herbicide label) for weeds controlled, listed rates for specific weeds, and application instructions.

#### 3. Hornet<sup>®</sup> Herbicide plus 2,4-D for Minimum-tillage or No-tillage Systems

Where heavy crop residues exist, add 1.0 to 2.0 pints per acre of an appropriately labeled 3.8 – 4.0 lb a.e. per gallon 2,4-D amine or ester to the spray tank and apply in a volume of carrier capable of providing sufficient coverage of the crop residue. For best results, use a carrier volume of 20 gallons per acre in heavy crop residue situations.

As carriers, nitrogen solutions and complete liquid fertilizers applied before corn emergence will enhance burndown of existing weeds and, therefore, are recommended instead of water. Add a crop oil concentrate or non-ionic surfactant at 1.0 to 2.0 quarts per 100 gallons diluted spray or another appropriate surfactant at its specified rate. Apply before weeds reach 6 inches in height. This tank mixture will not control emerged grasses.

#### **Postemergence Treatments**

Apply Hornet Herbicide as a postemergence spray at a rate of 2.0 to 5.0 ounces per acre. Use higher rates for control of heavy weed infestations, larger weeds, or when a longer period of residual control is desired. When applied postemergence, Hornet Herbicide must be used with one of the adjuvant systems described below.

#### Postemergence Application Rates:

		Hornet Her	bicide	
Application Rate (oz/acre)	2.0	3.0	4.0	5.0
Acres per 6-lb Jug	48	32	24	19.2

#### **Application Timing**

Apply to actively growing weeds as a broadcast, or band treatment from the time of corn emergence (spike stage) until corn reaches 20 inches in height or the V6 stage whichever occurs first. For optimal control, apply before broadleaf weeds exceed the maximum height listed. Weeds that exceed the maximum height listed may be suppressed and recover after 2 to 3 weeks.

**Directed Postemergence Application:** Hornet Herbicide may be applied as a directed postemergence application to corn that is 20 to 36 inches in height or has more than 6 leaf collars. Use only drop nozzles and avoid spraying the corn plant by directing the spray as low as possible while allowing for optimal coverage of weeds. Use the highest labeled rates for weeds greater than the maximum size listed on this label. Control of weeds larger than the maximum height listed may vary due to weeds species, stage of growth, and growing conditions. Results may range from complete control to suppression.

- Do not spray into the whorl of corn plants.
- Do not apply to corn more than 36 inches tall.

**Note:** If field corn is grown for forage or ensilage, application must occur before corn reaches 20 inches in height or V6 growth stage (whichever occurs first) and an interval of at least 45 days is required between application and harvest.

**Factors Affecting Weed Control:** Apply to actively growing weeds. Extreme growing conditions such as drought, or near freezing temperatures before, at, or following application may result in reduced weed control. Degree of control will depend on coverage of treated weeds and weed susceptibility as well as growing conditions at the time of treatment.

**Environmental Conditions and Herbicidal Activity of Hornet® Herbicide:** Factors in effective weed control with Hornet Herbicide include application rate, weed size, daytime temperature, soil moisture prior to and following application, and use of adjuvants. Best weed control results are obtained when Hornet Herbicide is applied to small, actively growing weeds, when daytime temperatures are warm (70°F or more), and soil moisture is adequate to support active weed growth prior to and following application. If weeds are under drought stress, consider delaying application until more favorable conditions resume. Application when weeds are moisture stressed or when weeds are taller than the listed height for control may result in only partial control.

- Hornet Herbicide is rainfast in 2 hours.
- Applications made immediately prior to, during, or immediately following periods of large day/night temperature fluctuations or where daytime temperatures do not exceed 60°F may decrease weed control.
- Poor weed control may result from applications made to plants under stress from:
- abnormally hot or cold weather
- environmental conditions such as drought, water-saturated soils, hail damage, or frost
- prior herbicide applications

**Use of Adjuvants:** All postemergence applications of Hornet Herbicide must include 1) a non-ionic surfactant at 0.25% v/v (1 qt/100 gal) or 2) crop oil concentrate or methylated seed oil at 1% v/v (1 gal/100 gal). Use a good quality surfactant with at least 80% active ingredient. Under extremely dry growing conditions, the use of an agriculturally approved sprayable liquid fertilizer or ammonium sulfate, in combination with the non-ionic surfactant or crop oil concentrate or methylated seed oil may enhance control. Use 28%, 30%, or 32% urea ammonium nitrate at 2.5% v/v (2.5 gal/100 gal) or 2 to 4 lb of sprayable grade ammonium sulfate per acre. Use only EPA approved adjuvants for use on food crops.

# Note: Do not use liquid fertilizer solutions or suspensions as the total carrier in postemergence applications because excessive crop injury may occur.

Cultivation: For best results, do not cultivate within 10 days before or after application.

Tank Mixing: Hornet Herbicide may be applied in tank mix combination with other products provided (1) the timing and method of application is the same as specified for Hornet Herbicide; and (2) tank mixing with Hornet Herbicide is not prohibited by the label of the tank mix product; and (3) the tank mix combination is compatible as determined by a "jar test" described in the "Tank Mix Compatibility Testing" section. When tank mixing, do not exceed labeled application rates and use only in accordance with the most restrictive precautions and limitations on the respective product labels. For control of grass weeds, Hornet Herbicide may be tank mixed with a postemergence grass herbicide such as Basis Gold™ or Steadfast®. For an expanded spectrum of broadleaf weed control, Hornet Herbicide may be tank mixed with other postemergence broadleaf herbicides such as atrazine, Status®, Buctril™, Callisto®, Clarity®, or 2,4-D. Hornet Herbicide may also be tank mixed with Durango DMA or other labeled glyphosate formulations for application to Roundup Ready® field corn.

**Do not** post apply Hornet Herbicide in tank mix combination with Basagran<sup>®</sup> or Lightning<sup>™</sup> herbicides as severe crop injury may result.

#### Weeds Controlled And Application Rates for Postemergence Application

(Use higher rates for control of larger weeds and for control of heavy weed infestations.)

Hornet Herbicide will control triazine tolerant biotypes of these weeds, commonly known as "triazine resistant."

Note: Numbers in parentheses (-) within table refer to Specific Use Directions below.

Annual Weed Control					
Application to "Spike" Corn (1)	Postemergence Application After "Spike" Stage of Growth				
4.0 to 5.0 oz/acre	2.0 oz/acre         3.0 oz/acre         4.0 oz/acre           (weeds 1 - 3 in. tall)         (weeds 1 - 6 in. tall)         (weeds 1 - 8 in. tall)				
anoda, spurred	anoda, spurred	anoda, spurred	anoda, spurred		
beggarweed, Florida	beggarweed, Florida beggarweed, Florida beggarweed, Florida				
buckwheat, wild	chickweed, common chickweed, common chickweed, common				
carpetweed	cocklebur, common cocklebur, common cocklebur, common				

chickweed, common	henbit	henbit	henbit
cocklebur, common	horseweed (marestail)	horseweed (marestail)	horseweed (marestail)
henbit	mallow, Venice	jimsonweed	jimsonweed
horseweed (marestail)	mustard, wild	ladysthumb	ladysthumb
jimsonweed	poinsettia, wild	mallow, Venice	lettuce, prickly
kochia (2)	puncturevine	mustard, wild	mallow, Venice
ladysthumb	purslane, common	poinsettia, wild	mustard, wild
,	shepherd's purse	puncturevine	
lambsquarters, common			poinsettia, wild
mallow, Venice	sida, prickly	purslane, common	puncturevine
mustard, wild	spurge, nodding	ragweed, common	purslane, common
nightshade species	spurge, prostrate	ragweed, giant	ragweed, common
pigweed, redroot	spurge, spotted	shepherd's purse	ragweed, giant
pigweed, smooth	sunflower, common	sida, prickly	shepherd's purse
poinsettia, wild	velvetleaf	smartweed, Pennsylvania	sida, prickly
puncturevine		spurge, nodding	smartweed, Pennsylvania
purslane, common		spurge, prostrate	spurge, nodding
ragweed, common		spurge, spotted	spurge, prostrate
shepherd's purse		sunflower, common	spurge, spotted
sicklepod		velvetleaf	sunflower, common
sida, prickly			velvetleaf
smartweed, Pennsylvania			
spurge, nodding			
spurge, prostrate			
spurge, spotted			
sunflower, common			
sunflower, common			
sunflower, common thistle, Russian			
sunflower, common thistle, Russian velvetleaf	Partial Control	Partial Control (weeds < 2	Partial Control (weeds < 4
sunflower, common thistle, Russian velvetleaf waterhemp species Partial Control		in. tall)	in. tall)
sunflower, common thistle, Russian velvetleaf waterhemp species Partial Control morningglory, entireleaf	jimsonweed	in. tall) buckwheat, wild	<b>in. tall)</b> buckwheat, wild
sunflower, common thistle, Russian velvetleaf waterhemp species Partial Control morningglory, entireleaf morningglory, ivyleaf	jimsonweed ladysthumb	in. tall) buckwheat, wild kochia (2)	in. tall) buckwheat, wild kochia (2)
sunflower, common thistle, Russian velvetleaf waterhemp species Partial Control morningglory, entireleaf morningglory, ivyleaf morningglory, tall	jimsonweed ladysthumb ragweed, common	in. tall) buckwheat, wild kochia (2) lambsquarters, common	<b>in. tall)</b> buckwheat, wild kochia (2) lambsquarters, common
sunflower, common thistle, Russian velvetleaf waterhemp species Partial Control morningglory, entireleaf morningglory, ivyleaf morningglory, tall	jimsonweed ladysthumb ragweed, common ragweed, giant	in. tall) buckwheat, wild kochia (2) lambsquarters, common lettuce, prickly	in. tall) buckwheat, wild kochia (2) lambsquarters, common morningglory, entireleaf
sunflower, common thistle, Russian velvetleaf waterhemp species Partial Control morningglory, entireleaf morningglory, ivyleaf morningglory, tall	jimsonweed ladysthumb ragweed, common	in. tall) buckwheat, wild kochia (2) lambsquarters, common lettuce, prickly morningglory, entireleaf	in. tall) buckwheat, wild kochia (2) lambsquarters, common morningglory, entireleaf morningglory, ivyleaf
sunflower, common thistle, Russian velvetleaf waterhemp species Partial Control morningglory, entireleaf morningglory, ivyleaf morningglory, tall	jimsonweed ladysthumb ragweed, common ragweed, giant	in. tall) buckwheat, wild kochia (2) lambsquarters, common lettuce, prickly morningglory, entireleaf morningglory, ivyleaf	in. tall) buckwheat, wild kochia (2) lambsquarters, common morningglory, entireleaf morningglory, ivyleaf morningglory, tall
sunflower, common thistle, Russian velvetleaf waterhemp species Partial Control morningglory, entireleaf morningglory, ivyleaf morningglory, tall	jimsonweed ladysthumb ragweed, common ragweed, giant	in. tall) buckwheat, wild kochia (2) lambsquarters, common lettuce, prickly morningglory, entireleaf morningglory, ivyleaf morningglory, tall	in. tall) buckwheat, wild kochia (2) lambsquarters, common morningglory, entireleaf morningglory, ivyleaf morningglory, tall nightshade species
sunflower, common thistle, Russian velvetleaf waterhemp species Partial Control morningglory, entireleaf morningglory, ivyleaf morningglory, tall	jimsonweed ladysthumb ragweed, common ragweed, giant	in. tall) buckwheat, wild kochia (2) lambsquarters, common lettuce, prickly morningglory, entireleaf morningglory, ivyleaf morningglory, tall nightshade species	in. tall) buckwheat, wild kochia (2) lambsquarters, common morningglory, entireleaf morningglory, ivyleaf morningglory, tall nightshade species pigweed, redroot
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#### Specific Use Directions:

- 1. **Spike corn:** Apply 5 oz per acre for greater residual control on soils with greater than 3% organic matter. Apply 5 oz per acre to increase the degree of partial control for morning glory species and giant ragweed.
- 2. Hornet Herbicide will not control ALS resistant or tolerant biotypes.
- 3. **Biennial and Perennial weeds:** A rate of 4.0 5.0 oz per acre will generally provide season-long control. A rate of 3.0 oz per acre will provide control of top growth only. Some regrowth may occur by the end of the season.
- 4. **Biennial and Perennial weeds:** Do not tank mix with contact herbicides (such as atrazine, metribuzin, or bromoxynil) as reduced weed control will result.

5. **Canada thistle:** For Canada thistle control the following season, expressed as stand reduction, apply 5.0 oz per acre of Hornet Herbicide in tank mix combination with 4.0 oz per acre of Stinger herbicide <sup>†</sup>.

<sup>+</sup>**Note:** Maximum Use Rate for the active ingredient clopyralid is 0.25 lb per acre. One ounce of Hornet Herbicide contains 0.031 lb of clopyralid. One fluid ounce of Stinger contains 0.023 lb of clopyralid.

# STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in original container in secured dry storage area. Prevent cross-contamination with other pesticides and fertilizers. Do not store above 122°F for extended periods of time. If container is damaged or spill occurs, use product immediately or contain with absorbent materials and dispose as waste.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site according to label use directions or at an approved waste disposal facility.

#### Nonrefillable rigid containers 50 pounds or less:

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents 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. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

#### Nonrefillable nonrigid containers:

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Completely empty container into application equipment. Offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

#### Refillable rigid containers larger than 50 pounds:

**Container Handling:** 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 a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

#### Nonrefillable rigid containers larger than 50 pounds:

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Triple rinse or pressure 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 roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

#### LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants (a) that this product conforms to the chemical description on the label; and (b) that the directions, warnings, and other statements on this label are based upon responsible experts' evaluations of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants and residues on food crops, and upon reports of field experience. Tests have not been made on all varieties of food crops and plants, or in all states or under all conditions. THIS WARRANTY DOES NOT EXTEND TO THE USE OF THIS PRODUCT CONTRARY TO LABEL INSTRUCTIONS, OR UNDER CONDITIONS NOT REASONABLY FORESEEABLE.

THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE SET FORTH HEREIN. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE MANUFACTURER NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE, TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IT EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OF QUALITY OR PERFORMANCE. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS, WARNINGS OR CAUTIONS.

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