

 <p align="center">U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (7505P) Ariel Rios Building 1200 Pennsylvania Ave., NW Washington, D.C. 20460</p>	EPA Reg. Number: 5905-581	Date of Issuance: 20 MAY 2009						
	Term of Issuance: Conditional							
NOTICE OF PESTICIDE: <input checked="" type="checkbox"/> Registration <input type="checkbox"/> Reregistration (under FIFRA, as amended)	Name of Pesticide Product: HM-0801							
Name and Address of Registrant (include ZIP Code): Mr. Scott A. Pace HELENA CHEMICAL Co. 225 Schilling Blvd., Suite 300 Collierville, TN 38017								
<p>Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.</p>								
<p>On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.</p> <p>This product is registered in accordance with FIFRA sec. 3(c)(7)(A), provided that you:</p> <ol style="list-style-type: none"> 1. Submit and/or cite all data required for registration/reregistration review of your product when the Agency requires all registrants of similar products to submit data. 2. Submit the data listed below within 1 year from the date of this Notice of Registration: <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"><u>EPA Guideline Number:</u></td> <td style="width: 50%;"><u>Study Description:</u></td> </tr> <tr> <td>830.6317</td> <td>Storage Stability</td> </tr> <tr> <td>830.6320</td> <td>Corrosion Characteristics</td> </tr> </table> 3. Make the following label changes: <ol style="list-style-type: none"> a. Add the words, "Corn Grain" after the word, "Sweet," to the crop listing at the top of the label. b. Under Application Precautions and Restrictions, in the statement regarding Maximum Application Rate, list the amount of fluroxypyr acid equivalents as pounds acid equivalent per acre, not in ounces. 			<u>EPA Guideline Number:</u>	<u>Study Description:</u>	830.6317	Storage Stability	830.6320	Corrosion Characteristics
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830.6317	Storage Stability							
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Comments continued on page 2								
Signature of Approving Official: Joanne I. Miller Product Manager 23 Herbicide Branch Registration Division (7505P)	Date: 20 MAY 2009							

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EPA Reg. No. 5905-581

- c. Add the statement, "EPA Reg. No.5905-581."

Submit one copy of the final printed label before the product is released for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

2/19

HM-0801

For selective post emergence control of annual and perennial broadleaf weeds and volunteer potatoes in Corn (Field and Sweet), Small grains and Fallow cropland, and for On-farm noncropland applications

Active Ingredient(s):

Fluroxypyr 1 -methylheptyl ester: ((4-amino-3,5-dichloro-6-fluoro-2-pyridinyl)oxy)acetic acid, 1-methylheptyl ester.....	9.92%
2,4-dichlorophenoxyacetic acid.....	27.59%
Inert Ingredient(s).....	62.49%
Total Ingredients.....	100.00%

Contains xylene range aromatic solvent.

¹Acid Equivalent: fluroxypyr: ((4-amino-3,5-dichloro-6-fluoro-2-pyridinyl)oxy)acetic acid – 6.89% - .66 lb/gal

²Acid Equivalent: 2,4-D: 2,4-dichlorophenoxyacetic acid -27.59 % - 2.65 lb/gal

Isomer specific by AQAC Method 978.05 1 5 Ed.

EPA Reg. No. _____

ACCEPTED
with COMMENTS
in EPA Letter Dated
20 MAY 2009

**Keep Out of Reach of Children
DANGER-PELIGRO**

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.

5905-581

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.)

Precautionary Statements:

Hazards to Humans and Domestic Animals:

Corrosive. Causes irreversible eye damage. Harmful if inhaled. Harmful if swallowed. Do not get in eyes or on clothing. Avoid breathing spray mist. Wear protective eyewear (goggles, face shield, or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing after use.

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 on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as Barrier Laminate, Butyl Rubber, Nitrile Rubber, or Viton
- Shoes plus socks
- Protective eyewear (goggles, face shield or safety glasses)

Note: For containers of over 1 gallon, but less than 5 gallons: Mixers and loaders who do not use a mechanical system (probe and pump) to transfer the contents of this container must wear coveralls or chemical-resistant apron in addition to other required PPE.

User Safety Requirements:

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. After each day of use, clothing or PPE must not be reused until it as been cleaned.

Engineering Controls Statements

For containers of 5 gallons or more: Do not open pour product from this container. A closed mechanical system (probe and pump) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal. The mechanical system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4)]. The handler PPE requirements may be reduced or modified as specified in the WPS.

When handlers use enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protections 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. Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(6)]”

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.
- 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.

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: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Note to Physician: May pose an aspiration pneumonia hazard.

Environmental Hazards

This product is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift or runoff from treated areas may be hazardous to aquatic organisms and non-target plants. When cleaning equipment, do not pour washwater on the ground; spray or drain over a large area away from wells and other water sources. Do not contaminate water when disposing of equipment washwaters rinseate. 2,4-D has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.”

Groundwater Contamination: Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D have been associated with mixing/loading and disposal sites. Caution should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing and 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.

Physical or Chemical Hazards

Do not use or store near heat or open flame.

Notice: Read the entire label. Use only according to label directions.

Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies elsewhere on this label. If terms are unacceptable, return at once unopened.

In case of emergency endangering health or the environment involving this product, call 1 -800-992-5994. If you wish to obtain additional product information, visit our web site at www.helenachemical.com.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

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 (WPS), 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.

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, Butyl Rubber, Nitrile Rubber, or Viton
- Shoes plus socks
- Protective eyewear

Non-Agricultural Use Requirements

The requirements of this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms or nurseries: When this product is applied to non-cropland areas, do not enter or allow others to enter treated areas until sprays have dried.”

Storage and Disposal

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

Storage: Store above 10°F or warm and agitate before use.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinseate is a violation of Federal law and may contaminate groundwater. 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.

General Information

HM-0801 herbicide is a selective post emergence product for control of annual and perennial broadleaf weeds and volunteer potatoes in wheat or barley not under seeded with a legume and fallow cropland, and for on-farm non-cropland uses such as fence rows, building perimeters, around irrigation equipment and roadways.

Application Precautions and Restrictions

- Do not apply this product directly to, or otherwise permit it to come in direct contact with, susceptible crops or broadleaf plants including alfalfa, cotton, lettuce, edible beans, lentils, peas, potatoes, radishes, soybeans, sugar beets, sunflowers, tomatoes, tobacco, grapes, legumes, fruit trees, canola, tame mustard, other vegetables or ornamentals. Vapors from this product may injure susceptible plants in the immediate vicinity.
- Avoid applications where proximity of susceptible crops or other susceptible broadleaf plants is likely to result in exposure to spray or spray drift.
- Do not contaminate irrigation ditches or water used for domestic purposes.
- Do not apply in greenhouses.
- **Maximum Application Rate:** Do not apply more than 3 pints of HM-0801 (4 oz of fluroxypyr acid equivalent) per acre per growing season.
- **Plant-back Restriction:** Plant only those crops listed on this label or federally approved supplemental labeling for HM-0801 within 120 days following application.
- **Chemigation:** Do not apply this product through any type of irrigation system.

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 HM-0801, all will be suppressed or controlled by the 1.5 pint labeled rate. Application of HM-0801 at rates below the 1.5 pint per acre rate can result in a shift to more tolerant biotypes within a field.

Best Resistance Management Practice: 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). In these areas, HM-0801 is recommended at a minimum rate of 1.5 pints per acre for optimal control of Dicamba tolerant kochia. In addition, HM-0801 should be rotated with products that do not contain Dicamba to minimize selection pressure. Use of these practices will preserve the utility of HM-0801 for control of Dicamba tolerant kochia biotypes.

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 HM-0801, 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 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 HM-0801 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 hollow cone-type insecticide nozzles or other nozzles that produce a fine-droplet spray. (See Application Directions.)

Aerial Application: 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 3/4 the 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, such as Automatic Flagman, may also be used. (See Application Directions.)

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 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they 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 3/4 of the wingspan or rotor length 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 cross-wind, 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. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a connected cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates 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 Cleanup

To avoid injury to or exposure of nontarget crops, thoroughly clean and drain spray equipment used to apply HM-0801 after use. Cleaning should occur as soon as possible after application of HM-0801. Spray equipment should be cleaned after use with HM-0801 by the following procedure:

1. Drain any remaining HM-0801 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. Remove the nozzles and screens and clean separately.
4. If the spray equipment will be used on crops other than those labeled for HM-0801, repeat steps 1 and 2 and thoroughly wash the outside of spray tank and the boom.

Mixing Instructions

HM-0801

Fill the spray tank approximately 1/2 to 3/4 full with water. Add the required amount of HM-0801, then finish filling the spray tank. Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

Tank Mixing

HM-0801 may be applied in tank mix combination with labeled rates of other herbicides provided (1) the tank mix product is labeled for the use site (timing and method of application is the same as HM-0801); and (2) tank mixing with HM-0801 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. If products containing the same active ingredient are tank mixed, do not exceed the maximum allowable active ingredient use rates.
- 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.
- 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 HM-0801 and other pesticides, fertilizers, or carriers. Use a clear glass jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludge's, gels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

Tank Mixing Instructions:

Fill the spray tank to approximately 1/4 to 1/2 of the total spray volume required. Start agitation. Add different formulation types in the order indicated, allowing time for complete mixing and dispersion after addition of each.

1. Add dry flowables; wettable powders; aqueous suspensions, flowables or liquids.
2. Maintain agitation and fill spray tank to 3/4 of total spray volume and then add HM-0801 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 and following time of application may reduce weed control and increase the risk of crop injury at all stages of growth. **Only weeds that are emerged at the time of application will be affected.** Foliage that is wet at the time of application may decrease control.

HM-0801 herbicide applications are rain-fast within 1 hour after application.

Application Rates: Generally, application rates at the lower end of the recommended rate range will be satisfactory for young, succulent growth of sensitive 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 growing in the absence of crop competition generally require higher rates to obtain satisfactory control or suppression.

Effect of Temperature on Herbicidal Activity: Herbicidal activity of HM-0801 is influenced by weather conditions. Optimum activity requires active crop and weed 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.

Coverage: For best results, apply in 3 or more gallons per acre by air or 10 or more gallons per acre by ground equipment. Do not exceed 40 gallons per acre total spray volume. Use sufficient spray volume to provide thorough coverage and a uniform spray pattern. Inadequate spray volume and coverage may result in decreased weed control. As crop canopy and weed density increase, spray volume should be increased to obtain equivalent weed control. Use larger nozzle tips or decrease spraying speed to increase spray volume rather than increasing boom pressure. Refer to manufacturer's recommendations for information on relationships between spray volume, and nozzle size and arrangement.

Adjuvants: Use of a high quality adjuvant labeled such as CPDA Certified Adjuvant for use on growing crops is recommended for improved weed control. Adjuvants are especially beneficial when applications are made (a) at lower carrier volumes, (b) under conditions of cool temperature, low relative humidity or drought, or (c) to small, heavily pubescent kochia.

Spot Treatments: To prevent misapplication, spot treatments should be applied with a calibrated boom or with hand sprayers according to directions provided below.

Hand-Held Sprayers: Hand-held or backpack sprayers may be used for spot applications of HM-0801 if care is 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 HM-0801 (fl oz or ml) corresponding to the desired broadcast rate in one or more gallons of spray. To calculate the amount of product 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 HM-0801 to Equal Specified Broadcast Rate
(Mix with 1 Gallon or More of Water and Apply to 1,000 sq ft)**

1 1/3 pt/acre	2 pt/acre	2.25-3 pt/acre
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0.5 fl oz (15 ml)	0.75 fl oz (22 ml)	1.0 fl oz (29 ml)
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1 fl oz = (29) ml

Weeds Controlled or Suppressed

(Numbers in parentheses (-) in weeds refer to footnotes below.)

Weeds Controlled

- | | | |
|----------------------|----------------------------|----------------------------|
| bedstraw (cleavers) | healall | prickly lettuce |
| Bindweed, hedge | hemp dogbane | primrose, evening |
| Bittercress | hemp, wild | puncture vine |
| buckwheat, wild | horseweed | purslane, common |
| bull nettle | ironweed | quickweed |
| burdock, common | Jacob's ladder | radish, wild |
| burhead | Jerusalem artichoke | ragweed (common, giant) |
| buttercup | jimsonweed | rough fleabane |
| canola, volunteer | klamathweed | Russian thistle |
| carpetweed | kochia (1) | shepherdspurse |
| catnip | lambsquarters, common | sicklepod |
| chickweed | lettuce, wild | small seeded falseflax |
| chicory | mallow, common | sneezeweed, bitter |
| cinquefoil | mallow, Venice | sowthistle (annual, spiny) |
| cocklebur | maretail | Spanishneedles |
| coffeeweed | marshelder | speedwell |
| copperleaf, Virginia | milk vetch | stinkweed |
| cornflower | morningglory, annual | sunflower |
| dock, curly | mousetail | sweetclover |
| fanweed | mustards (except blue) (2) | tansy mustard |
| figwort | nightshade species | velvetleaf |
| flax, volunteer | pennycress, field | vetches |
| flixweed | pepperweeds (annual) | yellow rocket |
| four o'clock | pigweed | yellow starthistle |
| geranium, Carolina | plantains | |
| goatsbeard | poorjoe | |

1. Includes herbicide tolerant biotypes.
2. Apply prior to bolting.

Weeds Suppressed (1)

- | | |
|----------------------|-------------------|
| alfalfa | hoarycress |
| aster, many flowered | knotweed |
| beggarticks | nettles |
| bindweed, field | onion, wild |
| carrot, wild | peppergrass |
| clover, red | potato, volunteer |

dandelion
 fiddleneck
 garlic, wild
 goldenrod
 ground ivy
 henbit

redstem filaree
 smartweed
 tansyragwort
 thistle, bull
 thistle, Canada
 thistle, musk

- 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.

Application Sites

Crop Uses

CORN (Field)

Application Timing:

Apply broadcast or as a band treatment to Field corn up to 5 fully exposed leaf collars (V5 growth stage). Do not broadcast or apply to field corn with 6 fully exposed leaf collars (V6 growth stage). If an application is too made beyond the V5 growth stage, the product should be applied as a directed spray using drop nozzles.

WEEDS IN CROPS	AMOUNT OF UNISON® PER ACRE	DIRECTIONS FOR USE
CORN (Field) Preplant: Fine and medium texture soils having 1% or more organic matter:	2-3 pints 1.5-3.0 pints	To control emerged broadleaf weed seedlings or existing cover crops prior to planting corn, apply 14 days before planting. Use high rate for less susceptible weeds or cover crops.
For coarse textured soils with 2% or more organic matter:	1.5-3.0 pints	Apply 3 to 5 days after planting but before corn emerges. Liquid fertilizers and agriculturally approved surfactants may be added.
Preemergence Fine and medium texture soils having 1% or more organic matter:	1.5 pint*	*Due to the lower rate, partial weed control may result on coarse soils.
For coarse textured soils with 2% or more organic		Apply when weeds are small and corn is less than 8 inches tall (to top of canopy). Many types of adjuvants will increase risk of crop injury. Where an adjuvant is required because of tank mixing with another herbicide, use the lowest

matter:	1.5 pint to 2.25 pints	recommended concentration of a nonionic surfactant such as INDUCE® (often at 0.25% vol./vol. or less) to minimize such risk. Corn may be brittle and subject to breaking by wind and/or cultivation, especially in the 2 weeks following application. Avoid spraying just after corn leaves unfold
Postemergence; Annual broadleaf weeds Early		
Postemergence: (from spike to 4 leaf stage or up to 8 inches)	1.5 to 2.25 pints	When corn is beyond V5 then you must use drop nozzles and keep spray off foliage. Treat perennial weeds when they are in the bud to bloom stage. The timing can extend until corn is 20 inches tall or to tasseling, whichever comes first, but weeds usually become too large and hard to control. Lowest rates may not provide adequate weed control unless used in a tank mix with another registered herbicide.
Perennial broadleaf weeds Late		
Postemergence: (corn is 8-20 inches tall)	1.5 to 3.0 pints	After the hard dough (or denting) stage when silks have turned brown, apply the appropriate rate to suppress perennial weeds such as hemp dogbane or field bindweed, and many tall weeds such as cocklebur, pigweed, and sunflower that interfere with harvest. Weed seed production will also be suppressed if application is prior to the flowering stage of weeds. The high rate is recommended under dry conditions.
Preharvest		Do not allow livestock to graze or harvest forage from treated areas within 47 days of application. Do not apply less than 90 days before harvest of grain and stover.

RESTRICTIONS AND LIMITATIONS FOR USE ON CORN (Field)

- Corn(Field):
 - Preharvest Interval (PHI) is 90 days.
 - Do not use treated crop as fodder for 47 days following application.
 - Do not apply on fine or coarse textured soils (silt & clay loams) with less than 1% organic matter or on coarse textured soils (sand, sandy loam, loamy sand) with less than 2% organic matter.
 - Maximum Use rate per acre per crop cycle is 3 pints
 - **Pre-plant Burndown:** For no-till or burndown applications to control emerged weeds, apply with a labeled herbicide prior to planting or alone.
 - **Preplant or Preemergence:**
 - Limited to one application per crop cycle.
 - Apply when the majority of volunteer potatoes plants are 4-8 inches tall.
 - Maximum of 3.0 pints per acre per application.
 - **Do not apply preemergence if a preplant application of this product was made.**
 - **Postemergence:**

- Limited to one application per crop cycle.
- Maximum of 48 ounces per acre per application.
- Do not spray corn in the tassel to dough stage
- Do not apply with liquid fertilizer or oil.
- Postemergence application should not follow a preplant or preemergence application by less than 3 weeks.

Special Directions for Control or Suppression of Volunteer Potatoes:

- Pre-plant Application: Apply 1.5-2 pints per acres prior to planting. For heavy populations of volunteer potatoes, a postmerge application of 1.5-2 pints may follow the pre-plant application. Do not exceed two applications per season.
- Postemergence Application: Apply 1.5-2 pints per acre when the majority of volunteer potato plants are 4 -8 inches tall.
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- **Preharvest:**
 - Limited to one application per crop cycle.
 - Maximum of 48 ounces per acre per application.
- Crop tolerance Precaution: Crop injury may occur with some corn hybrids or lone when HM-0801 is tank mixed with a companion herbicide. Follow all applicable use directions, precautions, restrictions an 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.

Sweet Corn:

Apply as a pre-plant burndown treatment for control of emerged weeds and volunteer potatoes. Refer to Special Directions for Control of Volunteer Potatoes below for detailed information. HM-0801 may be applied in tank mix combination with labeled rates of other registered herbicides.

CORN (Sweet)

WEEDS IN CROPS	AMOUNT OF UNISON® PER ACRE	DIRECTIONS FOR USE
CORN (Sweet) Preplant: Fine and medium texture soils having 1% or more organic matter:	1-3.0 pints	To control emerged broadleaf weed seedlings or existing cover crops prior to planting corn, apply 14 days before planting. Use high rate for less susceptible weeds or cover crops such as alfalfa.
For coarse textured soils with 2% or more organic matter:	1-3.0	
Preemergence Fine and medium texture soils having 1% or	1 pint*	*Due to the lower rate, partial weed control may result on coarse soils.

<p>more organic matter:</p> <p>For coarse textured soils with 2% or more organic matter:</p> <p>Postemergence; Annual broadleaf weeds Early</p> <p>Postemergence: (from spike to 4 leaf stage or up to 8 inches)</p> <p>Perennial broadleaf weeds Late</p> <p>Postemergence: (corn is 8-20 inches tall before tasseling)</p>	<p>2.25 pints</p> <p>1.5 to 2.25 pints.</p>	<p>Apply when weeds are small and corn is less than 8 inches tall (to top of canopy). Many types of adjuvants will increase risk of crop injury. Where an adjuvant is required because of tank mixing with another herbicide, use the lowest recommended concentration of a nonionic surfactant such as INDUCE® (often at 0.25% vol./vol. or less) to minimize such risk. Corn may be brittle and subject to breaking by wind and/or cultivation, especially in the 2 weeks following application. Avoid spraying just after corn leaves unfold</p> <p>When corn is above (V5) 20 inches tall, use drop nozzles and keep spray off foliage. Treat perennial weeds when they are in the bud to bloom stage. The timing can extend until corn is 20 (V6) inches tall or to tasseling, whichever comes first, but weeds usually become too large and hard to control. Lowest rates may not provide adequate weed control unless used in a tank mix with another registered herbicide.</p>
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- Corn(Sweet)
 - Preharvest Interval (PHI) is 90 days
 - Do not use treated crop as fodder for 47 days following application.
 - Minimum of 21 days between applications.
 - Do not apply on fine or coarse textured soils (silt & clay loams) with less than 1% organic matter or on coarse textured soils (sand, sandy loam, loamy sand) with less than 2% organic matter.
 - Maximum Use rate per acre per crop cycle 48 ounces
 - Preplant or Preemergence:
 - Limited to one application per crop cycle.
 - Maximum of 2.0 pints per acre per application
 - Do not apply preemergence if a preplant application of this product was made.
 - Postemergence:
 - Limited to one application per crop cycle.
 - Maximum of 48 ounces per acre per application.
 - Do not spray corn in the tassel to dough stage
 - Do not apply with liquid fertilizer or oil.
 - Postemergence application should not follow a preplant or preemergence application by less than 3 weeks.
 - Special Directions for Control or Suppression of Volunteer Potatoes:
 - Pre-plant Application: Apply 1.5-2 pints per acres prior to planting. For heavy populations of volunteer potatoes, a postmerge application of 1.5-2 pints may follow the pre-plant application. Do not exceed two applications per season.

- Postemergence Application: Apply 1.5-2 pints per acre when the majority of volunteer potato plants are 4 -8 inches tall.

SORGHUM (Milo-Grain)

WEEDS IN CROPS	AMOUNT OF HM-2010 PER ACRE	DIRECTIONS FOR USE
Pre-emergence	1.5 -3.0 pints	For no-till or burndown applications, apply to emerged weeds after planting. But prior to grain sorghum emergence
Post-emergence	1.5- 3.0 pints	To control small broadleaf weeds, apply when sorghum is 6 to 15 inches tall to top of canopy. If sorghum is taller than 8 inches to top of canopy, use drop nozzles to keep spray off crop foliage. The lowest rates may not provide adequate weed control unless used in a tank mixture with another registered herbicide. Highest rates may increase risk of injury. Do not treat during the boot, flowering or early dough stages. Do not permit meat or dairy animals to consume treated crop as fodder or forage for 40 days following application.

Tank mixing: HM-0801 may be applied alone or in tank mix combination with other herbicides registered for post emergence application in grain sorghum unless tank mixing is specifically prohibited by the label of the tank mix product. When HM-0801 is tank mixed with companion herbicide, follow applicable use directions, precautions, restrictions and limitations listed on the manufacture's label. Do not apply in combination with Ally herbicide.

RESTRICTIONS AND LIMITATIONS: Sorghum (milo)

- Do not permit meat or dairy animals to consume treated crop as fodder or forage for 40 days following application.
- PHI: Do not harvest within 70 days of application
- Limited to one (1) Application per crop cycle
- Max seasonal rate: Apply no more than 3.0 pints (.25 lb acid equivalent) per acre use season
- Use 2 or more gallons of spray solution per acre.

Wheat (Including Durum) and Barley

Apply as a broadcast postemergence treatment to actively growing wheat (including durum) or barley, from the 4-leaf crop growth stage up to flag leaf emergence (Zadoks scale 36) for control of broadleaf weeds. Apply when weeds are actively growing, but before weeds are 8 inches tall or vining. For control of volunteer potatoes, apply before potato plants are 8 inches tall. Only weeds emerged at the time of treatment 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.**

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.)

Size or Species (1)	Application Rate (pint/acre)
Susceptible broadleaf weed seedlings less than 4 inches tall (2)	1.25-1.5
Susceptible broadleaf weed seedlings less than 8 inches tall or vining	1.25 - 2
Volunteer potatoes	1.25 - 3 (*3)

1. See "Weeds Controlled or Suppressed" section for a complete listing of weeds controlled or suppressed.
2. The 1.25 pint/acre rate will generally 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, the 1.5 pint/acre rate will provide more consistent control of kochia seedlings to 4 inches tall. Control of small kochia with reduced rates will be more consistent if kochia is at least 1 inch tall. The 1.5 pint/acre rate should be used for optimal control of Dicamba tolerant kochia populations (see "Management of Kochia Biotypes" in the General Information section of this label).
3. *Crop injury may occur at rates higher than 3 pint/acre.

Restrictions:

- Do not allow livestock to graze treated areas or harvest treated forage within 14 days of application.
- Do not make more than one application per season.
- Preharvest Interval: Do not apply closer than 14 days before cutting of hay or 40 days before harvesting of grain and straw.

Fallow Cropland

For best results, apply as a single broadcast treatment by ground or aerial equipment to control susceptible broadleaf weeds. Apply when weeds are actively growing, but before kochia is 8 inches tall and before wild buckwheat is vining. HM-0801 may be applied alone or in tank- mix combination with other herbicides (See tank mixing precautions in "Mixing Instructions" section.)

Broadcast Application Rates:

Size or Species ⁺	Application Rate (pint/acre)
Susceptible broadleaf weed seedlings less than 8 inches tall or vining	1.5 - 3
Volunteer potatoes	

NOTES and RESTRICTIONS:

- a. Limited to 2 applications per year
- b. Minimum 30 days between applications,

⁺ See "Weeds Controlled or Suppressed" section for a complete listing of weeds controlled or suppressed.

On-Farm Non-Cropland

For best results, apply as a single broadcast treatment or spot treatment to control susceptible broadleaf weeds in on-farm non-cropland areas such as fence rows, building perimeters, around irrigation equipment and on-farm private roadways. Apply at the rate of 1 1/3 to 3 pints per acre when weeds are small and actively growing, but before weeds are 8 inches tall or vining. Spot treatments should be applied at rates and spray volumes equivalent to broadcast application. See instructions for "Spot Application" in "Application Directions" section. See "Weeds Controlled or Suppressed" section for a complete listing of weeds controlled or suppressed.

CRP Acres

Do not use on CRP acres that are underseeded with desirable legumes, clovers, or other sensitive broadleaf plants.

HM-0801 may be applied to Conservation Reserve Program (CRP) acres. For best results, apply as a single broadcast treatment by ground or aerial equipment to control susceptible broadleaf weeds. Apply at the rate of 1.5 to 3 pints per acre when weeds are small and actively growing, but before weeds are 8 inches tall or vining. Spot treatments should be applied at rates and spray volumes equivalent to broadcast application. See instructions for "Spot Application" in "Application Directions" section. See "Weeds Controlled or Suppressed" section for a complete listing of weeds controlled or suppressed.

Restriction: Grazing or haying of treated CRP acres is prohibited.

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The directions on this label are believed to be reliable and should be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions or the failure to follow the label directions or good application practices, all of which are beyond the control of Helena Chemical

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1. Refund of the purchase price paid by buyer or user for product bought, or
2. Replacement of the product used

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