

264-641

3/11/2003

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RESTRICTED USE PESTICIDE

DUE TO ONCOGENICITY IN LABORATORY MICE*

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

HOELON® 3EC HERBICIDE

For Control of Wild Oats and Other Annual Grasses in Wheat (Including Durum Wheat) and Barley

ACTIVE INGREDIENT:

diclofop-methyl: methyl 2-[4-(2,4-dichlorophenoxy) phenoxy]propanoate..... 34.7%†

INERT INGREDIENTS: 65.3%

†Equivalent to 3.0 pounds of active ingredient per gallon.

Contains petroleum distillates.

TOTAL 100.0%

ACCEPTED

EPA Reg No. 264-641

EPA Est. No.

KEEP OUT OF REACH OF CHILDREN

DANGER - PELIGRO

MAR 11 2003
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 264-641

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

For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577

For PRODUCT USE Information Call 1-866-99BAYER (1-866-992-2937)

*The Environmental Protection Agency has concluded that diclofop-methyl, the active ingredient in this product, produced tumors in laboratory mice. This effect was not observed in other species tested. The user must read and follow all precautionary statements on this label. Give particular attention to protective clothing requirements.

FIRST AID

IF IN EYES:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none"> • Immediately call a poison control center or doctor for treatment advice. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Have person sip a glass of water if able to swallow. • Do not give anything by mouth to an unconscious person.
IF INHALED:	<ul style="list-style-type: none"> • 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.

For MEDICAL Emergencies Call 24 Hours A Day 1-800-334-7577.

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

NOTE TO PHYSICIAN: Aspiration hazard and probable mucosa damage may contraindicate the use of gastric lavage.

PRECAUTIONARY STATEMENTS

DANGER

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Corrosive. Causes irreversible eye damage. Harmful if swallowed or absorbed through skin. Do not get in eyes, on skin or on clothing. Avoid contact or inhalation of spray mist. Do not take internally.

PERSONAL PROTECTIVE EQUIPMENT

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

Wear goggles or face shield in addition to the other Personal Protective Equipment listed below:

MIXERS, LOADERS, APPLICATORS, FLAGGERS, AND OTHER HANDLERS USING ENGINEERING CONTROLS MUST WEAR:

- Long-sleeved shirt and long pants
- shoes plus socks

IN ADDITION, MIXERS AND LOADERS MUST WEAR:

- chemical-resistant apron
- chemical-resistant gloves

ALL OTHER HANDLERS PERFORMING TASKS, SUCH AS SPILL CLEAN-UP, FOR WHICH ENGINEERING CONTROLS ARE NOT FEASIBLE MUST WEAR:

- coveralls over long-sleeve shirt and long pants
- chemical-resistant gloves
- chemical-resistant footwear
- a NIOSH approved respirator with an (OV) cartridge or a canister with any N, R, P or HE prefilter; a respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).
- chemical-resistant apron if exposed to the concentrate

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.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

Applicators using motorized ground equipment and flaggers supporting aerial applications must use an enclosed cab that meets the definition in the Worker Protection Standard for Agricultural Pesticides [40 CFR 170.240(d)(5)] for dermal protection. In addition, applicators must:

- wear the personal protective equipment required in the PPE section of this labeling for handlers using engineering controls
- **either** wear the type of respirator specified in the PPE section of this labeling for handlers not using engineering controls **or** use an enclosed cab that is declared in writing by the manufacturer or by a government agency to provide at least as much respiratory protection as the type of respirator specified in the PPE section of this labeling,
- be provided and must have immediately available for use in an emergency when they must exit the cab in the treated area: coveralls, chemical-resistant gloves, chemical-resistant footwear, and, if using an enclosed cab that provides respiratory protection, a respirator of the type specified in the PPE section of this labeling,
- take off any PPE that was worn in the treated area before reentering the cab, and
- store all such PPE in a chemical-resistant container, such as a plastic bag, to prevent contamination of the inside of the cab.

Mixers and loaders supporting applications by motorized equipment must use a closed system that transfers liquid pesticide in a manner that prevents the liquid and any vapor from contacting handlers or other people during the transfer and must:

- wear the personal protective equipment required above for mixers and loaders,
- wear protective eyewear if the system operates under pressure, and
- be provided and have immediately available for use in an emergency, such as a broken package, spill, or equipment breakdown; coveralls, chemical resistant gloves, chemical resistant footwear, and a respirator of the type specified in the PPE section of this labeling.

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (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/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

This pesticide 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. Do not contaminate water when disposing of equipment washwater or rinsate.

Do not apply within 100 feet of any water body including impounded waters, rivers, streams, lakes, or oceans.

PHYSICAL AND CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flames.

STORAGE AND DISPOSAL

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

Do not use or store near heat or open flame. Do not store below 20°F.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the hazardous waste representative at the nearest EPA regional office for guidance.

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

[Or, when mini-bulk containers are used:]

CONTAINER DISPOSAL: This is a sealed returnable container to be used only for HOELON® 3EC Herbicide. When this container is empty, it must not be opened, cleaned, or discarded. Empty containers must be returned to the original filling location and must be refilled with HOELON® 3EC only at an authorized bulk distribution location.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

This labeling must be in the possession of the user at the time of the application. 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 intervals. 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 24 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 over long-sleeved shirt and long pants; chemical-resistant gloves, chemical-resistant footwear plus socks and protective eyewear.

GENERAL INFORMATION

HOELON® 3EC Herbicide is a highly effective herbicide for the control of a broad spectrum of annual grassy weeds in wheat (including durum wheat) and barley. HOELON® 3EC is a 3-pound-active-ingredient-per-gallon emulsifiable concentrate. Depending on the crop and the grass species being controlled, HOELON® 3EC may be applied preplant-incorporated (to wheat only), preemergence or postemergence. Read and carefully follow all label directions specified in this labeling.

APPLICATION EQUIPMENT NOTES

GROUND

Whether applying HOELON® 3EC Herbicide preplant-incorporated, preemergence or postemergence, thorough uniform coverage of the soil or target weeds is critical to achieving satisfactory results. The use of flat fan nozzles, spaced 10 or 20 inches apart across the boom is recommended for optimum coverage with ground equipment.

Ground applications should be in at least 10 gallons of water carrier per acre, using a minimum of 40 psi. Ground speed for application should not exceed 10 mph.

AERIAL

Aerial applications must be applied in at least 5 gallons of water carrier per acre. Use spray nozzle tips and sufficient pressure to provide a uniform pattern and a median droplet size of 200 to 350 microns. DO NOT wide swath the application; HOELON® 3EC Herbicide is a contact material when used postemergence and highly immobile in the soil when applied preplant incorporated or preemergence. Avoid applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. DO NOT make aerial applications within 100 feet of a lake, stream, drainage basin, tidal marsh, or estuary.

Only clean water, free of suspended matter or other contaminants, should be used when applying HOELON® 3EC Herbicide.

USE PRECAUTIONS

- HOELON® 3EC Herbicide does not control broadleaf weeds or perennial grassy weeds.
- DO NOT allow livestock to graze treated fields for 28 days after treatment.
- DO NOT harvest forage, hay or straw from treated fields prior to grain harvest.
- DO NOT apply more than 1 application of HOELON® 3EC Herbicide per growing season to wheat or barley.
- The maximum application rate is 1 lb. ai/A per application per year.
- HOELON® 3EC Herbicide can be tank mixed with the broadleaf herbicides listed on this label for broad spectrum weed control. When tank mixing, do not exceed labeled application rates of the tank mix partner and use in accordance with the restrictions and use precautions of the partner's label.
- DO NOT apply any phenoxy based herbicides, or Banvel® Herbicide within 5 days of a HOELON® 3EC application, or reduced grassy weed control will occur.
- DO NOT apply HOELON® 3EC Herbicide through any type of irrigation system.
- When controlling mixed infestations of grassy weeds, always use the rate that will control the least susceptible species.
- In-furrow application of organophosphate type insecticides prior to HOELON® 3EC Herbicide application may result in crop injury.
- 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.
- Do not allow this product to drift.
- Do not apply within 100 feet of any water body including impounded waters, rivers, streams, lakes, or oceans.

AERIAL 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 formulation.

1. The distance of the outer most nozzles on the boom must not exceed $\frac{3}{4}$ 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 [Aerial Drift Reduction Advisory Information](#).

AERIAL DRIFT REDUCTION ADVISORY: This section is advisory in nature and does not supersede the mandatory label requirements.

INFORMATION ON 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 Inversions below).

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 - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. 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 parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from 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 the largest droplets and the lowest drift.

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

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

WIND: Drift potential is lowest between wind speeds of 2 - 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray 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 concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SENSITIVE AREAS: This 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).

INFORMATION ON HERBICIDE TOLERANT WEEDS

Repeated use of the same herbicide, or herbicide with the same mode of action, may result in tolerant weeds that will multiply to economic infestations if such herbicides are used year after year on the same fields. If such weed infestations appear, herbicides of a different mode of action should be considered or the field should be planted to a different crop that involves the use of a herbicide with a different mode of action. For further information, contact an Bayer CropScience representative or your State Weed Science Specialist.

DIRECTIONS FOR THE PREPLANT INCORPORATED USE OF HOELON® 3EC HERBICIDE ON WINTER WHEAT

This product is registered for the preplant incorporated use to control downy brome, rigput brome, Japanese brome, windgrass and bulbous bluegrass in the States of:

Colorado	Montana	South Dakota
Idaho	Nebraska	Utah
Kansas	Oregon	Washington

(The General Information section must also be read for complete use instructions.)

APPLICATION RATE INFORMATION

The use rate of HOELON® 3EC Herbicide to control downy brome (*Bromus tectorum*), rigput brome (*Bromus rigidus*), Japanese brome (*Bromus japonicus*), windgrass (*Apera interrupta*), and bulbous bluegrass (*Poa bulbosa*) will vary, depending on soil texture, soil organic matter content, soil moisture, and density of grass populations.

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HOELON® 3EC HERBICIDE APPLICATION RATES

Broadcast Rate in Pints/A		
% Organic Matter 1/2-2%	% Organic Matter 2-3%	% Organic Matter >3%
2-2 2/3	2 2/3	*

*On soils with greater than 3% organic matter, the 2 2/3 pints rate may provide only suppression of the grassy weeds listed on the preplant incorporated section of this label.

Use the highest recommended rate, according to the chart above, when heavy populations of annual grass (more than 25 plants per square foot) are anticipated (based on field history) and/or if soils are dry at the time of application.

INCORPORATION DIRECTIONS

HOELON® 3EC Herbicide is highly immobile on the soil and must be mechanically incorporated into the annual grass germination zone to help insure satisfactory control.

Incorporate HOELON® 3EC Herbicide into the soil to a maximum depth of 2 inches (do not set incorporation equipment to cut more than 4 inches deep). Incorporate one time within 48 hours after application, followed by a second incorporation, in a different direction from the first, prior to seeding.

INCORPORATION EQUIPMENT

If the seedbed is free of trash and clods at the time of application, the use of a spiketooth, springtooth or flextine harrow, operated at 3 to 6 mph, is recommended. If the seedbed is trashy at the time of application, use an implement that is capable of incorporating the trash in the top 2 inches of the soil. A skew treader operated at 4 to 6 mph is recommended. Chisel plows may be used for first pass incorporation only. Operate at a 3 to 4 inch depth at 4 to 6 mph. A chisel plow is defined as having 3 rows of up to 18 inch sweeps on no greater than 12 inch centers. Sweeps should be staggered so that no soil is left unturned. Field cultivators should be set to cut 3 to 4 inches deep and operated at a speed of at least 5 mph. A field cultivator used to incorporate HOELON® 3EC Herbicide should have 3 to 4 rows of sweeps with "C" or "S" shaped shanks, spaced 7 inches or less and staggered so that no soil is left unturned. Conventional, deep furrow, or semi-deep furrow drills may be used for seeding.

PREPLANT INCORPORATED SPECIAL NOTES

1. DO NOT apply HOELON® 3EC Herbicide preplant incorporated to barley, as barley damage will occur.
2. HOELON® 3EC Herbicide may be tank mixed with liquid fertilizers. Follow label recommendations concerning rates and incorporation. Before mixing HOELON® 3EC with fertilizer, perform a compatibility test in a quart jar. If the materials do not readily mix, do not tank mix HOELON® 3EC with the fertilizer.

DIRECTIONS FOR THE PREEMERGENCE USE OF HOELON® 3EC HERBICIDE ON WINTER WHEAT

This product is registered for preemergence use on winter wheat to control annual ryegrass in the States of:

Alabama	Maryland	South Carolina
Arkansas	Mississippi	Tennessee
Delaware	Missouri	Texas
Georgia	North Carolina	Virginia
Indiana	Oklahoma	Washington
Kentucky	Oregon	West Virginia
Louisiana	Pennsylvania	

(The General Information section must also be read for complete use instructions.)

HOELON® 3EC HERBICIDE APPLICATION RATES

Soil Texture	Broadcast Rate in Pints/A	
	% Organic Matter 1/2-2%	% Organic Matter >2%
Coarse (sandy loam, loamy sand)	2	2 2/3
Fine (loam, silt loam, silt)	2 2/3	2 2/3

Use the 2 2/3 pints/acre rate of HOELON® 3EC Herbicide in fields that have a history of heavy annual ryegrass pressure. If rainfall does not occur within 7 days after application, reduced control may occur.

PREEMERGENCE SPECIAL INSTRUCTIONS

1. DO NOT apply HOELON® 3EC Herbicide preemergence to barley as barley damage will occur.
2. HOELON® 3EC Herbicide may be mixed with liquid fertilizers when making preemergence applications. Follow label recommendations concerning HOELON® 3EC rates. Before tank mixing HOELON® 3EC with fertilizer, perform a compatibility test in a quart jar. If the materials do not readily mix, do not tank mix HOELON® 3EC with the fertilizer.
3. HOELON® 3EC Herbicide applied preemergence surface will not provide adequate brome control or control wild oats.

DIRECTIONS FOR THE POSTEMERGENCE USE OF HOELON® 3EC HERBICIDE ON WINTER WHEAT AND SPRING WHEAT (INCLUDING DURUM WHEAT)

This product is registered for postemergence use on wheat (including durum wheat) in the following States:

Alabama	Idaho	Maryland	Nevada	Oregon	Texas
Arizona	Illinois	Minnesota	New Mexico	Pennsylvania	Utah
Arkansas	Indiana	Mississippi	North Carolina	S. Carolina	Virginia
Colorado	Kansas	Missouri	North Dakota	S. Dakota	Washington
Delaware	Kentucky	Montana	Oklahoma	Tennessee	W. Virginia
Georgia	Louisiana	Nebraska			

(The General Information section must also be read for complete use instructions.)

Apply HOELON® 3EC Herbicide as a broadcast postemergence spray at the rates listed below:

Susceptible Annual Grassy Weeds	Amount of HOELON® 3EC Herbicide Per Acre (Pints) ¹ Relative to Growth Stage of Annual Grassy Weeds		
	1 - 3 Leaf	3 - 4 Leaf	5 Leaf - 2 Tillers
Annual ryegrass (Italian) ² <i>Lolium multiflorum</i>	1 1/3	1 1/3 - 2	2 - 2 2/3
Broadleaf signalgrass (suppression) <i>Bracharia platyphylla</i>	2 2/3		
Crabgrass ³ <i>Digitaria sanguinalis</i>	2 2/3		
Persian dandel <i>Lolium persicum</i>	2 2/3		
Fall panicum <i>Panicum dichotomiflorum</i>			
Barnyardgrass watergrass <i>Echinochloa crus-galli</i>			
Giant foxtail <i>Setaria faberii</i>			
Green foxtail pigoongrass <i>Setaria viridis</i>			
Yellow foxtail pigoongrass ³ <i>Setaria lutescens</i>			
Wild oat <i>Avena fatua</i>	2 to 2 2/3	2 2/3	
Itchgrass Raoulgrass <i>Rottboellia exaltata</i>			
Volunteer corn <i>Zea mays</i>			
Witchgrass (suppression) <i>Panicum capillare</i>			
Smallseed canarygrass (suppression) ⁴ <i>Phalaris minor</i>			
Spring milletgrass <i>Millium vernale</i>			
Hooded canarygrass ⁴ <i>Phalaris paradoxa</i>			

¹ When controlling mixed populations of grassy weeds, always use the rate that will control the least susceptible species.
² Annual ryegrass may also be controlled pre-emergence in winter wheat. See appropriate recommendation section in this labeling.
³ For best control of crabgrass and yellow foxtail, application should be made before the second leaf fully emerges.
⁴ See specific control recommendations for smallseed and hooded canarygrass in that section of the labeling.

POSTEMERGENCE SPECIAL INSTRUCTIONS

When using HOELON® 3EC Herbicide postemergence in wheat to control annual grassy weed(s), and the weeds do not include annual ryegrass, broadleaf signalgrass, crabgrass, Persian dandel or yellow foxtail, apply the 2 pints per acre rate when the annual grassy weeds are in the 1 to 3 leaf stage of growth, and growing conditions are optimal. In the north central region of the United States (east of the Rocky Mountains) in spring wheat and durum under normal growing conditions, the 1 to 3 leaf stage of wild oat plants generally occurs 16 to 26 days after planting. In the northwest region of the United States in spring wheat and durum (west of the Rocky Mountains) under normal growing conditions the 1 to 3 leaf stage of wild oat plants generally occurs 18 to 28 days after planting. In either region, under normal growing conditions, wild oat plants will add an additional leaf every 4 days. In either region, begin checking your fields 10 to 12 days after planting to assure correct application timing. Higher application water volumes and use rates of

HOELON® 3EC should be used when the majority of annual grassy weeds are not clearly in the specified stage of growth, if growth is retarded due to adverse growing conditions, or under heavy weed infestations. Apply HOELON® 3EC before the first node (jointing) develops in the wheat plant.

Do not apply HOELON® 3EC less than 77 days before harvesting wheat.

CROP OIL CONCENTRATE

In spring wheat (including durum wheat) and winter wheat, it may be helpful to add 1 pint to 1 quart per acre of crop oil concentrate approved for use on growing crops. Use a crop oil concentrate containing a blend of 80 percent (minimum) petroleum or vegetable base oil and the remaining composed of a tolerance-exempt surfactant. Do not use crop oil concentrate with HOELON® 3EC in winter wheat when conditions are cool and wet. Some slight wheat yellowing may be noted when crop oil concentrates are added to HOELON® 3EC Herbicide.

FUNGICIDE TANK MIXES FOR POSTEMERGENCE APPLICATIONS IN WHEAT

HOELON® 3EC Herbicide can be tank mixed with mancozeb, Tilt®, Topsin®, Mertect® DF or Benlate® fungicides when application timing is correct for both products. All fungicides should be used in accordance with the label limitations and precautions for each product. No label dosage rates should be exceeded.

BROADLEAF TANK MIXES FOR POSTEMERGENCE APPLICATIONS IN WHEAT

All broadleaf herbicides should be used in accordance with the label limitations and precautions for each product. No label dosage rates should be exceeded. For best results, tank mixes should be used when growing conditions (air temperature and soil moisture) are optimum and grasses are in the 1 to 3 leaf stage of growth with light to moderate infestations.

HOELON® 3EC Herbicide + Buctril® Herbicide

HOELON® 3EC Herbicide may be tank mixed with Buctril Herbicide for broadleaf weed control in spring wheat (including durum wheat) and winter wheat. HOELON® 3EC Herbicide should be used at a rate of 2 to 2 2/3 pints per acre (depending on size of annual grasses) as specified on this label. Buctril Herbicide should be mixed at a rate of 1 to 1 1/2 pints per acre, according to the directions specified on the respective label.

HOELON® 3EC Herbicide + Harmony® GT Herbicide

A tank mix of HOELON® 3EC Herbicide + Harmony GT Herbicide can be applied for annual ryegrass (in the Pacific Northwest only), wild oat and broadleaf weed control in winter and spring wheat. The HOELON® 3EC Herbicide rate should be 2 2/3 pints per acre with up to 0.5 ounce per acre Harmony GT Herbicide in spring and winter wheat. This tank mixture should only be used under good soil moisture conditions when wild oats are in the 1-4 leaf stage. Reduced control of foxtail is likely when tank mixing with Harmony GT Herbicide. When foxtail is the major grassy weed in the field, DO NOT tank mix HOELON® 3EC Herbicide + Harmony GT Herbicide. Use sequential treatments. Refer to the Harmony GT Herbicide label for crop rotation restrictions.

HOELON® 3EC Herbicide + Buctril Herbicide + Harmony® GT Herbicide

A three-way tank mix of HOELON® 3EC Herbicide + Buctril Herbicide + Harmony GT Herbicide can be applied for annual ryegrass (in the Pacific Northwest only), wild oat and broadleaf weed control in winter and spring wheat. The HOELON® 3EC Herbicide rate should be 2 2/3 pints per acre with up to 0.5 ounce per acre Harmony GT Herbicide in winter wheat (up to 0.4 ounce per acre in spring wheat). Buctril Herbicide should be used at 1 pint per acre. This tank mixture should only be used under good soil moisture conditions when wild oats are in the 1-4 leaf stage. Reduced control of foxtail is likely when tank mixing with Harmony GT Herbicide. When foxtail is the major grassy weed in the field, DO NOT tank mix HOELON® 3EC Herbicide + Harmony GT Herbicide. Use sequential treatments. Refer to the Harmony GT Herbicide label for crop rotation restrictions.

HOELON® 3EC Herbicide + Peak® Herbicide

HOELON® 3EC Herbicide may be tank mixed with Peak Herbicide for broadleaf weed control in spring wheat (including durum wheat) and winter wheat. Use HOELON® 3EC at rates between 2 and 2 2/3 pints per acre in accordance with the growth stage of the weed grass/grasses listed on this label. Peak Herbicide should be mixed at a rate of 0.38 to 0.5 oz. per acre, according to the directions specified on the respective label.

HOELON® 3EC Herbicide + Buctril Herbicide+ Glean® Herbicide –Winter Wheat Only

A three-way tank mix of HOELON® 3EC Herbicide + Buctril Herbicide + Glean Herbicide can be applied for annual ryegrass (in the Pacific Northwest only), wild oat and broadleaf weed control in winter wheat. The use rate of HOELON® 3EC Herbicide should be 2 2/3 pints per acre with a maximum of 1/4 ounce Glean Herbicide. Buctril Herbicide should be used at 1 to 1 1/2 pints per acre. This tank mixture should only be used when soil moisture is good, and wild oats are in the 1 to 4 leaf stage. Reduced control of foxtail is likely when tank mixing with Glean. When foxtail is the major grassy weed in the field, DO NOT tank mix HOELON® 3EC + Glean. Use sequential treatments. Refer to the Glean label for crop rotation restrictions.

HOELON® 3EC Herbicide + Buctril Herbicide + Harmony® Extra Herbicide –Winter Wheat Only

A three-way tank mix of HOELON® 3EC Herbicide + Buctril Herbicide + Harmony Extra Herbicide can be applied for annual ryegrass (in the Pacific Northwest only), wild oat and broadleaf weed control in winter wheat. The HOELON® 3EC rate should be 2 2/3 pints per acre with a maximum of 0.4 ounce per acre Harmony Extra. Buctril should be used at 1 to 1 1/2 pints per acre. This tank mixture should only be used under good soil moisture conditions when wild oats are in the 1 to 4 leaf stage. Reduced control of foxtail is likely when tank mixing with Harmony Extra. When foxtail is the major grassy weed in the field, DO NOT tank mix HOELON® 3EC + Harmony Extra. Use sequential treatments. Refer to the Harmony Extra label for crop rotation restrictions.

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HOELON® 3EC Herbicide + Buctril Herbicide +Amber® Herbicide—Winter Wheat Only

A three-way tank mix of HOELON® 3EC Herbicide + Buctril Herbicide + Amber Herbicide can be applied for annual ryegrass (in the Pacific Northwest only), wild oat and broadleaf weed control in winter wheat. The Amber Herbicide rate should not exceed 0.28 ounce per acre when used in this tank mix. The HOELON® 3EC rate must be 2 2/3 pints per acre. Buctril Herbicide should be used at 1 to 1 1/2 pints per acre. To utilize this tank mix, good soil moisture and wild oat in the 1 to 4 leaf stage are required. Reduced control of foxtail is likely when tank mixing with Amber Herbicide. When foxtail is the major grassy weed in the field, DO NOT tank mix HOELON® 3EC + Amber. Use sequential treatments. Refer to the Amber label for crop rotation restrictions.

SPECIAL NOTE: DO NOT tank mix HOELON® 3EC Herbicide with any broadleaf herbicides in the States of Alabama, Delaware, Georgia, Maryland, North Carolina, South Carolina, and Virginia, as reduced annual ryegrass control may occur.

FERTILIZER TANK MIXES POSTEMERGENCE IN WHEAT

HOELON® 3EC Herbicide applied postemergence in wheat may only be tank mixed with liquid nitrogen fertilizer (28–32%) if the timing for use is compatible. The concentration of liquid nitrogen fertilizer to water should not exceed 50% of the total carrier in the spray tank. When mixing with liquid nitrogen fertilizer as a partial carrier, crop burn may occur. This condition is intensified under higher temperatures (greater than 75°F daytime) and/or low soil moisture. This mixture should not be used when these environmental conditions are present.

DO NOT use less than 2 pints per acre HOELON® 3EC when tank mixing with liquid nitrogen.

DO NOT tank mix HOELON® 3EC and liquid fertilizer in the States of Alabama, Arkansas, Delaware, Georgia, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia. Reduced annual grass control may occur from this tank mix.

In all of the above-labeled tank mix options, ground applications should be made with a minimum of 10 gallons of carrier per acre, and air applications with a minimum of 5 gallons of carrier per acre. If other broadleaf herbicides are applied within 5 days, reduced grassy weed control may occur.

DIRECTIONS FOR THE POSTEMERGENCE CONTROL OF SMALLSEED CANARYGRASS AND WILD OAT IN WHEAT IN ARIZONA ONLY

Apply HOELON® 3EC Herbicide as a broadcast postemergence spray at the rates listed below.

Amount of HOELON® 3EC Herbicide Per Acre (Pints) Relative to Growth Stage of Annual Grassy Weeds		
Susceptible Annual Grassy Weeds	Stage of Growth	Pints/Acre Rate
Wild oat ¹	1–3 leaves	2–2 2/3
	4 leaves	2 2/3
Smallseed canarygrass suppression ¹	1–2 leaves	2 2/3

¹ Under dry conditions add 1 pint to 1 quart per acre of crop oil concentrate.

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DIRECTIONS FOR THE POSTEMERGENCE CONTROL OF ANNUAL RYEGRASS, WILD OAT, SMALLSEED CANARYGRASS, AND HOODED CANARYGRASS IN WHEAT AND BARLEY IN CALIFORNIA ONLY

HOELON® 3EC HERBICIDE APPLICATION RATES

Grasses	Broadcast Rate in Pints per Acre			
	1-3 Leaf	4 Leaf	4-5 Leaf	5 Leaf - 2 Tillers
Annual ryegrass	1 1/3	1 1/3	2	2 2/3
Wild oat	2 - 2 2/3	2 2/3		
Smallseed canarygrass	2 2/3			
Hooded canarygrass	2 2/3			

USE PRECAUTIONS AND RESTRICTIONS

- In fall-seeded winter or spring wheat varieties, do not apply if one or a combination of the following environmental conditions are present or prolonged preceding a HOELON® 3EC Herbicide application:
 - Cold Temperatures** - Anytime during the 72 hours (3 days) preceding a HOELON® 3EC Herbicide application the temperature drops below 35°F
 - Moisture Conditions**
 - Waterlogged or poorly drained fields
 - Moisture content is at field capacity

If the above adverse environmental conditions are present, the wheat is already under severe environmental stress; do not compound the stress with chemical applications

If freezing temperatures are predicted within three days after application, HOELON® 3EC Herbicide use should be delayed.

- HOELON® 3EC Herbicide may only be tank mixed with Buctril Herbicide.
- HOELON® 3EC Herbicide may be applied postemergence to wheat. Do not use in the following counties: Monterey, Santa Clara, Kern, Los Angeles, San Luis Obispo, and Riverside.
- The use of HOELON® 3EC Herbicide on barley can be used in Modoc and Siskiyou counties only.

DIRECTIONS FOR THE POSTEMERGENCE USE OF HOELON® 3EC HERBICIDE ON BARLEY

This product is registered for postemergence use on all spring barley varieties in the following States:

Arizona	Maryland	New Mexico	Pennsylvania	Virginia
Colorado	Minnesota	North Carolina	South Carolina	Washington
Delaware	Montana	North Dakota	South Dakota	West Virginia
Idaho	Nebraska	Oklahoma	Texas	Wyoming
Kansas	Nevada	Oregon	Utah	

(The General Information section must also be read for complete use instructions.)

Apply HOELON® 3EC Herbicide as a broadcast postemergence spray at the rates listed below:

Susceptible Annual Grassy Weeds	Amount of HOELON® 3EC Herbicide Per Acre (Pints) ¹ Relative to Growth Stage of Annual Grassy Weeds			
	1 - 3 Leaf	4 Leaf	5 Leaf	5 Leaf - 2 Tillers
Annual ryegrass (Italian) ² <i>Lolium multiflorum</i>	1 1/3	1 1/3	2	2 2/3
Broadleaf signalgrass (suppression) <i>Bracharia platyphylla</i>	2 2/3			
Crabgrass ³ <i>Digitaria sanguinalis</i>	2 2/3			
Persian darnel <i>Lolium persicum</i>	2 2/3			
Smallseed canarygrass ³ <i>Phalaris minor</i>	2 2/3			
Fall panicum <i>Panicum dichotomiflorum</i>				
Barnyardgrass watergrass <i>Echinochloa crus-galli</i>				
Giant foxtail <i>Setaria faberii</i>				
Green foxtail pigeongrass <i>Setaria viridis</i>				
Yellow foxtail pigeongrass ³ <i>Setaria lutescens</i>	2 to 2 2/3			
Wild oat <i>Avena fatua</i>				
Itchgrass Raouigrass <i>Rottboellia exaltata</i>	2 2/3			
Volunteer corn <i>Zea mays</i>				
Witchgrass (suppression) <i>Panicum capillare</i>				

¹ When controlling mixed populations of grassy weeds, always use the rate that will control the least susceptible species.

² Annual ryegrass may also be controlled preemergence in winter wheat. See appropriate recommendation section in this labeling.

³ For best control of crabgrass, smallseed canarygrass and yellow foxtail, application should be made before the second leaf fully emerges.

HOELON® 3EC HERBICIDE RECOMMENDATIONS FOR SPRING BARLEY IN THE NORTH CENTRAL, SOUTHWEST, AND WESTERN REGIONS OF THE UNITED STATES EXCEPT CALIFORNIA

When using HOELON® 3EC Herbicide to control annual grassy weeds and the weeds do not include annual ryegrass, broadleaf signalgrass, crabgrass, smallseed canarygrass or Persian darnel, apply the 2 pints per acre rate when the annual grassy weeds are in the 1 to 4 leaf stage of growth and growing conditions are optimal. The higher rate of 2 2/3 pints per acre and higher application water volumes should be used (see chart) when the majority of grassy weeds is not clearly in the specified stage of growth, if grassy weed infestations are high or if growth is retarded due to a lack of moisture. Thorough spray coverage is essential.

WEATHER CONSIDERATIONS

In spring-seeded barley, DO NOT apply if one or a combination of the following environmental conditions are present the day before or predicted within three days after a HOELON® 3EC Herbicide application, as crop injury may occur.

1. **Cold Temperatures:** Cold or freezing temperatures (below 35°F)
2. **Moisture Conditions:** When soils are either waterlogged or poorly drained

If the above adverse environmental conditions are present, barley is already under severe environmental stress; do not compound the stress with any chemical applications. With respect to the foregoing statement, buyer specifically assumes all risks should cold and/or wet weather conditions occur prior to or after the HOELON® 3EC Herbicide application.

BROADLEAF TANK MIXES FOR POSTEMERGENCE APPLICATIONS IN SPRING BARLEY

All broadleaf herbicides should be used in accordance with the label limitations and precautions for each product. No label dosage rates should be exceeded. For best results, tank mixes should be used when growing conditions (air temperature and soil moisture) are optimum and grasses are in the 1 to 3 leaf stage of growth with light to moderate infestations (less than 25 wild oat plants per square foot).

HOELON® 3EC Herbicide + Buctril Herbicide

HOELON® 3EC Herbicide may be tank mixed with Buctril Herbicide for broadleaf weed control in spring barley.

HOELON® 3EC Herbicide should be used at a rate of 2 to 2 2/3 pints per acre (depending on the size of the annual grasses, environmental conditions, and density of grass populations) as specified on this label. Buctril Herbicide should be mixed at a rate of 1 to 1 1/2 pints per acre, according to the directions specified on the respective label.

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HOELON® 3EC Herbicide + Harmony® GT Herbicide

A tank mix of HOELON® 3EC Herbicide + Harmony GT Herbicide can be applied for annual ryegrass (in the Pacific Northwest only), wild oat and broadleaf weed control in spring barley. The HOELON® 3EC Herbicide rate should be 2 2/3 pints per acre with up to 0.5 ounce per acre Harmony GT Herbicide. This tank mixture should only be used under good soil moisture conditions when wild oats are in the 1-4 leaf stage. Reduced control of foxtail is likely when tank mixing with Harmony GT Herbicide. When foxtail is the major grassy weed in the field, DO NOT tank mix HOELON® 3EC Herbicide + Harmony GT Herbicide. Use sequential treatments. Refer to the Harmony GT Herbicide label for crop rotation restrictions.

HOELON® 3EC Herbicide + Buctril Herbicide + Harmony® GT Herbicide

A three-way tank mix of HOELON® 3EC Herbicide + Buctril Herbicide + Harmony GT Herbicide can be applied for annual ryegrass (in the Pacific Northwest only), wild oat and broadleaf weed control in spring barley. The HOELON® 3EC Herbicide rate should be 2 2/3 pints per acre with up to 0.4 ounce per acre Harmony GT. Buctril Herbicide should be used at 1 pint per acre. This tank mixture should only be used under good soil moisture conditions when wild oats are in the 1-4 leaf stage. Reduced control of foxtail is likely when tank mixing with Harmony GT Herbicide. When foxtail is the major grassy weed in the field, DO NOT tank mix HOELON® 3EC Herbicide + Harmony GT Herbicide. Use sequential treatments. Refer to the Harmony GT Herbicide label for crop rotation restrictions.

HOELON® 3 EC Herbicide + Peak® Herbicide

HOELON® 3EC Herbicide may be tank mixed with Peak Herbicide for broadleaf weed control in spring barley. HOELON® 3EC Herbicide should be used at a rate of 2 to 2 2/3 pints per acre (depending on size of annual grasses) as specified on this label. Peak Herbicide should be mixed at a rate of 0.38 to 0.5 oz. per acre, according to the directions specified on the respective label.

SPECIAL NOTES FOR SPRING BARLEY

1. DO NOT tank mix HOELON® 3EC Herbicide with Glean Herbicide.
2. DO NOT tank mix HOELON® 3EC Herbicide with crop oil concentrate.
3. DO NOT tank mix HOELON® 3EC Herbicide with liquid fertilizers.
4. HOELON® 3EC Herbicide is registered for use on all varieties of spring-seeded barley.
5. HOELON® 3EC Herbicide should be applied to 1 to 4 leaf barley. Applications made to tillered barley during cold temperatures and/or wet soil conditions may result in crop damage.
6. DO NOT apply preemergence to barley.
7. Do not apply HOELON® 3EC Herbicide less than 66 days before harvesting.

HOELON® 3EC HERBICIDE RECOMMENDATIONS FOR WINTER BARLEY IN THE MIDATLANTIC AND SOUTHEAST REGIONS OF THE UNITED STATES

When using HOELON® 3EC Herbicide to control annual ryegrass in fall-seeded barley, use the 1 1/3 pints per acre rate when the ryegrass is in the 1 to 4 leaf stage of growth. The low rate of 1 1/3 pints per acre should only be used under optimum growing conditions. If the crop and annual rye-grass is under drought stress, increase the rate of HOELON® 3EC from 2 to 2 2/3 pints per acre, depending on the severity of infestation and size of annual ryegrass. For mixed grass infestations, refer to the rate and timing chart for grasses controlled in barley.

Broadleaf Tank mixes for Postemergence Applications in Winter Barley

See broadleaf tank mixes approved for use on spring barley.

Fertilizer Tank mixes Postemergence in Winter Barley

DO NOT tank mix HOELON® 3EC Herbicide with liquid fertilizers in winter barley as reduced annual ryegrass control may occur.

SPECIAL NOTES FOR WINTER BARLEY

1. DO NOT tank mix HOELON® 3EC Herbicide with Glean Herbicide.
2. DO NOT tank mix HOELON® 3EC Herbicide with crop oil concentrate.
3. Use only on the following winter barley varieties: Milton, Boone, Molly Bloom, Wysor, Pennco, Nomini, Anson, Mulligan, Henry, Callio, Starling, and Sussex.
4. Apply HOELON® 3EC Herbicide after tiller initiation but prior to jointing of the winter barley.
5. DO NOT apply preemergence to winter barley.
6. Do not apply HOELON® 3EC Herbicide less than 66 days before harvesting.

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IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and should be followed carefully. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions or presence of other materials. All such risks shall be assumed by the user or buyer.

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