

2/23/89

APHS

RESTRICTED USE PESTICIDE

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^R 3EC HERBICIDE

For Control of Wild Oats and Other Annual Grasses in Wheat (Including Durum), Barley, Lentils, Dry Peas (Field Peas) Including Austrian Winter Peas, Flax, Soybeans, and Acreage Conservation Reserve (Set Aside)

Active Ingredient*

Diclofop-methyl:methyl 2-[4-(2,4-dichlorophenoxy)phenoxy]propanoate 35.49%
Inert Ingredients 64.51%

TOTAL 100.00%

*Equivalent to 3.0 pounds of active ingredient per gallon

Keep Out of Reach of Children.

See Additional Precautionary Statements at End of Label.
EPA Reg. No. 8340-20-54382

Marketed By:
Hoechst-Roussel Agri-Vet Company

HOECHST

Agricultural Chemicals
Somerville, NJ 08876

LOGOS
ROUSSEL

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The name and logo ROUSSEL are registered trademarks of Roussel Uclaf S.A.

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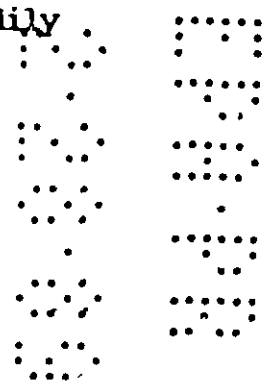
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Incorporation Equipment:

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 3-6 mph, is recommended. If the seedbed is trashy at the time of application, use an implement which is capable of incorporating the trash in the top two inches of the soil. A skew treader operated at 4-6 mph is recommended. Chisel Plows — may be used for first pass incorporation only. Operate at 3-4 inch depth at 4-6 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 3-4 inches deep and operated at a speed of at least 5 mph. A field cultivator used to incorporate HOELON 3EC Herbicide should have 3-4 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. DO NOT tank mix HOELON 3EC Herbicide with any other herbicides for preplant incorporation unless specifically recommended in this label.
3. HOELON 3EC Herbicide may be tank mixed with liquid fertilizers. Follow label recommendations concerning rates and incorporation. Before mixing HOELON 3EC Herbicide with fertilizer, perform a compatibility test in a quart jar. If the materials do not readily mix, do not tank mix HOELON 3EC Herbicide with the fertilizer.



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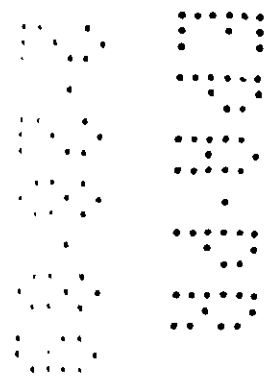
Preemergence Special Instructions:

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 Herbicide rates. Before tank mixing HOELON 3EC Herbicide with fertilizer, perform a compatibility test in a quart jar. If the materials do not readily mix, do not tank mix HOELON 3EC Herbicide with the fertilizer.
3. HOELON 3EC Herbicide applied preemergence surface will not provide adequate bromo control or control wild oats.

DIRECTIONS FOR THE POSTEMERGENCE USE OF HOELON^R 3EC HERBICIDE ON WINTER WHEAT, SPRING WHEAT, AND DURUM:

This product is registered for postemergence use on wheat and durum in the following states:

Alabama	Florida	Minnesota	N. Carolina	Tennessee
Arizona	Georgia	Mississippi	N. Dakota	Texas
Arkansas	Idaho	Montana	Oklahoma	Utah
California	Kansas	Nebraska	Oregon	Virginia
Colorado	Louisiana	Nevada	S. Carolina	Washington
Delaware	Maryland	New Mexico	S. Dakota	W. Virginia
				Wyoming



Postemergence Special Instructions:

When using HOELON^R 3EC Herbicide postemergence in wheat to control annual grassy weed(s), and the weeds do not include Annual Ryegrass, Broadleaf Signalgrass, Crabgrass, Persian Darnel or Yellow Foxtail, apply the 2.0 pint per acre rate when the annual grassy weeds are in the 1-3 leaf stage of growth, and growing conditions are optimal. In the northcentral region of the United States (east of the Rocky Mountains) in spring wheat and durum under normal growing conditions, the 1-3 leaf stage of wild oat plants generally occurs 16-26 days-after-planting. In the northwest region of the United States in spring wheat and durum (west of the Rocky Mountains, excluding California) under normal growing conditions the 1-3 leaf stage of wild oat plants generally occurs 18-28 days-after-planting. In either region, under normal growing conditions, wild oat plants will add an additional leaf every four days. In either region, begin checking your fields 10-12 days-after-planting to assure correct application timing. Higher use rates of HOELON 3EC Herbicide should be used when the majority of annual grassy weeds are not clearly in the specified stage of growth, or if growth is retarded due to adverse growing conditions.

Crop Oil Concentrate:

In spring wheat (including durum) and winter wheat at the lower labeled use rates (1-1/3 to 2-2/3 pints per acre) it may be helpful to use 1 pint to 1 quart of crop oil concentrate per acre 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. Some slight wheat yellowing may be noted when crop oil concentrates are added to HOELON 3EC Herbicide.

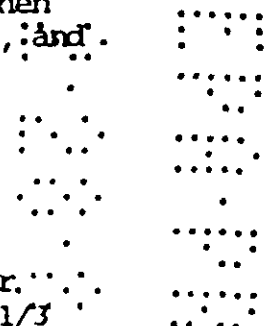
For more detailed information on determining the low use rates in combination with crop oil concentrates, refer to the Hoechst-Roussel Agri-Vet Company Technical Bulletin No. 110, "Low Rate Technology." Contact your local dealer or Hoechst-Roussel Agri-Vet Company representative for this Technical Bulletin.

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 1-3 leaf stage of growth with light to moderate infestations.

HOELON 3EC Herbicide Plus Buctril^R Herbicide

HOELON 3EC Herbicide may be tank mixed with Buctril Herbicide for broadleaf weed control in spring wheat (including durum) and winter wheat. HOELON 3EC Herbicide should be used at a rate of 2.0 to 3-1/3 pints per acre (depending on size of annual grasses) as specified on this label. Buctril should be mixed at a rate of 1.5 to 2.0 pints per acre, according to the directions specified on the respective label.



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HOELON^R 3EC Herbicide Plus Harmony^R Herbicide

A tank of HOELON 3EC Herbicide + Harmony can be applied for wild oat and broadleaf weed control in spring wheat, durum, and winter wheat. The use rate of Hoelon should be 2-2/3 to 3-1/3 pints per acre in wheat and durum. The maximum use rate of Harmony when tank mixed with Hoelon in spring cereals is 1/2 oz. product per acre.

Wild oat control may be reduced under conditions of soil moisture stress or extremely heavy wild oat populations.

Reduced control of foxtail is likely when tank mixing with Harmony. When Foxtail is the major grassy weed in the field, DO NOT tank mix HOELON 3EC Herbicide + Harmony. Use sequential treatments.

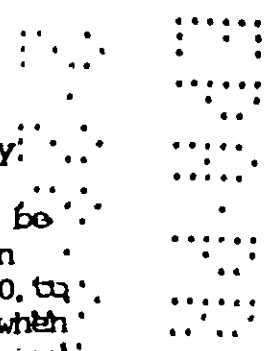
In wheat and durum, crop oil concentrate can be added to a HOELON 3EC Herbicide + Harmony tank mix.

HOELON 3EC Herbicide Plus Buctril^R Herbicide Plus MCPA (ester) 4EC

Low rates of MCPA (ester) 4EC may be added to a tank mix of HOELON 3EC Herbicide plus Buctril Herbicide. HOELON 3EC Herbicide should be used at a rate of 2-2/3 to 3-1/3 pints per acre. When using Buctril Herbicide, 1.0 pint per acre should be tank mixed with MCPA (ester) 4EC at 1-1/2 ounces per acre. MCPA (ester) 4EC rates in excess of 1-1/2 ounces per acre may reduce the grassy weed control provided by HOELON 3EC Herbicide. No other formulations of MCPA should be substituted for the 4.0 pound active ingredient ester formulation.

HOELON^R 3EC Herbicide Plus Buctril^R Plus Glean^R - Winter Wheat Only

A three-way tank mix of HOELON 3EC Herbicide + Buctril + Glean can be applied for wild oat control and enhanced broadleaf weed control in winter wheat. The use rate of HOELON 3EC Herbicide ranges from 2.0 to 3-1/3 pints per acre. At least 2-2/3 pints per acre are required when wild oats are larger than the three-leaf stage, infestations are heavy, or soil moisture is lacking. The maximum use rate in barley is 2-2/3 pints per acre. Buctril should be used at 1 to 2 pints per acre, and the maximum use rate of Glean is 1/6 oz. per acre.



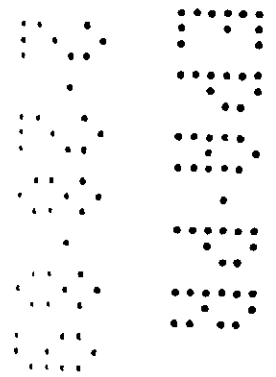
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Fertilizer Tank Mixes Postemergence in Wheat

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 fertilizers 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. Thorough spray coverage is essential when using HOELON 3EC Herbicide and flat fan type nozzles are recommended for ground applications. If flood jet nozzles are used, they must be spaced no greater than 40 inches apart, using a maximum TK-15, with a minimum of 40 PSI and ground speeds at application not to exceed 10 mph. DO NOT use raindrop type nozzles.

DO NOT use less than 2.0 pints per acre HOELON 3EC Herbicide when tank mixing with liquid nitrogen.

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



HOELON^R 3EC HERBICIDE RECOMMENDATIONS FOR SPRING BARLEY IN THE NORTH CENTRAL, SOUTHWEST AND WESTERN REGIONS OF THE UNITED STATES.

When using HOELON 3EC Herbicide to control annual grassy weeds and the weeds do not include annual ryegrass, broadleaf signalgrass, crabgrass or Persian dandel, apply the 2.0 pint per acre rate when the annual grassy weeds are in the 1-3 leaf stage of growth and growing conditions are optimal. The higher rate of 2-2/3 pints per acre should be used (see chart) when the majority of grassy weeds is not clearly in the specified stage of growth or if growth is retarded due to a lack of moisture. Thorough spray coverage is essential.

Weather Considerations

In spring seeded barley, if one or a combination of the following environmental conditions are present or prolonged, preceding a HOELON 3EC Herbicide application, crop injury may occur.

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| (1) COLD TEMPERATURES - If daily minimum temperatures reach 40°F or less for three (3) consecutive days before application. | (2) MOISTURE CONDITIONS
a) Water-logged or poorly drained fields.
b) Moisture content is at field capacity. |
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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 during the HOELON 3EC Herbicide application.

For more detailed information on the use of HOELON 3EC Herbicide in spring planted barley, refer to the Hoechst-Roussel Agri-Vet Company Technical Release - HOELON 3EC Herbicide Recommendations for Barley, available through your local chemical supplier or your Hoechst-Roussel Agri-Vet Company representative.

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 1-3 leaf stage of growth with light to moderate infestations (less than 25 wild oat plants per square foot).

HOELON 3EC Herbicide Plus Butril^R Herbicide

HOELON 3EC Herbicide may be tank mixed with Butril Herbicide for broadleaf weed control in spring barley. HOELON 3EC Herbicide should be used at a rate of 2.0 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. Butril should be mixed at a rate of 1 to 2 pints per acre, according to the directions specified on the respective label.

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HOELON^R 3EC Herbicide Plus Harmony^R Tank Mixes

A tank mix of HOELON 3EC Herbicide + Harmony can be applied for wild oat and broadleaf weed control in barley. In barley, 2-2/3 pints of HOELON 3EC Herbicide per acre is recommended. The maximum use rate of Harmony when tank mixed with HOELON 3EC Herbicide in spring cereals is 1/2 oz. product per acre.

Wild oat control may be reduced under conditions of soil moisture stress or extremely heavy wild oat populations.

Reduced control of foxtail is likely when tank mixing with Harmony. When foxtail is the major grassy weed in the field, DO NOT tank mix Hoelon + Harmony. Use sequential treatments.

HOELON^R 3EC Herbicide Plus Buctril^R Herbicide Plus MCPA (ester) 4EC

Low rates of MCPA (ester) 4EC may be added to a tank mix of HOELON 3EC Herbicide plus Buctril Herbicide. HOELON 3EC Herbicide should be used at a rate of 2-2/3 pints per acre. When using Buctril Herbicide, 1.0 pint per acre should be tank mixed with MCPA (ester) 4 EC at 1-1/2 oz. per acre. MCPA (ester) 4EC rates in excess of 1-1/2 oz. per acre may reduce the grassy weed control provided by HOELON 3EC Herbicide. No other formulations of MCPA should be substituted for the 4.0 pound active ingredient ester formulation.

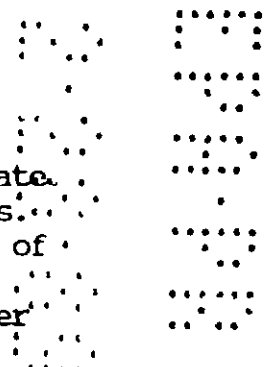
HOELON^R 3EC Herbicide Plus Buctril^R Plus Harmony^R

A three-way tank mix of HOELON 3EC Herbicide + Buctril + Harmony can be applied for wild oat and enhanced broadleaf weed control in barley. The maximum Hoelon use rate in barley is 2-2/3 pints per acre. Buctril should be used at 2 pints per acre, and the use rate of Harmony is 1/6-1/4 oz. per acre.

Reduced control of foxtail is possible when Harmony is added to a tank mix of HOELON 3EC Herbicide + Buctril. If foxtail is the major grassy weed in the field, DO NOT use this three-way combination.

Special Notes for Spring Barley:

- 1) DO NOT tank mix HOELON 3EC Herbicide with Glean^R.
- 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 prior to barley tiller initiation.
- 6) DO NOT apply preemergence to barley.



Special Notes for Soybeans:

- 1) Do not tank mix HOELON 3EC Herbicide with any other herbicide or apply any other herbicide within one week of a HOELON 3EC Herbicide application.
- 2) Banvel^R, 2,4-D, and other phenoxy herbicide injury sometimes occurs in soybean fields treated with HOELON 3EC Herbicide even though these herbicides were not recently used in the sprayer. This situation is not caused by HOELON 3EC Herbicide and is often caused by sprayer contamination. If these products have been used in your sprayer, refer to Hoechst-Roussel Agri-Vet Company Technical Bulletin No. 100, "How to Avoid Sprayer Contamination", available through your HOELON 3EC Herbicide supplier, or call (201) 231-3520.
- 3) HOELON 3EC Herbicide must be applied prior to sixth trifoliolate leaf formation.

DIRECTIONS FOR THE USE OF HOELON^R 3EC HERBICIDE ON ACREAGE CONSERVATION RESERVE (SET-ASIDE)

(The general information section must also be read for complete use instructions.)

HOELON 3EC Herbicide may be used to control the annual grassy weeds in acreage conservation reserve or set-aside programs. This acreage is often seeded to wheat, clover, or alfalfa as a cover crop. These cover crops have excellent tolerance to HOELON 3EC Herbicide. Use 2.0 pints to 3-1/3 pints per acre when the annual grassy weeds are in the 1 to 4 leaf stage as noted in the use directions section of this labeling. In most situations, 2.0 pints of HOELON 3EC Herbicide plus 2 pints of crop oil concentrate will offer commercially acceptable control of annual grasses in acreage conservation reserve programs. Apply early to young, actively growing grassy weeds. DO NOT harvest or graze cover crops treated with HOELON 3EC Herbicide. DO NOT apply to cover crops such as oats, sorghum, and sudan grass, as injury may occur.

KEEP OUT OF REACH OF CHILDREN
DANGER

Precautionary Statements

Hazards to Humans and Domestic Animals

Causes eye and skin damage. Do not get in eyes or on skin or clothing. Wear goggles and respirator when handling. Avoid contact or inhalation of spray mist. Wash thoroughly after using and change clothing. Do not take internally.

The following protective apparel must be worn during all loading and mixing operations and when applied by ground equipment: impermeable rubber gloves (such as neoprene or PVC), waterproof boots, impermeable pants and shirts, goggles and a cartridge type respirator. Aerial pilots are not to be involved in the mixing and loading unless the aforementioned equipment is worn. Pilots must wear a cartridge type respirator during application unless the aircraft is equipped with an air filter system.

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.