

27 OCT 1992

Bert Volger, Ph.D.
Hoechst Celanese Corporation
Route 202-206 North
PO Box 2500
Somerville, NJ 08876-1258

Dear Dr. Volger:

Subject: Hoelon® 3 EC Herbicide
EPA Registration No. 8340-20
Application Dated September 9, 1991 Requesting
Use Direction Change (Maximum of One Application
Per Season) and the Deletion of Lentils, Peas
and Flax; and an Application Dated February 28, 1992
Requesting the Deletion of Use-Patterns for Acreage
Conservation Reserve and Clarification of Use
Directions, and Revised Supplemental Labeling
for Use in the Culture of Wheat in California

The proposed amendments referred to above, submitted in connection with registration under section 3 of the Federal Insecticide, Fungicide and Rodenticide Act as amended are acceptable provided that you:

- o Submit five (5) printed copies of your final printed labeling before you release the product for shipment.

If this condition is not complied with, the registration will be subject to cancellation in accordance with FIFRA, section 6(e). Your release for shipment of the product constitutes acceptance of this condition.

In accordance with section 6(f)(1) of FIFRA, your requests to delete use-patterns for sites: Lentils, Peas, Flax and Soybeans, were published in the Federal Register, May 6, 1992, page 19723; and Acreage Conservation Reserve was published in the Federal Register, July 26, 1992, page 31512. There was no response to these requests for deletion of uses for this pesticide product.

Sincerely yours,

Joanne I. Miller
Product Manager (23)
Fungicide-Herbicide Branch
Registration Division (H-7505C)

Enclosure

EWilson:diskette#10001a:09-02-92

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1 Reviewed 10-5-92 3 of 24
Some changes.

Revised September 9, 1992

Steven Wilson

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[®] 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.....35.49%

Inert Ingredients.....64.51%

TOTAL 100.00%
ACCEPTED with COMMENTS
EPA Letter Dated:

* Equivalent to 3.0 pounds of active ingredient per gallon. 1002

KEEP OUT OF REACH OF CHILDREN.

DANGER

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, this pesticide registered under EPA Reg. No. 8340-20

See Additional Precautionary Statements at End of Label.

EPA Reg. No. 8340-20-54382

Note: 1 removed from labeling - withdrawn
uses: ① lentils, peas, flax
to supplemental labeling for C.A.
② Average Conservation Reserve
(Cool Hills)

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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 Herbicide is a three pound active ingredient per gallon emulsifiable concentrate. Depending on the crop and the grass species being controlled, HOELON 3EC Herbicide 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, pre-emergence, 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.

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 200-350 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. DO NOT make aerial applications when wind is above 8 mph or 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

1. HOELON 3EC Herbicide does not control broadleaf weeds or perennial grassy weeds.
2. DO NOT allow livestock to graze treated fields. DO NOT harvest forage, hay or straw from treated fields prior to grain harvest.

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3. DO NOT apply more than 1 application of HOELON 3EC Herbicide per growing season to wheat or barley.
4. HOELON 3EC Herbicide can be tank mixed with the broadleaf herbicides listed on this label for broad spectrum weed control.
5. Applications of MCPA (ester) herbicide may be applied at a rate of 1.5 ounces per acre as a tank mix with HOELON 3EC Herbicide and Buctril Herbicide. DO NOT apply any other phenoxy, phenoxy-type, or Banvel Herbicide within 5 days of a HOELON 3EC Herbicide application, or reduced grassy weed control will occur.
6. DO NOT apply HOELON 3EC Herbicide through any type of irrigation system.
7. When controlling mixed infestations of grassy weeds, always use the rate that will control the least susceptible species.
8. In-furrow application of organophosphate type insecticides prior to Hoelon 3 EC Herbicide application may result in crop injury.

INFORMATION ON HERBICIDE RESISTANT WEEDS

Repeated use of the same herbicide or related herbicides, may result in rare, naturally resistant weeds (ie. annual ryegrass) multiplying to infestations that will affect yields. In areas of consistent Hoelon 3 EC Herbicide use, crop rotation and application of alternative herbicide families are encouraged to prevent and/or reduce annual ryegrass resistance. For further information, contact a Hoechst-Roussel Agri-Vet Company representative or your local state extension service.

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.

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, Ripgut Brome, Japanese Brome, Windgrass and Bulbous Bluegrass in the states of:

Colorado	Nebraska
Idaho	Oregon
Kansas	South Dakota
Montana	Utah
Washington			

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

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Application Rate Information

The use rate of HOELON 3EC Herbicide to control Downy Brome (Bromus tectorum), Ripgut 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.

HOELON 3EC HERBICIDE APPLICATION RATES

HOELON 3EC Herbicide Broadcast Rate in Pints/A		
% Organic Matter 1/2 - 2%	% Organic Matter 2 - 3%	% Organic Matter >3%
2.0 - 2 2/3	2 2/3	*

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.

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

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 flexline harrow, operated at 3-6 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 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.

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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 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.

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

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

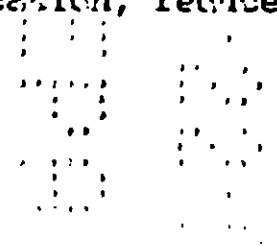
- | | | |
|-----------|----------------|---------------|
| Alabama | Maryland | Tennessee |
| Arkansas | Mississippi | Texas |
| Delaware | North Carolina | Virginia |
| Georgia | Oklahoma | Washington |
| Kentucky | Oregon | West Virginia |
| Louisiana | South Carolina | |

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

HOELON 3EC HERBICIDE APPLICATION RATES

Soil Texture	HOELON Broadcast Rate in Pints/A	
	% Organic Matter 1/2 - 2%	% Organic Matter >2%
Coarse (Sandy Loam, Loamy Sand)	2.0	2 2/3
Fine (Loam, Silt Loam, Silt)	2 2/3	2 2/3

Use the 2 2/3 pint/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.



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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 brome control or control wild oats.

DIRECTIONS FOR THE POSTEMERGENCE USE OF HOELON^R 3EC HERBICIDE ON WINTER WHEAT, SPRING WHEAT (INCLUDING DURUM WHEAT)

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

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

HOELON 3EC
HERBICIDE

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(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.

Amount of HOELON 3EC Herbicide Per Acre (Pints)¹
Relative To Growth Stage of Annual Grassy Weeds

Susceptible Annual Grassy Weeds	1-3 Leaf	4 Leaf	5 Leaf	5 Leaf - 2 Tillers
Annual Ryegrass (Italian) ² (<u>Lolium multiflorum</u>)	1 1/3	1 1/3	2.0	2 2/3
Broadleaf Signalgrass (Suppression) (<u>Brachiarja platylphylla</u>)	2 2/3	DO NOT APPLY REDUCED GRASSY WEED CONTROL WILL OCCUR		
Crabgrass (<u>Digitaria sanguinalis</u>)	2 2/3			
Persian Darnel (<u>Lolium persicum</u>)	2 2/3			
F. A Panicum) (<u>Panicum dichotomiflorum</u>))				
Barnyardgrass (watergrass) (<u>Echinochloa crusgalli</u>))		DO NOT APPLY		
Giant Foxtail (<u>Setaria faberii</u>))				
Green Foxtail (pigeongrass) (<u>Setaria viridis</u>))				
Yellow Foxtail (pigeongrass) ³ (<u>Setaria lutescens</u>))	2.0 to 2 2/3	2 2/3	REDUCED GRASSY WEED CONTROL WILL OCCUR	
Wild Oat) (<u>Avena fatua</u>))				
Itchgrass (Raculgrass) (<u>Rottboellia exaltata</u>))				
Volunteer Corn) (<u>Zea mays</u>))				
W)chgrass (Suppression) (<u>Panicum capillare</u>))				
Smallseed Canarygrass (Suppression) ⁴) (<u>Phalaris minor</u>))				
Spring Milletgrass) (<u>Millium vernale</u>))				
Hooded Canarygrass ⁴) (<u>Phalaris paradoxa</u>))				

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 and yellow foxtail, application should be made before the second leaf fully emerges.

⁴ See specific control recommendations for Smallseed and Hooded Canarygrass in this section of the labeling.

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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 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 north central 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) 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 4 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. Apply HOELON 3EC Herbicide before the first node (jointing) develops in the wheat plant.

Crop Oil Concentrate

In spring wheat (including durum wheat) and winter wheat, it may be helpful to add 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. Do not use crop oil concentrate with HOELON 3EC Herbicide 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.

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 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 2.0 to 2 2/3 pints per acre (depending on size of annual grasses) as specified on this label. Buctril should be mixed at a rate of 1.0 to 1-1/2 pints per acre, according to the directions specified on the respective label.

HOELON 3EC Herbicide Plus Harmony^R Herbicide

A tank mix of HOELON 3EC Herbicide plus Harmony can be applied for wild oat and broadleaf weed control in spring wheat (including durum wheat) and winter wheat. The use rate of HOELON 3EC Herbicide should be 2-2/3 pints per acre. The maximum use rate of Harmony Herbicide 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 Herbicide. When foxtail is the major grassy weed in the field, DO NOT tank mix HOELON 3EC Herbicide plus Harmony Herbicide. Use sequential treatments.

Crop oil concentrate can be added to a HOELON 3EC Herbicide plus Harmony Herbicide tank mix.

HOELON 3EC Herbicide Plus Buctril 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) 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.

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**HOELON 3EC Herbicide Plus Bucril Herbicide Plus Glean Herbicide
- Winter Wheat Only**

A three-way tank mix of HOELON 3EC Herbicide plus Bucril Herbicide plus Glean Herbicide can be applied for wild oat control 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. Bucril 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 1-4 leaf stage. Refer to the Glean Herbicide label for crop rotation restrictions.

**HOELON 3EC Herbicide Plus Bucril Herbicide Plus Harmony Extra
Herbicide - Winter Wheat Only**

A three-way tank mix of HOELON 3EC Herbicide plus Bucril Herbicide plus Harmony Extra Herbicide can be applied for wild oat control and broadleaf weed control in winter wheat. The HOELON 3EC Herbicide rate should be 2 2/3 pints per acre with a maximum of 0.4 ounce per acre Harmony Extra Herbicide. Bucril Herbicide 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 1-4 leaf stage. Refer to the Harmony Extra Herbicide label for crop rotation restrictions.

**HOELON 3EC Herbicide Plus Bucril Herbicide Plus Amber Herbicide
- Winter Wheat Only**

A three-way tank mix of HOELON 3EC Herbicide plus Bucril Herbicide plus Amber Herbicide can be applied for wild oat control 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 Herbicide rate must be 2 2/3 pints per acre. Bucril Herbicide should be used at 1 to 1 1/2 pint per acre. To utilize this tank mix, good soil moisture and wild oat in the 1-4 leaf stage are required. Refer to the Amber Herbicide 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.

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Thorough spray coverage is essential when using Hoelon 3EC Herbicide. 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.

DO NOT tank mix HOELON 3EC Herbicide and liquid nitrogen 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 AND HOODED CANARYGRASS IN WHEAT IN ARIZONA ONLY

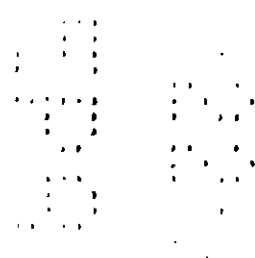
Apply HOELON 3EC Herbicide as a Broadcast Postemergence Spray at the Rates Listed Below.

Amount of HOELON 3EC Herbicide Per Acre (Pints)
Relative To Growth Stage of Annual Grassy Weeds

Susceptible Annual Grassy Weeds	Stage of Growth	Rate-Pints/Acre
Hooded Canarygrass ¹ (<u>Phalaris paradoxa</u>)	1-3 leaves	2 2/3
Smallseed Canarygrass (Suppression) ² (<u>Phalaris minor</u>)	1-2 leaves	2 2/3

¹ DO NOT add crop oil concentrate.

² 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 AND HOODED CANARYGRASS IN WHEAT IN CALIFORNIA ONLY

HOELON 3EC HERBICIDE APPLICATION RATES

Grasses	HOELON Broadcast Rate in Pints per Acre		
	1-3 Leaf	4 Leaf	4-5 Leaf
Annual Ryegrass	1 1/3	1 1/3	2.0
Wild Oats	2.0	2 2/3	DO NOT APPLY
Hooded Canarygrass	2 2/3	DO NOT APPLY	

WEATHER CONSIDERATIONS

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

- (1) COLD TEMPERATURES - if at anytime during the 72 hours (3 days) preceding a HOELON 3EC Herbicide application the temperature drops below 35°F
- (2) MOISTURE CONDITIONS
 - A. water-logged or poorly drained fields
 - B. 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. 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.

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

NOTES

- 1. HOELON 3EC Herbicide may only be tank mixed with Buctril^R Herbicide. Follow the label limitations and precautions on each label. No label dosage rates should be exceeded.
- 2. In California, HOELON 3EC Herbicide should be applied postemergence only to wheat.
- 3. DO NOT apply HOELON 3EC Herbicide in Monterey, Santa Clara, Kern, Los Angeles, San Louis Obispo, and Riverside counties.

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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	Kansas	Nebraska	N. Dakota	S. Dakota	Washington
Colorado	Maryland	Nevada	Oklahoma	Texas	W. Virginia
Delaware	Minnesota	New Mexico	Oregon	Utah	Wyoming
Idaho	Montana	N. Carolina	S. Carolina	Virginia	

(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.

Amount of HOELON 3EC Herbicide Per Acre (Pints)¹
Relative To Growth Stage of Annual Grassy Weeds

Susceptible Annual Grassy Weeds	1-3 Leaf	4 Leaf	5 Leaf	5 Leaf - 2 Tillers
Annual Ryegrass (Italian) ² (<u>Lolium multiflorum</u>)	1 1/3	1 1/3	2.0	2 2/3
Broadleaf Signalgrass (Suppression) (<u>Brachiaria platyphylla</u>)	2 2/3			
Crabgrass (<u>Digitaria sanguinalis</u>)	2 2/3			
Persian Darnel (<u>Lolium persicum</u>)	2 2/3			
Fall Panicum (<u>Panicum dichotomiflorum</u>)				
Barnyardgrass (watergrass) (<u>Echinochloa crus-galli</u>)				
Giant Foxtail (<u>Setaria faberii</u>)				
Green Foxtail (pigeongrass) (<u>Setaria viridis</u>)				
Yellow Foxtail (pigeongrass) ³ (<u>Setaria lutescens</u>)	2.0 to 2 2/3			
Wild Oat (<u>Avena fatua</u>)				
Itchgrass (Raoulgrass) (<u>Rottboellia exaltata</u>)				
Volunteer Corn (<u>Zea mays</u>)				
Witchgrass (Suppression) (<u>Panicum capillare</u>)				
Hooded Canarygrass (<u>Phalaris paradoxa</u>)				

**DO
NOT
APPLY**

**REDUCED GRASSY WEED
CONTROL WILL OCCUR**

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 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

When using HOELON 3EC Herbicide to control annual grassy weeds and the weeds do not include annual ryegrass, broadleaf signalgrass, crabgrass or Persian darnel, 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, DO NOT apply if one or a combination of the following environmental conditions are present or prolonged, preceding a HOELON 3EC Herbicide application, as crop injury may occur.

- (1) COLD TEMPERATURES - if at anytime during the 72 hours (3 days) preceding a HOELON 3EC Herbicide application the temperature drops below 35°F
- (2) MOISTURE CONDITIONS - when soils are either water-logged 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 during the HOELON 3EC Herbicide application. If freezing temperatures are predicted within three days after application, Hoelon 3EC use should be delayed.

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 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 2.0 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. 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 Plus Harmony Herbicide

A tank mix of HOELON 3EC Herbicide plus Harmony Herbicide 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 Herbicide 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 3EC Herbicide plus Harmony Herbicide. Use sequential treatments.

HOELON 3EC Herbicide Plus Buctril 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.

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 1-4 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.

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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 1-4 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 ryegrass is under drought stress, increase the rate of HOELON 3EC Herbicide from 2.0 - 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 nitrogen 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, Henry 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.

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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 a NIOSH-approved cartridge-type 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: long-sleeve shirt and long pants under fabric coveralls, impermeable rubber gloves (such as neoprene or PVC), waterproof boots, goggles and a cartridge-type respirator approved by the National Institute of Occupational Safety and Health (NIOSH). 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.

Environmental Hazards

This pesticide is toxic to fish. Use with care when applying in areas adjacent to any body of water. Keep out of lakes, streams, ponds, drainage basins, tidal marshes and estuaries. 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 apply when weather conditions favor runoff or drift. Avoid direct application or drift of spray material to water surfaces. Do not apply within 100 feet of aquatic habitat. Do not contaminate arable land and/or water when disposing of equipment washwaters.

For a spill emergency, call Chemtrec at 1-800-424-9300.

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Statement of Practical Treatment

In case of skin or eye contact, immediately flush with plenty of water for at least 15 minutes.

If swallowed, do not induce vomiting. HOELON 3EC Herbicide contains petroleum distillates. Call a physician. Vomiting should be supervised by a physician because of the possible pulmonary damage via aspiration of the solvent.

Note to Physician: Aspiration hazard may contraindicate the use of gastric lavage.

For emergency assistance call (908) 231-4125.

Storage and Disposal

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

Do not use or store near heat or open flame.

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.

Do not store below 20°F.

IMPORTANT NOTICE: DISCLAIMER

Read "IMPORTANT NOTICE: DISCLAIMER" before buying or using. If terms are not acceptable, return at once unopened. HOECHST CELANESE CORPORATION warrants only that the product confirms to the chemical description on the label and is reasonably fit for the purpose stated on the label when used in accordance with the directions under normal conditions of use. This warranty does not extend to the use of this product contrary to label instructions or under abnormal conditions, or under conditions not reasonably foreseeable to HOECHST CELANESE CORPORATION AND USER ASSUMES THE RISK OF ANY SUCH USE. HOECHST CELANESE CORPORATION MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR OF MERCHANTABILITY. In no case shall HOECHST CELANESE CORPORATION be liable for consequential, special, indirect or incidental damages resulting from the use or handling of this product. The foregoing

conditions of sale and warranty can be varied only by an agreement in writing signed by a duly authorized representative of HOECHST CELANESE CORPORATION.

HOELON 3EC Herbicide is a registered trademark of Hoechst AG.

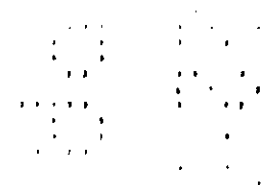
Banvel Herbicide is a registered trademark of Sandoz Crop Protection Corporation.

Buctril Herbicide is a registered trademark of Rhone-Poulenc Ag Company.

Glean Herbicide, Harmony Herbicide, and Harmony Extra Herbicide are registered trademarks of E.I. duPont de Nemours and Company, Inc.

Amber Herbicide is a registered trademark of Ciba-Geigy Corporation.

TH8501007 (8/92)



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February 24, 1992

SUPPLEMENTAL LABELING

ACCEPTED
with COMMENTS
in EPA Letter Dated:

HOELON^R 3EC HERBICIDE
(EPA REG. NO. 8340-20-54382)

**FOR DISTRIBUTION AND USE ON WHEAT ONLY
WITHIN THE STATE OF CALIFORNIA**

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

8340-20

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.

DIRECTIONS FOR USE

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

GENERAL INFORMATION

HOELON 3EC Herbicide is a selective postemergence herbicide for
the control of annual ryegrass (Lolium multiflorum), wild oats
(Avena fatua), and hooded canarygrass (Phalaris paradoxa) in
wheat only.

APPLICATION INFORMATION

Ground

Ground applications must be in at least 10 gallons of water
carrier per acre, using a minimum of 40 PSI. Flat fan nozzles,
spaced 10 or 20 inches apart across the boom, are recommended
for optimum coverage. Thorough uniform coverage of target weeds
is critical for achieving satisfactory results.

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 - 350 microns. DO NOT wide swath the application. DO
NOT make aerial applications when the wind is above 5 MPH, or
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.

HOELON 3EC HERBICIDE APPLICATION RATES

Grasses	HOELON Broadcast Pate in Pints per Acre		
	1-3 Leaf	4 Leaf	4-5 Leaf
Annual Ryegrass	1 1/3	1 1/3	2.0
Wild Oats	2 2/3	DO NOT APPLY	
Hooded Canarygrass	2 2/3	DO NOT APPLY	

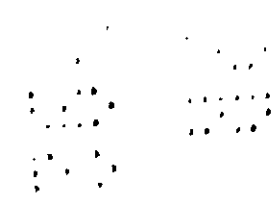
WEATHER CONSIDERATIONS

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

- (1) COLD TEMPERATURES - if at anytime during the 72 hours (3 days) preceding a HOELON 3EC Herbicide application the temperature drops below 35°F
- (2) MOISTURE CONDITIONS
 - A. water-logged or poorly drained fields
 - B. 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. 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.

Freezing temperatures occurring within a few days after application should be avoided when possible.



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NOTES

1. HOELON 3EC Herbicide does NOT control broadleaf weeds.
2. HOELON 3EC Herbicide may only be tank mixed with Buctril^R Herbicide. Follow the label limitations and precautions on each label. No label dosage rates should be exceeded.
3. DO NOT allow livestock to graze treated fields. DO NOT harvest forage, hay or straw from treated fields prior to grain harvest.
4. In California, HOELON 3EC Herbicide should be applied postemergence only to wheat.
5. DO NOT apply HOELON 3EC Herbicide in Monterey, Santa Clara, Kern, Los Angeles, San Louis Obispo, and Riverside counties.
6. DO NOT apply HOELON 3EC Herbicide through any type of irrigation system.

ALL APPLICABLE DIRECTIONS, RESTRICTIONS AND PRECAUTIONS ON THE EPA REGISTERED LABEL ARE TO BE FOLLOWED.

This labeling must be in the possession of the user at the time of pesticide application.

TH8901043 (2/92)