

GROUP 4A INSECTICIDE

GROUP 3 4 12 FUNGICIDES



# Helix Xtra®

## Insecticide with Fungicides

syngenta®

A seed treatment product for control of certain insects and diseases of canola.

For use in commercial seed treatment facilities with closed transfer systems only. No open transfer.

*Active Ingredients:*

Thiamethoxam*	20.70%
Difenoconazole**	1.25%
Mefenoxam***	0.40%
Fludioxonil****	0.13%

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<i>Other Ingredients:</i>	77.52%
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<i>Total:</i>	100.00%
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\*CAS No. 153719-23-4

\*\*CAS No. 119446-68-3

\*\*\*CAS Nos. 70630-17-0 and 69516-34-3

\*\*\*\*CAS No. 131341-86-1

Helix Xtra Insecticide with Fungicides is a flowable concentrate for seed treatment containing 2.23 lb thiamethoxam, 0.13 lb difenoconazole, 0.04 lb mefenoxam, and 0.01 lb fludioxonil per gallon.

**KEEP OUT OF REACH OF CHILDREN.**

**CAUTION**

See additional precautionary statements and directions for use in booklet.

EPA Reg. No. 100-935

EPA Est. 100-NE-001

SCP 935A-L2H 0916

4069306

**30 gallons**

Net Contents



<b>FIRST AID</b>	
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</p>	
<p><b>HOT LINE NUMBER</b>            For 24-Hour Medical Emergency Assistance (Human or Animal)            Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident),            Call  <b>1-800-888-8372</b></p>	

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

#### CAUTION

Harmful if absorbed through the skin or inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or spray mist.

### Personal Protective Equipment

**Workers involved in treating, cleanup, or maintenance of seed treatment equipment must wear:**

- Chemical-resistant coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves made of: polyvinyl chloride [PVC] ≥ 14 mils, nitrile rubber ≥ 14 mils, butyl rubber ≥ 14 mils, barrier laminate, neoprene rubber ≥ 14 mils, or Viton® ≥ 14 mils
- Head gear
- Respirator protection: half face respirator (TC-84A) with only N, R, or P filter
- Shoes and socks

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## PRECAUTIONARY STATEMENTS (*continued*)

### **Baggers, sewers, and stackers must wear:**

- Regular coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves made of: polyvinyl chloride [PVC] ≥ 14 mils, nitrile rubber ≥ 14 mils, butyl rubber ≥ 14 mils, barrier laminate, neoprene rubber ≥ 14 mils, or Viton® ≥ 14 mils
- Head gear
- Respirator protection: filtering face piece respirator (TC-84A) with any N, R, or P filter
- Shoes and socks

### **Forklift operators must wear:**

- Regular coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves made of: polyvinyl chloride [PVC] ≥ 14 mils, nitrile rubber ≥ 14 mils, butyl rubber ≥ 14 mils, barrier laminate, neoprene rubber ≥ 14 mils, or Viton® ≥ 14 mils
- Shoes and socks

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.

### **User Safety Recommendations**

#### **Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove and wash contaminated clothing before reuse.
- 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 wildlife, freshwater and estuarine/marine fish, oysters and shrimp and highly toxic to aquatic invertebrates. Do not contaminate water when disposing of equipment washwater or rinsate.

### **Pollinator Precautions**

Thiamethoxam is highly toxic to bees and other pollinating insects exposed to direct treatment, and effects may be possible as a result of exposure to translocated residues in blooming crops.

### **Surface Water Advisory**

This product has a high potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well-maintained vegetative

buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of Mefenoxam, Fludioxonil, and Thiamethoxam from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecast to occur within 48 hours.

#### **Groundwater Advisory**

Mefenoxam is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow, and may result in groundwater contamination.

Fludioxonil has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow, and may result in groundwater contamination.

Thiamethoxam has properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow may result in ground water contamination.

#### **Physical or Chemical Hazards**

Do not use, pour, spill, or store near heat or open flame.

## **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

**To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

## **DIRECTIONS FOR USE**

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

For use in commercial seed treatment facilities with closed transfer systems only. No open transfer. Not for use on agricultural establishments in hopper-box, planter-box, slurry-box, or other seed-treatment applications at or immediately before planting.

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.

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR INSECT AND/OR DISEASE CONTROL, AND/OR ILLEGAL RESIDUES.**

Treatment of highly mechanically scarred or damaged seed, or seed known to be of low vigor and poor quality, except for the purpose of curative control of existing disease pests, may result in reduced germination and/or reduction of seed and seedling vigor. Treat a small quantity of seed using equipment similar to that planned for treating the total seed lot. Prior to treatment, conduct germination tests on a small portion of seed before committing the total seed lot to a selected seed treatment.

Due to seed quality, crop or variety sensitivity, and seed storage conditions beyond the control of Syngenta, no claims are made to guarantee the germination of seed or propagating material for all crop seed when treated with Helix Xtra Insecticide with Fungicides.

## PRODUCT INFORMATION

Helix Xtra Insecticide with Fungicides is a seed treatment product that contains both insecticide and fungicide components with activity against aphids, flea beetles, seed-corn maggot, white grubs, wireworm, and certain seed-borne and damping-off diseases of canola. Thiamethoxam, the insecticide component, provides activity against flea beetles and the remaining components are fungicides with activity against damping-off diseases caused by *Pythium* species, *Fusarium* species, *Rhizoctonia* species, and seed-borne blackleg (*Leptosphaeria maculans*).

## RESISTANCE MANAGEMENT

GROUP	4A	INSECTICIDE
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Helix Xtra Insecticide with Fungicides contains thiamethoxam, a Group 4A insecticide. Thiamethoxam is a systemic insecticide belonging to the neonicotinoid class of chemistry which includes nicotinic acetylcholine receptor (nAChR) agonists.

Insect populations may contain individuals naturally resistant to Group 4A insecticides and if used repeatedly in the same fields, then resistant members may eventually dominate the population. Because resistance development cannot be predicted, use sound resistance management strategies established for the crop and use area.

Base seed treatment on an integrated pest management program that includes field sanitation, historical information related to pesticide use, careful selection of pest-tolerant crop varieties, scouting, and management practices which optimize populations of natural enemies of insect pests such as within-field refugia (untreated areas). Sound management programs also consider cultural and biological control practices.

### In order to maintain susceptibility to this class of chemistry:

- Use products at their full, specified doses.
- Use appropriate, well-maintained equipment. Use specified water volumes and apply at optimal temperatures in order to obtain optimal treatment.
- When rate ranges are given, use the higher rate within the listed rate range when insect pressure is expected to be high.
- Avoid using a single active ingredient or mode of action (same insecticide group) exclusively for season long control of insect species with more than one generation per crop season.
- For insect species with successive or overlapping generations, use a treatment window approach. A treatment window is a period of time defined by the stage of crop development and the biology of the pests of concern. Within the treatment window, depending on the length of residual activity, single or consecutive applications may be made using seed, in-furrow, or foliar treatments unless otherwise excluded by product labels. Do not exceed the maximum amount of this insecticide's mode of action allowed per growing season.
- Following a treatment window of this insecticide's mode of action, rotate to a treatment window of effective products with a different mode of action before making additional applications of this insecticide.

If resistance to this product develops in your area, this product or other products with a similar mode of action may not provide adequate control. If poor performance cannot be attributed to improper application or weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for the crop and use area.

Syngenta encourages responsible product stewardship to ensure effective long term control of the insect pests on this label.

**For additional information on Insect Resistance Management:**

- Contact Syngenta representatives at 1-800-334-9481
- Contact your local extension specialist, or certified crop advisor
- Visit the Insecticide Resistance Action Committee (IRAC) on the web at: <http://www.irac-online.org>

GROUP	3	4	12	FUNGICIDES
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Helix Xtra Insecticide with Fungicides contains difenoconazole, a Group 3 fungicide, mefenoxam, a Group 4 fungicide, and fludioxonil, a Group 12 fungicide. Difenoconazole belongs to the triazole class of chemistry and is a demethylation inhibitor of sterol biosynthesis (DMI) which disrupts membrane synthesis of the fungal cell. Mefenoxam belongs to the phenylamide class of chemistry which interferes with fungal RNA synthesis. Fludioxonil belongs to the phenylpyrrole class of chemistry which interferes with osmotic signal transduction.

Fungal populations may contain individuals naturally resistant to Group 3, 4 or 12 fungicides and if used repeatedly in the same fields, then resistant members may eventually dominate the population. Because resistance development cannot be predicted, the use of this product should conform to sound resistance management strategies such as alternation with fungicides with a different mode of action and/or tank mixes established for the crop and use area.

Use should be based on an IPM program that includes field sanitation, scouting, historical information related to pesticide use, and crop rotation. The IPM program should also consider cultural, biological, and other chemical control practices.

Syngenta encourages responsible product stewardship to ensure effective long term control of the fungal diseases on this label.

**For additional information on Fungicide Resistance Management:**

- Contact Syngenta representatives at 1-800-334-9481
- Contact your local extension specialist or certified crop advisor
- Visit the Fungicide Resistance Action Committee (FRAC) on the web at: <http://www.frac.info>

## ROTATIONAL CROP RESTRICTIONS

In the event of a crop failure or harvest of a crop grown from seed treated with Helix Xtra Insecticide with Fungicides, the field may be replanted according to the following schedule:

Immediate Plantback	Minimum 30-Day Plantback Interval
Canola	Alfalfa  Borage, Crambe, Flax seed, Mustard seed, and Safflower  Cereal Grains Crop Group 15  Cotton  Cucurbit Vegetables Crop Group 9  Fruiting Vegetables Crop Group 8  Head and Stem Brassica Crop Subgroup 5A  Leafy Brassica Greens Crop Subgroup 5B  Leafy Vegetables (Except <i>Brassica</i> Vegetables) Crop Group 4  Legume Vegetables (Succulent or Dried) Crop Group 6  Mint: peppermint and spearmint  Onion, Dry Bulb  Peanut  Potato  Root Vegetables Crop Subgroup 1A

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Immediate Plantback	Minimum 30-Day Plantback Interval
Canola (continued)	Soybean Strawberry Sugarbeet Sunflower Tobacco Tuberous and Corm Vegetables (Except Potato) Crop Subgroup 1D

For any other crop, the minimum plant back interval is 120 days from the date the field was planted with seed treated with Helix Xtra Insecticide with Fungicides. A cover crop other than the crops listed above that is planted for erosion control or soil improvement may be planted sooner than the 120-day interval; however, the crop may not be grazed or harvested for food or feed.

## MIXING PROCEDURES

Helix Xtra Insecticide with Fungicides is formulated as a ready-to-apply seed treatment. An EPA-approved coloring agent, C.I. Pigment Blue No. 15, has been added to the formulation. No additional colorant, dyes, binders, or water are needed. Helix Xtra Insecticide with Fungicides has a density of approximately 10.8 pounds per gallon. Apply utilizing standard slurry seed treatment equipment which provides uniform seed coverage. Uneven or incomplete seed coverage may not give the desired level of insect or disease control. Consult the manufacturer of the application equipment you plan to use for suitability for this application and for instructions on operation and calibration of the equipment. Allow seed to dry before bagging.

## SEED CONTAINER LABEL REQUIREMENTS

The Federal Seed Act requires that bags containing treated seeds shall be labeled with the following statements:

- This seed has been treated with thiamethoxam insecticide and difenoconazole, fludioxonil, and mefenoxam fungicide.
- Do not use for feed, food, or oil purposes.

In addition, the U.S. Environmental Protection Agency requires the following statements on bags containing seeds treated with Helix Xtra Insecticide with Fungicides:

- Pollinator Precautions: Thiamethoxam is highly toxic to bees and other pollinating insects exposed to direct treatment, and effects may be possible as a result of exposure to translocated residues in blooming crops.
- Surface Water Advisory: This product has a high potential for runoff after application. This is especially true for poorly draining soils and soils with shallow groundwater. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features will reduce the potential loading of the chemicals in this product from runoff water and sediment. To reduce runoff, avoid applications when rainfall or irrigation is expected to occur within 48 hours.
- Groundwater Advisory: Mefenoxam is known to leach through soil into groundwater under certain conditions as a result of label use. Fludioxonil and Thiamethoxam have properties and characteristics associated with chemicals detected in ground water. These chemicals may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.
- Excess treated seed may be used for ethanol production only if (1) by-products are not used for livestock feed, and (2) no measurable residues of pesticide remain in the ethanol by-products that are used in agronomic practice.
- Do not allow children, pets, or livestock to have access to treated seed.
- Store away from feeds and foodstuffs.
- Wear long-sleeved shirt, long pants and chemical-resistant gloves when handling treated seed.
- Treated seeds exposed on soil surface may be hazardous to wildlife. Cover or collect treated seeds spilled during loading.
- Treated seed must be planted into the soil at a depth greater than 1/2 inch.
- Dispose of all excess treated seed. Leftover treated seed may be double-sown around the headland or buried away from water sources in accordance with local requirements.
- Do not contaminate water bodies when disposing of planting equipment wash water.
- Dispose of seed packaging in accordance with local requirements.

- In the event of a crop failure or harvest of a crop grown from seed treated with Helix Xtra Insecticide with Fungicides, the field may be replanted according to the following schedule:

Immediate Plantback	Minimum 30-Day Plantback Interval
Canola	<p>Alfalfa</p> <p>Borage, Crambe, Flax seed, Mustard seed, and Safflower</p> <p>Cereal Grains Crop Group 15</p> <p>Cotton</p> <p>Cucurbit Vegetables Crop Group 9</p> <p>Fruiting Vegetables Crop Group 8</p> <p>Head and Stem Brassica Crop Subgroup 5A</p> <p>Leafy Brassica Greens Crop Subgroup 5B</p> <p>Leafy Vegetables (Except <i>Brassica</i> Vegetables) Crop Group 4</p> <p>Legume Vegetables (Succulent or Dried) Crop Group 6</p> <p>Mint: peppermint and spearmint</p> <p>Onion, Dry Bulb</p> <p>Peanut</p> <p>Potato</p> <p>Root Vegetables Crop Subgroup 1A</p> <p>Soybean</p>

Immediate Plantback	Minimum 30-Day Plantback Interval
Canola (continued)	Strawberry Sugarbeet Sunflower Tobacco Tuberous and Corm Vegetables (Except Potato) Crop Subgroup 1D

- For any other crop, the minimum plant back interval is 120 days from the date the field was planted with seed treated with Helix Xtra Insecticide with Fungicides. A cover crop other than the crops listed above that is planted for erosion control or soil improvement may be planted sooner than the 120-day interval; however, the crop may not be grazed or harvested for food or feed.
- Do not use at a rate that will result in more than 0.05 lb Thiamethoxam per Acre (22.7 grams Thiamethoxam/A) per calendar year as a seed treatment application.
- This seed has been treated with 0.018 mg Thiamethoxam/seed.
- Do not make any soil or foliar application with products containing a neonicotinoid insecticide to crops grown from seed treated with Helix Xtra Insecticide with Fungicides.

## CROP USE DIRECTIONS

### Canola

To provide early season protection against aphids, flea beetles, seedcorn maggot, white grubs, wireworm, seed-borne blackleg (*Leptosphaeria maculans*), seed-borne *Alternaria*, and the seedling disease complex (damping-off, seedling blight, seed rot, and root rot) caused by *Pythium* species, *Fusarium* species, and *Rhizoctonia* species, apply Helix Xtra Insecticide with Fungicides at 23 fluid ounces of product per 100 pounds of seed.

## **STORAGE AND DISPOSAL**

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

### **Pesticide Storage**

Store in the original container and only in a cool, dry, secure place.

### **Pesticide Disposal**

Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility. 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 Handling [less than or equal to 5 gallons]**

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.



### **Container Handling [greater than 5 gallons – mini-bulk]**

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container  $\frac{1}{4}$  full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

### **Container Handling [greater than 5 gallons - bulk]**

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes.

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For non-emergency (e.g., current product information) call  
Syngenta Crop Protection at 1-800-334-9481.

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