

GROUP	3	4	12	FUNGICIDES
GROUP		4		INSECTICIDE

HELIX XTra® Seed Treatment

INSECTICIDE AND FUNGICIDE

SUSPENSION

AGRICULTURAL

HELIX XTra® Seed Treatment is a liquid seed treatment for use on canola mustard and *Brassica carinata* for early season control of flea beetles, seed-borne blackleg, seed-borne *Alternaria* and the seedling disease complex (damping-off, seedling blight, seed rot and root rot) caused by *Pythium* spp., *Fusarium* spp. and *Rhizoctonia* spp.

This product is for use in areas with high flea beetle pressure where extended early season control is required.

GUARANTEE:

Thiamethoxam	20.70%
Difenoconazole	1.25%
Metalaxyl-M and S-isomer	0.39%
Fludioxonil	0.13%

Contains 1,2-benzisothiazolin-3-one at 0.012 % as a preservative.

READ THE LABEL AND BROCHURE BEFORE USING
KEEP OUT OF THE REACH OF CHILDREN AND PREVENT ACCESS BY UNAUTHORIZED PERSONNEL

CAUTION



POISON

REGISTRATION NUMBER: **26638**
PEST CONTROL PRODUCTS ACT
NET CONTENTS: **105 L, 200 L, 450 L, 1050 L, Bulk**

Syngenta Canada Inc.
140 Research Lane, Research Park
Guelph, Ontario N1G 4Z3
Telephone: 1-877-964-3682

For use in commercial seed treatment facilities with closed transfer systems only. No open transfer of HELIX XTra Seed Treatment. All seed treated with this product must be conspicuously coloured at the time of treatment.

NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

FIRST AID

IN CASE OF POISONING, IMMEDIATELY contact a physician or a poison control centre. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

If swallowed, call a poison control centre or doctor **IMMEDIATELY** for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

If on skin or clothing, take off contaminated clothing. Rinse skin **IMMEDIATELY** with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

If inhaled, move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

If in eyes, hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

TOXICOLOGICAL INFORMATION

NOTE TO PHYSICIAN: There is no specific antidote for this product if ingested. If ingested, induce emesis or lavage stomach. Treat symptomatically.

PRECAUTIONS

Safety Precautions:

1. **KEEP OUT OF THE REACH OF CHILDREN and DOMESTIC ANIMALS and PREVENT ACCESS BY UNAUTHORIZED PERSONNEL.** Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke during handling. At the beginning of breaks, remove protective clothing. At the end of work shifts, remove protective clothing and wash thoroughly.
2. Avoid inhalation of vapours or treated seed dust. Wash hands and face after handling and before eating, smoking, drinking or using the toilet.
3. Store the product in a well ventilated, secure area. Avoid contamination of feed and foodstuffs.
4. Clean up spilled material, equipment and work area as soon as possible after use.
5. Do not apply in a way that this product will contact workers or other persons, either directly or through drift. Only handlers (mixers, loaders and applicators) wearing personal protective

equipment may be in the area during application.

6. Treat seed in a well-ventilated area. Workers involved in treating, clean-up, repair or maintenance of seed treating equipment must wear coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves, socks and chemical-resistant footwear. Workers involved in bagging, sewing, and stacking bags of treated seed, or when transferring seed to a storage bin must wear coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, a NIOSH/MSHA-approved dust mask, and socks and shoes. Forklift operators must wear coveralls over long-sleeved shirt, long pants, chemical-resistant gloves, and socks and shoes. For good hygiene practice, it is also recommended to wear a NIOSH/MSHA-approved dust mask during all job activities.
7. Treat seed in a well-ventilated area. Workers involved in treating, clean-up, repair or maintenance of seed treating equipment must wear coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves, socks and chemical-resistant footwear. Workers involved in bagging, sewing, and stacking bags of treated seed, or when transferring seed to a storage bin must wear coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, a NIOSH/MSHA-approved dust mask, and socks and shoes. Forklift operators must wear coveralls over long-sleeved shirt, long pants, chemical-resistant gloves, and socks and shoes. For good hygiene practice, it is also recommended to wear a NIOSH/MSHA-approved dust mask during all job activities.
8. Wear a suitable dust mask when bagging, or sewing bags of treated seed or when transferring seed to a storage bin.

Environmental Precautions:

1. Do not apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, ditches and wetlands), estuaries or marine habitats.
2. Do not contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.
3. If treated seed is spilled outdoors, promptly clean up.
4. Toxic to bees. Bees can be exposed to product residues in flowers, leaves, pollen and/or nectar resulting from seed treatment applications. **TOXIC to aquatic organisms.**

Use Restrictions:

1. Treated seed must not be used for food, feed or oil processing.
2. Not for use in hopper-box, planter-box, slurry-box or other non-commercial seed treatment applications (e.g. on-farm treaters).
3. All bags containing treated seed for sale or use in Canada must be labelled or tagged as follows: **“This seed has been treated with HELIX XTra SEED TREATMENT which contains an insecticide (thiamethoxam) and fungicides (difenoconazole, metalaxyl-M and S-isomer, and fludioxonil). Wear a long-sleeved shirt, long pants, socks, shoes, and chemical-resistant gloves when handling treated seeds, planting, and during maintenance, clean-up, and repair. In addition, wear a properly fit-tested NIOSH/MSHA-approved dust mask rated N95 or higher when handling treated seeds (includes loading and unloading). Use only closed-cab planting equipment. Gloves do not need to be worn when inside the closed cab. Do not use for food, feed or oil processing. Store away from food and feed.”**

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's website at www.croplife.ca.

DISPOSAL OF UNUSED, UNWANTED PRODUCT

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

CONTAINER DISPOSAL:

For refillable containers:

For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

For recyclable containers:

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

***IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING,
CALL 1-800-327-8633 (FASTMED)***

HELIX XTra[®] is a trademark of a Syngenta Group Company.

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GROUP	4			INSECTICIDE

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TOXICOLOGICAL INFORMATION

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PRECAUTIONS

Safety Precautions:

9. **KEEP OUT OF THE REACH OF CHILDREN and DOMESTIC ANIMALS and PREVENT ACCESS BY UNAUTHORIZED PERSONNEL.** Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke during handling. At the beginning of breaks, remove protective clothing. At the end of work shifts, remove protective clothing and wash thoroughly.
10. Avoid inhalation of vapours or treated seed dust. Wash hands and face after handling and before eating, smoking, drinking or using the toilet.
11. Store the product in a well ventilated, secure area. Avoid contamination of feed and foodstuffs.
12. Clean up spilled material, equipment and work area as soon as possible after use.
13. Do not apply in a way that this product will contact workers or other persons, either directly or through drift. Only handlers (mixers, loaders and applicators) wearing personal protective

- equipment may be in the area during application.
14. Treat seed in a well-ventilated area. Workers involved in treating, clean-up, repair or maintenance of seed treating equipment must wear coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves, socks and chemical-resistant footwear. Workers involved in bagging, sewing, and stacking bags of treated seed, or when transferring seed to a storage bin must wear coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, a NIOSH/MSHA-approved dust mask, and socks and shoes. Forklift operators must wear coveralls over long-sleeved shirt, long pants, chemical-resistant gloves, and socks and shoes. For good hygiene practice, it is also recommended to wear a NIOSH/MSHA-approved dust mask during all job activities.
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 16. Wear a suitable dust mask when bagging, or sewing bags of treated seed or when transferring seed to a storage bin.

Environmental Precautions:

5. Do not apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, ditches and wetlands), estuaries or marine habitats.
6. Do not contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.
7. If treated seed is spilled outdoors, promptly clean up.
8. Toxic to bees. Bees can be exposed to product residues in flowers, leaves, pollen and/or nectar resulting from seed treatment applications. **TOXIC to aquatic organisms.**

Use Restrictions:

4. Treated seed must not be used for food, feed or oil processing.
5. Not for use in hopper-box, planter-box, slurry-box or other non-commercial seed treatment applications (e.g. on-farm treaters).
6. All bags containing treated seed for sale or use in Canada must be labelled or tagged as follows: **“This seed has been treated with HELIX XTra SEED TREATMENT which contains an insecticide (thiamethoxam) and fungicides (difenoconazole, metalaxyl-M and S-isomer, and fludioxonil). Wear a long-sleeved shirt, long pants, socks, shoes, and chemical-resistant gloves when handling treated seeds, planting, and during maintenance, clean-up, and repair. In addition, wear a properly fit-tested NIOSH/MSHA-approved dust mask rated N95 or higher when handling treated seeds (includes loading and unloading). Use only closed-cab planting equipment. Gloves do not need to be worn when inside the closed cab. Do not use for food, feed or oil processing. Store away from food and feed.”**

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3. Triple- or pressure-rinse the empty container. Add the rinsings to the mixture in the tank.
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**IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING,
CALL 1-800-327-8633 (FASTMED)**

GENERAL INFORMATION

HELIX XTra Seed Treatment is a ready to use liquid seed treatment for canola, mustard and *Brassica carinata*. HELIX XTra Seed Treatment contains an insecticide (thiamethoxam) and three fungicides (difenoconazole, metalaxyl-M and S-isomer, and fludioxonil). The insecticide component of HELIX XTra Seed Treatment provides early season control of flea beetles for 28 – 35 days. This product is for use in areas with high flea beetle pressure where extended early season control is required. The fungicide component of HELIX XTra Seed Treatment provides early season control of seed-borne blackleg (*Leptosphaeria maculans*), seed-borne *Alternaria* (*Alternaria* spp.) and the seedling disease complex (damping-off, seedling blight, seed rot and root rot) caused by *Pythium* spp., *Fusarium* spp. and *Rhizoctonia* spp. Thiamethoxam is a Group 4 Insecticide. Do not make any subsequent application of a Group 4 Insecticide (i.e., in-furrow or foliar application) following treatment with HELIX XTra Seed Treatment.

Integrated Pest Management:

Control of Diseases and (or) Flea Beetles can be reduced significantly if:

- Canola is seeded into the same field more than once every three years.
- Seeding depths are excessive (>4 cm).

- Emerging seedlings are subjected to poor growing conditions.
- Canola is planted into fields with reduced tillage practices.

Canola fields should be monitored on a regular basis after emergence. Flea beetles often migrate from field edges inward. Field scouting will determine if a foliar insecticide application is warranted and whether it will be required over the entire field or on the headlands only.

Foliar insecticide application should be considered if:

- Flea beetle damage has reached or is approaching the economic threshold of 25% leaf area damage on the cotyledons or first true leaves.
- Canola stubble or a canola field is adjacent to emerging canola fields.
- Flea beetle populations in previous years have been observed to be high and the level of pressure sustained.

Foliar insecticide applications should be made immediately if:

- Stem feeding is observed. This may occur under cool and windy conditions.

DIRECTIONS FOR USE

HELIX XTra Seed Treatment is a ready to use product, which includes a pigment. No additional colorant, dyes, binders, polymers or water are required.

Apply 1.5 L/100 kg seed of HELIX XTra Seed Treatment using standard commercial 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 seed treating equipment for advice on the operation and calibration of the equipment. Maintain constant product agitation during the seed treatment process. Allow the seed to dry before bagging.

For additional disease control in canola, HELIX XTra Seed Treatment may be mixed with DYNASTY® 100FS Fungicide in commercial seed treatment facilities with closed transfer including closed mixing, loading, calibrating and closed treatment equipments only. Follow all appropriate directions, precautions, etc. as specified on product labels.

This product contains a pigment, which will adequately colour the treated seed. However, users are responsible for ensuring that the treated seed, when dried and ready for bagging, has an unnatural colour. If the pigment contained in the formulation does not colour the seed adequately, additional colourant must be added to the mixture while treating the seed. Follow instructions on the colourant package for mixing. Regulations pertaining to colouration of treated seed enforced under the “Seed Act” must be strictly adhered to when using this product.

Crop	Insect Controlled	Diseases Controlled	Rate (L/100 kg seed)	Notes
Canola, Oriental Mustard (condiment types)	Flea beetles	Seed-borne Blackleg (<i>Leptosphaeria maculans</i>) Seed-borne Alternaria (<i>Alternaria</i> spp.) Seedling disease complex (damping-off, seedling blight)	1.5	One application as a seed treatment. Do not make any subsequent application of a Group 4 Insecticide

		seed rot, and root rot) <i>Pythium</i> spp. <i>Fusarium</i> spp. <i>Rhizoctonia</i> spp.		(i.e., in-furrow or foliar application) following treatment with HELIX XTra Seed Treatment.
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NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS:

The DIRECTIONS FOR USE for this product for the uses described below were developed by persons other than Syngenta Canada Inc. and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion program. Syngenta Canada Inc. itself makes no representation or warranty with respect to performance (efficacy) and/or crop tolerance (phytotoxicity) claims for this product when used on the crops listed below. Accordingly, the Buyer and User assumes all risks related to performance and crop tolerance arising, and agrees to hold Syngenta Canada Inc. harmless from any claims based on efficacy and/or phytotoxicity in connection with the uses described below.

Crop	Insect Controlled	Diseases Controlled	Rate (L/100 kg seed)	Notes
Oriental Mustard (oilseed types), <i>Brassica carinata</i>	Flea beetles	Seed-borne Blackleg (<i>Leptosphaeria maculans</i>) Seed-borne Alternaria (<i>Alternaria</i> spp.) Seedling disease complex (damping-off, seedling blight seed rot and root rot) <i>Pythium</i> spp. <i>Fusarium</i> spp. <i>Rhizoctonia</i> spp.	1.5	One application as a seed treatment. Do not make any subsequent application of a Group 4 Insecticide (i.e., in-furrow or foliar application) following treatment with HELIX XTra Seed Treatment.

Note:

Seed Storage:

Lab and field studies have shown that HELIX XTra Seed Treatment treated canola and mustard can be safely stored for 18 months without loss in germination or insect and disease performance. However, due to seed quality and seed storage conditions beyond the control of Syngenta Canada Inc., no claims are made to guarantee the germination of carry-over seed or propagating materials for all crop seed.

Treatment of highly mechanically scarred or damaged seed, or seed known to be of low vigour and poor quality, may result in reduced germination and/or reduction of seed and seedling vigour. Treating such seed with HELIX XTra Seed Treatment should only be done for curative control of existing disease pests. Treat a small quantity of seed using equipment similar to that planned for treating the total seed lot. Conduct germination tests on a small portion of seed before committing the total seed lot to a selected seed treatment.

Seeding Equipment:

Depending on the seeding equipment used, seed treated with HELIX XTra Seed Treatment may not flow through the equipment at the same rate as untreated seed or seed treated with other canola seed treatment products. Re-calibration of seeding equipment is recommended before planting seed treated with HELIX XTra Seed Treatment.

Resistance Management Recommendations

For resistance management, HELIX XTra Seed Treatment contains a Group 4 insecticide and Groups 3, 4 and 12 fungicides. Any insect or fungal population may contain individuals naturally resistant to HELIX XTra Seed Treatment and other Group 4 insecticides or Groups 3, 4 and 12 fungicides. A gradual or total loss of pest control may occur over time if these insecticides and fungicides are used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay insecticide and fungicide resistance:

Where possible, rotate the use of HELIX XTra Seed Treatment or other Group 4 insecticides and Groups 3, 4 and 12 fungicides with different groups that control the same insects or pathogens.

Insecticide and fungicide use should be based on an IPM program that includes scouting, historical information related to pesticide use and crop rotation and considers cultural, biological and other chemical control practices.

Monitor treated insect and fungal populations for resistance development.

Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pests problems in your area.

For further information and to report suspected resistance, contact Syngenta Canada Inc. at 1-87-SYNGENTA (1-877-964-3682) or at www.syngenta.ca.

DYNASTY® and HELIX XTra® are trademarks of a Syngenta Group Company.