

GROUP	4	INSECTICIDE
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CRUISER[®] 5FS Seed Treatment

INSECTICIDE

SUSPENSION

AGRICULTURAL

A seed treatment insecticide for control of certain insect pests of labeled crops.

GUARANTEE:

Thiamethoxam 47.6 %

Contains 1,2-benzisothiazolin-3-one at 0.01% as a preservative.

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

CAUTION



POISON

REGISTRATION NUMBER: **27045**
PEST CONTROL PRODUCTS ACT

NET CONTENTS: **20 L to 1050 L, Bulk**

Syngenta Canada Inc.

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

For small-grain cereals (except oats) and pulse crops, CRUISER 5FS Seed Treatment may be applied on-farm or by commercial seed treaters (facilities and mobile treaters). For all other crops, application must be performed in commercial seed treatment facilities. All application must be applied with closed transfer including closed mixing, loading, calibrating, and closed treatment equipment.

Special Use Restrictions:

This product contains no colourant. An appropriate colourant must be added when this product is applied. Regulations pertaining to the "Seeds Act" must be strictly adhered to when using this product. A red colourant must be added when this product is applied to grain.

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

IF POISONING IS SUSPECTED, 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 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.

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.

TOXICOLOGICAL INFORMATION

NOTE TO PHYSICIAN: There is no specific antidote for this product if ingested. If a large amount has been ingested and emesis is inadequate, lavage stomach. Treat symptomatically.

PRECAUTIONS

Safety Precautions:

1. **KEEP OUT OF THE REACH OF CHILDREN AND DOMESTIC ANIMALS. PREVENT ACCESS BY UNAUTHORIZED PERSONNEL.**
2. Harmful if swallowed, inhaled or absorbed through skin. **DO NOT** get in eyes. Avoid prolonged contact with skin. Avoid inhalation of vapours, spray mist or treated seed dust. Wash hands and face after handling and before eating or smoking.
3. Avoid contamination of feed and foodstuffs.
4. **For commercial seed treatment of corn with 500 g thiamethoxam/100 kg of seed, adhere to the following:** Treat seed in a well-ventilated area. Treaters and cleaners must wear chemical resistant coveralls over a long sleeved shirt, long pants and chemical resistant gloves. All other workers (repair, maintenance, bagger, sewer, stacker, forklift operator and other) must wear coveralls over a long-sleeved shirt, long pants and chemical

resistant gloves. In addition, treaters, baggers, sewers, stackers and cleaners must wear a NIOSH/MSHA approved dust mask during all activities.

5. **For commercial seed treatment of all crops with registered label rates, other than the 500 g thiamethoxam/100 kg seed rate, adhere to the following:** Treat seed in a well-ventilated area. All workers (treater, cleaner, repair, maintenance, bagger, sewer, stacker, forklift operator and others) must wear coveralls over a long-sleeved shirt, long pants and chemical resistant gloves. For good hygiene practice, it is also recommended to wear a NIOSH/MSHA approved dust mask during all job activities.
6. **For on-farm seed treatment of small-grain cereals (except oats) and pulses (dried, shelled peas and beans):** Workers must wear cotton coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves, and a NIOSH/MSHA approved dust mask during mixing, loading, treating, clean-up, and maintenance of seed treatment equipment.
7. **For commercial seed treatment of canola, rapeseed and mustard (condiment and oilseed):** Treat seed in a well-ventilated area. Workers involved in treating seeds or repair or maintenance or clean-up of seed treating equipment must wear chemical-resistant 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-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-approved dust mask during all job activities.

Environmental Hazards:

1. Thiamethoxam is toxic to bees. Bees can be exposed to product residues in flowers, leaves, pollen and/or nectar resulting from seed treatment applications. Dust generated during planting of treated seed may be harmful to bees and other pollinators.
2. To help minimize the dust generated during planting, refer to the "Pollinator Protection and Responsible Use of Treated Seed - Best Management Practices" on the Health Canada webpage on pollinator protection at www.healthcanada.gc.ca/pollinators.
3. When using a seed flow lubricant with this treated seed, only a dust reducing fluency agent is permitted. Talc and graphite are not permitted to be used as a seed flow lubricant for corn or soybean seed treated with this insecticide. Carefully follow use directions for the seed flow lubricant.
4. Do not load or clean planting equipment near bee colonies, and avoid places where bees may be foraging, such as flowering crops or weeds.
5. When turning on the planter, avoid engaging the system where emitted dust may contact honey bee colonies.
6. This product is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present.
7. Treated seed is toxic to birds and small wild mammals.
8. Spilled or exposed seeds and dust must be incorporated into the soil or cleaned-up from the soil surface.

NOTE: In case of accident, take the product label to the emergency facility or physician.

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 web site at www.croplife.ca.

USE RESTRICTIONS

1. Treated seed must not be used for food, feed or oil processing.
2. Store away from food and feed.
3. For seed treated with CRUISER 5FS Seed Treatment, do not graze or feed livestock on treated areas for 45 days after planting.
4. All bags containing seed treated at the 500 g thiamethoxam/100 kg seed rate for sale or use in Canada must be labeled or tagged as follows: **“These seeds have been treated with 500 g thiamethoxam insecticide/100 kg seed. Wear cotton coveralls over long-sleeved shirt, long pants, chemical-resistant gloves and a NIOSH/MSHA approved respirator when handling treated seeds, including loading into seed hoppers and planting treated seed. Do not plant more than 1000 kg of corn seed per day. Do not graze or feed livestock on seeded area for 45 days after planting. Do not use for food, feed or oil processing. Store away from food and feed.**
5. All bags containing treated chickpea, lentil, dry pea (including field pea), lupin and faba bean for sale or use in Canada must be labeled or tagged as follows: **These seeds have been treated with thiamethoxam insecticide. All individuals handling treated chickpeas, lentils, dry peas (including field peas), lupins and faba beans must wear cotton coveralls over a long sleeved shirt, long pants, chemical-resistant gloves and a properly fit-tested NIOSH/MSHA approved dust mask classified as N95 or higher when loading seed into hoppers and planting treated seed. Do not graze or feed livestock on seeded area for 45 days after planting. Do not use for food, feed or oil processing. Store away from food and feed.**
6. All bags containing seed treated at a rate other than 500 g thiamethoxam/100 kg seed and that do not contain chickpeas, lentils, dry peas (including field peas) lupins or faba beans for sale or use in Canada must be labeled or tagged as follows: **These seeds have been treated with thiamethoxam insecticide. Wear long-sleeved shirt, long pants, and chemical-resistant gloves when handling treated seeds. Do not graze or feed livestock on seeded area for 45 days after planting. Do not use for food, feed or oil processing. Store away from food and feed.**
7. Additionally, all treated corn and soybean seed for sale or use in Canada must be labeled with the following information: **Thiamethoxam is toxic to bees. Dust generated during planting of treated seed may be harmful to bees and other pollinators. To help minimize the dust generated during planting, refer to the “Pollinator Protection and Responsible Use of Treated Seed - Best Management Practices” on the Health Canada webpage on pollinator protection at www.healthcanada.gc.ca/pollinators. When using a seed flow lubricant with this treated seed, only a dust reducing fluency agent is permitted. Talc and graphite are not permitted to be used as a seed flow lubricant for corn or soybean seed treated with this insecticide. Carefully follow use directions for the seed flow lubricant. Do not load or clean planting equipment near bee colonies, and avoid places where bees may be foraging, such as flowering crops or weeds. When turning on the planter, avoid engaging the system where emitted dust may contact honey bee colonies. Any spilled or exposed seeds must be incorporated into the soil or otherwise cleaned-up from the soil surface.**
8. All bags containing treated cucurbit seed for sale or use in Canada must be labeled or tagged as follows: **These seeds have been treated with thiamethoxam insecticide. Wear long-sleeved shirt, long pants, and chemical-resistant gloves when handling treated seeds. Use only closed cab planting equipment. In addition, all individuals handling treated cucurbit seed in enclosed areas (i.e. greenhouses) must wear a long-sleeved shirt, long pants, chemical-resistant gloves, and a properly fit-tested NIOSH/MSHA approved dust mask classified as N95 or higher when loading seed into**

automated planting equipment. Do not use for food, feed or oil processing. Store away from food and feed.

9. All bags containing treated canola, rapeseed or mustard (condiment or oilseed) for sale or use in Canada must be labelled or tagged as follows: **These seeds have been treated with the insecticide thiamethoxam. Wear coveralls over 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-approved dust mask rated N95 or higher when handling treated seeds (includes loading and unloading). Use only closed-cab planting equipment. Gloves and a dust mask 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.**
10. Do not plant treated seed by hand.

DECONTAMINATION AND DISPOSAL

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 Returnable Containers:

Do not reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

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.

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

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CAUTION**POISON**

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NOTICE TO USER

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FIRST AID

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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.

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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.

TOXICOLOGICAL INFORMATION

NOTE TO PHYSICIAN: There is no specific antidote for this product if ingested. If a large amount has been ingested and emesis is inadequate, lavage stomach. Treat symptomatically.

PRECAUTIONS

Safety Precautions:

1. KEEP OUT OF THE REACH OF CHILDREN AND DOMESTIC ANIMALS. PREVENT ACCESS BY UNAUTHORIZED PERSONNEL.
2. Harmful if swallowed, inhaled or absorbed through skin. DO NOT get in eyes. Avoid prolonged contact with skin. Avoid inhalation of vapours, spray mist or treated seed dust. Wash hands and face after handling and before eating or smoking.
3. Avoid contamination of feed and foodstuffs.
4. **For commercial seed treatment of corn with 500 g thiamethoxam/100 kg of seed, adhere to the following:** Treat seed in a well-ventilated area. Treaters and cleaners must wear chemical resistant coveralls over a long sleeved shirt, long pants and chemical resistant gloves. All other workers (repair, maintenance, bagger, sewer, stacker, forklift operator and other) must wear coveralls over a long-sleeved shirt, long pants and chemical

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Environmental Hazards:

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2. To help minimize the dust generated during planting, refer to the "Pollinator Protection and Responsible Use of Treated Seed - Best Management Practices" on the Health Canada webpage on pollinator protection at www.healthcanada.gc.ca/pollinators.
3. When using a seed flow lubricant with this treated seed, only a dust reducing fluency agent is permitted. Talc and graphite are not permitted to be used as a seed flow lubricant for corn or soybean seed treated with this insecticide. Carefully follow use directions for the seed flow lubricant.
4. Do not load or clean planting equipment near bee colonies, and avoid places where bees may be foraging, such as flowering crops or weeds.
5. When turning on the planter, avoid engaging the system where emitted dust may contact honey bee colonies.
6. This product is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present.
7. Treated seed is toxic to birds and small wild mammals.
8. Spilled or exposed seeds and dust must be incorporated into the soil or cleaned-up from the soil surface.

NOTE: In case of accident, take the product label to the emergency facility or physician.

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 web site at www.croplife.ca.

USE RESTRICTIONS

1. Treated seed must not be used for food, feed or oil processing.
2. Store away from food and feed.
3. For seed treated with CRUISER 5FS Seed Treatment, do not graze or feed livestock on treated areas for 45 days after planting.
4. All bags containing seed treated at the 500 g thiamethoxam/100 kg seed rate for sale or use in Canada must be labeled or tagged as follows: **“These seeds have been treated with 500 g thiamethoxam insecticide/100 kg seed. Wear cotton coveralls over long-sleeved shirt, long pants, chemical-resistant gloves and a NIOSH/MSHA approved respirator when handling treated seeds, including loading into seed hoppers and planting treated seed. Do not plant more than 1000 kg of corn seed per day. Do not graze or feed livestock on seeded area for 45 days after planting. Do not use for food, feed or oil processing. Store away from food and feed.**
5. All bags containing treated chickpea, lentil, dry pea (including field pea), lupin and faba bean for sale or use in Canada must be labeled or tagged as follows: **These seeds have been treated with thiamethoxam insecticide. All individuals handling treated chickpeas, lentils, dry peas (including field peas), lupins and faba beans must wear cotton coveralls over a long sleeved shirt, long pants, chemical-resistant gloves and a properly fit-tested NIOSH/MSHA approved dust mask classified as N95 or higher when loading seed into hoppers and planting treated seed. Do not graze or feed livestock on seeded area for 45 days after planting. Do not use for food, feed or oil processing. Store away from food and feed.**
6. All bags containing seed treated at a rate other than 500 g thiamethoxam/100 kg seed and that do not contain chickpeas, lentils, dry peas (including field peas) lupins or faba beans for sale or use in Canada must be labeled or tagged as follows: **These seeds have been treated with thiamethoxam insecticide. Wear long-sleeved shirt, long pants, and chemical-resistant gloves when handling treated seeds. Do not graze or feed livestock on seeded area for 45 days after planting. Do not use for food, feed or oil processing. Store away from food and feed.**
7. Additionally, all treated corn and soybean seed for sale or use in Canada must be labeled with the following information: **Thiamethoxam is toxic to bees. Dust generated during planting of treated seed may be harmful to bees and other pollinators. To help minimize the dust generated during planting, refer to the “Pollinator Protection and Responsible Use of Treated Seed - Best Management Practices” on the Health Canada webpage on pollinator protection at www.healthcanada.gc.ca/pollinators. When using a seed flow lubricant with this treated seed, only a dust reducing fluency agent is permitted. Talc and graphite are not permitted to be used as a seed flow lubricant for corn or soybean seed treated with this insecticide. Carefully follow use directions for the seed flow lubricant. Do not load or clean planting equipment near bee colonies, and avoid places where bees may be foraging, such as flowering crops or weeds. When turning on the planter, avoid engaging the system where emitted dust may contact honey bee colonies. Any spilled or exposed seeds must be incorporated into the soil or otherwise cleaned-up from the soil surface.**
8. All bags containing treated cucurbit seed for sale or use in Canada must be labeled or tagged as follows: **These seeds have been treated with thiamethoxam insecticide. Wear long-sleeved shirt, long pants, and chemical-resistant gloves when handling treated seeds. Use only closed cab planting equipment. In addition, all individuals handling treated cucurbit seed in enclosed areas (i.e. greenhouses) must wear a long-sleeved shirt, long pants, chemical-resistant gloves, and a properly fit-tested NIOSH/MSHA approved dust mask classified as N95 or higher when loading seed into**

automated planting equipment. Do not use for food, feed or oil processing. Store away from food and feed.

9. All bags containing treated canola, rapeseed or mustard (condiment or oilseed) for sale or use in Canada must be labelled or tagged as follows: **These seeds have been treated with the insecticide thiamethoxam. Wear coveralls over 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-approved dust mask rated N95 or higher when handling treated seeds (includes loading and unloading). Use only closed-cab planting equipment. Gloves and a dust mask 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.**
10. Do not plant treated seed by hand.

DECONTAMINATION AND DISPOSAL

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 Returnable Containers:

Do not reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

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.

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CALL 1-800-327-8633 (FASTMED)***

GENERAL INFORMATION

CRUISER 5FS Seed Treatment belongs to the neonicotinoid class of chemistry that controls listed chewing and sucking insects through contact and systemic activity. Thorough seed coverage will offer the best protection of the seed from insect damage. When rate ranges are given, use the higher rate when insect pressure is expected to be high.

When seed is treated for post-planting protection against registered pests, CRUISER 5FS Seed Treatment will also provide protection during post-treatment storage of the seed against damage from many storage insect pests. Seed treated with CRUISER 5FS Seed Treatment has been tested and found to be effective against rusty grain beetle, saw-toothed grain beetle, red flour beetle, rice weevil, lesser grain borer, European corn borer and Indian-meal moth.

For additional control of certain seed and soil borne pathogens, CRUISER 5FS Seed Treatment may be combined with the following seed treatment fungicides:

- Wheat and Barley: CRUISER 5FS Seed Treatment may be mixed with DIVIDEND® XL® (or DIVIDEND XL RTA®) in commercial seed treatment facilities with closed transfer including closed mixing, loading, calibrating, and closed treatment equipments only.
- Corn: CRUISER 5FS Seed Treatment may be mixed with MAXIM® XL (or MAXIM 480FS + APRON XL® LS) and DYNASTY® 100FS in commercial seed treatment facilities with closed transfer including closed mixing, loading, calibrating, and closed treatment equipments only.
- Dry Edible Beans: CRUISER 5FS Seed Treatment may be mixed with APRON MAXX® RTA® or APRON MAXX RFC (or MAXIM 480FS + APRON XL LS) in commercial seed treatment facilities with closed transfer including closed mixing, loading, calibrating, and closed treatment equipments only.
- Soybeans: CRUISER 5FS Seed Treatment may be mixed with APRON MAXX RTA or APRON MAXX RFC (or MAXIM 480FS + APRON XL LS) in commercial seed treatment facilities with closed transfer including closed mixing, loading, calibrating, and closed treatment equipments only.

When applied as a tank-mix combination, read and observe all label directions, including rates, restrictions, and grazing limitations for each product used in the tank-mix. Follow the more stringent precautionary measures for mixing, loading and applying stated on both product labels.

Note: Treatment of 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. 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 the seed before committing the total seed lot to a selected seed treatment. 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 material for all crop seed.

DIRECTIONS FOR USE

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests. DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

Ensure product is thoroughly mixed prior to application.

Apply CRUISER 5FS Seed Treatment utilizing closed system seed treatment equipment that provides uniform seed coverage. Uneven or incomplete seed coverage may not give the desired level of insect control. Thoroughly mix the recommended amount of CRUISER 5FS Seed Treatment into the required amount of water for the slurry rate to be used. Follow the manufacturer's application instructions for the seed treatment equipment being used. Maintain constant agitation of the slurry. Allow the seed to dry before bagging or storing into bulk containers. Depending on planting equipment, seed treated with CRUISER 5FS Seed Treatment may not flow through planting equipment at the same rate as untreated seed. Recalibrate this equipment before planting treated seed.

Ideal storage temperature is above freezing and below 30 °C. Repeated freeze-thawing of CRUISER 5FS Seed Treatment will not affect the physical integrity of the product. If the product should freeze, bring the product back to room temperature, and then ensure the contents are mixed well prior to application.

This product does not contain a colourant. A suitable colourant (red for cereals) must be added prior to application to the seed. Follow instructions on the colourant package for mixing. Regulations pertaining to colouration of treated seed enforced under the “Seeds Act” must be strictly adhered to when using this product. Users are responsible for ensuring that the treated seed, when dried and ready for bagging, has an unnatural colour.

USE RATES:

The following uses must be applied in commercial seed treatment facilities using closed transfer (including closed mixing, loading, calibrating, and closed treatment equipment):

Corn: (Field Corn, Seed Corn, Popcorn, Sweet Corn)

To provide protection against crop injury caused by Wireworms (*Agriotes* spp., *Limonius* spp. and *Melanotus* spp.) and European Chafer, apply CRUISER 5FS Seed Treatment at 83 mL/100 kg of seed. Do not apply less than 0.125 mg of active ingredient per kernel.

To provide protection against crop injury caused by Seed Corn Maggot, apply CRUISER 5FS Seed Treatment at 83 – 166 mL/100 kg seed (or 0.125 – 0.250 mg of active ingredient per kernel). Use the higher rate of CRUISER 5FS Seed Treatment for fields that have a history of moderate to severe pest pressure. To provide protection against Corn Flea Beetles which vector Stewart's Wilt disease, apply CRUISER 5FS Seed Treatment at 83 – 166 mL/100 kg seed. Do not apply less than 0.125 mg of active ingredient per kernel and do not exceed 0.250 mg of active ingredient per kernel.

To provide protection against crop injury caused by Corn Rootworm (including Western and Northern), apply CRUISER 5FS Seed Treatment at 830 mL/100 kg of seed. Do not apply less than 1.25 mg of active ingredient per kernel for seed planted in Canada. For seed destined to be exported from Canada, CRUISER 5FS Seed Treatment may be treated at 332 mL/100 kg of seed (0.500 mg of active ingredient per kernel).

It is recommended that seed with existing populations of storage pests be fumigated prior to treating and storage of seed.

For additional control of certain seed and soil borne pathogens, CRUISER 5FS Seed Treatment may be mixed with MAXIM XL (or MAXIM 480FS + APRON XL LS) and DYNASTY 100FS 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.

Dry Edible Beans:

To provide protection against crop injury caused by Potato Leafhopper and Seed Corn Maggot, apply CRUISER 5FS Seed Treatment at 50 – 83 mL/100 kg of seed. Use the higher rate when insect populations are expected to be high. To provide protection against crop injury caused by Wireworms, apply CRUISER 5FS Seed Treatment at 83 mL/100 kg of seed.

For additional control of certain seed and soil borne pathogens, CRUISER 5FS Seed Treatment may be mixed with APRON MAXX RTA or APRON MAXX RFC (or MAXIM 480FS + APRON XL LS) 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.

Soybeans:

To reduce early season defoliation caused by Bean Leaf Beetle, Wireworm, and European Chafer, apply CRUISER 5FS Seed Treatment at 83 mL/100 kg seed. Apply 83 mL of CRUISER 5FS Seed Treatment per 100 kg of soybean seed for early season protection against soybean aphid. To provide protection against crop injury caused by Seed Corn Maggot, apply CRUISER 5FS Seed Treatment at 50 – 83 mL/100 kg of seed. Use the higher rate when insect populations are expected to be high.

For additional control of certain seed and soil borne pathogens, CRUISER 5FS Seed Treatment may be mixed with APRON MAXX RTA or APRON MAXX RFC (or MAXIM 480FS + APRON XL LS) 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.

Canola, Rapeseed and Mustard (Condiment and Oilseed):

To control flea beetles, apply 320 – 640 mL/100 kg seed of CRUISER 5FS Seed Treatment using standard commercial seed treatment equipment that provides uniform seed coverage.

Crop	Insects Controlled ¹	Use Rate/100 kg seed*		Notes
		mL product	grams a.i.	
Corn	Wireworms European Chafer	83	50 (0.125 mg per kernel)	Do not graze or feed livestock on treated areas for 45 days after planting.
	Seed Corn Maggot Flea Beetles that vector Stewart's Wilt	83 – 166	50 – 100 or 0.125 – 0.25 mg per kernel	
	Corn Rootworm (including Northern, Western)	332 (export use only) 830	200 (0.500 mg per kernel; export use only) 500 (1.25 mg per kernel)	
Soybeans ²	Seed Corn Maggot	50 – 83	30 – 50	
	Bean Leaf Beetles Wireworms European Chafer Soybean Aphid	83	50	
Dry Edible Beans	Potato Leafhopper** Seed Corn Maggot	50 – 83	30 – 50	
	Wireworms	83	50	
Canola, Rapeseed, Mustard (Condiment and Oilseed)	Flea beetles	320 – 640	200 – 400	

* Use the higher rate when insect populations are expected to be high.

** Use the higher rate to replace one (1) application of a foliar insecticide spray.

¹ When seed is treated for post-planting protection against registered pests, CRUISER 5FS Seed Treatment will also provide protection during post-treatment storage of the seed against damage from many storage insect pests. Seed treated with CRUISER 5FS Seed Treatment has been tested and found to be effective against rusty grain beetle, saw-toothed grain beetle, red flour beetle, rice weevil, lesser grain borer, European corn borer and Indian meal moth.

² Based on 6 600 soybean seeds per kg, 50-83 mL of CRUISER 5FS Seed Treatment delivers 45-75 µg of the active ingredient, thiamethoxam, per soybean seed.

The following uses may be applied on-farm or by commercial treaters using closed transfer (including closed mixing, loading, calibrating, and closed treatment equipment).

Wheat & Barley:

To provide protection against crop injury caused by Wireworms (*Agriotes* spp., *Limoni* spp. and *Melanotus* spp.), apply CRUISER 5FS Seed Treatment at 17 – 50 mL/100 kg of seed. For early season suppression only, treat at 17 mL/100 kg of seed. For fields with a history of moderate to high wireworm pressure or if control is required, then treat crops at 33 – 50 mL/100 kg of seed, using the higher rate when infestation pressure is considered to be heavy.

For added control of certain seed- and soil-borne pathogens, CRUISER 5FS Seed Treatment may be mixed with DIVIDEND XL RTA. Follow all appropriate directions, precautions, etc. as specified on the fungicide labels.

Crop	Insects Controlled ¹	Use Rate/100 kg seed*		Notes
		mL product	grams a.i.	
Wheat and Barley	Wireworms	17**	10**	Do not graze or feed livestock on treated areas for 45 days after planting.
		33 – 50	20 – 30	

* Use the higher rate when insect populations are expected to be high.

** Use 17 mL/100 kg of seed for suppression of wireworms; however, if pressure is moderate to high or control is required, then treat crops at 33 – 50 mL/100 kg of seed.

¹When seed is treated for post-planting protection against registered pests, CRUISER 5FS Seed Treatment will also provide protection during post-treatment storage of the seed against damage from many storage insect pests. Seed treated with CRUISER 5FS Seed Treatment has been tested and found to be effective against rusty grain beetle, saw-toothed grain beetle, red flour beetle, rice weevil, lesser grain borer, European corn borer and Indian meal moth.

NOTE TO USER: READ THE FOLLOWING BEFORE USING THE 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.

Crops	Insects Controlled	Use Rate/100 kg seed*		mg ai per seed	Notes
		mL product	grams a.i.		

Crops	Insects Controlled	Use Rate/100 kg seed*		mg ai per seed	Notes
		mL product	grams a.i.		
Wheat and Barley	European Chafer	50	30	—	<p>May be applied <u>on-farm</u> or by <u>commercial treaters</u> using closed transfer (including closed mixing, loading, calibrating, and closed treatment equipment).</p> <p>For control of various diseases of cereal grains. CRUISER 5FS Seed Treatment may be tank mixed with DIVIDEND XL RTA Fungicide as part of a closed system application. Follow all appropriate directions, precautions, etc. as specified on product labels.</p> <p>Do not graze or feed livestock on treated areas for 45 days after planting.</p>
Edible-Podded and Succulent-Shelled Beans and Peas	Potato Leafhopper** Seed Corn Maggot	50 – 83	30 – 50	—	<p>To be applied in commercial seed treatment facilities using closed transfer (including closed mixing, loading, calibrating, and closed treatment equipment).</p> <p>CRUISER 5FS Seed Treatment tank mixed with APRON MAXX RTA or APRON MAXX RFC (or APRON XL LS and MAXIM 480FS) will control diseases listed on APRON MAXX RTA, APRON MAXX RFC, APRON XL LS and MAXIM 480FS labels. Follow all appropriate directions, precautions, etc. as specified on product labels.</p>
	Wireworms Soybean Aphid	83	50	—	

Crops	Insects Controlled	Use Rate/100 kg seed*		mg ai per seed	Notes
		mL product	grams a.i.		
Chickpeas, Lentils, Dry Peas (including field peas), Lupins, Faba Beans	Wireworms	17 [‡] 33-50 [‡]	10 20-30		<p>May be applied <u>on-farm</u> or by <u>commercial treaters</u> using closed transfer (including closed mixing, loading, calibrating, and closed treatment equipment).</p> <p>For control of various seed- and soil-borne diseases, CRUISER 5FS Seed Treatment may be tank mixed with either APRON MAXX RTA or APRON MAXX RFC (or APRON XL LS and MAXIM 480FS) Seed Treatment Fungicides as part of a closed system application.</p> <p>Refer to product labels for specific application instructions and precautions. A suitable colourant must be added to the slurry prior to application to the seed.</p> <p>Do not graze or feed livestock on seeded area for 45 days after planting.</p>
Faba Beans	Pea leaf weevil	50	30		<p>May be applied <u>on-farm</u> or by <u>commercial treaters</u> using closed transfer (including closed mixing, loading, calibrating, and closed treatment equipment).</p> <p>Do not graze or feed livestock on seeded area for 45 days after planting.</p> <p>Refer to product labels for specific application instructions and precautions. A suitable colourant must be added to the slurry prior to application to the seed</p>

Crops	Insects Controlled	Use Rate/100 kg seed*		mg ai per seed	Notes
		mL product	grams a.i.		
Dry peas	Pea leaf Weevil	50	30		<p>May be applied <u>on-farm</u> or by <u>commercial treaters</u> using closed transfer (including closed mixing, loading, calibrating, and closed treatment equipment).</p> <p>For control of various seed- and soil-borne diseases, CRUISER 5FS Seed Treatment may be tank mixed with either APRON MAXX RTA or APRON MAXX RFC (or APRON XL LS and MAXIM 480FS) Seed Treatment Fungicides as part of a closed system application.</p> <p>Refer to product labels for specific application instructions and precautions. A suitable colourant must be added to the slurry prior to application to the seed.</p> <p>Do not graze or feed livestock on seeded area for 45 days after planting.</p>

Crops	Insects Controlled	Use Rate/100 kg seed*		mg ai per seed	Notes
		mL product	grams a.i.		
Dry peas	Pea leaf Weevil	83	50		<p>This rate of CRUISER 5FS Seed Treatment must be applied by commercial treaters using closed transfer (including closed mixing, loading, calibrating, and closed treatment equipment).</p> <p>CRUISER 5FS Seed Treatment tank mixed with APRON MAXX RTA or APRON MAXX RFC (or APRON XL LS and MAXIM 480FS) will control diseases listed on APRON MAXX RTA, APRON MAXX RFC, APRON XL LS and MAXIM 480FS labels. Follow all appropriate directions, precautions, etc. as specified on product labels.</p>
Peas (edible-podded, succulent-shelled)	Pea leaf Weevil	50 - 83	30 - 50		<p>To be applied in commercial seed treatment facilities using closed transfer (including closed mixing, loading, calibrating, and closed treatment equipment).</p> <p>CRUISER 5FS Seed Treatment tank mixed with APRON MAXX RTA or APRON MAXX RFC (or APRON XL LS and MAXIM 480FS) will control diseases listed on APRON MAXX RTA, APRON MAXX RFC, APRON XL LS and MAXIM 480FS labels. Follow all appropriate directions, precautions, etc. as specified on product labels.</p>

Crops	Insects Controlled	Use Rate/100 kg seed*		mg ai per seed	Notes
		mL product	grams a.i.		
Sunflowers	Wireworms	—	—	0.25	<p>To be applied in commercial seed treatment facilities using closed transfer (including closed mixing, loading, calibrating, and closed treatment equipment).</p> <p>CRUISER 5FS Seed Treatment tank mixed with APRON XL LS and MAXIM 480FS fungicides will control labelled diseases listed on APRON XL LS and MAXIM 480FS labels. Follow all appropriate directions, precautions, etc. as specified on product labels.</p> <p>Pre-harvest Interval: 120 days</p> <p>For Import Use Only – Not for Domestic Commercial or On-Farm Seed Treatment.</p>
Sugarbeet	Wireworms Sugar Beet Root Maggot	50 – 100 per 100 000 seeds	30 – 60 per 100 000 seeds	0.3 – 0.6	<p>To be applied in commercial seed treatment facilities using closed transfer (including closed mixing, loading, calibrating, and closed treatment equipment).</p> <p>For additional control of listed seed and soil borne pathogens in sugar beet seed, CRUISER 5FS Seed Treatment may be tank mixed with APRON XL LS Fungicide as part of a closed system application.</p> <p>Do not graze or feed livestock on seeded area for 45 days after planting.</p> <p>A suitable colorant must be added to the slurry prior to application to the seed.</p> <p>For Import Use Only – Not for Domestic Commercial or On-Farm Seed Treatment.</p>

Crops	Insects Controlled	Use Rate/100 kg seed*		mg ai per seed	Notes
		mL product	grams a.i.		
Rye, Triticale, Buckwheat, Millet (pearl and proso)	Wireworms	17 [‡] 33 - 50 [‡]	10 20-30	—	<p>May be applied <u>on-farm</u> or by <u>commercial treaters</u> using closed transfer (including closed mixing, loading, calibrating, and closed treatment equipment).</p> <p>Use the higher control rate when wireworm populations are expected to be high.</p> <p>A suitable colourant must be added to the slurry prior to application to the seed.</p> <p>Do not graze or feed livestock on seeded area for 45 days after planting.</p> <p>For control of various diseases in cereal grains, CRUISER 5FS Seed Treatment can be tank mixed with DIVIDEND XL RTA Fungicide as part of a closed system application. Follow all appropriate directions, precautions, etc. as specified on product labels.</p>

Crops	Insects Controlled	Use Rate/100 kg seed*		mg ai per seed	Notes
		mL product	grams a.i.		
Sorghum	Wireworms	17 [†] 33 - 50 [†]	10 20-30	—	<p>To be applied in commercial seed treatment facilities using closed transfer (including closed mixing, loading, calibrating, and closed treatment equipment).</p> <p>Use the higher control rate when wireworm populations are expected to be high.</p> <p>A suitable colourant must be added to the slurry prior to application to the seed.</p> <p>Do not graze or feed livestock on seeded area for 45 days after planting.</p> <p>For control of various diseases in cereal grains, CRUISER 5FS Seed Treatment can be tank mixed with DIVIDEND XL RTA Fungicide as part of a closed system application. Follow all appropriate directions, precautions, etc. as specified on product labels.</p>

* Use the higher rate when insect populations are expected to be high.

** Use the higher rate to replace one (1) application of a foliar insecticide spray.

Crops	Insects Controlled	Use Rate/100 kg seed*		mg ai per seed	Notes
		mL product	grams a.i.		
Crop Group 9 (Cucurbit Vegetables) chayote, Chinese waxgourd, citron melon, cucumber, gherkin, edible gourds, Momordica spp., muskmelons, pumpkin, winter and summer squash and watermelon.	Cucumber beetle	--	--	0.25 – 0.75	For early season protection from cucumber beetle. Use the higher rate when insect populations are expected to be high. A suitable colourant must be added to the slurry prior to application to the seed. Do not graze or feed livestock on seeded area for 45 days after planting. For control of various diseases in cucurbit vegetables, CRUISER 5FS Seed Treatment can be tank-mixed with APRON XL LS Fungicide, MAXIM 480FS Colourless Seed Treatment Fungicide and/or DYNASTY 100FS Fungicide as part of a closed system application. Follow all appropriate directions, precautions, etc. as specified on product labels For import use only – Not for domestic, commercial or on-farm seed treatment.

* Use the higher rate when insect populations are expected to be high.
** Use the higher rate to replace one (1) application of a foliar insecticide spray.
*** Use 17 mL/100 kg of seed for suppression of wireworms; however, if pressure is moderate to high or control is required, then treat crops at 33 - 50 mL/100 kg of seed.

Resistance Management Recommendations

For resistance management, please note that CRUISER 5FS Seed Treatment contains a Group 4 insecticide. Any insect population may contain individuals naturally resistant to CRUISER 5FS Seed Treatment and other Group 4 insecticides. The resistant individuals may dominate the insect population if this group of insecticides is 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 resistance:

Where possible, rotate the use of CRUISER 5FS Seed Treatment or other Group 4 insecticides with different groups that control the same pests in a field.

Use tank mixtures with insecticides from a different group when such use is permitted.

Insecticide use should be based on an IPM program that includes scouting, record keeping, and considers cultural, biological and other chemical control practices.

Monitor treated pest populations for resistance development.

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

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

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