

STORED GRAIN PROTECTION

General Information

USE INFORMATION

CruiserMaxx Advanced is a seed treatment product containing the active ingredients: thiamethoxam (insecticide) and fludioxonil and mefenoxam (fungicides). CruiserMaxx Advanced protects against damage from listed early season insects, soil-borne and seed-borne diseases of soybeans.

Thiamethoxam is a systemic seed treatment insecticide belonging to the neonicotinoid class of chemistry. Thiamethoxam protects against certain chewing and sucking insects through contact and ingestion.

Mefenoxam fungicide is active against Pythium, Phytophthora and systemic downy mildew.

Fludioxonil fungicide is active against Fusarium, Rhizoctonia, and suppresses seed-borne Sclerotinia and Phomopsis species.

MIXING PROCEDURES

Important: Always re-circulate CruiserMaxx Advanced thoroughly before using.

The typical density of CruiserMaxx Advanced is 9.6 pounds per gallon. 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. Follow the manufacturer application instructions for the seed treatment equipment being used.

Apply CruiserMaxx Advanced as a water-based slurry utilizing standard slurry seed treatment equipment which provides uniform seed coverage. Uneven or incomplete seed coverage may not give the desired level of disease control. Thoroughly mix the specified amount of CruiserMaxx Advanced into the required amount of water or liquid inoculant for the slurry treater and dilution rate to be used.

Certain crops require addition of inoculants when the seed is treated or planted. CruiserMaxx Advanced is compatible with several liquid inoculant products. Consult the maker of the inoculant product and a Syngenta Crop Protection representative

for directions before applying CruiserMaxx Advanced with inoculants.

Under certain disease conditions, additional amounts of fungicides may be required. When needed, apply additional Apron XL or similar fungicide. Other tank mix partners may be used with CruiserMaxx Advanced; however, the user must consider the use rate, formulation, seed and crop safety factors and compatibility of each product to be mixed when determining the total application volume.

The total application volume must be sufficient to provide desired level of coverage. Dilution is typically done with water or liquid inoculants. The minimum slurry volume to achieve adequate coverage is 4.0 fluid ounces per 100 pounds of seed. More diluent may be required to obtain complete coverage.

Continuous agitation or mixing of the slurry mixture is necessary to prevent settling out of the solution.

Allow seed to dry before bagging.

Follow planter manufacturer recommendations for use of seed lubricant/fluency agent, or other hopper box additives at planting. Seed should be completely dry before adding to planter.

Seed treated with this product must be visually identifiable from untreated seed by the use of an approved colorant or dye to prevent accidental use of treated seed as food for humans or feed for animals. Refer to 21 CFR, Part 2.25. Any colorant or dye added to treated seed must be cleared for use in accordance with 40 CFR 153.155(c).

ROTATIONAL CROP RESTRICTIONS

In the event of a crop failure or harvest of a crop grown from CruiserMaxx Advanced treated seed, the field may be replanted immediately to alfalfa, Brassica (cole) leafy vegetables, cereal grains (including barley, buckwheat, corn, pearl millet, proso millet, oats, popcorn, rice (dry-seeded), rye, sorghum, teosinte, triticale, wheat and wild rice), canola, cotton, cucurbit vegetables, dry bulb onions, fruiting vegetables, leafy vegetables, legume vegetables (including soybeans), mint (peppermint and spearmint), oil seed crops (rapeseed, Indian rapeseed, Indian mustard seed, field mustard seed, black mustard seed, flax seed, safflower seed, crambe seed and borage seed), peanuts, root vegetables, strawberry, sunflowers, tobacco, and tuberous and corm vegetables.

For any other crop, the minimum plant-back interval is 120 days from the date CruiserMaxx Advanced treated seed was planted. 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.

SEED BAG 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 fludioxonil and mefenoxam fungicides.

Do not use for feed, food, or oil purposes.

User is responsible for ensuring that the seed bag meets all requirements under the Federal Seed Act.

In addition, the U.S. Environmental Protection Agency requires the following statements on bags containing seeds treated with CruiserMaxx Advanced:

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 groundwater. These chemicals may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Pollinator Precautions: Thiamethoxam is highly toxic to bees, and effects are possible as a result of exposure to translocated residues in blooming crops.

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 inch.

Dispose of all excess treated seed. Leftover treated seed may be doublesown 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 waters.

Dispose of seed packaging in accordance with local requirements.

In the event of a crop failure or harvest of a crop grown from CruiserMaxx Advanced treated seed, the field may be replanted immediately to alfalfa, Brassica (cole) leafy vegetables, cereal grains (including barley, buckwheat, corn, pearl millet, proso millet, oats, popcorn, rice (dry-seeded), rye, sorghum, teosinte, triticale, wheat and wild rice), canola, cotton, cucurbit vegetables, dry bulb onions, fruiting vegetables, leafy vegetables, legume vegetables (including soybeans), mint (peppermint and spearmint), oil seed crops (rapeseed, Indian rapeseed, Indian mustard seed, field mustard seed, black mustard seed, flax seed, safflower seed, crambe seed and borage seed), peanuts, root vegetables, strawberry, sunflowers, tobacco, and tuberous and corm vegetables. For any other crop, the minimum plant-back interval is 120 days from the date CruiserMaxx Advanced treated seed was planted. 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 allow children, pets, or livestock to have access to treated seed.

Do not apply more than 0.083 lb thiamethoxam/Acre (37.8 grams ai/A), 0.026 lb mefenoxam/Acre (12 grams ai/A), and 0.0085 lb fludioxonil/A (3.9 grams ai/A) as a seed treatment application. This seed has been treated with thiamethoxam at 0.0756 mg ai/seed, mefenoxam at 0.0113 mg ai/seed and fludioxonil 0.0038 mg ai/seed.

Do not apply a neonicotinoid insecticide within 45 days of planting soybean seed treated with CruiserMaxx Advanced.

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.

CROP USE RESTRICTIONS

Do not use for feed, food, or oil purposes.

Do not contaminate water bodies when disposing of planting equipment wash waters.

Do not allow children, pets, or livestock to have access to treated seed.

Do not apply more than 0.083 lb thiamethoxam/Acre (37.8 grams ai/A), 0.026 lb mefenoxam/Acre (12 grams ai/A), and 0.0085 lb fludioxonil/A (3.9 grams ai/A) as a seed treatment application. This seed has been treated with thiamethoxam at 0.0756 mg ai/seed, mefenoxam at 0.0113 mg ai/seed and fludioxonil 0.0038 mg ai/seed.

Do not apply a neonicotinoid insecticide within 45 days of planting soybean seed treated with CruiserMaxx Advanced.

CROP USE PRECAUTIONS

For resistance management, please note that CruiserMaxx Advanced contains Group 4/mefenoxam and Group 12/fludioxonil fungicides. Any fungal population

may contain individuals naturally resistant to CruiserMaxx Advanced and other Group 4 or Group 12 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

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.

To delay fungicide resistance, take one or more of the following steps:

- Rotate the use of CruiserMaxx Advanced or other Group 4 or Group 12 fungicides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicide from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crop and pathogens.
- For further information or to report suspected resistance contact Syngenta at 1-866-Syngent(a) (866-796-4368). You can also contact your pesticide distributor or university extension specialist to report resistance.

Syngenta encourages responsible product stewardship to ensure effective long term

control of the fungal diseases on this label.

For resistance management, CruiserMaxx Advanced contains a Group 4A/thiamethoxam insecticide. Any insect population may contain individuals naturally resistant to CruiserMaxx Advanced and other Group 4A insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

Thiamethoxam is a systemic insecticide belonging to the neonicotinoid class of chemistry which includes nicotinic acetylcholine receptor (nAChR) agonists.

To delay insecticide resistance, take the following steps:

- Rotate the use of CruiserMaxx Advanced or other Group 4A insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
 - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
 - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
 - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
 - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
 - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures

of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.

- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- 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 additional information on Insecticide Resistance Management:

- Contact Syngenta representatives at 1-800-334-9481
- Visit the Insecticide Resistance Action Committee (IRAC) on the web at: <http://www.irac-online.org>

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

Limitations, Restrictions, and Exceptions

Rates:

Thiamethoxam: 50 gm a.i. / 100 kgs seed

Mefenoxam: 7.50 gm a.i. / 100 kgs seed

Fludioxonil: 2.5 gm a.i. / 100 kgs seed

Thiamethoxam: 0.778 mg a.i. / seed

Mefenoxam: 0.0117 mg a.i. / seed

Fludioxonil: 0.0038 mg a.i. / seed

Total mg a.i. / seed =0.0907 mg a.i. / seed

Optional Treatment Addition of Apron XL

- 0.16-0.32 fl oz per 100 lb seed
- 3.75-7.50 gm ai per 100 kg seed
- 0.0059-0.0117 mg ai per seed
- 0.00053-0.0011 fl oz per 1,000 seeds
- 0.0746-0.1492 fl oz per 140,000 seeds

CROP USE DIRECTIONS

- The mg ai per seed, ml per 1,000 seeds and fl oz CruiserMaxx Advanced per 140,000 seeds rates are based on 3,000 seeds per pound.
- When to Add Additional Apron XL:

If target fields have a history of high Phytophthora pressure, add additional Apron XL as directed in the rate table and the Apron XL label. The additional Apron XL may reduce compatibility with some rhizobia inoculants. Consult with the maker of rhizobia inoculants before adding the additional Apron XL.

Stored Grain Protection

When treated according to the directions for post-planting protection against listed pests, CruiserMaxx Advanced will also provide protection during post treatment storage of the soybean seed against damage from the following stored grain insects: Indian Meal Moth (*Plodia interpunctella*), Rice Weevil (*Sitophilus oryza*), Red Flour Beetle (*Tribolium castaneum*), and Lesser Grain Borer (*Rhizopertha dominica*).

If the soybean seed to be treated has existing infestations of stored grain insects, it is recommended that the seed be fumigated prior to treating with CruiserMaxx Advanced and bagging.

Method

[Seed Treatment](#)

Rates

[field_rates 0](#)

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Restricted Entry Interval

48 hours

Exception: If the seed is treated with the product and the treated seed is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

Timings

[Postplant](#)