

SOYBEAN (INCLUDING SOYBEAN VEGETABLE) - STORED GRAIN PROTECTION

General Information

USE INFORMATION

Adage ST is a seed treatment product containing the active ingredients: thiamethoxam (insecticide) and fludioxonil and mefenoxam (fungicides). Adage ST protects against damage from certain 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 Adage ST thoroughly before using.

The typical density of Adage ST 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 Adage ST 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 recommended amount of Adage ST 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.

Adage ST is compatible with several liquid inoculant products. Consult the maker of the inoculant product and a Syngenta Crop Protection representative for directions before applying Adage ST with inoculants.

Under certain disease conditions, additional amounts of fungicides may be required. When needed, apply additional Apron XL according to the CROP USE DIRECTIONS. Other tank mix partners may be used with Adage ST; 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 talc or other hopper box additives at planting. Seed should be completely dry before adding to planter.

Adage ST contains an EPA approved dye/colorant that imparts an unnatural color to the seed as required by the Federal Seed Act.

SEED BAG LABEL REQUIREMENTS

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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 Adage ST:

- Ground Water Advisory: This product has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into the ground water 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 Adage ST 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 Adage ST 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 use at a rate that will result in more than 0.083 lb thiamethoxam per acre (37.8 grams ai/A) as a seed treatment application. This seed has been treated with thiamethoxam at 0.0756 mg ai/seed.
- Do not apply a neonicotinoid insecticide within 45 days of planting soybean seed treated with Adage ST.
- 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 PRECAUTIONS

Resistance Management

Some insect pests are known to develop resistance to products after repeated use. Because resistance development cannot be predicted, the use of this product should conform to sound resistance management strategies established for the crop and use area. Syngenta encourages responsible product stewardship to ensure effective long-term control of the insects on this label.

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 extreme 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 your area.

Adage ST contains a Group 4A insecticide (thiamethoxam, belonging to the neonicotinoid class of chemistry). Insect biotypes with acquired or inherent resistance to Group 4A insecticides may eventually dominate the insect population if Group 4A insecticides are used repeatedly as the predominant method of control for targeted species. This may result in partial or total loss of control of those species by Adage ST or other Group 4A insecticides.

In order to maintain susceptibility to this class of chemistry:

- Avoid using Group 4A insecticides exclusively for season long control of insect species with more than one generation per crop season.
- For insect species with successive or overlapping generations, apply Adage ST or other Group 4A insecticides using a “treatment window” approach. A treatment window is a period of time as defined by the stage of crop development and/or the biology of the pests of concern. Within the treatment window, depending on the length of residual activity, there may either be single or consecutive applications (seed treatment, soil, foliar, unless otherwise stated) of the Group 4A insecticides. Do not exceed the maximum Adage ST allowed per growing season.
- Following a treatment window of Group 4A insecticides, rotate to a treatment window of effective products with a different mode of action before making additional applications of Group 4A insecticides.
- A treatment window rotation, along with other IPM practices for the crop and use

area, is considered an effective strategy for preventing or delaying a pest's ability to develop resistance to this class of chemistry.

- If resistance is suspected, do not reapply Adage ST or any other Group 4A insecticides.

Other Insect Resistance Management (IRM) practices include:

- Incorporating IPM techniques into your insect control program.
- Monitoring treated insect populations for loss of field efficacy.
- Using tank-mixtures or premixes with insecticides from a different target site of action group as long as the involved products are all registered for the same crop outlet and effective rates are applied.

For additional information on Insect Resistance Management:

- Contact your local extension specialist, certified crop advisor and/or product manufacturer for additional insect resistance management recommendations.
- Visit the Insecticide Resistance Action Committee (IRAC) on the web at:

<http://www.irac-online.org/>.

Adage ST contains the fungicide mefenoxam, a systemic fungicide having a specific mode of action against fungal pathogens.

Note: The fungicide mefenoxam contained in this product could be subject to development of insensitive strains of fungi or may be ineffective against naturally occurring strains of fungi. Development of insensitivity or natural tolerance cannot be predicted. Therefore, Syngenta cannot assume liability for crop damage resulting from insensitive or tolerant strains of fungi. Consult with your State Agricultural Experiment Station or Extension Service Specialist for guidance and ways to control any possible insensitive or tolerant strains of fungi which may occur.

Consult your local pest control advisor or extension office for additional methods for preventing resistance development. Syngenta encourages responsible product stewardship to ensure effective long term control of the insect pests on this label.

Limitations, Restrictions, and Exceptions

Rate

Thiamethoxam: 50 grams ai per 100 kg seed

Mefenoxam 7.50: grams ai per 100 kg seed

Fludioxonil: 2.5 grams ai per 100 kg seed

Thiamethoxam: 0.0756 mg ai per seed

Mefenoxam: 0.0113 mg ai per seed

Fludioxonil: 0.0038 mg ai per seed

Stored Grain Protection

When treated according to the directions for post-planting protection against listed pests, Adage ST 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 Adage ST and bagging.

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.

Method

[Seed Treatment](#)

Rates

[field rates 0](#)

[field rates 1](#)

[field rates 2](#)

[field rates 3](#)

[field rates 4](#)

[field rates 5](#)

[field rates 6](#)

[field rates 7](#)

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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

N.A.