

100-941

12/4/2000

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U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (H7505C)  
401 "M" St., S.W.  
Washington, D.C. 20460

EPA Reg. Number:  
100-941

Date of Issuance:  
DEC 4 2000

Term of Issuance: Conditional

Name of Pesticide Product:  
Adage™ 5FS

**NOTICE OF PESTICIDE:**

Registration  
 Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):  
Syngenta Crop Protection Inc.  
P.O. Box 18300  
Greenboro, NC 27419-8300  
Attn: Robert Wruz

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(C), provided that you submit the following data and label revisions:

1. Submit and/or cite all data required for registration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
2. Before you release the product for shipment revise the EPA Registration number to read "EPA Reg. No. 100-941".
3. Submit the following information to satisfy the data gaps in the data base for Thiamethoxam and its metabolite. The following information is required within 15 months of the date of this Notice:

**Residue Chemistry:**

- 860.1340: Modification of Method AG-675 to add microwave extraction of liver or a new enforcement method for liver; additional radiovalidation data for beef liver
- 860.1380: Storage stability data continued to cover the conditions and intervals that plant and animal commodity samples were stored (up to 30 months)
- 860.1480: Reanalysis of the cow liver samples from the feeding study using a microwave extraction step
- 860.1900: Reanalysis of field rotational crop samples for metabolite CGA-265307 and description of storage conditions for future uses
- 860.1300: Plant metabolism study on a leafy vegetable (Crop Group 4 or 5)
- 860.1300: Poultry metabolism study

Signature of Approving Official:

Date:

DEC 4 2000

EPA form 8570-6 (EPA reg. No.100-941) continued from page 1...

- Submit the following information to satisfy the data gaps in the data base for Thiamethoxam and its metabolite. The following information is required within two years of the date of this Notice:

**Toxicology Data:**

870.6300: Developmental neurotoxicity study.

**Ecological Effects**

72-4b: Daphnia chronic study repeated to fulfill guideline requirements

5. Submit two (2) copies of your **final printed label** for before your release the product for shipment. Please refer to the A-79 enclosure for a further description of final printed labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product bearing amended labeling constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

A stamped copy of the label is enclosed for your records. If you have any questions regarding this action, please contact Dani Daniel at 703 305-5409.

Sincerely,

Kerry Leifer, Acting Chief  
Insecticide-Rodenticide Branch  
Registration Division (7505C)

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ACCEPTED  
DEC 4 2000  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under  
EPA Reg. No. 100-941



# Adage™ 5FS

## INSECTICIDE

A seed treatment product for control  
of certain insects on barley, cotton,  
sorghum, and wheat

**Active Ingredient:**

Thiamethoxam	
(CAS No. 153719-23-4)	47.6%
Other Ingredients:	52.4%
Total:	100.0%

**KEEP OUT OF  
REACH OF  
CHILDREN.**

### CAUTION

See storage, disposal, and  
precautionary statements  
and directions for use inside  
booklet.

EPA Reg. No. 100-941  
EPA Est. 34704-MS-02

SCP 941A-L1A 1100



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

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

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

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and Buyer and User assume the risk of any such use. SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE. In no event shall SYNGENTA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

**DIRECTIONS FOR USE**

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

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 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.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

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

Treatment of highly mechanically scarred or damaged seed, or seed known to be of low vigor and poor quality, except for the purpose of curative control of existing disease pests, may result in reduced germination and/or reduction of seed and seedling vigor. Treat a small quantity of seed using equipment similar to that planned for treating the total seed lot. Conduct germination tests on a small portion of 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, no claims are made to guarantee the germination of carry-over seed or propagating material for all crop seed.

**GENERAL INFORMATION**

Adage 5FS is a systemic seed treatment insecticide belonging to the neonicotinoid class of chemistry. Adage 5FS controls certain chewing and sucking insects through contact and ingestion. When rate ranges are given, use higher rate when insect pressure is expected to be high.

**Mixing Procedures**

**Important:** Always recirculate Adage 5FS thoroughly before using.

Apply Adage 5FS 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 insect or disease control. Thoroughly mix the recommended amount of Adage 5FS into the required amount of water for the slurry treater and dilution rate to be used. The typical density of Adage 5FS is 10.5 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. Allow seed to dry before bagging.

Federal law requires that bags containing treated seed shall be labeled with the following information: "This seed has been treated with thiamethoxam insecticide. Do not use for feed, food, or oil purposes. Store away from feed and foodstuffs." Use an EPA-approved dye or colorant that imparts an unnatural color to the seed.

**BARLEY**

To provide early season protection of seedlings against injury by bird cherry-oat aphids, English grain aphid, greenbug, Russian wheat aphid, Hessian fly and wireworm, and to reduce potential spread of barley yellow dwarf virus due to aphid vectors, apply Adage 5FS at 0.75-1.33 fl. oz. per 100 lbs. of seed.

**COTTON (DELINTED ONLY)**

To provide early season protection of seedlings against injury by cotton aphid, western flower thrips, and tobacco thrips, apply Adage 5FS at 5.1-7.65 fl. oz. per 100 lbs. of seed. Plant Adage 5FS-treated cotton seed based on dates recommended by your state agricultural extension agent. In northern cotton growing regions such as NC and VA, or where thrip pressure is expected to be severe, use Adage 5FS seed treatment followed by foliar sprays of Orthene® beginning when cotton is at the 1 leaf stage. Follow the Orthene product label for rates, use instructions, and limitations.

**SORGHUM**

To provide early season protection of seedlings against injury by corn leaf aphid, yellow sugarcane aphid, greenbug, chinch bug, seed corn maggot, wireworm, and fire ants, apply Adage 5FS at 5.1 fl. oz. per 100 lbs. of seed.

**WHEAT**

To provide early season protection of seedlings against injury by bird cherry-oat aphids, English grain aphid, greenbug, Russian wheat aphid, Hessian fly and wireworm, and to reduce potential spread of barley yellow dwarf virus due to aphid vectors, apply Adage 5FS at 0.75-1.33 fl. oz. per 100 lbs. of seed.

**Rotational Crops:** Treated areas may be replanted immediately following harvest or as soon as practical following the last application with any crop on this label or to cucurbit vegetables, fruiting vegetables, tuberous and corm vegetables, and tobacco. For all other crops, a 120-day plant-back interval must be observed.

**STORAGE AND DISPOSAL****Pesticide Storage and Disposal**

Store in a cool, dry place. Storage for extended periods above 90°F is not recommended. Do not contaminate water, food, or feed by storage, disposal, or cleaning of equipment. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

**Container Disposal**

Triple rinse (or equivalent), then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by incineration, or by open burning, if allowed by state and local authorities. If burned, keep out of smoke.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

**PRECAUTIONARY STATEMENTS**

**Hazards to Humans and Domestic Animals**

**CAUTION**

Harmful if swallowed, inhaled, or absorbed through the skin. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

FIRST AID	
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move the person to fresh air.</li> <li>• If person is not breathing, call an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>• Call a poison control center, doctor, or 1-800-888-8372 immediately for treatment advice.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center, doctor, or 1-800-888-8372 immediately for treatment advice.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center, doctor, or 1-800-888-8372 immediately for treatment advice.</li> </ul>
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a poison control center, doctor, or 1-800-888-8372 immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> </ul>

**Note to Physician:** There is no specific antidote if Adage 5FS is ingested. Induce emesis or lavage stomach. Treat symptomatically.

**Personal Protective Equipment**

Applicators and other handlers must wear:

- Coveralls
- Waterproof gloves
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**Engineering Control Statements**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**User Safety Recommendations**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

**Note:** Workers must wear long pants, long-sleeved shirts, and chemical-resistant gloves when applying Adage 5FS as a seed treatment.

**Surface Water Advisory**

This product may contaminate water through drift of spray in wind. This product has a high potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall runoff (See manual at the following internet address: <http://www.nrcs.usda.gov/water/quality/common/pestmgmt/files/core4.html>).

Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

**Ground Water Advisory**

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

## Adage™ 5FS

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### Environmental Hazards

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift or runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash water.

### Spray Drift Advisory

Do not allow this product to drift.

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Adage™ trademark of Syngenta  
U.S. Patent Nos. 5,852,012 and 6,022,871  
Orthene® trademark of Monsanto Company  
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Syngenta Crop Protection, Inc.  
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**SCP 941A-L1A 1100**