

42750-268

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460



OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

November 18, 2014

Ms. Carolyn Miter  
Registration Specialist  
Albaugh, LLC  
P.O. Box 2127  
Valdosta, GA 31604

Subject: Label Notification per PRN 98-10 – Alternate Brand Name  
Product Name: CFI-STAR-IFTZ-10 ST  
EPA Registration Number: 42750-268  
Application Date: August October 9, 2014  
Decision Number: 496752

Dear Ms. Miter:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The alternate brand name UpperHand ST has been added to the product records

If you have any questions, you may contact Melody Banks at 703 305 5413 or via email at [banks.melody@epa.gov](mailto:banks.melody@epa.gov).

Sincerely,

A handwritten signature in black ink that reads "Venus Eagle". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Venus Eagle  
Product Manager 1  
Invertebrate & Vertebrate Branch 3  
Registration Division (7504P)

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# UpperHand™ ST

## SEED PROTECTANT

### ACTIVE INGREDIENTS:

<b>Imidacloprid:</b> 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine)	2.65%
<b>Metalaxyl:</b> N-(2,6-dimethylphenyl)-N-(methoxyacetyl)alanine methyl ester	0.59%
<b>Tebuconazole:</b>	
Alpha-[2-(4-chlorophenyl)ethyl]-alpha-(1,1-dimethyl-ethyl)-1H-1,2,4-triazole-1-ethanol	0.44%
<b>Thiabendazole:</b> 2-(4-thiazolyl)benzimidazole	0.65%
<b>Fludioxonil:</b> (CAS No 131341-86-1)	0.01%
OTHER INGREDIENTS:	95.66%
TOTAL	100.0%

- Contains 0.038 pounds tebuconazole per gallon, or 4.56 grams per liter.
- Contains 0.051 pounds metalaxyl per gallon, or 6.09 grams per liter.
- Contains 0.227 pounds imidacloprid per gallon, or 27.25 grams per liter.
- Contains 0.056 pounds thiabendazole per gallon, or 6.70 grams per liter.
- Contains 0.001 pounds fludioxonil per gallon, or 0.08 grams per liter.

### NOTIFICATION

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KEEP OUT OF REACH OF CHILDREN

### CAUTION

FIRST AID	
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>Call a poison control center or doctor 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 a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
Note to Physician: No specific antidote is available. Treat the patient symptomatically.	
HOT LINE NUMBER: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL CHEMTREC® TOLL FREE AT 1-800-424-9300.	

EPA Reg. No. 42750-268  
AD082614

EPA Est. 42750-MO-001

NET CONTENTS: \_\_\_\_\_ Gallons

Manufactured By:  
ALBAUGH, LLC  
ANKENY, IA 50021

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using the toilet or using tobacco. Remove contaminated clothing and wash before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category C on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- 1. Long-sleeved shirt and long pants
- 2. Shoes plus socks,
- 3. Chemical resistant gloves (such as nitrile, butyl, neoprene, barrier laminate, polyvinyl chloride or Viton)

When handlers use closed systems in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170-240 (d) (4)], the handler PPE may be reduced or modified as specified in the WPS.

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.

USER SAFETY RECOMMENDATIONS

Users should

- 1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- 2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 3. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change clothing.

ENVIRONMENTAL HAZARDS

This product is highly toxic to birds, fish, and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Treated seeds exposed on soil surface may be hazardous to wildlife. Cover or incorporate spilled treated seeds during loading and planting. Dispose of all excess seed during by burying seed away from bodies of water. Do not contaminate water when disposing of equipment washwater or rinsate or by disposal of wastes.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. Ensure that planting equipment is functioning properly in accordance with manufacturing recommendations to minimize seed coat abrasion during planting to reduce dust which can drift to blooming crops or weeds.

Groundwater Advisory: Metalaxyl has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is low.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional office of the EPA.

### DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40CFR 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.

After seeds have been planted, do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

Exception: Once the seeds are planted in soil, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area without restriction if there will be no worker contact with treated seed.

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:

1. Coveralls
2. Chemical-resistant gloves made of any waterproof material
3. Shoes plus socks
4. Protective eyewear

NOTE: The purchaser of this product is responsible for ensuring that all seed treated with this product are adequately dyed with a suitable color to prevent its accidental use as food for man or feed for animals.

Refer to 21 CFR, Part 2.25. Any dye or colorant added to treated seed must be cleared for use under 40CFR, Part 153.155(a).

#### USE INFORMATION

UpperHand™ ST is a systemic and contact broad-spectrum fungicide plus systemic insecticide for seed treatment that protects against wireworms and a wide variety of specified diseases. UpperHand™ ST is effective against the diseases *Fusarium*, *Cochliobolus sativus*, *Pythium*, smuts, bunt and leaf stripe. It is

also effective against seed rot fungi such as *Aspergillus* and *Penicillium*.

UpperHand™ ST provides suppression of wireworm activity on seed and young seedlings.

Do not use UpperHand™ ST in combination with other seed treatment products unless compatibility has been verified. Read and follow carefully all label directions of each combination product. When using combinations of products, the most restrictive of label limitations and precautions must be followed.

Allow seed to dry before bagging.

Manual seed treatments are prohibited.

ALWAYS SHAKE OR STIR WELL BEFORE USE

SEED TREATMENT EQUIPMENT

UpperHand™ ST may be used both for commercial and for on-farm application. DO NOT apply this product as a planter box or hopper box treatment. Apply UpperHand™ ST with mechanical, slurry, or mist-type seed treating equipment, provided that the equipment can be calibrated to accurately and uniformly apply the product to seed. Uniform application to seed is necessary to ensure best disease and insect protection and optimum performance. For best activity of this product, seed must be sound and well-cured before treatment.

Refer to the APPLICATION INSTRUCTIONS below for label rates.

In most cases, UpperHand™ ST is ready to use and may be applied to seed as is; however, dilution with water may be appropriate for some types of treaters and/or when treating under dry and/or hot conditions, to achieve more uniform product to seed coverage. Mix UpperHand™ ST and water thoroughly into a slurry prior to treating seed. Recalibrate treating equipment to compensate for the addition of water. The amount of dilution water that is most suitable depends on the seed, treater type and temperature. Contact your local Albaugh, LLC representative or supplier for specific recommendations.

WHEAT APPLICATION INSTRUCTIONS

Crop	Rate per 100 lbs. seed	Symptoms Controlled	Symptoms Suppressed	Insect Protection
Wheat (Spring and Winter)	5.21 fl. Oz.	<p>General seed rots (including those caused by <i>Penicillium</i> and <i>Aspergillus</i>)</p> <p>Damping off and seedling blight (seed- and soil-borne <i>Fusarium</i>, <i>Pythium</i> and <i>Cochliobolus sativus</i>)</p> <p>Loose Smut (<i>Ustilago tritici</i>)</p> <p>Common Bunt (<i>Tilletia cariesj foetida</i>)</p> <p>Early Season Root Rot (<i>Rhizoctonia</i>)</p>	<p>Common root rot (<i>Cochliobolus sativus</i>)</p> <p>Crown and Foot Rot (<i>Fusarium</i>)</p> <p>Early season suppression of powdery mildew and wheat leaf rust</p> <p>Yellow Dwarf Virus symptoms and spread.</p>	<p>Early season protection of seedlings against injury by:</p> <p>Aphids (including Bird cherry-oat, English grain, Greenbug, and Russian wheat aphid) (that vector Barley Yellow Dwarf Virus), Wireworms and Hessian fly</p>

		Early season Stinking smut, Flag smut & Loose smut		
		Early season Septoria disease complex		

NOTES:

- When high incidence of seed borne fusarium occurs, an additional volume of .08 fl oz/cwt of Thiabendazole 4.1 may be applied for additional disease control and germination increase.

USE RESTRICTIONS:

- Do not use treated seed for food, feed or oil purposes.
- Care must be exercised in the handling of treated seed. Augers used for handling treated seed should not be used to move seed for feed, food or oil processing.
- Do not re-use bags from treated seed to handle food or feed products.
- Wheat: Do not graze or feed livestock on treated areas.
- Do not feed vines or hay grown from treated seed to livestock.
- Maximum of one application per season.
- Do not allow children, pets, or livestock to have access to treated seed.
- Do not apply more than 0.5 lb imidacloprid (including seed treatment, foliar, and soil applications) per acre per year.

SEED BAG LABEL REQUIREMENTS

Federal regulations have established official tolerances for certain pesticide residues. In order that residues on food and forage crops will not exceed established tolerances, use only at specified rates.

The Federal Seed Act requires that bags containing pesticide treated seeds shall be labeled with the following statements:

- This seed has been treated with an imidacloprid, metalaxyl, tebuconazole, thiabendazole and fludioxonil pesticide. Do not use for feed, food or oil purposes.

In addition, the US EPA requires the following statements on bags containing seeds treated with UpperHand™ ST:

- POLLINATOR PRECAUTIONS: Imidacloprid is highly toxic to bees. Ensure that planting equipment is functioning properly in accordance with manufacturer specifications to minimize seed coat abrasion during planting to reduce dust which can drift to blooming crops or weeds.
- Exposed treated seed may be hazardous to birds. Cover or incorporate spilled treated seeds. Excess or leftover seed may be double sown around the headland or buried away from bodies of water in accordance with local requirements.
- Dispose of seed packaging in accordance with local requirements.
- The maximum application rate (including seed treatment, foilar application, and soil application) per acre per year for imidacloprid is 0.5 lb.
- This seed has been treated with \_\_\_lbs imidacloprid per lb of seed [or \_\_\_mg imidacloprid per seed].
- 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 pesticides remain in the ethanol by products that are used in agronomic practice.

- Treated seed must not be used for or mixed with food or animal feed or processed for oil.
- Store away from treated foodstuffs.
- Do not feed vines and hay grown from treated seed to livestock.
- 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 and planting.
- Dispose of all excess treated seed. Leftover treated seed may be buried away from water sources in accordance with local requirements.
- 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.
- Treated seed must be planted into the soil at a depth greater than one inch.
- **[Rotational Crop Plant-Back Intervals from the product label must be applied to seed bags]**

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

**ROTATIONAL CROPS:**

Treated areas may be replanted with any crop specified on an imidacloprid label, or any crop for which a tolerance exists for the active ingredient, as soon as practical following the last application. The following plant-back intervals are required for listed crops:

Rotational Plant-Back Intervals*		
	Immediate plant-back	30-DAY PLANT BACK
Artichoke	Oats	Cereals, including: Buckwheat Rice Millet
Barley	Okra	
Brassica (cole) leafy veg.	Pepinos	
Borage	Pepper	
Bulb Veg	Popcorn	
Canola	Potato	
Cilantro	Rapeseed	
Corn, Field	Rye	
Com, Sweet	Safflower	
Cotton	Sorghum	
Cranberry	Soybean	
Crambe	Strawberry	
Cucurbits	Sugarbeet	
Eggplant	Sunflower	
Flax	Tomatillo	
Ground cherry	Tomato	
Leaf petiole veg.	Triticale	
Leafy veg.	Veg. Root and Tuber	
Legume veg. (succulent Or dried, including soybean)	Watercress	
Mustard Seed	Wheat	

\* Cover crops for soil building or erosion control may be planted any time, but do not graze or harvest for food or feed.  
 \* For all other crops not listed on an Imidacloprid label, or for crops for which no tolerance for the active ingredient has been established, a 12-month plant-back interval is required.

Notification of the crop rotational restriction must be conveyed to the grower by appropriate seed bag labeling or bag printing on all seed units.

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### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage, disposal, or by cleaning of equipment. Open dumping is prohibited.

**PESTICIDE STORAGE:** Store in a cool place. Do not store in direct sunlight. Protect from freezing temperatures.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

#### CONTAINER DISPOSAL:

**Non-refillable containers (1, 2.5, 30 & 55 gallon):** Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

(non-refillable <5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

(non refillable >5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows (all sizes): Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use for disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable container (250 gallon & bulk): Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing process two more times.

**IMPORTANT NOTICE -** Seller warrants that this product conforms to the chemical description and is a reasonable fit for the purposes stated on the label only when used in accordance with the directions and instructions specified on the label under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, expressed or implied, extends to the use of this product, contrary to label instructions, or under conditions not reasonably foreseeable to seller, and, to the extent consistent with applicable law, the buyer assumes the risk of any such use.

Treatment of highly mechanically 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 and conduct germination tests on a small test sample of seed before treating commercial



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quantities with a selected chemical treatment. Due to seed quality and seed storage conditions beyond the control of Albaugh, Albaugh makes no claims or guarantees as to germination of carry-over seed.