

70506-155

05/02/2007

1/17



U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (7505C)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:  
70506-155

Date of Issuance:  
MAY 2 2007

NOTICE OF PESTICIDE:

- Registration
- Reregistration

(under FIFRA, as amended)

Term of Issuance:  
Conditional

Name of Pesticide Product:  
Imidacloprid 4 F Insecticide

Name and Address of Registrant (include ZIP Code):

United Phosphorus, Inc.  
423 Riverview Plaza  
Trenton, NJ 08611

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 section 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product when the Agency requires all registrants of similar products to submit such data.
2. Make the following label changes before you release the product for shipment:
  - a. Revise the EPA Registration Number to read, "EPA Reg. No. 70506-155".
3. The data requirements for storage stability (830-6317) and corrosion characteristics (830-6320) have not been satisfied, and must be submitted within eighteen months of the date of this letter.

Signature of Approving Official:

Kable Bo Davis, Entomologist  
Insecticide-Rodenticide Branch, Registration Division (7505P)

Date:

MAY 2 2007

2/17

Page 2  
EPA Reg. No. 70506-155

4. Submit one copy of the revised final printed label for the record before you release the product for shipment.

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 constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Kable Bo Davis  
Entomologist  
Insecticide-Rodenticide Branch  
Registration Division (7505P)

Enclosure

3/17

IMIDACLOPRID 4 F

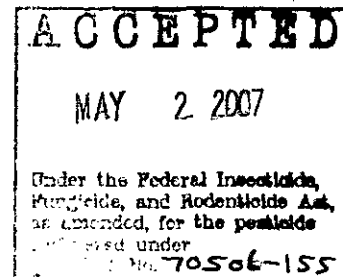
draft 5/2/07

### IMIDACLOPRID 4 F INSECTICIDE

**For protection of cotton and pecans from certain insects  
For seed treatment uses**

**ACTIVE INGREDIENT**

Imidacloprid - 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine.....	40.7%
OTHER INGREDIENTS.....	59.3%
Total	100%



Contains 4 pounds of active ingredient per gallon

**KEEP OUT OF REACH OF CHILDREN**

### CAUTION

<b>FIRST AID</b>	
If Swallowed	<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 the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
If on Skin or Clothing	<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 or doctor for treatment advice.</li> </ul>
If Inhaled	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call an ambulance, then give artificial respiration.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
If In Eyes	<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 or doctor for treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Contact the Rocky Mountain Poison Center at 1-866-767-5089 for emergency medical treatment information.	
<b>NOTE TO PHYSICIAN:</b> No specific antidote is available. Treat symptomatically.	

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC at 1-800-424-9300**

United Phosphorus, Inc.  
 423 Riverview Plaza  
 Trenton, NJ 08611  
 1-800-247-1557 • [www.upi-usi.com](http://www.upi-usi.com)

Contents:  
 EPA Reg. No. 70506-  
 EPA Est. No.

4/17

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

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

**Personal Protective Equipment (PPE)**

Some materials that are chemical resistant to this product are listed below. More options can be obtained by following the instruction for Category C on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirts and long pants
- Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton
- Shoes plus socks

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

**ENGINEERING CONTROLS STATEMENT**

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.
- Remove PPE immediately after handling. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water, areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

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. This product is toxic to wildlife and highly toxic to aquatic vertebrates.

This chemical demonstrates the 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 groundwater contamination.

**OBSERVE THE FOLLOWING PRECAUTIONS WHEN MIXING AND APPLYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES; RESERVOIRS; RIVERS;**

**PERMENENT STREAMS; MARSHES OR NATURAL PONDS; ESTUARIES, AND COMMERCIAL FISH FARM PONDS.****Spray Drift Management**

The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions. Avoiding spray drift is the responsibility of the applicator.

**Mixing and Loading Requirements**

To avoid potential contamination of groundwater, the use of a properly designed and maintained containment pad for mixing and loading of any pesticide into application equipment is recommended. If a containment pad is not used, maintain a minimum distance of 25 feet between mixing and loading area and potential surface to groundwater conduits such as field sumps, uncased well heads, sinkholes, or field drains.

**Aerial Applications**

The spray boom should be mounted on the aircraft so as to minimize draft caused by wing tip vortices. The minimum practical boom length should be used, and must not exceed 75% of the wing span or rotor diameter.

**Importance of Droplet Size**

An important factor influencing drift is droplet size. Small droplets (<150 – 200 microns) drift to a greater extent than large droplets. Within typical equipment specifications, applications should be made to deliver the largest droplet spectrum that provides sufficient control and coverage. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray boom pressure.

Spray should be released at the lowest possible height consistent with good pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.

**Wind Speed Restrictions**

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size, canopy and equipment specifications determine drift potential at any given wind speed. Do not apply when winds are greater than 15 mph and avoid gusty and windless conditions. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

**Restrictions During Temperature Inversions**

Do not make ground applications during temperature inversions. Drift potential is high during temperature inversions. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical mixing.

**No-Spray Zone Requirements for Foliar Applications**

Do not apply within 25 feet, or by air within 150 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.

6/17

**Run-off Management**

Do not cultivate within 10 feet of the aquatic areas to allow growth of a vegetative filter strip. When used on erodible soils, best management practices for minimizing run-off should be employed. Consult your local Natural Resources Conservation Service for recommendations in your use area.

**Endangered Species Notices**

Under the Endangered Species Act, it is a federal offense to use any pesticide in a manner that results in the death of a member of an endangered species. Consult your local county bulletin, County Extension Agent, or Pesticide State Lead Agency for information concerning endangered species in your area.

**Resistance Management**

Some insects are known to develop resistance to insecticides after repeated use. As with any insecticide, the use of this product should conform to resistance management strategies established for the use area.

Imidacloprid 4F Insecticide contains a Group 4A insecticide called imidacloprid. Insecticide biotypes with acquired or inherent tolerance to Group 4A products may eventually dominate the insect population if Group 4A insecticides are used repeatedly as the predominant method of control for targeted species. This may eventually result in partial or total loss of those species by Imidacloprid 4F and to other Group 4A products.

The active ingredient in Imidacloprid 4F belongs to the neonicotinoid chemical group. Avoid using a block of more than three consecutive applications of Imidacloprid 4F and/or other Group 4A products having the same or similar mode of action. Following a neonicotinoid block of treatments, United Phosphorus, Inc. strongly encourages the rotation to a block of applications with effective products from a different mode of action before using additional applications of neonicotinoid products. Using a block rotation or windowed approach, along with other IPM practices, is considered an effective use strategy for preventing or delaying an insect pest's ability to develop resistance to this class of chemistry.

Foliar applications of Imidacloprid 4F or other Group 4A products from the neonicotinoid chemical class should not be used on crops previously treated with a long-residual, soil-applied product from the neonicotinoid chemical class.

Contact your local extension specialist, certified crop advisor and/or product manufacturer for additional insect resistance management recommendations. Also, for more information on Insect Resistance Management (IRM), visit the Insecticide Resistance Action Committee (IRAC) on the web at <http://www.irac-online.org/>.

**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, either directly or through drift. 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 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.

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
- Chemical-resistant gloves made of any waterproof material such as, nitrile rubber, butyl rubber, neoprene rubber, barrier laminate, polyethylene, polyvinyl chloride (PVC) or viton.
- Shoes plus socks.

**GENERAL INSTRUCTIONS****USE ON COTTON AND PECANS**

Do not apply Imidacloprid 4F Insecticide in enclosed structures such as greenhouses or plant houses.

**Mixing Instructions**

To prepare the application mixture, add a portion of the required amount of water to the spray tank and with agitation add Imidacloprid 4F. Complete filling tank with balance of water needed. Maintain sufficient agitation during both mixing and application. Imidacloprid 4F may also be used with other pesticides and/or fertilizer solutions. **Please see Compatibility Note below.** When tank mixtures of Imidacloprid 4F and other pesticides are involved, prepare the tank mixture as recommended above and follow suggested Mixing Order below.

**Mixing Order**

When pesticide mixtures are needed, add wettable powders first, Imidacloprid 4F or other flowables second, and emulsifiable concentrates last. Ensure good agitation as each component is added. Do not add an additional component until the previous is thoroughly mixed. If a fertilizer solution is added, a fertilizer-pesticide compatibility agent may be needed. Maintain agitation during both mixing and application to ensure uniformity of spray mixture.

**Compatibility Note**

Test compatibility of the intended tank mixture before adding Imidacloprid 4F to the spray or mix tank. Add proportionate amounts of each ingredient in the appropriate order, to a pint or quart jar, cap, shake for 5 minutes, and let set for 5 minutes. Poor mixing or formation of precipitates that do not readily re-disperse indicates an incompatible mixture that should not be used. For further information, contact your local United Phosphorus, Inc. representative.

## **CHEMIGATION – DIRECTIONS FOR USE**

### **Types of Irrigation Systems**

Chemigation applications of Imidacloprid 4F may only be made to crops through overhead sprinkler chemigation systems if specified in crop-specific application sections. Do not apply Imidacloprid 4F through any other type of irrigation system.

### **Water Volume**

Applications should be made as concentrated as possible. Retention of Imidacloprid 4F on target site of insect infestation is necessary for optimum activity. Chemigation of Imidacloprid 4F in water volumes exceeding 0.1 inches/A is not recommended.

### **Uniform Water Distribution and System Calibration**

The irrigation system must provide uniform distribution of treated water. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. The system must be calibrated to uniformly apply the rates specified. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

### **Chemigation Monitoring**

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

### **Drift**

Do not apply when wind speed favors drift beyond the area intended for treatment.

### **Required System Safety Devices**

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

### **Using Water From Public Water Systems**

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and to the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional automatic quick-closing check valve to prevent the flow of fluid back toward the



9/17

injection. The pesticide injection pipeline must contain a functional normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops or in cases where there is no water pump, when the water pressure decreases to the point where the pesticide distribution is adversely affected. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

**ROTATIONAL CROPS**

Treated areas may be replanted with any crop specified on an imidacloprid label, or any crop for which a tolerance exists for imidacloprid, as soon as practical following the last application. For crops not listed on an imidacloprid label, or for crops for which no tolerances for the active ingredient have been established, a 12-month plant-back interval should be observed. Cover crops for soil building or erosion control may be planted any time, but do not graze or harvest for food or feed.

<b>IMMEDIATE PLANT-BACK</b> All crops on this label plus the following crops: Barley, Canola, Corn (Field, pop & sweet), Rape seed, Sorghum, Sugarbeet, Wheat
<b>30-DAY PLANT-BACK:</b> Cereals (including buckwheat, millet, oats, rice, rye, and triticale), Safflower, Soybean (dry)
<b>10 MONTH PLANT-BACK:</b> onion and bulb vegetables
<b>12-MONTH PLANT-BACK:</b> all other crops

**APPLICATION INSTRUCTIONS – CROP USES**

Note: Regardless of formulation or method of application, do not apply more than 0.5 lb. active ingredient of imidacloprid per acre per season, including seed treatment, soil and foliar uses.

**COTTON**

PESTS	RATE	INSTRUCTIONS
<b>Pests Controlled:</b> Cotton aphid Cotton fleahopper Bandedwinged whitefly Plant bugs (excludes <i>Lygus hesperus</i> ) Green stink bug Southern green stink bug Bollworm/Budworm (ovicidal effect)	0.9 – 1.8 Fl. oz./A	Apply by air or ground using properly calibrated equipment, making sure all plant parts receive uniform coverage. Make application at specified rate at the earliest threshold for the target pest, and scout and retreat if necessary.  Use lower rates when pest pressure is low, or when tank mixing with other products registered for this use. Imidacloprid 4F works best against early instar and early nymphal stages
<b>Pests Suppressed:</b> Lygus bug ( <i>Lygus hesperus</i> ) Whiteflies (other than bandedwinged whitefly)	1.35 – 1.8 Fl. oz./A	of insects, as well as bollworm/budworm eggs.  Single applications made with less than 5 gallons/A may be less effective than single applications with higher gallonages. The addition of an organosilicone-based spray adjuvant may be beneficial for applications against aphids and whiteflies.

10/17

		<p>Do not make more than 5 applications per season.</p> <p>Do not apply more frequently than every 7 days.</p> <p>Pre-Harvest Interval: 14 days.</p> <p>Do not apply more than 7.5 fl. oz Imidacloprid 4F (0.235 lb ai) per acre per season.</p> <p>Do not graze treated fields after any application of Imidacloprid 4F.</p>
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**TANK MIX RECOMMENDATIONS - COTTON**

Follow all applicable restrictions and limitations on the tank mix partner label

PESTS CONTROLLED (in addition to those listed above)	RATE	RATE EIDRIN
	IMIDACLOPRID 4F	
<b>For early season control of:</b> Thrips	0.9 – 1.35 Fl. oz./A	1.6-3.2 Fl. oz./A
<b>For mid to late season control of:</b> Plant bugs Stink bugs (including Brown stink bug) Grasshoppers Saltmarsh caterpillar Cotton leafperforator	0.9 – 1.35 Fl. oz./A	4.0-8.0 Fl. oz./A

**PECANS**

Not for this use in California unless specifically directed by Supplemental labeling

PESTS	RATE	INSTRUCTIONS
Aphids (use higher rate for Black pecan aphid) Phylloxera Spittlebugs	1.3 – 2.6 Fl. oz./A	<p>Apply by air or ground using properly calibrated equipment, making sure all plant parts receive uniform coverage. Make application at specified rate at the earliest threshold for the target pest, and scout and retreat if necessary.</p> <p>Do not apply more frequently than every 10 days.</p> <p>Pre-Harvest Interval: 7 days.</p> <p>Do not apply more than 10.1 fl. oz Imidacloprid 4F (0.35 lb ai) per acre per season.</p> <p>Do not graze treated fields after any application of Imidacloprid 4F.</p>

11/17

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### USE DIRECTIONS - SEED TREATMENT USE

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For use in commercial seed treaters only for all crops except for application to canola, cotton (delinted seed), field corn, sorghum, wheat and barley, which may be made either by commercial seed treatment or as an end-use seed treatment on agricultural establishments at, or immediately before, planting. Use this product in either liquid or slurry treaters.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. 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.

Mix thoroughly before use or use entire container at one time. Always test tank to determine physical compatibility between formulations. Read and follow all cautions and limitations on labeling of all products used in mixtures.

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

Do not use treated seed for or mix with food or animal feed or process for oil. Seed commercially treated with IMIDACLOPRID 4 F must be labeled in accordance with all applicable requirements of the Federal Seed Act.

Labels for commercially treated seed should include the following addition to the Environmental Hazards statements:

- Exposed treated seed may be hazardous to birds. Dispose of all excess treated seed and seed packaging by burial away from bodies of water. Cover or incorporate spilled treated seeds.

**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 21CFR, Part 2.25. Any dye or colorant added to treated seed must be cleared for use under 40CFR, Part 180.1001. 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 recommended rates.

#### USE RESTRICTION

Rape greens grown and harvested from IMIDACLOPRID 4 F treated seed must not be used for human and feed consumption. Rapeseed grown and harvested from IMIDACLOPRID 4 F treated seed is only for industrial uses and may not be used for edible oil or any other human/feed consumption.

#### Stored Seed Protection

For protection of stored seed against injury from the insects listed below, apply at labeled rates equal to or above 1.0 fl. oz. per hundredweight.

Indian Meal Moth (*Plodia interpunctella*)

Red Flour Beetle (*Tribolium castaneum*)

Rice Weevil (*Sitophilus oryzae*)

Lesser Grain Borer (*Rhizopertha dominica*)

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

#### Early Season Protection Against Certain Sucking Insects

IMIDACLOPRID 4 F will help protect seeds and seedlings against injury by certain early season insects.

12/17

**Canola, Rapeseed and Mustard Seed – early season protection of seedlings**

PESTS	Rate per hundredweight of seed	INSTRUCTIONS
Aphids Flea beetles wireworms	12.8 - 32 fl. oz.	Where pest populations are high, use the higher application rate Consult your local agriculture office for pest patterns, history, and forecasts which will help determine the appropriate rate for your region.
Suppression: Lygus (including <i>Lygus</i> spp.) Cabbage seedpod weevil larvae (including <i>Ceutorhynchus assimilis</i> )	19.2 - 32 fl. oz.	

**Canola, Rapeseed and Mustard Seed**

**End-Use Application At Agricultural Establishments**

Shake IMIDACLOPRID 4 F thoroughly before use. Apply using an HCBT or a Batch Treater. Apply 6.4 to 16 fl. oz. of IMIDACLOPRID 4 F per 50 pound bag. IMIDACLOPRID 4 F may be diluted with an approved fungicide mixture for extended disease protection. Treat one-half of seed with one-half of slurry mix, then add the balance of the seed and apply balance of slurry. Mix until seed is thoroughly covered.

**Wheat, Barley, Oats, Rye, Triticale**

PESTS	Rate per hundredweight of seed	INSTRUCTIONS
Aphids including Bird cherry-oat aphid English grain aphid Greenbug Russian wheat aphid Hessian fly Wireworms	1.0 - 3.0 fl. oz.	Apply as a slurry treatment, treating seed uniformly and ensuring thorough coverage. Use the higher rate to lengthen protection from heavy insect pressure, and to reduce potential spread of Barley yellow dwarf virus due to aphid vectors.
Grasshoppers	1.5 - 3.0 fl. oz.	Do not graze or feed livestock on treated areas for 45 days after planting. Wireworms -- use low rate, applying at 0.16 - 32 fl. oz to provide suppression on seed and young seedlings. Grasshoppers -- to reduce early season damage by these pests, plant treated seed as a 50 to 60 foot border around the edges of the field. Consult local authorities for details of grasshopper control in your area.

**Wheat, Barley, Oats, Rye, Triticale****For End-Use Application At Agricultural Establishments:**

Apply using a Total Slurry Treater (TST), Farmer Applied Seed Treater (F.A.S.T.), Gustafson Air Pressure System (GAP) or other onfarm seed treating equipment to deliver accurate rates of IMIDACLOPRID 4 F. Apply 1.0 - 3.0 fl. oz. per hundredweight of seed. Combine IMIDACLOPRID 4 F with a fungicide product for seed and seedling protection against fungal pathogens, as well as insect pests. Depending on fungicide formulation used dilution with water may be necessary for best coverage. IMIDACLOPRID 4 F may also be applied on-farm as an over-treatment to seed pretreated with a fungicide. In this case, dilution is necessary. Do not graze or feed livestock on treated areas for 45 days after planting.

**Sorghum**

PESTS	Rate per hundredweight of seed	INSTRUCTIONS
Aphids, including Corn leaf English grain Greenbug Yellow sugar cane aphid Chinch bugs Fire ants Wireworms	8 fl. oz.	Apply before planting, as a slurry treatment, ensuring thorough coverage. Do not graze or feed livestock on treated areas for 45 days after planting.

**Sorghum****For End-Use Application At Agricultural Establishments**

Apply using an HCBT or an Eight-Bag Batch Treater. Shake IMIDACLOPRID 4 F thoroughly before use. Dilute 4 fluid ounces of IMIDACLOPRID 4 F with water. Adjust the final slurry rate to apply a rate of 8 - 10 fluid ounces of diluted slurry per 50- pound bag of seed. Treat one-half of seed with one-half of slurry mix, then add the balance of the seed and apply balance of slurry and mix until seed is thoroughly covered. Apply 0.75 oz. of dry TALC per 50-pound bag of seed following the IMIDACLOPRID 4 F application and allow it to distribute evenly on the seed. Do not graze or feed livestock on treated areas for 45 days after planting.

**Sugar Beets**

PESTS	Rate per hundredweight of seed	INSTRUCTIONS
Whitefly Aphids Leafhoppers Root aphid Thrips Wireworms	3.0- 6.3 fl. oz.	Apply a commercial seed treatment at indicated rate in or on a unit of pelleted sugar beet seed with a weight ratio of 2:1 pelleting mixture to raw seed (seed count 100,000 seed - approximately 1 kilogram by weight). Apply in a film coat directly to raw seed (100,000 seed or approximately 1 kilogram by weight) at a rate of 3.0 fluid ounces per unit of seed.

14/17

		If rates exceed 3.0 fluid ounces per unit, seed must be pelleted.
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**Cotton (Delinted Seed Only)**

To provide protection of seedlings against injury by early season thrips and aphids and where specific application rate is desired on an individual seed basis, apply at 0.375 mg. a.i. per seed before planting as a slurry treatment, ensuring thorough coverage. Do not apply more than 16.0 fluid ounces per hundredweight of seed. Otherwise, apply at 16.0 fluid ounces per hundredweight of seed. Regardless of the type of application (seed treatment, soil or foliar) do not apply more than a total of 0.5 lb. of imidacloprid per acre per cropping cycle.

**Cotton (Delinted Seed Only)**

**For End-Use Application At Agricultural Establishments:**

Apply using an HCBT or an Eight-Bag Batch Treater. Shake IMIDACLOPRID 4 F thoroughly before use. Dilute 8 fluid ounces of IMIDACLOPRID 4 F with water or a ready to use fungicide mixture, such as Gustafson RTU<sup>®</sup>-VITAVAX<sup>®</sup>-Thiram or ALLEGIANCE<sup>®</sup>-FL, for each 50-pound bag of cottonseed to be treated. Adjust the final slurry rate to apply 8 to 10 fluid ounces of diluted slurry per 50-pound bag of seed. Treat one-half of seed with one-half of slurry mix, then add the balance of the seed and apply balance of slurry. Mix until seed is thoroughly covered.

**Field Corn**

For the protection of corn plants from the corn insect pests listed below.

PESTS	MG.AI / KERNEL	FL.OZ. / 80,000 UNITS OF SEED	INSTRUCTIONS
Corn root worm (including Northern, Western, Southern and Mexican) Flea beetle Chinch bug Southern green stinkbug White grub Seed corn maggot Thrips Wireworm Corn leaf aphid Imported fire ant Southern corn leaf beetle Billbug Grape colaspis Black cutworm	1.34	7.6	Apply as a seed treatment at the indicated rates.  Corn rootworm - In areas of heavy to severe corn rootworm populations, protection will not be adequate. Use only in areas of light to moderate corn rootworm populations. Consult your State Agricultural Extension Service on levels of corn rootworm populations.  Billbug, Grape colaspis - Reduces early season feeding damage.  Black cutworm - Will reduce feeding damage caused by leaf feeding black cutworms that are 1/2 inch or less in length.  White grub - Reduces feeding damage during emergence and seedling stages.
Flea beetle Chinch bug Seed corn maggot Thrips Wireworm Corn leaf aphid Imported fire ant	0.6	3.4	

15/17

Grape colaspis White grub		
Seed corn maggot (seed protection only) Wireworm (seed protection only) Flea beetle (through 1 leaf stage) Imported fire ant White grub	0.16	0.91

**Field Corn**

**For End-Use Application At Agricultural Establishments:**

Apply using an HCBT or an Eight-Bag Batch Treater. Shake IMIDACLOPRID 4 F thoroughly before use. Dilute IMIDACLOPRID 4 F with water and/or an approved fungicide mixture. Adjust the final slurry rate to apply 8 - 10 fl. oz. of diluted slurry per 50-pound bag of seed. Treat one-half of seed with one-half of slurry mix, then add the balance of the seed and apply balance of slurry. Mix until seed is thoroughly covered. Apply 0.75 oz. of dry TALC per 50-pound bag of seed following the IMIDACLOPRID 4 F application and allow it to distribute evenly on the seed.

**Sweet Corn**

For the protection of corn plants from the corn insect pests listed below.

PEST	Rate per hundredweight of seed	INSTRUCTIONS
Flea beetle Early season corn leaf aphid Seed corn maggot Wireworm	8	Apply as a seed treatment at the recommended rates listed. Adjust the final slurry rate to 16 – 20 fl. oz. of dilute solution per hundredweight of seed with commercial application equipment.
Imported fire ant Early season corn leaf aphid Seed corn maggot Wireworm	4-8	
Imported fire ant Seed corn maggot (seed protection) Wireworm (seed protection)	2-4	
Wireworm (seed protection)	1-2	

**Popcorn**

To provide early season protection of seedlings against injury by flea beetles, apply as a commercial seed treatment at 8 fl. oz. per hundredweight of seed.

16/17

**Soybean**

PESTS	Rate per hundredweight of seed	INSTRUCTIONS
Seed corn maggot Soybean aphids Bean leaf beetles (overwintering) Suppression of viruses	2.0 - 4.0 fl. oz.	Use higher rates to lengthen protection and for heavy insect pressure. May be used as an over-treatment. Do not graze or feed livestock on soybean forage or hay.

**Adzuki Bean, Asparagus Bean, Broad Bean (Succulent Or Dry), Catjang Bean, Chinese Longbean, Field Bean, Guar Bean, Jackbean, Kidney Bean, Lablab Bean, Lima Bean (Succulent Or Dry), Moth Bean (Succulent Or Dry), Mung Bean, Navy Bean, Pinto Bean, Rice Bean, Runner Bean, Snap Bean, Sword Bean, Tepary Bean, Urd Bean, Wax Bean, Yardlong Bean, Blackeyed Pea (Succulent Or Dry), Chickpea, Cowpea (Succulent Or Dry), Crowder Pea, Dwarf Pea, Edible-Pod Pea, English Pea, Field Pea, Garden Pea, Green Pea, Pigeon Pea (Succulent Or Dry), Snow Pea, Southern Pea (Succulent Or Dry), Sugar Snap Pea, Grain Lupin, Sweet Lupin, White Lupin, White Sweet Lupin, Lentil:**

**Note:** Seed-and-pod vegetable seed treated in California must be destined for planting in states other than California and is not to be planted in California.

To provide early season protection of seedlings against injury by wireworm, bean leaf beetle, imported fire ant, and aphid, apply as a commercial seed treatment at 2 - 4 fl. oz. per hundredweight of seed prior to planting.

**Carrot**

To provide early season protection of seedlings against injury by seed corn maggot and wireworm, apply as a commercial seed treatment at 8 fl. oz. per hundredweight of seed.

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal.

**Pesticide Storage:** Store in cool, dry place, out of direct sunlight, and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area. Handle and open container in a manner as to prevent spillage. If the container is leaking, invert to prevent leakage. If container is leaking or material spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides below. In spill or leak incidents, keep unauthorized people away.

**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:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration, or, if allowed, by State and local authorities, by burning. If burned, stay out of smoke.



**IMPORTANT INFORMATION  
READ BEFORE USING PRODUCT**

**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 reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks 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 United Phosphorus, Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of United Phosphorus, Inc. and Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus, Inc. and Seller harmless for any claims relating to such factors.

To the extent consistent with applicable law, United Phosphorus, Inc. 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 this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or United Phosphorus, Inc., and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, UNITED PHOSPHORUS, INC. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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Rev. 5/2/2007