

70506-150

09-17-2007

1/17



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

EPA Reg.  
Number:

70506-150

Date of Issuance:

SEP 17 2007

Term of Issuance: Conditional

Name of Pesticide Product:

Imidacloprid 2F T&O  
Insecticide

NOTICE OF PESTICIDE:

Registration  
 Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Ms. Rebecca A. Clemmer  
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 sec. 3(c) (7) (A). Once a pesticide is registered, however, it is not regarded as permanently acceptable. Registration does not eliminate the need for continual reassessment of pesticides. If the Agency determines that, at any time, additional data are required to maintain in effect an existing registration, the Agency will require submission of such data under FIFRA section (3)(c)(2)(B).

1. Revise the EPA Registration Number to read, EPA Reg. No. "70506-150"

Signature of Approving Official:

Dani Daniel  
Insecticide-Rodenticide Branch  
Registration Division (7505P)

Date:

SEP 17 2007

2/17

2. The referenced label does not support a number of items listed on this proposed registration. Unless another label is referenced the following must be deleted from this label:

3. Delete from the introduction sentence on page one the use sites "greenhouse and nurseries". Also delete "nurseries" from the "**Turf grass/Grassy Area Application**" section of the label on page four.

4. On page five rewrite the section as "**Ornamental Applications**", while deleting the rest of the section title. Also maintain the first line **only** of the first paragraph. It is the only sentence supported by the referenced registration.

5. On page six delete "**unless specifically directed in the use instructions from**" from the sentence "**Do not apply through any irrigation system**". Also from the plant section list delete "**(including ever-bearing fruit and nut) and vegetable plants**" neither is supported by the referenced label registration.

6. On page seven the section entitled "**Shrubs, Soil, Injection:**" should be written as "Shrubs, Soil, Drench" in keeping with the registered referenced label.

7. Beginning with Ebb and Flood application on page nine through page 13 delete all the text of those pages except for the "**Restrictions**" on page 12 and the "**Conditions of Sale and Limitation of Warranty and Liability**". Containerized plants are not supported on the reference registration; therefore, delete from "**Restrictions**" the last listed restriction as it pertain to containerized plants.

8. Keeping in compliance with the Agency's toxicology guidelines use the following "Hazards to Humans and Domestic Animals" statement: Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Wear long-sleeved shirt and long pants, socks, and chemical-resistant gloves (such as natural rubber, selection category A). Remove and wash contaminated clothing before reuse.

9. Keeping in compliance with the Agency's toxicology guidelines the "First Aid Statement" should list "If on skin..." first.

10. Within eighteen months of the date of this registration, submit to the Agency the required one year storage stability study (830.6317) for the proposed product under warehouse conditions. The corrosion characteristics study (830.6320) may be carried out concurrently. It is recommended that observations be made at 0, 3, 6, 9, and 12 months.

3/17

11. Submit two copies of your final printed label 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(a). Your release for shipment of the product constitute acceptance of these conditions.

A stamped copy of the label is enclosed for your records. If you have any questions regarding this notice, please contact me at (703) 305-5409.

Enclosure

4/17

ACCEPTED  
with COMMENTS  
In EPA Letter Dated:

SEP 17 2007

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under EPA Reg. No.

70506-15D

# IMIDACLOPRID 2F T&O Insecticide

For insect control (both foliar and systemic) in turfgrass (including sod farms),  
ornamentals, fruit and nut trees, vegetable plants in greenhouses, nurseries, and  
interior plantscapes

### ACTIVE INGREDIENT

Imidacloprid – 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-  
imidazolidinimine.....

21.4%

OTHER INGREDIENTS .....

78.6%

Total

100%

KEEP OUT OF REACH OF CHILDREN

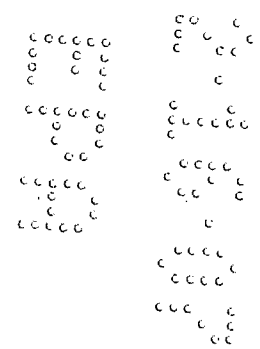
### CAUTION

FIRST AID	
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 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>
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>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Contact the National Pesticide Information Center at 1-800-858-7378 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-usa.com](http://www.upi-usa.com)

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



5/17

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

Caution. Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Keep children or pets off treated area until spray is dry.

**Personal Protective Equipment (PPE):**

WPS Uses: Applicators and other handlers who handle this product for any use covered by the Worker Protection Standard (40 CFR part 170) – in general, agricultural plant uses such as sod farms, 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. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.
- 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.

Non WPS Uses: Applicators and other handlers who handle this product for any use NOT covered by the Worker Protection Standard (40 CFR part 170) must wear:

- Shirt and pants
- Gloves
- Shoes plus socks

**Engineering Controls 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.

Important: when reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "Applicators and Other Handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

**USER SAFETY RECOMMENDATIONS**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE 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**

This product is highly toxic to aquatic invertebrates. 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.

6/17

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.

#### 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 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 treatment areas during the restricted entry interval (REI) of 12 hours. Earlier entry by exception.

Exception: If the product 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
- 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. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.
- Shoes plus socks

#### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep children and pets off treated area until dry.

#### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in a cool, dry place 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.

**To Confine Spills:** Handle and open container in a manner as to prevent spillage. If the container is leaking or material is spilled for any reason or cause, carefully sweep material into a pile and dispose of as directed for pesticides below. Refer to Precautionary Statements on label

7/17

for hazards associated with the handling of this material. 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 the smoke.

### TURFGRASS/GRASSY AREA APPLICATIONS

Do not apply more than a total of 1.6 pints (0.4 lb ai) per acre per year.

Apply Imidacloprid 2F T&O to the following sites, to control/suppress the pests listed in the chart below. For nursery use, apply under and around field and container grown plants, on roadways or other grassy areas.

Home lawns	Cemeteries
Business and office complexes	Parks
Shopping complexes	Playgrounds
Multi-family residential complexes	Athletic fields
Golf courses	Sod farms
Airports	Nurseries

### PESTS CONTROLLED

Northern and Southern masked chafers

Asiatic garden beetle

European chafer

Green June beetle

May or June beetle

Japanese beetle

Oriental beetle

Billbugs

Annual bluegrass weevil

Annual bluegrass atenioides

European crane fly

Mole crickets

### PESTS SUPPRESSED

Cutworms

Chinchbugs

Due to the residual activity of the active ingredient, applications of Imidacloprid 2F T&O may be made before target pests lay their eggs. For best control, apply before the eggs hatch. All applications should be followed by rainfall or irrigation to move the active ingredient through the thatch.

When infested turfgrass areas are waterlogged, or soil beneath turf is saturated with water, avoid making applications because it is difficult to obtain thorough and consistent distribution of the product. For best results, ensure that rainfall or irrigation after application will vertically penetrate the soil, allowing the active ingredient to be carried into the zone where the pests are found.

### Application

Dilute Imidacloprid 2F T&O with enough water so that there is sufficient volume to promote complete distribution into the zone where pests are found. Always use accurately calibrated equipment. Use a low pressure setting, and apply a uniform coarse droplet spray, which will

8/17

eliminate off-target drift. Calibrate equipment regularly to ensure that the product is being distributed properly.

PESTS	RATE IMIDACLOPRID 2F T&O	INSTRUCTIONS
<p><b>Larvae of:</b>                      Annual bluegrass weevil                      Asiatic garden beetle                      Billbug                      Black turfgrass ataenius                      Chinchbugs (suppression)                      Cutworms (suppression)                      European crane fly                      European chafer                      Green June beetle                      Japanese beetle                      Mole crickets                      Northern masked chafer                      Oriental beetle  <i>Phyllophaga</i> spp                      Southern masked chafer</p>	<p>1.25 to 1.6 pt/A                      or                      0.46 to 0.6 fl oz                      (14 to 17 mL)                      per 1000 square ft</p>	<p>For best control, apply before egg hatch.</p> <p>To ensure that the active ingredient moves into the turf, irrigation or rainfall should occur within 24 hours of application. Avoid mowing until after sufficient irrigation or rainfall has occurred.</p> <p><u>For chinch bugs (suppression)</u>, apply the maximum rate before the first instar nymphs hatch.</p> <p><u>For mole crickets</u>, apply before or during the peak egg hatch period. For adults or large nymphs that are actively tunneling, combine Imidacloprid 2F T&amp;O with a curative insecticide.</p> <p>Do not apply more than 1.6 pt (0.4 lb ai) per acre per year.</p>

**ORNAMENTAL APPLICATIONS and APPLICATIONS TO VEGETABLE PLANTS**

For use on ornamental plants in commercial and residential landscapes and interior plantscapes, and for control in and around field-grown nursery and container stock, indoor and outdoor ornamentals (greenhouse and interior plantscapes), vegetable plants, and ornamentals grown in flats, benches, or beds.

For outdoor ornamentals, do not apply more than a total of 1.6 pt (0.4 lb ai) per acre per year.

Because Imidacloprid 2F T&O is a systemic insecticide that is transported within the plant system from the roots to the upper foliage, it must be applied into a growing area of the plant so that the active ingredient can be absorbed. To promote the uptake of active ingredient, soluble nitrogen type fertilizers can be added to the spray solution.

Applications can be made by foliar or soil applications, including soil injection, drenches, and broadcast sprays. Foliar applications provide locally systemic activity against insect pests.

When the product is applied to woody plants using soil application, the systemic translocation of the active ingredient will be slower, and can take as much as 60 days and sometimes longer, depending on the species and size of the plant.

Resistance

Some species of insects can develop resistance to neonicotinoid class insecticides such as imidacloprid, following repeated use. Use this product with resistance management strategies established for the use area.



9/17

Use for Ant Management

Use Imidacloprid 2F T&O to control ants by removing honeydew as their food source. Imidacloprid 2F T&O will control the aphids, scale insects, mealybugs and other sucking pests on ornamentals. For greater ant control, supplement foliar application with residual sprays, baits, or other ant control tactics.

Application

Imidacloprid 2F T&O may be used in many types of application equipment. It mixes well with water. For better coverage on hard to wet foliage on plants such as holly, ivy, or pine, add a commercial spreader/sticker.

Imidacloprid 2F T&O is compatible with many fungicides, miticides, liquid fertilizers, and insecticides. If the applicator does not have experience with a particular tank mix, use a clear jar to test compatibility using the proportions of the proposed tank mixture.

Media with 30% or higher bark content may confer a shorter period of protection when treated with Imidacloprid 2 F T&O.

Do not apply through any irrigation system unless specifically directed in the use instructions.

PLANTS	PESTS	RATE	INSTRUCTIONS
Trees (including ever-bearing fruit and nut) Shrubs Evergreens Flowers Foliage plants Groundcovers Interior Plantscapes Vegetable plants*	Adelgids Aphids Japanese beetles Lace bugs Leaf beetles (including elm & viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Mealybugs Psyllids Sawfly larvae Thrips (suppr.) Whiteflies White grub larvae (Japanese beetle, chafers, Phyllaphaga spp, Asiatic garden beetle, Oriental beetle)	1.5 fl oz (45 mL) per 100 gallons of water	Before pest populations become established, make foliar applications. Apply as needed.  Mix the required amount of product in enough water for uniform and accurate coverage. Do not use less than 2 gallons of water per 1000 sq ft.  It may be necessary to irrigate thoroughly to incorporate Imidacloprid 2F T&O into the upper soil zone.  To control white grub larvae, apply 0.46 to 0.6 fl oz (14 to 17 mL) per 1000 sq ft.  * for use only on vegetable plants intended for resale, including: broccoli, Chinese broccoli, broccoli raab, Brussels sprouts, cabbage, Chinese cabbage, cauliflower, collards, eggplant, ground cherry, kale, kohlrabi, lettuce, mustard greens, pepinos, peppers, potatoes, rape greens, sorghum, sugarbeets, tomatillo, and tomato.

**Only for this use in and around industrial and commercial buildings and residential areas, nurseries, greenhouses, and interiorscapes, and state, national, and private wooded and forested areas**

ORNAMENTAL PLANTS	PESTS	RATE	INSTRUCTIONS
Trees Shrubs Flowers	Adelgids Aphids Armored scales	<b>TREES*</b> 0.1 to 0.2 fl oz (3 to 6 mL) per inch trunk	<b>TREES, SOIL INJECTION:</b> for a grid system, apply in a grid pattern on 2.5 centers within the tree's

10/17

<p>Groundcovers</p>	<p>(suppression)                  Black vine weevil                  Elm and viburnum)                  Eucalyptus                  longhorned borer                  Flatheaded borers (incl. bronze birch and alder borer)                  Japanese beetles                  Lace bugs                  Leafminers                  Leaf beetles (incl. Pine tip moth larvae)                  Leafhoppers (incl. glassywinged sharpshooter)                  Mealybugs                  Psyllids                  Royal palm bugs                  Sawfly larvae                  Soft scales                  Thrips (suppression) larvae                  White grub larvae                  Whiteflies</p>	<p>diameter (D.B.H.)</p> <p><b>SHRUBS**</b>                  0.1 to 0.2 fl oz (3 to 6 mL) per foot of shrub height</p> <p><b>FLOWERS &amp; GROUNDCOVERS</b>                  0.46 to 0.6 fl oz (14 to 17 mL) per 1000 sq ft</p>	<p>drip line. For a circle system, apply in evenly spaced holes approximately 1-3 ft apart in a circle within the tree's drip line. More circles may be needed for larger trees. For a basal system, apply in evenly spaced holes no more than 6 to 12 inches out from the tree's base.</p> <p><b>TREES, SOIL DRENCH:</b> Apply in at least 10 gallons water per 1000 sq ft as a drench around the base of the tree, directed to the root zone. Remove any barrier that may prevent the solution from reaching the root zone.</p> <p><b>SHRUBS, SOIL INJECTION:</b> Apply as a uniform drench around the base of the shrub, in at least 10 gallons water per 1000 sq ft. Remove any barrier that may prevent the solution from reaching the root zone.</p> <p><b>FLOWERS AND GROUNDCOVERS:</b> Apply as a broadcast treatment, incorporating into the soil before planting. Application can also be made after the plants are established; in this case best control is achieved if plants are irrigated after application.</p>
---------------------	---	---	---

\* Notes and restrictions for TREES: Use enough water so that an equal amount of solution may be injected in each hole. Use low pressure and enough solution to ensure thorough distribution. Keep soil moist for 7-10 days. Use at least 4 holes per tree. No soil injection applications are allowed in Nassau or Suffolk Counties of New York. If trees are already heavily infested with borers, application may not save the tree.

\*\* Notes and restrictions for SHRUBS: Use enough water so that an equal amount of solution may be injected in each hole. Use low pressure and enough solution to ensure thorough distribution. Use at least 4 holes per shrub. No soil injection applications are allowed in Nassau or Suffolk Counties of New York.

11/17

**FOR USE ON POME FRUITS IN AND AROUND RESIDENTIAL AREAS ONLY**

(Apple, Crabapple, Loquat, Mayhaw, Pear, Pear (oriental), Quince)

PESTS	RATE IMIDACLOPRID 2F T&O	INSTRUCTIONS
<p>Aphids (except Woolly apple aphid) Leafhoppers (incl. glassy-winged sharpshooter) Leafminer Mealybugs (not for use on this pest in pears in California) San Jose Scale</p>	<p>1.5 fl oz (45 mL) per 100 gallons or 6.0 fl oz/Acre Note: the amount of product per acre will vary according to tree size and volume of foliage. This rate is based on a standard 400 gallons dilute solution per acre for large trees.</p>	<p>Apply at the recommended rate as needed once petal fall is complete. Do not apply more than 6.0 fl oz per acre in one single application. Do not make more than 5 applications. Do not apply more often than every 10 days. Preharvest interval: 7 days. <u>Rosy apple aphid</u>: apply before the pest begins leafrolling. <u>First generation leafminers</u>: apply as soon as petal fall is complete. For best control, apply as early as possible. <u>Second and later generation leafminers</u>: apply early in the adult flight to control eggs and early instar larvae. If necessary under conditions of severe pressure or overlapping generations, make a second application 10 days later. Applying only once may result only in suppression. This product will not control late stage larvae. <u>San Jose Scale</u>: make application at the crawler stage. Treat each generation. <u>Leafhoppers, late season control</u>: apply when most leafhoppers are nymphs. <u>Mealybug</u>: for best control, good coverage of trunk, scaffolding limbs, or other resting sites is essential.</p>

**FOR USE ON PECANS IN AND AROUND RESIDENTIAL AREAS ONLY**

**Note: use on pecans is not allowed in California unless specific supplemental labeling exists**

PESTS	RATE IMIDACLOPRID 2F T&O	INSTRUCTIONS
<p>Yellow pecan aphid Black margined aphid Pecan leaf phyloxera Pecan spittlebug Pecan stem phylloxera</p>	<p>1.5 fl oz (45 mL) per 100 gallons or 6.0 fl oz/Acre Note: the amount of product per acre will vary according to tree size and volume of foliage. This rate is based on a standard 400 gallons dilute solution per acre for large trees.</p>	<p>Make foliar applications before pest population becomes severe. For optimum control, 2 applications at 10- to 14-day intervals may be needed. Scout and retreat if necessary. Treat foliage to ensure thorough, uniform coverage. An organosilicone-based spray adjuvant may be added at a rate not exceeding the manufacturer's recommendation, to improve coverage. Do not apply more than 18.0 fl oz Imidacloprid 2F T&amp;O per acre per year. Do not apply more than 3 times. Do not apply more often than every 10 days.</p>

12/17

**FOR USE ON GRAPES IN AN AROUND INDUSTRIAL AND COMMERCIAL BUILDINGS AND RESIDENTIAL AREAS**

PESTS	RATE IMIDACLOPRID 2F T&O	INSTRUCTIONS
Leafhoppers, incl. glassy-winged sharpshooter Mealybugs	1.5 fl oz (45 mL) per 100 gallons or 3.0 fl oz/Acre (90 mL/A)	Apply as a foliar spray using 200 gallons water per acre. Do not apply more than 6.0 fl oz Imidacloprid 2F T&O per acre per year. Do not apply more often than every 14 days. Imidacloprid 2F T&O may be applied up to and including the day of harvest.

**EBB AND FLOOD APPLICATION**

PESTS	INSTRUCTIONS
Adelgids Aphids Armored scales (suppression) Fungus gnats (larvae only) Japanese beetles (adults) Lacebugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Psyllids Root mealybugs Root weevil complex (such as Apopka weevil, Black vine weevil, Citrus root weevil) Soft scales Thrips (suppression) Whiteflies White grub larvae such as Japanese beetle, Masked chafers, European chafer, Oriental beetle, Asiatic garden beetle)	<p>Before applying, choose at least 10 plants in the same size pots, and water them to the medium's absorbent capacity. Allow them to dry for 1-2 days, then rewater to capacity and note how much water is needed on a per-plant basis. Multiply this amount by the total number of plants being treated, to calculate total volume of water needed to flood the smallest treatment area. Return unused treatment water to the storage tank to use at the next treatment.</p> <p><u>Fungus gnat larvae</u>: control in the soil by drench or incorporation. Will not control adults. Foliar control is also achieved by the root system translocating the active ingredient up into the plant.</p> <p><u>Root mealybug</u>: control requires thorough drenching of containerized medium. Coverage is essential; minimize leachate. Use a rate of 1.7 fl oz (50 mL) in 150 gallons of water.</p> <p><u>Citrus root weevil</u>: for use on non-bearing citrus nursery stock.</p> <p><u>Thrips</u> suppression will occur on foliage only. No suppression of thrips in buds and flowers.</p>

Make applications according to the table below.

Pot sizes (inches)	Herbaceous species including vegetable plants* (one or two plants per pot)	Woody perennials, herbaceous species, including vegetable plants* (3 or more per pot)
	mL per 100 plants	mL per 100 plants
2	1.6	2.5
3	2.5	3.7
4	3.3	5
5	4.2	6.3
6	5	7.7
7	5.9	9.1
8	6.6	10

13/17

9	7.4	11.1
10	8.3	12.5
11	9	14.3
12	10	16.7

\*for use only on vegetable plants intended for resale, including: broccoli, Chinese broccoli, broccoli raab, Brussels sprouts, cabbage, Chinese cabbage, cauliflower, collards, eggplant, ground cherry, kale, kohlrabi, lettuce, mustard greens, pepinos, peppers, potatoes, rape greens, sorghum, sugarbeets, tomatillo, and tomato.

**DRENCH AND IRRIGATION APPLICATIONS**

Greenhouse and nursery ornamentals, vegetable plants, interiorscape plants using soil drenches, micro-irrigation, drip irrigation, overhead irrigation, ebb and flood irrigation, or hand-held or motorized calibrated irrigation equipment.

PESTS	INSTRUCTIONS
Adelgids Aphids Fungus gnats (larvae only) Japanese beetles (adults) Lacebugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Psyllids Root mealybugs Root weevil complex (such as Apopka weevil, Black vine weevil, Citrus root weevil) Sort scale Thrips (suppression) Whiteflies White grub larvae (such as Japanese beetle, Masked chafers, European chafer, Oriental beetle, Asiatic garden beetle)	Mix the rate from the chart below with sufficient water to wet potting medium to capacity but without leakage from bottom of container. For 10 days following application, avoid overwatering. When applying to ornamental and vegetable plants* grown in flats, benches, or beds, apply 1.7 fl oz/3000 square feet. Apply in a broadcast spray in sufficient water so that the area is uniformly covered. Do not use less than 2 gallons mixture per 1000 square feet. Apply to soil medium before planting, or after plants become established. For 10 days following application, avoid overwatering. <u>Fungus gnat larvae:</u> control with drench or incorporation. Adults will not be controlled. Foliar control is also achieved by the root system translocating the active ingredient up into the plant. <u>Root mealybug:</u> control requires thorough drenching of containerized medium. Coverage is essential; minimize leachate. Use a rate of 1.7 fl oz (50 mL) in 150 gallons of water. <u>Citrus root weevil:</u> for use on non-bearing citrus nursery stock. <u>Thrips suppression</u> will occur on foliage only. No suppression of thrips in buds and flowers.

\*for use only on vegetable plants intended for resale, including: broccoli, Chinese broccoli, broccoli raab, Brussels sprouts, cabbage, Chinese cabbage, cauliflower, collards, eggplant, ground cherry, kale, kohlrabi, lettuce, mustard greens, pepinos, peppers, potatoes, rape greens, sorghum, sugarbeets, tomatillo, and tomato.

Apply to containerized plants at the following rates:

Herbaceous species (including vegetable plants at one or two plants per pot)	
Container diameter (inches)	No. of containers to treat with 1.7 fl oz
2	3000

14/  
17

3	2000
4	1500
5	1200
6	1000
7	850
8	750
9	675
10	600
11	550
12	500
<b>Woody perennials and herbaceous species (including vegetable plants at three or more per pot)</b>	
Container diameter (inches)	No. of containers to treat with 1.7 fl oz
2	2000
3	1350
4	1000
5	800
6	650
7	550
8	500
9	450
10	400
11	350
12	300
<b>All plants</b>	
Container size (gallons)	No. of containers to treat with 1.7 fl oz
1	340 to 244
2	280 to 210
3	220 to 165
5	160 to 110
7	100 to 75
10	60 to 45
15	40 to 30
20	20 to 15

**GRUB CONTROL IN FIELD AND FOREST NURSERIES**

PESTS	RATE	INSTRUCTIONS
White grub larvae (such as Japanese beetle, Masked chafers, European chafer, Oriental beetle, Asiatic garden beetle)	1.7 fl oz/1000 row feet	Apply as a band 6 inches wider than the root ball on either side of the row. Do not overlap rows. To control grubs in turf, apply as a broadcast spray at 1.35 to 1.7 fl oz/3000 square feet. Mow vegetation prior to treatment to a height of 3 inches or less. Lower height will provide more consistent control. Apply May through July. For best results, treatment should be followed by rainfall or irrigation. Do not use less than 2 gallons spray volume per 1000 square feet.

15/17

**RESTRICTIONS**

Do not graze treated areas or use clippings from treated areas for feed or forage.  
Avoid runoff or puddling of irrigation water following application.  
Keep children and pets off treated area until dry.  
Avoid application of Imidacloprid 2F T&O to areas which are waterlogged or saturated, which will not allow penetration into the root zone of the plant.  
Do not apply more than 1.6 pt (0.4 lb ai) per acre per year.  
Treated areas may be replanted with any crop specified on an imidacloprid label, or with any crop for which a tolerance exists for the active ingredient.  
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 plantback interval should be observed.  
For containerized plants, do not allow leachate run out for the first 10 days after application to allow full plant uptake of the active ingredient.

**APPLICATION THROUGH IRRIGATION SYSTEMS**

The normal dilution ratio is 1:100 to 1:200, depending on the design of the system. Meter the product into the irrigation water during the first part of the irrigation cycle. The product may be mixed separately prior to injection. Agitation may be necessary if the mixture is allowed to stand more than 24 hours.

Remove scale, pesticide residue and other foreign matter from the tank and entire irrigation system.

Apply Imidacloprid 2 F only through micro irrigation (individual spaghetti tubes), drip irrigation, overhead irrigation, ebb and flood, or hand-held or motorized calibrated irrigation equipment.

Do not apply this product through any other type of irrigation system. Crop injury or lack of effectiveness can result from non uniform distribution of treated water.

If you have any questions about calibration, contact your State Extension Service specialist, equipment manufacturers or other experts in this area.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

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

**SAFETY DEVICES FOR IRRIGATION SYSTEMS CONNECTED TO PUBLIC WATER SUPPLIES:**

If the source of water for your irrigation system is a public water supply, follow the instructions below:

1. 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.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, 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

16/  
17

- outlet end of the fill pip and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
  4. 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.
  5. 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 pesticide distribution is adversely affected.
  6. 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.
  7. Do not apply when wind speed favors drift beyond the area intended for treatment.

#### **SAFETY DEVICES FOR IRRIGATION SYSTEMS NOT CONNECTED TO A PUBLIC WATER SUPPLY**

1. 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.
2. The pesticide injection pipeline must contain a function, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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 the pesticide distribution is adversely affected.
6. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of material that is compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

**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



17/  
17

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.

To the extent consistent with applicable law, United Phosphorus, Inc. or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product and **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF UNITED PHOSPHORUS, INC. 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 UNITED PHOSPHORUS, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

United Phosphorus, Inc. 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 the duly authorized representative of United Phosphorus, Inc.