**Yxtect™ 2F**

Insecticide

For foliar and systemic insect control in trees, shrubs, turfgrass (including sod farms), landscape ornamentals, fruit and nut trees and interior plantscapes.

**ACTIVE INGREDIENT:**

| Imidacloprid, 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine | 21.4% |
| OTHER INGREDIENTS: | 78.6% |
| TOTAL: | 100.0% |

Contains 2 pounds of imidacloprid per gallon.

**USER SAFETY RECOMMENDATIONS**

User 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 into clean clothing.

**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.

Applicators and Other Handlers Must Wear:
1. Long-sleeved shirt and long pants
2. Chemical resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or vinyl. If you want more options, follow the instructions for category A on an EPA chemical-resistant category chart.
3. Shoes plus socks

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

**ENGINEERING CONTROLS STATEMENTS:**

When handlers use closed systems, enclosed cab, 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.

**ENVIRONMENTAL HAZARDS**

This product is highly toxic to 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 contaminate water when disposing of equipment washwaters.

This product is toxic to bees. Do not allow bees to enter the treated area. Do not apply this product or its residues to blooming crops or weeds.

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

Do not formulate this product into other end-use products 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 products on farms, forests, nurseries, or 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 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.

**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 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.

**OTHER INGREDIENTS:**

- 78.6%

**STORAGE AND DISPOSAL**

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

**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.

**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.

Handle and open container in a manner as to prevent spillage. If the container is leaking or material spilled for any reason or cause, carefully sweep material into a pile. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Dispose of pesticide as directed below. In spill or leak incidents, keep unauthorized people away. You may contact Chemtrec at 800-424-9300 for decontamination procedures or any other assistance that may be necessary.

**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.

**FIRST AID**

**IF SWALLOWED**

- Call a poison control center or doctor immediately for treatment advice.
- Have person sp a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

**IF ON SKIN OR CLOTHING**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.
- Call a poison control center or doctor for treatment advice.

**IF IN EYES**

- Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

**CONTAINER DISPOSAL:**

- Do not make contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Keep and wash PPE separately from other laundry.

**ENGINEERING CONTROLS STATEMENTS:**

- When handlers use closed systems, enclosed cab, 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.

**ENVIRONMENTAL HAZARDS**

- This product is highly toxic to 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 contaminate water when disposing of equipment washwaters.

**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.
APPLICATION TO TURFGRASS

Xytect™ 2F Insecticide will control the following soil inhabiting pests found in turfgrass.

<table>
<thead>
<tr>
<th>PEST</th>
<th>SCIENTIFIC NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern &amp; Southern masked chafers</td>
<td>Cycloneda sanguinea</td>
</tr>
<tr>
<td>Asian garden beetle</td>
<td>Acornis ochracea</td>
</tr>
<tr>
<td>European chafer</td>
<td>Melolontha melolontha</td>
</tr>
<tr>
<td>Green June beetle</td>
<td>Thermobia domestica</td>
</tr>
<tr>
<td>Japanese beetle</td>
<td>Agrilus planipennis</td>
</tr>
<tr>
<td>Oriental beetle</td>
<td>Anoplophora chinensis</td>
</tr>
<tr>
<td>Billbugs</td>
<td>Sphenophorus spp.</td>
</tr>
<tr>
<td>Annual bluegrass weevil</td>
<td>Nezara viridula</td>
</tr>
<tr>
<td>Black turfgrass atenius</td>
<td>Ateñius spretulus</td>
</tr>
<tr>
<td>European Crane Fly</td>
<td>Tipula pascuosa</td>
</tr>
</tbody>
</table>

Xytect™ 2F Insecticide will suppress cutworms and chinch bugs.

APPLICATION EQUIPMENT FOR USE ON TURFGRASS

Xytect™ 2F Insecticide should be diluted with enough water to provide adequate volume to promote thorough distribution into the pest zone. Use only accurately calibrated equipment for application to turfgrass. Apply a uniform, coarse droplet spray, using a low pressure setting to eliminate off target drift. Calibration should be performed on a regular basis to ensure that equipment is distributing product properly.

APPLICATION EQUIPMENT FOR USE ON TURFGRASS

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Use Site: TURFGRASS

TO CONTROL LARVAE OF

European Crane Fly
Annual bluegrass weevil
Green June beetle
Asian garden beetle
Japanese beetle
Billbug
Northern masked chafers
Black turfgrass atenius
Oriental beetle
Cutworms (suppression)
Phyllophaga spp.
European chafer
Southern masked chafers

Apply 1.25 to 1.6 pints per acre (equivalent to 0.4 to 0.6 fl oz per 1000 sq ft). Make applications prior to egg hatch of grubs, billbugs, annual bluegrass weevil, and European Crane Fly to maximize control.

Use Site: TREES, SHRUBS, FLOWERS, and GROUNDCOVERS

(Only in and around industrial and commercial buildings and residential areas)

<table>
<thead>
<tr>
<th>PEST</th>
<th>RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adelgids</td>
<td>For TREES, apply 0.1 to 0.2 fl oz (3 to 6 mL) per foot of shrub height.</td>
</tr>
<tr>
<td>Aphids</td>
<td>For TREES, apply 1.5 fluid ounces (45mL) per 100 gal of water. Make foliar applications before high pest populations become established. Read label on an as needed basis.</td>
</tr>
<tr>
<td>Armored scales (suppression)</td>
<td>For SHRUBS, apply 0.1 to 0.2 fl oz (3 to 6 mL) per foot of shrub height.</td>
</tr>
<tr>
<td>Asian longhorn beetle</td>
<td>For FLOWERS and GROUNDCOVERS, apply 0.4 to 0.6 fluid ounces (14 to 17 mL) per 1000 sq ft.</td>
</tr>
<tr>
<td>Black vine weevil larvae</td>
<td>To control White grub larvae, (such as Japanese beetle larvae, Chafer, Phyllophaga spp, Asian garden beetle, Oriental beetle) apply 0.46 to 0.6 fluid ounces (14 to 17 mL) per 1000 sq ft.</td>
</tr>
<tr>
<td>Emerald Ash Borer</td>
<td>Make broadcast applications by mixing specified rate in enough water to uniformly cover the treated area. Do not use less than 2 gallons of water per 1000 sq ft. If necessary, irrigate thoroughly to incorporate Xytect™ 2F Insecticide into the upper soil profile.</td>
</tr>
<tr>
<td>Flatheaded borers (including bronze birch and alder borer)</td>
<td>Refer to use directions specific for FLOWERS and GROUNDCOVERS concerning additional use directions.</td>
</tr>
<tr>
<td>Japanese beetles</td>
<td>Xytect™ 2F Insecticide will suppress cutworms and chinch bugs.</td>
</tr>
<tr>
<td>Lace bugs</td>
<td>Application Techniques: TREES</td>
</tr>
<tr>
<td>Leaf beetles (including elm and viburnum leaf beetles)</td>
<td>Soil Injection</td>
</tr>
<tr>
<td>Leaffoppers</td>
<td>GRID SYSTEM: Make applications in a grid pattern on 2.5 foot centers within the drip line of the tree.</td>
</tr>
<tr>
<td>(including glassywinged sharpshooter)</td>
<td>BASAL SYSTEM: Make applications into holes evenly spaced approximately 2 – 3 foot apart in a circle with the drip line of the tree. Larger trees may require additional application circles.</td>
</tr>
<tr>
<td>Leaffooters</td>
<td>Soil Drench</td>
</tr>
<tr>
<td>Mealybugs</td>
<td>Apply 0.1 to 0.2 fl oz (14 to 17 mL) per 1000 sq ft. Make foliar applications as pest pressure begins to increase. Make a second application 10 to 14 days after first if field scouting reveals continued pest pressure. Use of an organosilicon based spray adjuvant at recommended rate can enhance thorough coverage of foliage.</td>
</tr>
<tr>
<td>Plant bugs</td>
<td>Use Site: TURFGRASS</td>
</tr>
<tr>
<td>Psyllids</td>
<td>Notes and Restrictions for Shrubs:</td>
</tr>
<tr>
<td>Roundheaded borers</td>
<td>• Mix required dosage in sufficient water to inject an equal amount of solution in each hole.</td>
</tr>
<tr>
<td>Royal Palm Bugs</td>
<td>• Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone.</td>
</tr>
<tr>
<td>Sawfly larvae</td>
<td>• Maintain soil moisture for 7 to 10 days.</td>
</tr>
<tr>
<td>Soft scales</td>
<td>• Do not use less than 4 holes per shrub.</td>
</tr>
<tr>
<td>Thrip (suppression)</td>
<td>• No Soil Injection Applications Allowed In Nassau or Suffolk Counties of New York.</td>
</tr>
<tr>
<td>White grub larvae</td>
<td>Application Techniques: SHRUBS</td>
</tr>
<tr>
<td>Whiptails</td>
<td>Apply to individual plants using dosage indicated.</td>
</tr>
</tbody>
</table>

Use Site: PECAN

(Only in and around residential area) (Use on pecans not permitted in California unless directed by specific supplemental labeling)

<table>
<thead>
<tr>
<th>PEST</th>
<th>RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yellow pecan aphid</td>
<td>Apply 1.5 fl oz (45 mL) per 100 gal or 6 fl oz/A. Make foliar applications as pest pressure begins to increase. Make a second application 10 to 14 days after first if field scouting reveals continued pest pressure. Use of an organosilicon based spray adjuvant at recommended rate can enhance thorough coverage of foliage.</td>
</tr>
<tr>
<td>Pecan spittlebug</td>
<td>Notes and Restrictions for residential Pecan Trees:</td>
</tr>
<tr>
<td>Black margined aphid</td>
<td>• Do not apply more than a total of 18.0 fluid ounces of Xytect™ 2F Insecticide per acre per year.</td>
</tr>
<tr>
<td>Pecan phytophylloxera</td>
<td>• Do not make more than 3 applications.</td>
</tr>
<tr>
<td>Pecan leaf phylloxera</td>
<td>• Allow 10 or more days between applications.</td>
</tr>
<tr>
<td>For SHRUBS, apply 0.1 to 0.2 fl oz (3 to 6 mL) per foot of shrub height.</td>
<td>Application rate per acre will depend on tree size and volume of foliage present. The rate per acre is based on a standard of 400 gallons of dilute spray solution per acre for large trees.</td>
</tr>
</tbody>
</table>

Use Site: GRAPES

(For use only in and around industrial and commercial buildings and residential areas)

<table>
<thead>
<tr>
<th>PEST</th>
<th>RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaffoppers (including glassy-winged sharpshooter)</td>
<td>Apply 1.5 fl oz (45 mL) per 100 gal or 6 fl oz/A. Make foliar applications as pest pressure begins to increase. Make a second application 10 to 14 days after first if field scouting reveals continued pest pressure. Use of an organosilicon based spray adjuvant at recommended rate can enhance thorough coverage of foliage.</td>
</tr>
</tbody>
</table>

Notes and Restrictions for residential Pecan Trees:

• Do not apply more than a total of 6.0 ounces of Xytect™ 2F Insecticide per acre per year.
• Do not make more than 3 applications.
• No Soil Injection Applications Allowed In Nassau or Suffolk Counties of New York.

Notes and Restrictions for residential Grapes:

• Do not apply more than a total of 6.0 ounces of Xytect™ 2F Insecticide per acre per year.
• Allow at least 14 days between applications.
• Applications may be applied up to and including day of harvest.
Notes and Restrictions for residential Pome Fruits:

- Apply specified dosage as foliar spray as needed after petal-fall is complete.
- For control of any apple aphid, apply prior to leafrolling caused by the pest.
- For first-generation leafminer control, make first application as soon as petal fall is complete. Greatest leafminer control will result from the earliest possible application. For second and succeeding generations of leafminer, optimal control is obtained from applications made early in the adult flight against egg and early instar larvae. A second application may be required 10 days later if severe pressure continues or if generations are overlapping. A single application may result in suppression only. Xytect™ 2F Insecticide will not control late-stage larvae.
- For San Jose Scale, time applications to the crawler stage. Treat each generation.
- For late-season (preharvest) control of leafhopper species, apply Xytect™ 2F Insecticide while most leafhoppers are in the nymphal stage.
- For optimal control of mealybugs, insure good spray coverage of the trunk and scaffold limbs or other resting sites of the mealybug.
- Do not apply more than 6.0 fluid ounces per acre in a single application. Do not make more than 5 applications.
- Allow 10 or more days between applications. Allow at least 7 days between last application and harvest.
- Not for use in California for control on pears.

APPLICATION TO ORNAMENTALS

Xytect™ 2F Insecticide can be applied to ornamental plants in commercial and residential landscapes and interior plantscapes. Xytect™ 2F Insecticide is a systemic insecticide that is transported within the plant system from the roots to upper foliage. Xytect™ 2F Insecticide must be applied into a growing area of the plant that allows absorption of the active ingredient. Adding soluble nitrogen type fertilizers to the spray solution when appropriate can promote the uptake of the active ingredient.

Application can be made by foliar application or soil applications, including soil injection, drenches, and broadcast sprays. Foliar applications offer locally systemic activity against insect pests. The systemic translocation of active ingredient will be slower when applied to woody plants with soil applications. This delay can take 60 days or longer depending on species and size of plant. To offset this, make applications before anticipated pest infestation.

For outdoor ornamentals, broadcast applications cannot exceed a total of 1.6 prints (0.4 lb of active ingredient) per acre per year.

ANT MANAGEMENT PROGRAMS

Use Xytect™ 2F Insecticide to control aphids, scale insects, mealybugs and other sucking pests on ornamentals with ant populations because it removes honeydew as a food source. To enhance control of ants, supplement with residual sprays, bait placements or other ant control tactics.

NOTE: Not for use in commercial greenhouses, nurseries, or on grasses grown for seed, or on commercial fruit and nut trees.

APPLICATION EQUIPMENT FOR FOLIAR APPLICATIONS

Xytect™ 2F Insecticide mixes readily with water and may be used in many types of application equipment. Add a commercial spreader/sticker to promote coverage on hard to wet foliage such as holly, pine, or ivy. Xytect™ 2F Insecticide is compatible with many commonly used surfactants, miticides, liquid fertilizers, and other insecticides. If an applicator has no prior experience with a particular tank mix, physical compatibility should be checked by making a small clear jar test using correct proportions of products to be tank mixed.

Do not apply through any irrigation system.

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 Xytect™ 2F Insecticide to areas which are water logged 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 of active ingredient) 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 tolerance for the active ingredient has been established, a 12-month plant-back interval should be observed.

CONDITIONS OF SALE AND WARRANTY

The DIRECTIONS FOR USE of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS, its Supplemental Distributors, or the Seller. All such risks shall be assumed by the Buyer.

Rainbow Treecare Scientific Advancements, its Supplemental Distributors and the Seller warrant that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use subject to the inherent risks referred to above. NEITHER RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS NOR ITS SUPPLEMENTAL DISTRIBUTORS MAKE ANY OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS. BUYER’S EXCLUSIVE REMEDY AND THE EXCLUSIVE LIABILITY OF RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS, ITS SUPPLEMENTAL DISTRIBUTORS AND THE SELLER FOR ANY AND ALL CLAIMS, LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL BE LIMITED, AT THE MANUFACTURER’S OPTION, TO REPLACEMENT OF OR THE REPAYMENT OF THE PURCHASE PRICE FOR THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. Buyer must promptly notify Seller in writing of any claims to be eligible to receive either remedy stated above. IN NO CASE SHALL RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS, ITS SUPPLEMENTAL DISTRIBUTORS, OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS, its Supplemental Distributors, and the Seller offer this product, and the Buyer accepts it, subject to the foregoing Conditions of Sale and Warranty, which may be varied only by agreement in writing signed by a duly authorized representative.

No employee or agent of RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS, its Supplemental Distributor, or the Seller is authorized to vary or exceed the terms of this Warranty in any other manner.

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