

53883-205

7/8/2014

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460



OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

July 8, 2014

Control Solutions
c/o Jane Miller
Biologic Consulting, Inc.
115 Obtuse Hill Road
Brookfield, CT 06804

Dear Ms. Miller,

Subject: Fast Track Amendment to add pests: Emerald Ash Borer and Asian Longhorned Beetle
IMI 1.47% Concentrate
EPA Registration No. 53883-205 (Imidacloprid)
Your submission dated: April 14, 2014
Decision Number: 490253

The labeling referred to above submitted in connection with the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable.

Please submit one final printed copy of the labeling before releasing the product for shipment. A stamped copy of the labeling is enclosed for your records. If you have any questions regarding this label, please contact Autumn Metzger at (703) 305-5314 or metzger.autumn@epa.gov.

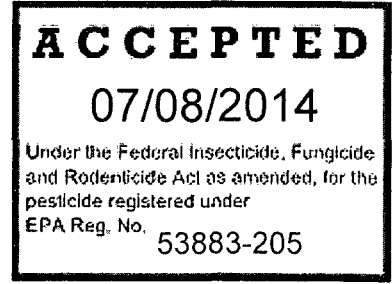
Sincerely,

A handwritten signature in cursive script that reads "Venus Eagle".

Venus Eagle, Product Manager 01
Insecticide-Rodenticide Branch
Registration Division
Office of Pesticide Programs
Date: July 8, 2014

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NOTIF to EPA to add Storage and Disposal language for Bonide 2.4.14
Amendment to add Emerald Ash Borer and Asian Longhorned Beetle revised label per EPA 07 08 2014



IMI 1.47% Concentrate
[Alt. brand name: Dominion Tree & Shrub]

[ROOM FOR OPTIONAL MARKETING STATEMENTS (on pages 16 & 17)]

For Outdoor Residential Use Only.

NOT FOR SALE, USE OR DISTRIBUTION IN or INTO Nassau, Suffolk, Kings or Queens Counties, New York

ACTIVE INGREDIENT:		
Imidacloprid		1.47%
OTHER INGREDIENTS:		98.53%
TOTAL:		100.00%

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall® International (866) 897-8050 for emergency medical treatment information.	
If in eyes:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 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.
If swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
Note to Physician: No specific antidote is available. Treat the patient symptomatically.	

See [Back Panel] [Label] [Booklet] for [First Aid] [and] [Additional] Precautionary Statements and Directions for Use.

EPA Reg. No. 53883-205

EPA Est. No. [REDACTED]

Net Contents: [fl. oz., qts., gallons]

PRECAUTIONARY STATEMENTS HAZARD TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Causes eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS


This pesticide is toxic to aquatic invertebrates. Do not apply directly to lakes, streams or ponds. Do not dump rinse water into sewers or other bodies of water.

This pesticide is highly toxic to bees exposed to direct treatment or residues on blooming plants or weeds. Do not apply IMI 1.47% Concentrate or allow it to drift to blooming plants or weeds when bees are foraging. Apply this product only as specified on this label.

PROTECTION OF POLLINATORS



APPLICATION RESTRICTIONS EXIST FOR THIS PRODUCT BECAUSE OF RISK TO BEES AND OTHER INSECT POLLINATORS. FOLLOW APPLICATION RESTRICTIONS FOUND IN THE DIRECTIONS FOR USE TO PROTECT POLLINATORS.

Look for the bee hazard icon  in the Directions for Use for each application site for specific use restrictions and instructions to protect bees and other insect pollinators.

This product can kill bees and other insect pollinators.

Bees and other insect pollinators will forage on plants when they flower, shed pollen, or produce nectar.

Bees and other insect pollinators can be exposed to this pesticide from:

- Direct contact during foliar applications, or contact with residues on plant surfaces after foliar applications
- Ingestion of residues in nectar and pollen when the pesticide is applied as a seed treatment, soil, tree injection, as well as foliar applications.

When Using This Product Take Steps To:

- Minimize exposure of this product to bees and other insect pollinators when they are foraging on pollinator attractive plants around the application site.
- Minimize drift of this product on to beehives or to off-site pollinator attractive habitat. Drift of this product onto beehives or off-site to pollinator attractive habitat can result in bee kills.

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at:

<http://pesticidestewardship.org/PollinatorProtection/Pages/default.aspx>.

Pesticide incidents (for example, bee kills) should immediately be reported to the state/tribal lead agency. For contact information for your state, go to: www.aapco.org/officials.html. Pesticide incidents should also be reported to the National Pesticide Information Center at: www.npic.orst.edu or directly to EPA at: beekill@epa.gov

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DIRECTIONS FOR USE

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

Shake well before using.

For outdoor foliar applications, follow these directions to protect pollinators:



Do not apply **IMI 1.47% Concentrate** while bees are foraging. Do not apply **IMI 1.47% Concentrate** to plants that are flowering. Only apply after all flower petals have fallen off.

RESTRICTIONS FOR ALL USES:

- Do not allow children and pets to re-enter the treated area until after the spray has dried
- Do not spray the product into fish pools, ponds, streams, or lakes.
- Do not allow this product to contact plants in bloom if bees are foraging in the treatment area.
- Regardless of application method, do not apply more than 0.4 lb. a.i. Imidacloprid (410 oz. or 3.2 gallons of IMI 1.47% Concentrate) per acre per year. [Do not apply more than 9.4 oz. Imidacloprid per 1,000 sq. ft. per year.]
- Do not apply this product, by any application method to linden, basswood, or other *Tilia* species.

Read and follow all label directions.

LAWNS

IMI 1.47% Concentrate kills White Grubs, Mole Crickets, European Crane Fly Larvae and other pests listed in the table below. **IMI 1.47% Concentrate** forms a protective barrier in the soil which provides control of listed pests all season long. When applied early, **IMI 1.47% Concentrate** kills grubs, mole crickets and European crane fly before they hatch and damage lawns. Contact your County Extension Agent for the best dates to apply in your area. **IMI 1.47% Concentrate** may be sprayed over soil or mulch. Remove weed barrier before applying.

Use on lawns and yards including the following grasses:

Cool season or Northern lawns	Warm season or Southern lawns
Kentucky bluegrass, Perennial ryegrass, Tall fescue, fescues (red or fine leaf)	Bermudagrass, Common and hybrid Centipedegrass St. Augustinegrass Zoysiagrass Buffalograss Bahia grass

Pests Controlled

Pest	Indication of Damage to Lawns
Adelgids Annual bluegrass Weevil Aphids Billbugs Bluegrass Weevils Chinch bug (suppression) Cutworms (suppression) Elm leaf beetle European crane fly larvae Lacebugs	European crane fly larvae often cause damage by feeding on grass roots and disrupting the soil surface. Mole crickets often cause extensive damage by tunneling through lawns. Some species also feed on roots. Tunneling uproots the grass so it easily dries out. Lawns turn yellow, become thin, weedy and can eventually die.

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<p>Leafhoppers Leafminers Mealybugs Mole crickets Sawfly larvae Sod webworm Thrips Whiteflies White Grubs (including larvae of Asiatic Garden Beetle, Black Turfgrass Ataenius, Chafers, Japanese Beetle, May or June Beetle, and Oriental Beetle)</p>	<p>White grubs cause extensive damage to lawns by feeding on grass roots. Grass turns yellow, then brown and dies. Grubs chew off roots so that the grass is easily pulled up in pieces in your hands. You can roll it back like a carpet to reveal the grubs. If patches of dead grass appeared in your lawn late last summer, check for grubs.</p>
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Application Instructions

Treat for grubs from the beginning of May to the end of October, or when first noticed.

For grub (larvae) control, 1/2 inch of rainfall or irrigations should occur within 24 hours after application. Thoroughly wet the lawn a few hours after application.

For armyworm and cutworm control, do not irrigate treated areas within 24 hours after application of this product.

Contact your State Agricultural Extension Service agents for additional recommendations for your area.

RESTRICTIONS FOR LAWNS:

- Do not water lawn within one hour after applying.
- Do not apply IMI 1.47% Concentrate to waterlogged areas
- Do not mow treated lawn until after adequate rainfall or irrigation has occurred.
- Do not exceed one application of **IMI 1.47% Concentrate** per season for lawns.
- Do not allow people and pets to re-enter the treated area until after the spray has dried.
- Do not allow this product to contact plants in bloom if bees are foraging in the treatment area.
- Do not apply more than 0.4 lb. a.i. Imidacloprid (410 oz. or 3.2 gallons of IMI 1.47% Concentrate) per acre per year. [Do not apply more than 9.4 oz. Imidacloprid per 1,000 sq. ft. per year.]

IMI 1.47% Concentrate Ready-To-Spray Instructions - Lawns

IMI 1.47% Concentrate is a ready-to-spray formulation. Attach the bottle to your garden hose according to the directions below. Water will mix with the **IMI 1.47% Concentrate** as you spray.

1. Measure area to be sprayed. Calculate "square feet" by multiplying length times width. This [32 fl. oz.] container will cover up to 5,333 sq. ft.
2. Make sure sprayer knob control lever is in "OFF" position, then connect sprayer to garden hose.
3. When spraying turf and other low foliage, twist sprayer hood to the "Fan" position for more uniform coverage.
4. Turn water on at faucet. To begin spraying, turn [rotate] knob control lever to "ON" position. The product mixes automatically with the water as you spray.
5. To stop spraying, turn [rotate] knob control lever to the "OFF" position. Turn off water at the faucet. To relieve pressure, turn [rotate] knob control lever to the "ON" position and point the sprayer away from any desirable plants before disconnecting the spray nozzle from the garden hose.

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**[Alternate instructions for READY-TO-SPRAY SYSTEM
 HOW TO USE THE READY-TO-SPRAY SYSTEM**

Connect

1. Shake well before using.
2. Connect sprayer to hose.
3. Turn on water.

Spray

1. To begin spraying, point nozzle in the direction you want to spray.
2. [Bend small plastic tab back and] Turn knob [clockwise] to ON position.
3. Spray evenly to the area to be treated. Refer to the [sight gauge] clear view strip (graduated scale) on the side of the container to determine the amount of product sprayed.

Finish

1. To stop spraying, [turn knob counter clockwise] to OFF position.
2. Turn off water.
3. Relieve water pressure by [bending plastic tab back and] turning knob to ON position until water slows to a drip. Then turn knob back to OFF position.
4. Disconnect sprayer from hose.

Spray evenly over the measured area. [32 fl. oz. covers approximately 5,333 sq. ft]. For heavier infestations, use 32 fl. oz. to treat 3,560 sq. ft.

Hand-Operated Sprayers

Including backpack, compression, knapsack or tank type sprayers and low pressure boom sprayers.

For lawns, mix 2 to 3 fl. oz. of IMI 1.47% Concentrate per one (1.0) gallon of water for treating approximately 333 sq. ft. of lawn. Use the higher rate for heavier infestations of insect pests.

Gallons of Water	Fluid ounces (fl. oz.) of IMI 1.47% Concentrate	Tablespoons (tbs.) of product	Area to be treated (sq. ft.)
1 gallon	2.0 – 3.0 fl. oz.	4 – 6 tbs.	333 sq. ft.
2 gallons	4.0 – 6.0 fl. oz.	8 – 12 tbs.	666 sq. ft.
3 gallons	6.0 – 9.0 fl. oz.	12 – 18 tbs.	1,000 sq. ft.

1.0 fl. oz. = 2 tablespoons

For one (1) gallon retail containers:

For lawn using low pressure boom sprayers, mix 6.0 fl. oz. of IMI 1.47% Concentrate per 1,000 sq. ft. of lawn. Use a spray volume of 2.5 gallons per 1,000 sq. ft. of lawn. Additional spray preparation instructions are presented in the following table. NOTE: Amounts can be varied as indicated above as long as resulting spray amount is between 6 to 9 fl. oz. product per 1,000 sq. ft.

Gallons of water	Fluid ounces (fl. oz.) of IMI 1.47% Concentrate	Area to be treated (sq. ft.)
2.5 gallons	6.0 fl. oz.	1,000 sq. ft.
5 gallons	12 fl. oz.	2,000 sq. ft.
10 gallons	24 fl. oz.	4,000 sq. ft.
12.5 gallons	30 fl. oz.	5,000 sq. ft.
25 gallons	60 fl. oz.	10,000 sq. ft. or 0.23 acre
53 gallons	128 fl. oz. (1 gallon)	21,333 sq. ft. or 0.5 acre

1 gallon = 128 fl. oz. = 4 quarts = 16 cups

1 quart = 32 fl. oz. = 4 cups

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ESTABLISHED ORNAMENTALS IN RESIDENTIAL AREAS

IMI 1.47% Concentrate is for use on outdoor trees, shrubs and groundcovers in landscape plantings as listed in the table below:

RESTRICTIONS FOR ORNAMENTALS:

- Do not apply to soil that is frozen or waterlogged.
- Keep people and pets off treated area until it has dried.
- Do not apply this product, by any application method to linden, basswood, or other *Tilia* species.
- Do not apply this product while bees are foraging.
- Do not apply to plants that are blooming. Only apply after all flower petals have fallen off.
- Do not apply more than 0.4 lb. a.i. Imidacloprid (410 oz. or 3.2 gallons of IMI 1.47% Concentrate) per acre per year. [Do not apply more than 9.4 oz. Imidacloprid per 1,000 sq. ft. per year.]

Landscape Plantings	Types of Plants
Roses, flowers, bedding plants and flowering shrubs	Azalea, begonia, camellia, cherry laurel, geranium, gardenia, hydrangea, impatiens, ligustrum, peonies, primrose, tea roses, salvia, zinnias and similar herbaceous plants
Evergreen and leafy shrubs and woody ornamentals	Arborvitae, boxwood, cotoneaster, euonymus, holly, juniper, laurel, privet, spruce yews and similar plants
Groundcovers	English ivy, Dichondra, ivy, pachysandra, vinca and other similar plants

IMI 1.47% Concentrate is for use to kill the pests listed in the table below on outdoor trees and shrubs.

Pests Controlled	
Adelgids	Leafhoppers (incl. Glassy-winged Sharpshooters)
Aphids	Leafminers (incl. Birch Leafminers)
Black Vine Weevil Larvae	Mealybugs
Borers:	Pine Tip Moth Larvae
Roundheaded Borers (incl. Eucalyptus	Psyllids
Longhorned Borers and Asian Longhorned	Royal Palm Bugs
Beetles)	Sawfly Larvae
Flatheaded Borers (incl. Bronze Birch, Alder	Scales (incl. Armored Scale [suppression]
Borers, and Emerald Ash Borers)	and Soft Scale)
Japanese Beetles (Adult)	Thrips (suppression)
Lacebugs	Whiteflies
Leaf Beetles (incl. Elm Leaf Beetles and	
Viburnum Leaf Beetles)	

Foliar Applications

Use IMI 1.47% Concentrate as a foliar spray to provide contact control of larvae, nymphs or adults of the following insect pests: adelgids, aphids, Japanese beetles, lace bugs, leaf beetles (including elm leaf beetles and viburnum leaf beetles), leafhoppers (including glassy-winged sharpshooter), mealybugs, psyllids, sawfly larvae, thrips (suppression) and whiteflies.

Application Instructions

Apply when insects first appear and before high pest populations are established, prior to blooming or after all flower petals have fallen off. Retreat when re-infestation occurs, when high pest pressure is observed or repeat applications on an as-needed basis with 10-14 day intervals between applications, not to exceed the maximum rate.

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How to Apply

Foliar applications with water must be made as a thorough cover spray to provide uniform distribution. Make application prior to blooming or after all flower petals have fallen off. Spray to wet all foliage (leaves, stems and branches). Target the undersides of the leaves and try to penetrate dense foliage with the spray droplets.

IMI 1.47% Concentrate Ready-To-Spray Instructions

1. Make sure knob control lever is in "OFF" position, then connect sprayer to garden hose.
2. When spraying low growing groundcovers and small shrubs, twist the sprayer hood to the "FAN" position. When spraying taller trees, shrubs and ornamentals, twist the sprayer hood to the "STREAM" position for extended reach and more uniform coverage.
3. Turn water on at faucet. To begin spraying, turn [rotate] knob control lever to "ON" position. The product mixes automatically with the water as you spray.
4. To stop spraying, turn [rotate] knob control lever to the "OFF" position. Turn off water at the faucet. To relieve pressure, turn [rotate] knob control lever to the "ON" position and point the sprayer away from any desirable plants before disconnecting the spray nozzle from the garden hose.

Hand-Operated Sprayers

Including backpack, compression, knapsack or tank type sprayers.
For foliar applications mix 1.5 (1 1/2) teaspoons (tsp) of IMI 1.47% Concentrate per one (1) gallon of water.

Spray Volume Gallons of Water	Teaspoons (tsp.) of product	Tablespoons (tbs.) of product
1 gallon	1 1/2 tsp.	1/2 tbs.
2 gallons	3 tsp.	1 tbs.
3 gallons	4 1/2 tsp.	1 1/2 tbs.

1.0 fl. oz. = 2 tablespoons = 6 teaspoons (tsp.)

Hose-End Sprayer Instructions [For Gilmour Dial-A-Mix Sprayer or Air-O-Matic]

1. Set the dial to 1 1/2 teaspoons (tsp.). Keep the dial set to this setting while spraying.
2. Add an adequate amount of product to the spray bottle to treat the total area. Do not add water to jar.
3. Spray to wet all foliage and direct the spray droplets for an even distribution on the target plants. Any unused product can be poured back into its original container.

Soil Applications

Soil application of IMI 1.47% Concentrate provides systemic activity and longer residual control as compared to foliar applications. IMI 1.47% Concentrate may be used on the soil around bedding plants, flowers, trees, shrubs, groundcovers and woody ornamentals in landscape plantings as a soil surface spray. Individual trees and shrubs may be treated with a soil drench.

Pests Controlled	
Adelgids	Elm Leaf Beetles
Aphids	Viburnum Leaf Beetles
Armored scales (suppression)	Leafhoppers
Black Vine Weevil Larvae	Leafminers
Borers:	Mealybugs
Roundheaded Borers (incl. Eucalyptus	Pine Tip Moth Larvae
Longhorned Borers and Asian Longhorned	Psyllids
Beetles)	Royal Palm Bugs
Flatheaded Borers (incl. Bronze Birch, Alder	Sawfly Larvae

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NOTIF to EPA to add Storage and Disposal language for Bonide 2.4.14
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Borers, and Emerald Ash Borers) Japanese Beetles (adult) Lacebugs	Soft Scale (suppression) Thrips (suppression) White grub larvae Whiteflies
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Application Instructions

Seedbed or planting beds: Apply as a broadcast treatment to the soil and incorporate into the soil by cultivation or irrigation before seeding, planting and transplanting.

Established plantings: Apply **IMI 1.47% Concentrate** to the root zone of the established plants and irrigate the treated areas before the insect activity is expected.

Irrigate the treated area (0.5 inch) thoroughly after the application of IMI 1.47% Concentrate.

Hand-Operated Sprayers

Including backpack, compression, knapsack or tank type sprayers.

For soil applications to landscape plantings, mix 3.0 fl. oz. of **IMI 1.47% Concentrate** per one (1) gallon of water for treating approximately 333 sq. ft. Additional spray preparation rates are given in the table below.

Spray Volume Gallons of Water	Fluid Ounces (fl. oz.) of IMI 1.47% Concentrate	Tablespoons (tbs.) of product	Area to be treated sq. ft.
1 gallon	3.0 fl. oz.	6 tbs.	333 sq. ft.
2 gallons	6.0 fl. oz.	12 tbs.	666 sq. ft.
3 gallons	9.0 fl. oz.	18 tbs.	1,000 sq. ft.

1.0 fl. oz. = 2 tablespoons

Hose-End Sprayer Instructions

1. Measure the total area to be sprayed
2. Set the dial to 3 oz.
3. Add an adequate amount of product to the spray bottle to treat the total area, or add 9 fl. oz. of product for every 1,000 sq. ft. For example, pour 18 fl. oz. of product into sprayer jar to treat an area of 2,000 sq. ft. Do not add water to jar.
4. Spray evenly over the measured area. Any unused product can be poured back into its original container.

Soil Drench to Individual Trees and Shrubs

IMI 1.47% Concentrate quickly dissolves in water allowing the insecticide to move through the soil into the root zone. Once in the roots, the insecticide moves up through the tree or shrub providing year-long insect control. **IMI 1.47% Concentrate** will also provide control to new growth. Drench applications to individual trees will control pests listed below:

Pests Controlled	
Adelgids	Elm Leaf Beetles
Aphids	Viburnum Leaf Beetles
Armored scales (suppression)	Leafhoppers
Black Vine Weevil Larvae	Leafminers
Borers:	Mealybugs
Roundheaded Borers (incl. Eucalyptus	Pine Tip Moth Larvae
Longhorned Borers and Asian Longhorned	Psyllids
Beetles)	Royal Palm Bugs
Flatheaded Borers (incl. Bronze Birch, Alder	Sawfly Larvae

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Borers, and Emerald Ash Borers) Japanese Beetles (adult) Lacebugs	Soft Scale (suppression) Thrips (suppression) White grub larvae Whiteflies
-------------------------------------------------------------------------	-------------------------------------------------------------------------------------

For best results, use this product as part of a preventative treatment program before insect damage occurs. Use one soil drench treatment per year during early spring to early fall.

IMI 1.47% Concentrate can be applied anytime except when the ground is saturated or frozen. These conditions will make movement of the product down into the root zone difficult. When applying this product during dry periods, generously water the tree or shrub the night before treatment.

NOTE: For insect control, the insecticide must move throughout the tree or shrub. The time it takes to do this will depend on the size of the plant that is treated (one week to three months for very large trees). For this reason, soil drenches should occur 2-3 months before the expected pest infestation. Trees that are already heavily infested may not survive due to the existing pest damage and the resulting stress.

Application Instructions

Soil Drench: Refer to the directions in the "TREES" section below.

Soil Injection: Apply the rates indicated in the table in the "TREES" section. Divide the appropriate volume by the number of holes required. Place holes at approximately evenly spaced intervals around the entire circumference of the tree at about 2/3 the distance from the trunk to the dripline. Inject at a depth of 8-12 inches.

TREES

Determining Amount of IMI 1.47% Concentrate to Use

Measure the circumference (distance around the tree trunk) in inches at chest height or at 4.5 feet from the soil using a flexible tape. Or, measure the diameter of the tree trunk in inches at chest height or at 4.5 feet from the soil.

Mix 1 oz. of **IMI 1.47% Concentrate** per inch of circumference of the tree trunk to one (1) gallon of water. Refer to the mixing chart below for the amounts of IMI 1.47% Concentrate needed.

RESTRICTIONS FOR TREES:

- Do not apply this product, by any application method to linden, basswood, or other *Tilia* species.
- Do not apply more than 0.4 lb. a.i. Imidacloprid (410 oz. or 3.2 gallons of IMI 1.47% Concentrate) per acre per year.

How to Apply

Apply the solution to the root zone as a band around the base of the tree. Apply one (1) gallon of solution in a circular band from the base of the tree outward for two (2) feet. For trees with trunk diameters more than 16 inches at chest height, apply two (2) gallons of solution in a circular band from the base of the tree outward for three to four (3-4) feet.

Do not irrigate immediately after a soil drench application. Depending on the size and vigor of the tree, the uptake period may vary from one week to three months for larger trees. Insect control will be achieved when the uptake and translocation from the roots to all plant parts (leaves) has occurred.

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Tree Trunk Circumference (inches)	Tree Diameter (inches)	Amount of IMI 1.47% Concentrate (fl. oz.)	Volume of Water (gallons)	Band Width of Circular Area Around Base of Tree (outward feet)
8	2	8	1	2'
10	3	10	1	2'
15	5	15	1	2'
20	6	20	1	2'
25	8	25	1	2'
30	10	30	1	2'
35	11	35	1	3-4'
40	12	40	1	3-4'
45	14	45	1	3-4'
50	16	50	2	3-4'
55	18	55	2	3-4'

SHRUBS

Determining Amount of IMI 1.47% Concentrate to Use

Measure the height of the shrub to the nearest foot. Round any inches down to the nearest foot if less than 6" and up to the nearest foot if greater than 6".

Mix 3 oz. of IMI 1.47% Concentrate per foot of shrub height to one (1) gallon of water. Refer to table below for additional mixing instructions.

RESTRICTIONS FOR SHRUBS:

- Do not apply more than 0.4 lb. a.i. Imidacloprid (410 oz. or 3.2 gallons of IMI 1.47% Concentrate) per acre per year.

How to Apply

Apply the solution to the root zone as a band around the base of the shrub. Apply one (1) gallon of solution in a circular band from the base of the shrub outward for one (1) feet. For shrubs taller than 3 feet, apply one (1) gallon of solution in a circular band from the base of the shrub outward for two (2) feet.

Do not irrigate immediately after a soil drench application.

Shrub Height (feet)	Amount of IMI 1.47% Concentrate (fl. oz.)	Volume of Water (gallons)	Band Width of Circular Area Around Base of Shrub (outward feet)
2	6	1	1'
3	9	1	1'
4	12	1	2'
5	15	1	2'
6	18	1	2'
7	21	1	2'
8	24	1	2'

APPLE, PEAR, PEACH, PLUM, CHERRY AND PECAN TREES

For plants established in residential areas as ornamental plantings or for fruit/nut consumption.

RESTRICTIONS:

- Do not apply pre-bloom or during bloom or when bees are foraging.

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Plants	Insect Pests Controlled
Apple and Crabapple Pear, Common and Oriental	Aphids (except woolly apple aphid), Japanese beetles, leafhoppers (including glassy-winged sharpshooter), leafminers, mealybugs, and San Jose scale
Peach, Plum and Cherry	Aphids, cherry fruit fly maggot, Japanese beetles, leafhoppers, plant bugs, San Jose scale and stink bugs
Pecan	Yellow pecan aphid, black margined aphid, pecan leaf phylloxera, pecan spittlebug, pecan stem phylloxera

Application Instructions

Timing of applications should coincide with vulnerable stages of the pests. The calendar schedules below are to be used as a guide to application timing but should not be considered a forecast or predictor for treating these insect pests. Consult your State Agricultural Extension Service agent for specific schedules and guidance for your local area. In addition, observe these guidelines for treating the following pests:

- **Aphids:** Make application when aphids first appear and before the leaves are rolled as a result of these pests.
- **Leafhoppers:** Make applications when leafhoppers first appear, during the nymph stage.
- **Leafminers:** Make two applications with intervals of 10 or more days. Make the first application soon after the petal fall is complete. A second application at the same dosage 10 days later should be applied to the early instar larvae.
- **Mealybugs:** Thorough and uniform coverage is necessary.
- **San Jose Scale:** Make application when crawlers are present. Ensure complete spray coverage of the branches, stems and leaves.
- **Spittlebug:** Apply when spittle masses are present and as new generations develop.

For Apples and Pears: Apply full cover sprays after the petal fall is complete. Continue application until the target insects are controlled. Apply up to five (5) foliar applications per season and allow 10 or more days between insecticide applications. Allow seven (7) days between the final application and the apple or pear harvest.

For Apples and Pears, do not apply more than 0.4 lb. a.i. Imidacloprid (410 oz. or 3.2 gallons of IMI 1.47% Concentrate) per acre per year.

Stage of Trees	Approximate Dates	Apple	Pear
Petal fall	May 22		
1 st cover spray, 5-10 days after petal fall	June 1	X	X
2 nd cover spray, 10-14 days later	June 15	X	X
3 rd cover spray, 10-14 days later	June 29	X	X
4 th cover spray, 10-14 days later	July 13	X	X
5 th cover spray, 10-14 days later	July 27	X	X
Waiting period before harvest	-	7 days	7 days

For Peaches: Apply full cover sprays after the petal fall is complete. Continue application until the listed insects are controlled sufficiently. Use up to three (3) foliar applications per season and allow at least 7 days between applications.

For Peaches, do not apply more than 0.3 lb. a.i. Imidacloprid (307 oz. or 2.4 gallons of IMI 1.47% Concentrate) per acre per year.

Stage of Trees	Approximate Dates	Peach
Petal fall	May 25 – June 1	
1 st cover spray, 5-10 days after petal fall	June 1	X
2 nd cover spray, 7-14 days later	June 8 – 14	X

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3 rd cover spray, 7-14 days later	June 15 – 21	X
Waiting period before harvest	-	0 days

For Cherries and Plums: Apply full cover sprays after the petal fall is complete. Continue application until the target insects are controlled sufficiently. Apply up to five (5) foliar applications per season and allow 10 or more days between insecticide applications. Allow seven (7) days between the final application and the cherry or plum harvest.

For Cherries and Plums, do not apply more than 0.4 lb. a.i. Imidacloprid (410 oz. or 3.2 gallons of IMI 1.47% Concentrate) per acre per year.

Stage of Trees	Approximate Dates	Cherry	Plum
Petal fall	May 22		
1 st cover spray, 5-10 days after petal fall	June 1	X	X
2 nd cover spray, 10-14 days later	June 15	X	X
3 rd cover spray, 10-14 days later	June 29	X	X
4 th cover spray, 10-14 days later	July 13	X	X
5 th cover spray, 10-14 days later	July 27	X	X
Waiting period before harvest	-	7 days	7 days

For Pecans: Apply full cover sprays after the petal fall is complete. Continue application until the listed insects are controlled sufficiently. Use up to three (3) foliar applications per season and allow at least 7 days between applications. Allow seven (7) days between the final application and the pecan harvest.

For Pecans, do not apply more than 0.36 lb. a.i. Imidacloprid (369 oz. or 2.9 gallons of IMI 1.47% Concentrate) per acre per year.

Stage of Trees	Approximate Dates	Pecan
Petal fall	Late April	
1 st cover spray, 5-10 days after petal fall	May 1	X
2 nd cover spray, 10-14 days later	May 15	X
3 rd cover spray, 10-14 days later	May 30	X
Waiting period before harvest	-	7 days

How to Apply

Foliar applications with water should be made as a thorough cover spray to provide uniform distribution. Spray to wet all foliage (leaves, stems and branches). Target the undersides of the leaves and try to penetrate dense foliage with the spray droplets.

IMI 1.47% Concentrate Ready-To-Spray Instructions

1. Make sure knob control lever is in "OFF" position, then connect sprayer to garden hose.
2. When spraying low growing groundcovers and small shrubs, twist the sprayer hood to the "FAN" position. When spraying taller Trees, Shrubs and Ornamentals, twist the sprayer hood to the "STREAM" position for extended reach and more uniform coverage.
3. Turn water on at faucet. To begin spraying, turn [rotate] knob control lever to "ON" position. The product mixes automatically with the water as you spray.
4. To stop spraying, turn [rotate] knob control lever to the "OFF" position. Turn off water at the faucet. To relieve pressure, turn [rotate] knob control lever to the "ON" position and point the sprayer away from any desirable plants before disconnecting the spray nozzle from the garden hose.

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**[Alternate instructions for READY-TO-SPRAY SYSTEM
HOW TO USE THE READY-TO-SPRAY SYSTEM**

Connect

1. Shake well before using.
2. Connect sprayer to hose.
3. Turn on water.

Spray

1. To begin spraying, point nozzle in the direction you want to spray.
2. [Bend small plastic tab back and] Turn knob [clockwise] to ON position.
3. Spray evenly to the area to be treated. Refer to the [sight gauge] clear view strip (graduated scale) on the side of the container to determine the amount of product sprayed.

Finish

1. To stop spraying, [turn knob counter clockwise] to OFF position.
2. Turn off water.
3. Relieve water pressure by [bending plastic tab back and] turning knob to ON position until water slows to a drip. Then turn knob back to OFF position.
4. Disconnect sprayer from hose.

Hose-End Sprayer Instructions

1. Set the dial to 1 1/2 teaspoons (tsp.). Keep the dial set to this setting while spraying.
2. Add an adequate amount of product to the spray bottle to treat the infested trees. Do not add water to jar.
3. Spray to wet all foliage and direct the spray droplets for an even distribution on the target plants. Any unused product can be poured back into its original container.

Spray volume will vary with the size of the trees and thorough coverage is important. Small trees (less than 15 feet in height) will require approximately 2 gallons of diluted spray per tree. Larger trees (25 feet in height) will require approximately 8 gallons of diluted spray per tree.

Dilutions and Time Chart – The estimated amount of diluted spray and the time required to spray one tree with the dial setting of 1 1/2 teaspoons (tsp.)

Tree Height (feet)	Spray Volume per Infested Tree (gallons)	Estimated Time to Spray One Tree (minutes)
15	2	1
20	5	2 1/2
25	8	4
30	15	7 1/2
35	20	10

Soil Drench to Apple, Pear, Peach, Plum, Cherry and Pecan Trees

IMI 1.47% Concentrate quickly dissolves in water allowing the insecticide to move through the soil into the root zone. Once in the roots, the insecticide moves up through the tree or shrub providing year-long insect protection. IMI 1.47% Concentrate will also provide protection to new growth. Drench applications to individual trees will control aphids, borers, leafhoppers, lace bugs, mealybugs, scale insects, and other larvae as listed above.

For insect control, the insecticide must move throughout the tree or shrub. The time it takes to do this will depend on the size of the plant that is treated (one week to three months for very large trees). For this reason, apply soil drenches 2-3 months before the expected pest infestation.

For best results, use this product as part of a preventative treatment program before insect damage occurs. Use one soil drench treatment per year during early spring to early fall.

IMI 1.47% Concentrate can be applied anytime except when the ground is saturated or frozen. These conditions will make movement of the product down into the root zone difficult. When

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applying this product during dry periods, generously water the tree or shrub the night before treatment.

RESTRICTIONS:

- Do not apply pre-bloom or during bloom or when bees are foraging
- Do not apply to soil that is frozen or waterlogged.
- **For apple, pear, peach, plum and cherry -**
 - A. Allow twenty-one (21) days between the final application and harvest.
 - B. Do not apply more than 0.38 lb. a.i. Imidacloprid (390 oz. or 3 gallons of IMI 1.47% Concentrate) per acre per year.
- **For pecans -**
 - A. Allow seven (7) days between the final application and harvest.
 - B. Do not apply more than 0.4 lb. a.i. Imidacloprid (410 oz. or 3.2 gallons of IMI 1.47% Concentrate) per acre per year.

Trees that are already heavily infested may not survive due to the existing pest damage and the resulting stress.

Determining Amount of IMI 1.47% Concentrate to Use

Measure the circumference (distance around the tree trunk) in inches at chest height or at 4.5 feet from the soil using a flexible tape. Or, measure the diameter of the tree trunk in inches at chest height or at 4.5 feet from the soil.

Mix 1 oz. of **IMI 1.47% Concentrate** per inch of circumference of the tree trunk to one (1) gallon of water. Refer to the mixing chart below for the amounts of IMI 1.47% Concentrate needed.

How to Apply

Apply the solution to the root zone as a band around the base of the tree. Apply one (1) gallon of solution in a circular band from the base of the tree outward for two (2) feet. For trees with trunk diameters more than 16 inches at chest height, apply two (2) gallons of solution in a circular band from the base of the tree outward for three to four (3-4) feet.

Do not irrigate immediately after a soil drench application. Depending on the size and vigor of the tree, the uptake period may vary from one week to three months for larger trees.

Tree Trunk Circumference (inches)	Tree Diameter (inches)	Amount of IMI 1.47% Concentrate (fl. oz.)	Volume of Water (gallons)	Band Width of Circular Area Around Base of Tree (outward feet)
8	2	8	1	2'
10	3	10	1	2'
15	5	15	1	2'
20	6	20	1	2'
25	8	25	1	2'
30	10	30	1	2'
35	11	35	1	3-4'
40	12	40	1	3-4'
45	14	45	1	3-4'
50	16	50	2	3-4'
55	18	55	2	3-4'

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[Optional Directions for Use with Low-Pressure Shower Applicator:]

[DRENCH DIRECTIONS FOR HOSE-END APPLICATOR

Determining Amount of IMI 1.47% Concentrate to Use

Trees with 1 Trunk:

Measure the circumference (distance around the tree trunk) in inches at chest height or at 4.5 feet from the soil using a flexible tape. Or, measure the diameter of the tree trunk in inches at chest height or at 4.5 feet from the soil. This is the number of ounces of this product to apply. Then determine Total Spray Time as in the Example below:

Trees with 2 or more Trunks:

Measure the circumference (distance around each the tree trunk) in inches at chest height or at 4.5 feet from the soil using a flexible tape. Add measurements of each trunk together. Or, measure the diameter of the tree trunk in inches at chest height or at 4.5 feet from the soil. Multiply this total by 0.75 to get the required number of ounces of this product to apply. Then determine Total Spray Time as in the Example below:

Shrubs:

Measure the height of each shrub to the nearest foot. Multiply the number of feet by 3. This is the number of ounces of product to apply. Then determine Total Spray Time as in the Example below:

The low-pressure shower applicator applies approximately 1 ounce of product every 5 seconds.

Number of Ounces	x	5 seconds	=	Total Spray Time
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Example: After measuring the tree or shrub as determined above, you determine that the amount of product needed is 12 ounces.

12 Ounces	X	5 seconds	=	60 Total Seconds of Spray Time
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Shake the bottle well, Then connect sprayer to hose and turn on water. To begin spraying, point nozzle at the base of the plant you are treating. Bend small plastic tab down, and turn knob to ON position.

Apply evenly around the plant base as close to the trunk as possible for the time determined in the calculation above. To stop spraying, turn knob to OFF position. Turn off water. Relieve water pressure by bending the plastic tab down and turn the knob back to the ON position until water slows to a drip. Then turn the knob back to OFF. Finally, disconnect sprayer from the hose.

STORAGE AND DISPOSAL

**(Note to reviewer: The alternate language will be used only when "lawn" is a use site.)*

Pesticide Storage: Store in original container in a cool, dry place, out of the reach of children, preferably a locked storage cabinet. Protect from freezing.

Pesticide Disposal and Container Handling: If empty: Nonrefillable container. Do not reuse or refill this container. Rinse the empty product container thoroughly and disperse the rinse water (on lawn*) at application site (as part of the application*). Offer for recycling if available. If recycling is not available: then dispose of container in sanitary landfill or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

If partly filled: It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please call your local solid waste agency. Never place unused product down any indoor or outdoor drain.

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[IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of liability before using this product.

If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following conditions, disclaimer of warranties and limitations of liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, because of manner of use and other factors beyond Control Solutions, Inc.'s control it is impossible for Control Solutions, Inc. to eliminate all risks associated with the use of this product. As a result, crop injury or ineffectiveness is always possible. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, CONTROL SOLUTIONS, INC. MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Control Solutions, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. Control Solutions, Inc. disclaims any liability whatsoever for special, incidental or consequential damages, resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT CONTROL SOLUTIONS, INC.'S ELECTION, THE REPLACEMENT OF PRODUCT.] optional language

[NOTICE: To the extent consistent with applicable law, Buyer assumes all responsibility for safety and use not in accordance with directions.] optional language

[¹GUARANTEED RESULTS OR YOUR MONEY BACK

If you are not satisfied with this product for any reason, send your written request for a refund to the address below, together with the original dated store receipt showing the price you paid. Please allow 6-8 weeks for processing] optional language

Control Solutions, Inc.
5903 Genoa-Red Bluff
Pasadena, TX 77507

Optional marketing statements in brackets []

[For Use on Lawns]

[Kills White Grubs, Mole Crickets and European Crane Fly Larvae]

[One application kills white grubs, mole crickets and European Crane Fly Larvae all season long]

[When applied early, IMI 1.47% Concentrate kills grubs, mole crickets and European crane fly before they hatch and damage lawns]

[Ready-to-Spray. No Mixing, No Measuring]

[Treats more than 5,000 sq ft (32 oz size)]

[Treats up to 5,333 sq. ft.]

[Season Long Control of White Grubs]

[Kills Grubs all season]

[Early Application stops grubs before they start]

[For Use on Trees & Shrubs including listed Fruit and Nut Trees]

[For Use on Apple, Pear, Peach, Plum, Cherry and Pecan Trees]

[Controls Aphids, Grubs, Mole Crickets, and Other Listed Insects]

[Kills Adelgids, Aphids, Bronze Birch Borers, Leafminers, Scale and other listed pests]

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[Kills insects & prevents new infestations]
[Cannot be washed off by rain or water.]
[Just mix in water and pour around tree or shrub]
[Treats 32" around Trees and 5 – 2 ft. tall Shrubs (32 fl. oz.)]
[Mix & Pour apply at the tree base]
[Moves through the soil into the root zone]

[Can be applied as a foliar spray and/or soil drench]
[Systemic insect protection for the entire plant]
[No Mixing, No Measuring – just connect to the hose and begin spraying.](MAY BE USED ONLY ON THE HOSE-END SPRAYER PACKAGING)
[Use on Lawns, Flowers, Shrubs, Ornamentals, and Trees (including listed Fruit & Nut Trees.)]
[Use on lawns, flowers, trees and shrubs including listed fruit [and nut] trees]
[Orchard Spray & Drench controls insects on Apple, Pear, Peach, Plum, Cherry and Pecan Trees.]
[Apply up to day of harvest on Peaches and Pecans.]
[Apply up to 7 days before harvest on Apples, Pears, Cherries, and Plums.]
[For trees, shrubs, and lawns]
[Shoots 25' or gentle spray for shrubs](MAY BE USED ONLY ON THE HOSE-END SPRAYER PACKAGING)

[Kills Adelgids, Aphids, Listed Borers, Beetles & Bugs, Leafminers, Scale and Other Listed Pest]
[For Roses, Flowers, Bedding Plants, Listed Fruit and Nuts, Shrubs, Ground Covers & Trees]
[Use on Flowers, Ornamentals, Shrubs and Trees (including listed Fruit and Nut Trees)]
[Lasts for weeks]
[Kills Borers & Miners]
[This concentrate dissolves in water allowing the insecticide to move through the root zone. Once in the roots, the insecticide moves up through the tree or shrub providing protection from insects. This product will also provide protection for new growth.]
[Soil [Drench] Application Provides Year-Long Insect Control for Trees & Shrubs]
[Year-Long Insect Control for Trees & Shrubs when Applied as Soil Drench]
[Low-Pressure Shower Applicator]
[For terms of guarantee, see back panel]
{Rainproof [Protection]}
[People [Children] & pets may re-enter treated areas after spray has dried]

[Kills listed insects, including Japanese Beetles & Emerald Ash Borers]
[Prevents new infestations]
[Protects against listed insects for up to 12 months]
[Provides up to 12 months of Systemic Protection against listed insects]