

Hi-Yield®

Systemic Insect Spray



- Use on Lawns, Flowers, Shrubs, Ornamentals, and Trees (Including Listed Fruit & Nut Trees)
- Kills White Grubs, Mole Crickets, and European Crane Fly Larvae
- Kills Adelgids, Aphids, Listed Borers, Beetles & Bugs, Leafminers, Scale and Other Listed Pests

ACTIVE INGREDIENT:

Imidacloprid	1.47%
OTHER INGREDIENTS:	98.53%
TOTAL	100.00%

**KEEP OUT OF REACH
OF CHILDREN
CAUTION**

See Back Booklet for Additional
Precautionary Statements

For Outdoor Residential Use Only.

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

NET CONTENTS ONE PINT (16 FL. OZ. / 473 ML)

Hi-Yield® Systemic Insect Spray

PEEL FROM CORNER OF BOOKLET

FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. **In the event of a medical or chemical emergency, contact ChemTol** 
North America 1-800-255-3924 or Worldwide Intl. + 01- 813-248-0585

If Swallowed

- 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.

If In Eyes

- 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.

Hi-Yield® is a registered trademark of Voluntary Purchasing Groups, Inc.

Manufactured By:



230 FM 87 • BONHAM, TEXAS 75418

EPA Reg. No. 53883-205-7401

EPA Est. No. 7401-TX-01

Visit Us At: www.fertilome.com

Product Questions? 855-270-4776





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Product Questions? 855-270-4776

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**PRECAUTIONARY STATEMENTS
HAZARDS 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 **Hi-Yield® Systemic Insect Spray** or allow it to drift to blooming plants or weeds when bees are foraging. Apply **Hi-Yield® Systemic Insect Spray** only as specified on this label.



PROTECTION OF POLLINATORS

APPLICATION RESTRICTIONS EXIST FOR **Hi-Yield® Systemic Insect Spray** 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.

Hi-Yield® Systemic Insect Spray 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 **Hi-Yield® Systemic Insect Spray** Take Steps To:

- Minimize exposure of **Hi-Yield® Systemic Insect Spray** to bees and other insect pollinators when they are foraging on pollinator attractive plants around the application site.
- Minimize drift of **Hi-Yield® Systemic Insect Spray** on to beehives or to off-site pollinator attractive habitat. Drift of **Hi-Yield® Systemic Insect Spray** 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

DIRECTIONS FOR USE

It is a violation of Federal law to use **Hi-Yield® Systemic Insect Spray** in a manner inconsistent with its labeling.

Shake well before using.

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



Do not apply **Hi-Yield® Systemic Insect Spray** while bees are foraging. Do not apply **Hi-Yield® Systemic Insect Spray** 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 **Hi-Yield® Systemic Insect Spray** into fish pools, ponds, streams, or lakes.
- Do not allow **Hi-Yield® Systemic Insect Spray** 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 **Hi-Yield® Systemic Insect Spray**) per acre per year.
- Do not apply **Hi-Yield® Systemic Insect Spray**, by any application method to linden, basswood, or other *Tilia* species.

Read and follow all label directions.

LAWNS

Hi-Yield® Systemic Insect Spray kills White Grubs, Mole Crickets, European Crane Fly Larvae and other pests listed in the table below. **Hi-Yield® Systemic Insect Spray** forms a protective barrier in the soil which provides control of listed pests all season long. When applied early, **Hi-Yield® Systemic Insect Spray** 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. **Hi-Yield® Systemic Insect Spray** 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 Bahigrass

PESTS CONTROLLED

Pest	Indication of Damage to Lawn
Adelgids Annual bluegrass Weevil Aphids Billbugs Bluegrass Weevils Chinch bug (suppression) Cutworms (suppression) Elm Leaf Beetle European Crane Fly Larvae Lacebugs 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>European Crane Fly Larvae often cause damage by feeding on grass roots and disrupting the soil surface.</p> <p>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.</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>

Application Instructions

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

For grub (larvae) control, ½ 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 **Hi-Yield® Systemic Insect Spray**.

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 **Hi-Yield® Systemic Insect Spray** to waterlogged areas
- Do not mow treated lawn until after adequate rainfall or irrigation has occurred.
- Do not exceed one application of **Hi-Yield® Systemic Insect Spray** 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 **Hi-Yield® Systemic Insect Spray** 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 **Hi-Yield® Systemic Insect Spray**) per acre per year.

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 **Hi-Yield® Systemic Insect Spray** 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 product	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 **Hi-Yield® Systemic Insect Spray** 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 Hi-Yield® Systemic Insect Spray	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

ESTABLISHED ORNAMENTALS IN RESIDENTIAL AREAS

Hi-Yield® Systemic Insect Spray 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 **Hi-Yield® Systemic Insect Spray**, by any application method to linden, basswood, or other *Tilia* species.
- Do not apply **Hi-Yield® Systemic Insect Spray** 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 **Hi-Yield® Systemic Insect Spray**) per acre 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

Hi-Yield® Systemic Insect Spray is for use to kill the pests listed in the table below on outdoor trees and shrubs.

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

Foliar Applications

Use **Hi-Yield® Systemic Insect Spray** 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.

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.

Hand-Operated Sprayers

Including backpack, compression, knapsack or tank type sprayers.

For foliar applications mix 1.5 (1 ½) teaspoons (tsp) of **Hi-Yield® Systemic Insect Spray** per one (1) gallon of water.

Spray Volume Gallons of Water	Teaspoons (tsp.) of product	Tablespoons (tbs.) of product
1 gallon	1 ½ tsp.	½ tbs.
2 gallons	3 tsp	1 tbs.
3 gallons	4 ½ tsp.	1 ½ tbs.

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

Hose-End Sprayer Instructions

1. Set the dial to 1 ½ 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 **Hi-Yield® Systemic Insect Spray** provides systemic activity and longer residual control as compared to foliar applications. **Hi-Yield® Systemic Insect Spray** 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	Leafhoppers
(suppression)	Leafminers
Black Vine Weevil Larvae	Mealybugs
Borers:	Pine Tip Moth Larvae
Roundheaded Borers	Psyllids
(incl. Eucalyptus	Royal Palm Bugs
Longhorned Borers and	Sawfly Larvae
Asian Longhorned	Soft Scale (suppression)
Beetles)	Thrips (suppression)
Flatheaded Borers (incl.	White grub larvae
Bronze Birch, Alder	Whiteflies
Borers, and Emerald	
Ash Borers)	
Japanese Beetles (adult)	
Lacebugs	

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 **Hi-Yield® Systemic Insect Spray** 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 **Hi-Yield® Systemic Insect Spray**.

Hand-Operated Sprayers

Including backpack, compression, knapsack or tank type sprayers.

For soil applications to landscape plantings, mix 3.0 fl. oz. of **Hi-Yield® Systemic Insect Spray** 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 Hi-Yield® Systemic Insect Spray	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

Hi-Yield® Systemic Insect Spray 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. **Hi-Yield® Systemic Insect Spray** 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	Leafhoppers
(suppression)	Leafminers
Black Vine Weevil Larvae	Mealybugs
Borers:	Pine Tip Moth Larvae
Roundheaded Borers	Psyllids
(incl. Eucalyptus	Royal Palm Bugs
Longhorned Borers and	Sawfly Larvae
Asian Longhorned	Soft Scale (suppression)
Beetles)	Thrips (suppression)
Flatheaded Borers (incl.	White grub larvae
Bronze Birch, Alder	Whiteflies
Borers, and Emerald	
Ash Borers)	
Japanese Beetles (adult)	
Lacebugs	

For best results, use **Hi-Yield® Systemic Insect Spray** as part of a preventative treatment program before insect damage occurs. Use one soil drench treatment per year during early spring to early fall.

Hi-Yield® Systemic Insect Spray 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 **Hi-Yield® Systemic Insect Spray** 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 Hi-Yield® Systemic Insect Spray 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 **Hi-Yield® Systemic Insect Spray** per inch of circumference of the tree trunk to one (1) gallon of water.

Refer to the mixing chart below for the amounts of **Hi-Yield® Systemic Insect Spray** needed.

RESTRICTIONS FOR TREES:

- Do not apply **Hi-Yield® Systemic Insect Spray**, 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 **Hi-Yield® Systemic Insect Spray**) 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.

Tree Trunk Circumference (inches)	Tree Diameter (inches)	Amount of Hi-Yield® Systemic Insect Spray (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 Hi-Yield® Systemic Insect Spray 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 Hi-Yield® Systemic Insect Spray 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 **Hi-Yield® Systemic Insect Spray**) 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 Hi-Yield® Systemic Insect Spray (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.

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 application 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 **Hi-Yield® Systemic Insect Spray**) per acre per year.

Stage of Trees	Approximate Dates	Apple	Pear
Petal fall	May 22		
1st cover spray, 5-10 days after petal fall	June 1	X	X
2nd cover spray, 10-14 days later	June 15	X	X
3rd cover spray, 10-14 days later	June 29	X	X
4th cover spray, 10-14 days later	July 13	X	X
5th 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 **Hi-Yield® Systemic Insect Spray**) per acre per year.

Stage of Trees	Approximate Dates	Peach
Petal fall	May 25 – June 1	
1st cover spray, 5-10 days after petal fall	June 1	X
2nd cover spray, 7-14 days later	June 8 – 14	X
3rd 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 **Hi-Yield® Systemic Insect Spray**) per acre per year.

Stage of Trees	Approximate Dates	Cherry	Plum
Petal fall	May 22		
1st cover spray, 5-10 days after petal fall	June 1	X	X
2nd cover spray, 10-14 days later	June 15	X	X
3rd cover spray, 10-14 days later	June 29	X	X
4th cover spray, 10-14 days later	July 13	X	X
5th 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 seven (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 **Hi-Yield® Systemic Insect Spray**) per acre per year.

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

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.

Dilution 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

Hi-Yield® Systemic Insect Spray 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. **Hi-Yield® Systemic Insect Spray** 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 **Hi-Yield® Systemic Insect Spray** as part of a preventative treatment program before insect damage occurs. Use one soil drench treatment per year during early spring to early fall.

Hi-Yield® Systemic Insect Spray 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 **Hi-Yield® Systemic Insect Spray** 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 Hi-Yield(R) Systemic Insect Spray) 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 Hi-Yield(R) Systemic Insect Spray) 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 Hi-Yield® Systemic Insect Spray 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 **Hi-Yield® Systemic Insect Spray** per inch of circumference of the tree trunk to one (1) gallon of water. Refer to the mixing chart below for the amounts of **Hi-Yield® Systemic Insect Spray** 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 Hi-Yield® Systemic Insect Spray (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'

STORAGE AND DISPOSAL

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: Non refillable 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.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of liability before using **Hi-Yield® Systemic Insect Spray**. If terms are not acceptable, return the unopened product container at once. By using **Hi-Yield® Systemic Insect Spray**, user or buyer accepts the following conditions, disclaimer of warranties and limitations of liability.

CONDITIONS

The directions for use of **Hi-Yield® Systemic Insect Spray** are believed to be adequate and must be followed carefully. However, because of manner of use and other factors beyond Voluntary Purchasing Groups, Inc. (VPG) control it is impossible for VPG to eliminate all risks associated with the use of **Hi-Yield® Systemic Insect Spray**. As a result, crop injury or ineffectiveness is always possible. All such risks shall be assumed by the user or buyer.

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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 **Hi-Yield® SYSTEMIC INSECT SPRAY**, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT VPG'S ELECTION THE REPLACEMENT OF PRODUCT.