

SMALL TREES: SOIL APPLICATION (SOIL DRENCH OR SOIL INJECTION) - TREE SIZE (6 INCH DBH) - HIGH RATE

General Information

Product Information

Failure to follow directions and precautions on this label may result in plant injury, poor insect control, and/or unacceptable residues. For outdoor use only.

Apply Zylam Liquid Systemic Insecticide when insect pest populations begin to build, but before populations reach economically damaging levels. Economic thresholds for pests controlled by Zylam Liquid Systemic Insecticide may be available from your local pest management authorities.

Zylam Liquid Systemic Insecticide is a selective insecticide which should have minimal impact on beneficial arthropods and its use is compatible with integrated pest management (IPM) programs.

However, Zylam Liquid Systemic Insecticide is toxic to bees exposed to direct treatment or to residue on blooming plants and weeds.

Zylam Liquid Systemic Insecticide is taken up into foliage after application. However, thorough spray coverage is essential for optimal performance. Apply Zylam Liquid Systemic Insecticide in sufficient water to ensure good coverage.

Zylam Liquid Systemic Insecticide may aid in the suppression of some pests. Suppression can mean either inconsistent control (good to poor), or consistent control at a level below that generally considered acceptable for commercial control.

If the maximum season limit of Zylam Liquid Systemic Insecticide has been applied and pest populations require additional treatment, use another registered pesticide that is not in the neonicotinoid class of nitroguanidine subclass of chemistry.

Application to Ornamental plants:

Zylam Liquid Systemic Insecticide can be applied as a soil drench, soil injection, bark banding, foliar spray, and broadcast spray treatment for insect control in landscape ornamental plants.

Zylam Liquid Systemic Insecticide is a systemic product and will be taken up by the root system and foliage and translocated upward throughout the plant. When applied as a foliar spray, the product offers translaminar and locally systemic control of foliar pests.

When applied as a soil injection or drench to plants with woody stems, systemic activity will be delayed until the product can be translocated throughout the plant. Make applications prior to buildup of the target pest.

Application to Turfgrass:

Zylam Liquid Systemic Insecticide can be used for the control of soil inhabiting pests of turfgrass (Masked Chafers, European Chafer, Green June Beetle, May or June Beetle, Japanese Beetle, Oriental Beetle, Billbugs, Annual Bluegrass Weevil, Black Turfgrass Ataenius, Ants (not including fireants) and Mole Crickets). Zylam Liquid Systemic Insecticide can also be used for surface feeding insects (armyworms, cutworms and chinchbugs) in turfgrass areas.

Zylam Liquid Systemic Insecticide can be used as directed on outdoor residential, recreational and commercial turfgrass in home lawns, commercial lawns, multi-family residential and apartment complexes, grounds or lawns around business and office complexes, shopping centers, airports, military and other institutions, cemeteries, golf courses, playgrounds, parks, athletic fields and sod farms. Timing of Zylam Liquid Systemic Insecticide applications must be targeted at or just prior to or during egg laying of the target pests. The need for an application can be based on historical and/or physical monitoring of the site, current season adult trapping, previous experience or other methods. Optimum control will be achieved when applications are made prior to or at egg hatch of the target pests followed by sufficient irrigation or rainfall to move the active ingredient through the turf thatch layer. Consult your local State Extension Service for more specific application timing recommendations.

Restrictions:

- For outdoor and landscape ornamentals, broadcast applications cannot exceed a

total of 78.9 fl.oz. of this product per acre per year as foliar sprays or 78.9 fl.oz. per acre per year as soil applications or bark banding.

- Do not apply when the target site is saturated with water. Adequate distribution of the active ingredient cannot be achieved when these conditions exist.
- For residential, recreational and commercial turfgrass applications do not apply more than a total of 78.9 fl.oz. of this product per acre per year.

Resistance Management

Zylam Liquid Systemic Insecticide contains a Group 4A insecticide. Insect biotypes with acquired resistance to Group 4A may eventually dominate the insect population if Group 4A insecticides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by Zylam Liquid Systemic Insecticide or other Group 4A insecticides.

To delay insecticide resistance, consider:

- NOT using a foliar application of Zylam Liquid Systemic Insecticide or any insecticide in the neonicotinoid class following an in-furrow or soil application of Zylam Liquid Systemic Insecticide.
- To optimize resistance management practices, no more than 3 applications of Zylam Liquid Systemic Insecticide per growing season are allowed.
- Avoiding the consecutive use of Zylam Liquid Systemic Insecticide or other Group 4A insecticides that have a similar target site of action, on the same insect species.
- Using tank-mixtures or premixes with insecticides from a different target site of action Group as long as the involved products are all registered for the same use and have different sites of action.
- Basing insecticide use on a comprehensive IPM program.
- Monitoring treated insect populations for loss of field efficacy.
- Contacting your local extension specialist, certified pest management advisors, and/or manufacturers for insecticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.
- For further information or to report suspected resistance, you may contact PBI/Gordon Corporation 1-877-800-5556.

Application Procedures and Spray Equipment

For ground application only. Select spray nozzles which will provide accurate and

uniform spray deposition. Use spray nozzles which provide medium to coarse-sized droplets and reduce drift. To help ensure accuracy, calibrate sprayer before each use. For information on spray equipment and calibration, consult nozzle manufacturers and/or State Extension Service specialists.

Apply Zylam Liquid Systemic Insecticide using sufficient water volume to provide thorough and uniform coverage. In situations where a dense canopy exists and/or pest pressure is high, use greater water volumes. The use of a spray adjuvant may improve spray coverage.

Restrictions:

- Do not graze treated areas or use clippings from treated areas for feed or forage.
- Do not apply under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.
- Prevent runoff or puddling of irrigation water following application.
- Do not apply to areas that are water logged or saturated, or frozen, which will not allow penetration into the root zone of the plant.
- Keep children and pets off treated areas until spray has dried.
- Do not use on houseplants grown inside residences.

State Restrictions:

- Do not apply this product, by any application method, to linden, basswood or other *Tilia* species.

Applications to ornamental plants: Zylam Liquid Systemic Insecticide can be applied using many different types of application equipment. Apply in sufficient water to ensure good coverage of ornamental plants. When making applications to plants with hard to wet foliage such as holly or pine, the addition of a spreader/sticker is recommended. If concentrate or mist type spray equipment is used, an equivalent amount of product should be used on the spray area as would be used in a dilute solution. To assure optimum effectiveness, the product must be placed where the growing portion of the target plant can absorb the active ingredient. Applications can be made to foliage or as a soil drench.

Applications to turfgrass: Apply Zylam Liquid Systemic Insecticide through conventional ground spray equipment in a minimum of 1 gallon of finished spray per 1000 sq.ft. Ensure adequate distribution in the treated area using accurately calibrated equipment normally used for application of turfgrass insecticides. Use the

spray pressure suggested by the equipment manufacturer to produce a uniform, medium to coarse droplet spray. Check calibration periodically to ensure that equipment is working properly and eliminate off target drift. Prevent skips by using marker dyes or foam aids.

Recommendations To Avoid Spray Drift

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making decisions. Where states have more stringent regulations, they should be observed. Follow these recommendations to avoid spray drift:

1. Make applications when wind velocity favors on-target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 10 mph. Avoid applications when wind gusts approach 10 mph.
2. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.
3. Do not cultivate or plant crops within 25 feet of the aquatic area as to allow growth of a vegetative filter strip.
4. Do not make applications during temperature inversions. Inversions are characterized by stable air and increasing temperatures with increased height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

Limitations, Restrictions, and Exceptions

Soil Applications to Landscape Ornamental Plants (soil drench or soil injection)

For multi-stem trees, calculate rate on the total cumulative inches of diameter of all stems at breast height.

For optimal control, apply early in the plant's annual growing cycle and keep soil moist for at least 7 days after application

Restrictions:

- Only apply to moist soil. Do not apply to dry, saturated or frozen soil. Heavy rainfall or inadequate irrigation immediately following application may decrease performance.

Use higher labeled rates for severe pest infestations and broadleaf evergreens with dense foliage (i.e. hollies)

Soil Drench: Mix the required amount of Zylam Liquid Systemic Insecticide in water and uniformly apply to soil around base of shrub or tree. Pull back mulch, rock or gravel before drenching to allow for pooling at the base. For optimal performance apply at least 1 quart of mixed solution per foot of height or inch of trunk diameter. (example: For a tree with a 12 inch DBH apply at least 12 quarts (or 3 gallons) of mixed solution.)

If drench volumes must fall below 1 quart of mixed solution per foot of height or inch of trunk diameter, apply 1/2 inch of irrigation immediately after application to move the product into the root zone. Allow soil to remain moist for at least 7 days after application.

Soil Injection: Mix the required amount of this product in water and make at least 4 injections per shrub or tree with a low-pressure applicator. Use same amount of mixed solution per treatment hole. Injections can be made using the following methods:

- Grid system - Space injections on a 2.5 ft. center extending to drip line
- Circle System - Make injections in concentric circles extending inward from the drip line.
- Basal System - Space injection evenly around trunk no more than 12 inches out from the base.

For optimal performance inject at least 1 quart of mixed solutions per foot of height or inch of trunk diameter (example: For a tree with a 12 inch DBH inject at least 12 quarts (or 3 gallons) of mixed solution.)

Method

[Soil drench](#)

Soil Injection

Rates

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Restricted Entry Interval

12 hours

Timings

Early in the plant's annual growing cycle.