



Zylam[®] 20SG

SYSTEMIC TURF INSECTICIDE

Group 4A Insecticide

For foliar and systemic insect control in turfgrass.

ACTIVE INGREDIENT:
 Dinotefuran, [N-methyl-N'-nitro-N''-(tetrahydro-3-furanyl)methyl]guanidine] 20%

OTHER INGREDIENTS: 80%

TOTAL 100%

KEEP OUT OF REACH OF CHILDREN CAUTION



READ THE ENTIRE LABEL FIRST. OBSERVE ALL PRECAUTIONS AND FOLLOW DIRECTIONS CAREFULLY.

Use in accordance with applicable state and federal regulations.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals
CAUTION: Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Do not allow contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

- Personal Protective Equipment (PPE)**
- Applicators and other handlers must wear:
 - Long-sleeved shirt and long pants
 - Shoes plus socks

User Safety Requirements
 Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations	
Users should:	
• Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.	
• Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.	
• Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.	

First Aid	
If on skin or on clothing:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for further treatment advice.
If swallowed:	<ul style="list-style-type: none"> • Call poison control center or doctor immediately for treatment advice. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Have person sip a glass of water if able to swallow. • Do not give anything by mouth to an unconscious person.

(cont. on next column)

First Aid (cont.)	
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 further treatment advice.
If inhaled:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call poison control center or doctor for further treatment advice.
<p>HOT LINE NUMBER: Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information on (product, use, etc.), call the National Pesticides Information Center at 1-800-858-7378, 6:30 AM to 4:30 PM Pacific time (PT), seven days a week. During other times, call the poison control center 1-800-222-1222.</p>	

Environmental Hazards

This pesticide is toxic to aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in water adjacent to treated areas. Do not dispose equipment washwaters or rinsate into a natural drain or water body.

This product is toxic to honey bees. The persistence of residues and potential residual toxicity of Dinotefuran in nectar and pollen suggests the possibility of chronic toxic risk to honey bee larvae and the eventual instability of the hive.

- This product is toxic to bees exposed to residue for more than 38 hours following treatment.
- Do not apply this product to blooming, pollen-shedding or nectar-producing parts of plants if bees may forage on the plants during this time period, unless the application is made in response to a public health emergency declared by appropriate state or federal authorities.

Dinotefuran and its degradate, MNG have the properties and characteristics associated with chemicals detected in groundwater. The high water solubility of dinotefuran, and its degradate, MNG, coupled with its very high mobility, and resistance to biodegradation indicates that this compound has a strong potential to leach to the subsurface under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination. Periodic monitoring of shallow groundwater in the use area is recommended.

Spray Drift Advisory

Do not apply under conditions involving possible drift to food, forage or other plantings that might be damaged or the crop thereof rendered for sale, use or consumption.

Physical or Chemical Hazards

Do not use, pour, spill, or store near heat or open flame.

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.

(cont. on next page)

Zylam 20SG Systemic Turf Insecticide + Tank Mixtures: Add half of the required amount of water to the mix tank. Start the agitator running before adding any tank mix partners. In general, add tank mix partners in this order: products packaged in water soluble packaging, wettable powders, wettable granules (dry flowables), liquid flowables, liquids, emulsifiable concentrates, and surfactants/adjuvants. Always allow each tank mix partner to become fully dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all the mixture has been applied.

NOTE: When using Zylam 20SG Systemic Turf Insecticide in tank mixtures, add all products in water soluble packaging to the tank before any other tank mix partner, including Zylam 20SG Systemic Turf Insecticide. Allow the water soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank mix partner to the tank.

If using Zylam 20SG Systemic Turf Insecticide in a tank mixture, observe all directions for use, crop/sites, use rates, dilution ratios, precautions, and limitations which appear on the tank mix product label. Do not exceed label dosage rate, and follow the most restrictive label precautions and limitations. Do not mix this product with any product that prohibits such mixing. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the referenced products are labeled.

Compatibility:

IMPORTANT The safety of all potential tank mixes has not been tested on all crops. Before applying any tank mixture not specifically listed on this label, confirm the safety to the target crop.

Zylam 20SG Systemic Turf Insecticide is compatible with most commonly used pesticides, crop oils, adjuvants, and nutritional sprays. However, since it is not possible to test all possible mixtures, pre-test to assure the physical compatibility and lack of phytotoxic effect of any proposed mixtures with Zylam 20SG Systemic Turf Insecticide. To determine the physical compatibility of Zylam 20SG Systemic Turf Insecticide with other products, use a jar test, as described below:

Using a quart jar, add the proportionate amounts of the products to 1 quart of water. Add wettable powders and water dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for additional required ingredients to the spray tank.

4. Application Procedures and Spray Equipment

Ground Application: Select spray nozzles that will provide accurate and uniform spray deposition. Use spray nozzles that provide medium-sized droplets and reduce drift. To help insure accuracy, calibrate sprayer before each use. For information on spray equipment and calibration, consult nozzle manufacturers and/or State Extension Service specialists.

Apply Zylam 20SG Systemic Turf 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. Do not apply under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

Applications to turfgrass: Apply Zylam 20SG Systemic Turf Insecticide through conventional 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 equipment that will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off target drift. Check calibration periodically to ensure that equipment is working properly. Prevent skips by using marker dyes or foam aids.

Restrictions

- Do not graze treated areas or use clippings from treated areas for feed or forage.
- Prevent runoff or puddling of irrigation water following application.
- Keep children and pets off treated areas until spray has dried.
- 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.

Minimizing Spray Drift

As with all crop protection products, it is important to minimize off-target movement. Do not allow spray to drift onto adjacent land, crops, or aquatic areas. To minimize 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. Do not apply when wind gusts approach 10 mph.
2. Risk of exposure to sensitive aquatic areas can be reduced by not applying 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.
5. Use the largest droplet size consistent with good pest control. Small droplets are more prone to spray drift and can be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by not using excessive spray boom pressure.
6. Apply as close to target plants as practical to obtain a good spray pattern for adequate coverage. Do not apply more than 10 ft above the crop canopy.
7. For aerial applications, mount spray boom on the aircraft so as to minimize drift caused by wing tip vortices. Use minimum practical boom length and do not use boom that exceeds 75% of wing span or rotor diameter.

5. Turfgrass

Crop	Pest	Product Rate	Remarks
Turfgrasses Residential Recreational Commercial	Mole cricket Southern mole cricket Tawny mole cricket	2.7 lb per acre 1 oz per 1000 sq.ft. [0.54 lb a.i. per acre]	Make application prior to or during the peak egg hatch period. When adults or large nymphs are present and actively tunneling, tank mix with a curative insecticide.
	White grub larvae such as: Annual bluegrass weevil Asiatic garden beetle Billbug Black Turfgrass atanius European chafer Green June beetle Japanese beetle May/June beetle Northern masked chafer Oriental beetle Southern masked chafer	2.7 lb per acre 1 oz per 1000 sq.ft. [0.54 lb a.i. per acre]	For optimum control of grubs, billbugs, and annual bluegrass weevil, make application prior to or during egg hatch of the target pest.
	Cutworms Chinchbug Sod webworm	2.7 lb per acre 1 oz per 1000 sq.ft. [0.54 lb a.i. per acre]	For suppression of chinchbugs, make application prior to hatching of the first instar nymphs.
	European Cranefly	2.7 lb per acre 1 oz per 1000 sq.ft. [0.54 lb a.i. per acre]	

- Important Notes:**
- Apply in sufficient water to ensure thorough coverage of target area. Use a minimum of 50 gallons finished spray per acre.
 - Consult your local State Extension Service or State Extension Turfgrass Specialists for more specific information on timing of insecticide applications.
 - For optimal control, apply irrigation if rainfall does not occur within 24 hours after application to ensure movement of the active ingredient through the thatch.
 - Do not apply more than a total of 2.7 lb of Zylam 20SG Systemic Turf Insecticide (0.54 lb a.i.) per acre of turf per year.

