



## OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

May 07, 2025

### **SENT BY EMAIL**

Timothy Joseph  
tjoseph@landisintl.com  
MITSUI CHEMICALS CROP & LIFE SOLUTIONS, INC.

Subject: Labeling Notification per Pesticide Registration Notice (PRN) 98-10 - Minor Label Revisions  
Product Name: DINOTEFURAN 20SG  
Admin Number: 86203-12  
EPA Receipt Date: 02/19/2025  
Action Case Number: 00645021

Dear Timothy Joseph:

The U.S. Environmental Protection Agency is in receipt of your application for notification under Pesticide Registration Notice 98-10 for the above referenced product. The EPA has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The labeling submitted with this application has been stamped "Notification" and will be placed in our records.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide, Fungicide, and Rodenticide Act and is subject to review by the EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA section 3 registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

If you have questions, please contact Scott Campbell via email at [campbell.scott@epa.gov](mailto:campbell.scott@epa.gov).

Sincerely,

A handwritten signature in black ink that reads "Scott Campbell (for)".

Melissa Bridges, PM07  
IVB3, RD  
Office of Pesticide Programs

## NOTIFICATION

86203-12

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

05/07/2025

GROUP

4A

INSECTICIDE

# DINOTEFURAN 20SG

For control of listed sucking and chewing insects\* infesting berry and small fruit (subgroup 13-07F, except fuzzy kiwifruit, and 13-07H, except strawberry), cotton, cucurbits, fruiting vegetables, head and stem brassica, leafy brassica greens (including turnip greens), leafy vegetables, bulb onion (subgroup 3-07A), green onion (subgroup 3-07B), peach and nectarine, tuberous and corm vegetables (subgroup 1C), and watercress.

\*In California, for control of listed sucking and chewing insects only on cotton, leafy vegetables, fruiting vegetables, cucurbits, potatoes, grapes, head and stem brassica, turnip greens and leafy brassica greens.

### Active Ingredient:

Dinotefuran, N-methyl-N'-nitro-N''-[(tetrahydro-3-furanyl) methyl] guanidine ..... 20.00%

Other Ingredients..... 80.00%

Total: 100.00%

### KEEP OUT OF REACH OF CHILDREN

### CAUTION

*See side panels for additional precautionary statements*

### FIRST AID

If On Skin Or Clothing	<ul style="list-style-type: none"><li>Take off contaminated clothing.</li><li>Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>Call a poison control center or doctor for further treatment advice.</li></ul>
If Swallowed	<ul style="list-style-type: none"><li>Call poison control center or doctor for treatment advice.</li><li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li><li>Have person sip a glass of water if able to swallow.</li><li>Do not give anything by mouth to an unconscious person.</li></ul>
If In Eyes	<ul style="list-style-type: none"><li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>Call a poison control center or doctor for further treatment advice.</li></ul>
If Inhaled	<ul style="list-style-type: none"><li>Move person to fresh air.</li><li>If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth-to-mouth, if possible.</li><li>Call poison control center or doctor for treatment advice.</li></ul>

### 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 [Carechem24@ at +1 202 464 2554 \(Chemical Emergency Only\).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](http://Carechem24@ at +1 202 464 2554 (Chemical Emergency Only).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).

*See side/back panels for additional precautionary statements*

EPA Reg No. 86203-12

Lot No.:

EPA Establishment No. 082617-JPN-001

Net Contents: 176.4 lbs. (80 kg)

Manufactured By:

**MITSUI CHEMICALS AGROCROP &  
LIFE SOLUTIONS, INC.**

Nihonbashi Dia Building  
1-19-1 Nihonbashi Chuo-ku  
Tokyo 103-0027  
JAPAN

P. O. Box 5126  
Valdosta, GA 31603-5126  
USA

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**  
**CAUTION**

Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or clothing. Causes moderate eye irritation. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. 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.

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**USER SAFETY RECOMMENDATIONS**

**Users should:**

- Wash hands with soap and water after handling and 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. As soon as possible, wash thoroughly and change into clean clothing.

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**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 compound 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 groundwater contamination. Periodic monitoring of shallow groundwater in the use area is recommended.

**PHYSICAL OR CHEMICAL HAZARDS**

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

**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.

# 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](http://www.aapco.org/officials.html). Pesticide incidents should also be reported to the National Pesticide Information Center at: [www.npic.orst.edu](http://www.npic.orst.edu) or directly to EPA at: [beekill@epa.gov](mailto:beekill@epa.gov)

## DIRECTIONS FOR USE

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

**READ ENTIRE LABEL, USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.**

## 1. FOR CROPS UNDER CONTRACTED POLLINATION SERVICES

**Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen unless the following condition has been met.**



If an application must be made when managed bees are at the treatment site, the beekeeper providing the pollination services must be notified no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying. Bees must remain removed, covered or otherwise protected for 38 hours following application.

## 2. FOR FOOD CROPS AND COMMERCIALLY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SERVICES BUT ARE ATTRACTIVE TO POLLINATORS



- Do not apply this product while bees are foraging.
- This product is toxic to bees exposed to residues 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.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

## AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, greenhouses and handlers of agricultural insecticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.**

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is:

- Coveralls
- Shoes plus socks
- Chemical resistant gloves (made of any waterproof material)

## APPLICATION INFORMATION

**Failure to follow directions and precautions on this label may result in crop injury, poor insect control, and/or illegal residues.**

For best performance, always follow these directions:

- Apply DINOTEFURAN 20SG when insect pest populations begin to build, but before populations reach economically damaging levels. Economic thresholds for pests controlled by DINOTEFURAN 20SG may be available from your local agricultural authorities.
- DINOTEFURAN 20SG is a selective insecticide which should have minimal impact on beneficial arthropods and its use is compatible with integrated pest management (IPM) programs. However, DINOTEFURAN 20SG is toxic to bees exposed to direct treatment or to residue on blooming crops and weeds.
- DINOTEFURAN 20SG is taken up into foliage after application. Thorough spray coverage is essential for optimal performance. Apply DINOTEFURAN 20SG in sufficient water to ensure good coverage.
- DINOTEFURAN 20SG 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 DINOTEFURAN 20SG as defined in the “CROP USE DIRECTIONS” section of this label has been applied and pest populations require additional treatments, use another registered pesticide that is not in the neonicotinoid class or nitroguanidine subclass of chemistry.

**Rotational Crops:**

A 120-day plant-back interval must be observed for all crops other than berry and small fruit (subgroup 13-07F, except fuzzy kiwifruit, and 13-07H, except strawberry), cotton, head and stem brassica, leafy brassica greens (including turnip greens), cucurbits, fruiting vegetables, leafy vegetables, bulb onion (subgroup 3-07A), green onion (subgroup 3-07B), peach and nectarine, tuberous and corm vegetables (subgroup 1C), and watercress.

**MIXING INSTRUCTIONS:**

**DINOTEFURAN 20SG Alone:** Add ½ of the required amount of water to the mix tank. With the agitator running, add the desired amount of DINOTEFURAN 20SG to the tank. Continue agitation while adding the remainder of the water. Begin application of the solution after DINOTEFURAN 20SG has completely dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

**DINOTEFURAN 20SG + Tank Mixtures:** Add ½ of the required amount of water to the mix tank. Start the agitator running before adding any tank mix partners. In general, tank mix partners should be added 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 DINOTEFURAN 20SG in tank mixtures, all products in water-soluble packaging should be added to the tank before any other tank mix partner, including DINOTEFURAN 20SG. 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 DINOTEFURAN 20SG 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. No label dosage rate should be exceeded, and the most restrictive label precautions and limitations should be followed. This product should not be mixed with any product which 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:** **NOTE - The crop safety of all potential tank mixes on all crops has not been tested. Before applying any tank mixture not specifically recommended on this label, the safety to the target crop should be confirmed.**

DINOTEFURAN 20SG is compatible with most commonly used pesticides. However, since it is not possible to test all possible mixtures, the user should pre-test to assure the physical compatibility and lack of phytotoxic effect of any proposed mixtures with DINOTEFURAN 20SG. To determine the physical compatibility of DINOTEFURAN 20SG 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.

**RESISTANCE MANAGEMENT RECOMMENDATIONS**

DINOTEFURAN 20SG 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 DINOTEFURAN 20SG or other Group 4A insecticides.

To delay insecticide resistance, consider:

- To optimize resistance management practices, no more than 3 applications of DINOTEFURAN 20SG per growing season are allowed.
- Avoiding the consecutive use of DINOTEFURAN 20SG 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 crop 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, [contact \(Mitsui Chemicals Crop & Life Solutions, Inc.\) at \(https://www.mc-croplifesolutions.com/en/contact/\)](https://www.mc-croplifesolutions.com/en/contact/). You can also contact your pesticide distributor or university extension specialist to report resistance. ~~you may contact Landis International, Inc., a representative of Mitsui Chemicals Agro, Inc., at toll free number: 1-800-526-3471.~~

## APPLICATION PROCEDURES AND SPRAY EQUIPMENT

**Ground Application:** Spray nozzles should be selected which will provide accurate and uniform spray deposition. Use spray nozzles which 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 DINOTEFURAN 20SG 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. Avoid making applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

**Aerial Application:** Apply DINOTEFURAN 20SG in water, using the minimum spray volume indicated in the "Remarks" section of each crop, but not less than 3 gals./A. Increase spray volume where practical to improve coverage. Avoid making application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

## APPLICATION THROUGH IRRIGATION SYSTEMS (CHEMIGATION):

DINOTEFURAN 20SG alone or in combination with other products which are registered for application through sprinkler irrigation may be applied through irrigation systems where so noted in the soil application of each crop. Apply this product only through microirrigation (individual spaghetti tube), drip irrigation, overhead irrigation, or motorized calibrated irrigation equipment. Do not apply through any other type of irrigation system. Lack of effectiveness can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

### Using Water from Public Water Systems:

**DO NOT APPLY DINOTEFURAN 20SG THROUGH ANY IRRIGATION SYSTEM PHYSICALLY CONNECTED TO A PUBLIC WATER SYSTEM.**

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days per year. DINOTEFURAN 20SG may be applied through irrigation systems which may be supplied by a public water system only if the water from the public water system is discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

Any irrigation system using water supplied from a public water system must also meet the following requirements:

**Operating Instructions for All Recommended Types of Irrigation Systems:**

1. The system must be calibrated to uniformly apply the rates specified. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts.
2. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
4. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
6. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
7. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
8. Do not apply when wind speed favors drift beyond the area intended.

**Calibration and Application Instructions:**

DINOTEFURAN 20SG should be applied under the schedule specified in the specific crop use recommendations, not according to the irrigation schedule unless the events coincide. In general, set the equipment to apply the minimum amount of water per acre. Run the system at 86 - 90% of the manufacturer's maximum rated travel speed.

The following calibration and application techniques are provided for user reference, but do not constitute a warranty of fitness for application through sprinkler irrigation equipment. Users should check with state and local regulatory agencies for potential use restrictions before applying any agricultural chemical through sprinkler irrigation equipment.

**Center Pivot Irrigation Equipment:**

NOTES: 1) Use only drive systems that provide uniform water distribution. 2) Do not use end guns when chemigating DINOTEFURAN 20SG through center pivot systems because of non-uniform application. 3) Plug the first nozzle closest to the well head to protect the water source.

1. Determine the size of the area to be treated.
2. Determine the time required to apply 0.1 - 0.25 inches of water over the area to be treated when the system and injection equipment are operated at normal pressures as recommended by the equipment manufacturer. Run the system at 80-95% of the manufacturer's rated maximum travel speed.
3. Using water, determine the injection pump output when operated at normal line pressure.
4. Determine the amount of DINOTEFURAN 20SG, and any tank mix partners, required to treat the area covered by the irrigation system.
5. Add the required amount of DINOTEFURAN 20SG, and any tank mix partners, and sufficient water to meet the injection time requirements to the solution tanks. (See "Mixing Instructions" section of this label.)
6. Make sure the system is fully charged with water before starting injection of the DINOTEFURAN 20SG solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
7. Maintain constant agitation in the solution tank during the injection period.
8. Inject the specified amount of DINOTEFURAN 20SG per acre continuously for one complete revolution of the system.
9. Stop the injection equipment after treatment is complete. Continue to operate the system until the DINOTEFURAN 20SG solution has cleared all of the sprinkler heads.
10. Allow time for all lines to flush the pesticide through all nozzles before turning off irrigation water.

**Solid Set, Hand Move, and Moving Wheel Irrigation Equipment:**

1. Determine the acreage covered by the sprinklers.
2. Fill injector solution tank with plain water and calibrate the flow rate of the system to deliver the contents of the tank over a 20-40 minute time interval.

3. Determine the amount of DINOTEFURAN 20SG required to treat the area covered by the irrigation system.
4. Add the required amount of DINOTEFURAN 20SG, and any other tank mix partners, into the same quantity of water used to calibrate the injection period. (See "Mixing Instructions" section of this label.)
5. Operate the system at the same pressure and time interval established during the calibration.
6. Inject specified amount of DINOTEFURAN 20SG per acre for either a 20-40 minute period at the end of a regular irrigation set, or as a 20-40 minute injection as a separate application not associated with a regular irrigation to maximize retention of the insecticide by the foliage.
7. Stop injection equipment after treatment is completed. Continue to operate the system until the DINOTEFURAN 20SG solution has cleared the last sprinkler head. To ensure lines are flushed and free from remaining pesticides, a dye indicator may be injected into the lines to mark the end of the application period.

## **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.
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 avoiding excessive spray boom pressure.
6. Apply as close to target plants as practical to obtain a good spray pattern for adequate coverage. Applications more than 10 ft. above the crop canopy should be avoided.
7. For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or rotor diameter.

**Air Assisted (Air Blast) Tree and Vine Sprayers (Berry / Small Fruit (except fuzzy kiwifruit and strawberry) and Tuberous / Corm Vegetables only\*):** Air assisted tree and vine sprayers carry droplets into the canopy of trees and vines via a radially or laterally directed air stream.

**\* In California Grapes and Potato only**

In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift:

- Adjust deflectors and aiming devices so that spray is only directed into the canopy.
- Block off upward pointed nozzles when there is no overhanging canopy.
- Use only enough air volume to penetrate the canopy and provide good coverage.
- Do not allow spray to go beyond the edge of the cultivated area. Spray the outside row only from outside the planting.

**BERRY AND SMALL FRUIT\***  
**(Subgroup 13-07F)**  
 Small Fruit Vine Climbing, Except Fuzzy Kiwifruit

\*Not for use in California

CROP	PESTS	PRODUCT RATES	SPECIAL INSTRUCTIONS
Amur river grape Gooseberry Grape Kiwifruit, hardy Maypop Schisandra berry Cultivars, Varieties and/or hybrids of these	Glassy-Winged Sharpshooter Grape Berry Moth (first and second generation only) Leafhoppers Mealybug Multi-colored Asian Lady Beetle Thrips	<b>FOLIAR:</b> 0.225 to 0.675 lbs./A (0.045 to 0.135 lbs. a.i./A)	Higher water volumes provide improved insect control.  Begin applications when first pest activity is noticed or when insects reach threshold levels per State and County Extension Service recommendations. Repeat as needed to maintain control, but not more often than every 14 days. For best results, time application before a damaging population becomes established.
	Glassy-Winged Sharpshooter Grape Phylloxera (suppression only) Leafhoppers Mealy bug Thrips Vine Mealybug	<b>SOIL:</b> 1.125 to 1.690 lbs./A (0.225 to 0.338 lbs. a.i./A)	Under severe pest pressure, use the higher specified rates.  For Mealybug control, apply between budbreak and pea-berry size.  The rate applied affects the length of control. Use the high rate where infestations occur later in crop development, or where pest pressure is continuous.  DINOTEFURAN 20 SG can be mixed and/or alternated with commonly used insecticides for better knockdown and/or improved control of pests.

NOTE: Regardless of application method, do not apply more than a total of 2.7 lbs. of DINOTEFURAN 20 SG (0.540 lbs. a.i.) per acre per season.

**Foliar Application:**



Follow application instructions as indicated in Bee Hazard Direction for Use.

- Apply with air or ground equipment in adequate water for uniform coverage (5 to 10 gals/A by air or 50 to 300 gals/A by ground).
- Do not apply DINOTEFURAN 20 SG within one (1) day of harvest.
- Do not apply more than a total of 1.35 lbs. of DINOTEFURAN 20 SG (0.270 lbs. a.i.) per acre per season.

**Soil Application:**

- Make only one (1) soil application per season.
- Apply with ground equipment in adequate water for uniform coverage (10 to 100 gals/A).
- Do not apply DINOTEFURAN 20 SG within twenty-eight (28) days of harvest.
- Do not apply more than a total of 1.69 lbs. of DINOTEFURAN 20 SG (0.338 lbs. a.i.) per acre per season.
- For drip application, prior to injection, mix specified dosage in sufficient carrier volume (minimum of 2 gals of water per 1 lb. of product) to ensure uniform application and incorporation into the soil using drip or trickle irrigation water.
- Apply towards the end of the irrigation run to ensure the product does not leach past the root zone.

**BERRY AND SMALL FRUIT\***  
**(Subgroup 13-07H)**  
 Low Growing Berry Subgroup, Except Strawberry

\*Not for use in California

CROP	PESTS	PRODUCT RATES	SPECIAL INSTRUCTIONS
Bearberry	Blackheaded Fireworm (suppression only)		Higher water volumes provide improved insect control.
Bilberry	Cranberry Fruitworm (suppression only)		
Blueberry Lowbush	Cranberry Weevil (suppression only)		
Cloudberry	Flea Beetles		Begin applications when first pest activity is noticed or when insects reach threshold levels per State and County Extension Service recommendations.
Cranberry	Leafhoppers		Repeat as needed to maintain control, but not more often than every 14 days. For best results, time application before a damaging population becomes established.
Lingonberry	Spanworm (suppression only)		
Muntries	Sparganothis Fruitworm (suppression only)		
Partridgeberry	Stinkbugs		Under severe pest pressure, use the higher specified rates.
Cultivars, varieties and/or hybrids of these	Tipworm (suppression only)		
		<b>FOLIAR:</b>  0.45 to 0.90 lbs./A (0.090 to 0.180 lbs. a.i./A)	

**Foliar Application:**



Follow application instructions as indicated in Bee Hazard Direction for Use.

- Apply with air or ground equipment in adequate water for uniform coverage (Use a minimum of 5 gals/A for air or 30 gals/A for ground applications).
- Do not apply DINOTEFURAN 20 SG within seven (7) days of harvest.
- Do not apply more than a total of 1.8 lbs./A of DINOTEFURAN 20 SG (0.360 lbs. a.i.) per acre per season.

## COTTON

CROP	PEST	PRODUCT RATE / ACRE PER APPLICATION	REMARKS
Cotton	Cotton aphid, Sweet potato whitefly, Silverleaf whitefly, Banded wing whitefly, Plant bug, Leafhoppers, Thrips	0.225 - 0.67 lbs./A (0.045 - 0.134 lbs. a.i./A)	<p><b>Higher water volumes provide improved insect control.</b></p> <p>Begin applications when first pest activity is noticed or when insects reach threshold levels per University/Extension recommendations and repeat as needed to maintain control, but not more often than every 7 days. For best results, time application before a damaging population becomes established.</p> <p>Under severe pest pressure, use the higher specified rates.</p>

**Foliar Application:**



Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with air or ground equipment in adequate water for uniform coverage (3 to 10 gals./acre by air or 10 to 50 gals./acre by ground).

DINOTEFURAN 20SG may be mixed and/or alternated with commonly used insecticides to comply with local IPM and Resistance Management programs.

Do not apply within 14 days of harvest.

Do not apply more than a total of 1.34 lbs. of DINOTEFURAN 20SG (0.268 lb. ai) per acre per season as foliar sprays.

## CUCURBITS

CROP	PEST	PRODUCT RATE / ACRE PER APPLICATION	REMARKS
Balsam apple,* Balsam pear (bitter melon), Calabaza, Chayote (fruit), Chinese cucumber,* Chinese okra, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Gourds, Edible melons including hybrids (including cantaloupe, casaba, Chinese preserving melon, crenshaw, honeydew melons, honey balls, mango melon, muskmelon, Persian melon, winter melon), Momordica spp.,* Pumpkin, Squash (including summer, winter, acorn, spaghetti), Watermelon including hybrids	Melon aphid, Green peach aphid, Thrips, Leafhoppers, Leafminers, Whiteflies	FOLIAR: 0.225 - 0.895 lbs./A (0.045 - 0.179 lbs. a.i./A)  <b>OR</b>  SOIL: 1.13 - 1.65 lbs./A (0.226 - 0.33 lbs. a.i./A)	<b>Higher water volumes provide improved insect control.</b>  Begin applications when first pest activity is noticed or when insects reach threshold levels per University/Extension recommendations and repeat as needed to maintain control, but not more often than every 7 days. For best results, time application before a damaging population becomes established.  Under severe pest pressure, use the higher specified rates.  <b>Restriction:</b> Do not apply to vegetables grown for seed.

\*Not for use in California

**Do not combine foliar applications with soil applications, or vice versa. Only use one application method.**

The rate applied affects the length of control. Use the high rate where infestations occur later in crop development, or where pest pressure is continuous.

DINOTEFURAN 20SG may be mixed and/or alternated with commonly used insecticides to comply with local IPM and Resistance Management programs.

Do not apply more than a total of 1.34 lbs. of DINOTEFURAN 20SG (0.268 lb. ai) per acre per season as foliar sprays. Do not apply more than a total of 2.68 lbs. of DINOTEFURAN 20SG (0.536 lb. ai) per acre per season as soil applications.

**Foliar Application:** Apply with air or ground equipment in adequate water for uniform coverage (3 to 10 gals./acre by air or 20 to 40 gals./acre by ground).



Follow application instructions as indicated in Bee Hazard Direction for Use.

For foliar applications, do not apply within 1 day of harvest.

**Soil Application:**

See conversion chart for linear application plant application rates.

Apply specified dosage in sufficient carrier volume to insure uniform application and incorporate into the soil using one of the following methods:

- 1) In a narrow band centered on the plant row in the bedding operation just prior to planting. For best results band width should be 2" or less and placed 1 to 2" below the seed depth.
- 2) In-furrow spray at or below seed level or a narrow surface band above the seedline during planting. For surface-banded applications incorporate to a depth of 1-1/2" with sufficient irrigation within 24 hours to insure satisfactory insect control.
- 3) As a post-seeding drench, transplant drench or hill drench. Applications should be made with sufficient water to insure incorporation into the root zone.
- 4) As a sidedress after plants are established. Applications should be placed within 2 to 4" to the side of each row and incorporated 1 or more inches deep. Applications should be made to each row if there are two rows per bed.
- 5) In drip or trickle irrigation water.

For soil applications, do not apply within 21 days of harvest.

## FRUITING VEGETABLES

CROP	PEST	PRODUCT RATE/ ACRE PER APPLICATION	REMARKS
Eggplant, Ground Cherry, Pepinos, Pepper (including bell peppers, chili peppers, cooking peppers, pimentos and sweet peppers), Tomatillo, Tomato <b>(In California, do not apply to varieties of tomatoes which are less than 2 inches in size, such as cherry and grape tomatoes)</b>	Green peach aphid, Potato aphid, Colorado potato beetle, Flea beetles, Leafhoppers, Leafminers Thrips, Whiteworms	FOLIAR: 0.225 - 0.895 lbs./A (0.045 - 0.179 lbs. a.i./A)  <b>OR</b>  SOIL: 1.13 - 1.65 lbs./A (0.226 - 0.33 lbs. a.i./A)	<b>Higher water volumes provide improved insect control.</b>  Begin applications when first pest activity is noticed or when insects reach threshold levels per University/Extension recommendations and repeat as needed to maintain control, but not more often than every 7 days. For best results, time application before a damaging population becomes established.  Under severe pest pressure, use the higher specified rates.

The rate applied affects the length of control. Use the high rate where infestations occur later in crop development, or where pest pressure is continuous.

DINOTEFURAN 20SG may be mixed and/or alternated with commonly used insecticides to comply with local IPM and Resistance Management programs.

### Foliar Application:



**Follow application instructions as indicated in Bee Hazard Direction for Use.**

Apply with air or ground equipment in adequate water for uniform coverage (3 to 10 gals./acre by air or 20 to 40 gals./acre by ground).

### Soil Application:

See conversion chart for linear application plant application rates.

Apply specified dosage in sufficient carrier volume to insure uniform application and incorporate into the soil using one of the following methods:

- 1) In a narrow band centered on the plant row in the bedding operation just prior to planting. For best results band width should be 2" or less and placed 1 to 2" below the seed depth.
- 2) In-furrow spray at or below seed level or a narrow surface band above the seedline during planting. For surface-banded applications incorporate to a depth of 1-1/2" with sufficient irrigation within 24 hours to insure satisfactory insect control.
- 3) As a post-seeding drench, transplant drench or hill drench. Applications should be made with sufficient water to insure incorporation into the root zone.
- 4) As a sidedress after plants are established. Applications should be placed within 2 to 4" to the side of each row and incorporated 1 or more inches deep. Applications should be made to each row if there are two rows per bed.
- 5) In drip or trickle irrigation water.

### Restrictions:

Do not apply to vegetables grown for seed.

For foliar applications, do not apply within 1 day of harvest. For soil applications, do not apply within 21 days of harvest.

**Do not combine foliar applications with soil applications, or vice versa. Only use one application method.**

Do not apply more than a total of 1.34 lbs. of DINOTEFURAN 20SG (0.268 lb. ai) per acre per season as foliar sprays.

Do not apply more than a total of 2.68 lbs. of DINOTEFURAN 20SG (0.536 lb. ai) per acre per season as soil applications.

## GRAPE\*

\*California Only

CROP	PESTS	PRODUCT RATES	SPECIAL INSTRUCTIONS
Grapes	Grape mealybug Leafhoppers Thrips Glassy-Winged sharpshooter	<b>FOLIAR:</b> 0.225 to 0.66 lbs./A (0.045 to 0.132 lbs. a.i./A)	<b>Higher water volumes provide improved insect control.</b>  Begin applications when first pest activity is noticed or when insects reach threshold levels per State and County Extension Service recommendations. Repeat as needed to maintain control, but not more often than every 14 days. For best results, time application before a damaging population becomes established.
		<b>SOIL:</b> 1.13 to 1.65 lbs./A (0.226 to 0.33 lbs. a.i./A)	Under severe pest pressure, use the higher specified rates.  For Mealybug control, apply between budbreak and pea-berry size.  The rate applied affects the length of control. Use the high rate where infestations occur later in crop development, or where pest pressure is continuous.  DINOTEFURAN 20 SG can be mixed and/or alternated with commonly used insecticides for better knockdown and/or improved control of pests.

NOTE: Regardless of application method, do not apply more than a total of 2.64 lbs. of DINOTEFURAN 20 SG (0.528 lbs. a.i. per acre per season.

### Foliar Application:



Follow application instructions as indicated in Bee Hazard Direction for Use.

- Apply with air or ground equipment in adequate water for uniform coverage (5 to 10 gals/A by air or 50 to 300 gals/A by ground).
- Do not apply DINOTEFURAN 20 SG within one (1) day of harvest.
- Do not apply more than a total of 1.32 lbs. of DINOTEFURAN 20 SG (0.264 lbs. a.i.) per acre per season.

### Soil Application:

- Make only one (1) soil application per season.
- Apply with ground equipment in adequate water for uniform coverage (10 to 100 gals/A).
- Do not apply DINOTEFURAN 20 SG within twenty-eight (28) days of harvest.
- Do not apply more than a total of 1.65 lbs. of DINOTEFURAN 20 SG (0.33 lbs. a.i.) per acre per season.
- For drip application, prior to injection, mix specified dosage in sufficient carrier volume (minimum of 2 gals of water per 1 lb. of product) to ensure uniform application and incorporation into the soil using drip or trickle irrigation water.
- Apply towards the end of the irrigation run to ensure the product does not leach past the root zone.

## HEAD & STEM BRASSICA

CROP	PEST	PRODUCT RATE/ ACRE PER APPLICATION	REMARKS
Broccoli, Brussels sprouts, Cabbage, Cauliflower, Cavalo broccoli, Chinese broccoli, Chinese cabbage, Chinese mustard cabbage, Kohlrabi	Green peach aphids, Cabbage aphids, Leafminers, Whiteflies	FOLIAR: 0.225 - 0.895 lbs./A (0.045 - 0.179 lbs. a.i./A)  OR  SOIL: 1.13 - 1.65 lbs./A (0.226 - 0.33 lbs. a.i./A)	<b>Higher water volumes provide improved insect control.</b>  Begin applications when first pest activity is noticed or when insects reach threshold levels per University/Extension recommendations and repeat as needed to maintain control, but not more often than every 7 days. For best results, time application before a damaging population becomes established.  Under severe pest pressure, use the higher specified rates.

The rate applied affects the length of control. Use the high rate where infestations occur later in crop development, or where pest pressure is continuous.

DINOTEFURAN 20SG may be mixed and/or alternated with commonly used insecticides to comply with local IPM and Resistance Management programs.

**Foliar Application:** Apply with air or ground equipment in adequate water for uniform coverage (3 to 10 gals./acre by air or 20 to 40 gals./acre by ground).



**Follow application instructions as indicated in Bee Hazard Direction for Use.**

### **Soil Application:**

See conversion chart for linear application plant application rates.

Apply specified dosage in sufficient carrier volume to insure uniform application and incorporate into the soil using one of the following methods:

- 1) In a narrow band centered on the plant row in the bedding operation just prior to planting. For best results band width should be 2" or less and placed 1 to 2" below the seed depth.
- 2) In-furrow spray at or below seed level or a narrow surface band above the seedline during planting. For surface-banded applications incorporate to a depth of 1-1/2" with sufficient irrigation within 24 hours to insure satisfactory insect control.
- 3) As a post-seeding drench, transplant drench or hill drench. Applications should be made with sufficient water to insure incorporation into the root zone.
- 4) As a sidedress after plants are established. Applications should be placed within 2 to 4" to the side of each row and incorporated 1 or more inches deep. Applications should be made to each row if there are two rows per bed.
- 5) In drip or trickle irrigation water.

**Restrictions:** Do not apply to vegetables grown for seed.

For foliar applications, do not apply within 1 day of harvest. For soil applications, do not apply within 21 days of harvest.

**Do not combine foliar applications with soil applications, or vice versa. Only use one application method.**

Do not apply more than a total of 1.34 lbs. of DINOTEFURAN 20SG (0.268 lb. ai) per acre per season as foliar sprays. Do not apply more than a total of 2.68 lbs. of DINOTEFURAN 20SG (0.536 lb. ai) per acre per season as soil applications.

## LEAFY BRASSICA GREENS

CROPS	PESTS	PRODUCT RATES/ ACRE PER APPLICATION	SPECIAL INSTRUCTIONS
Broccoli Raab Chinese Cabbage (Bok Choy) Collards Kale Mizuna Mustard Greens Mustard Spinach Rape Greens Turnip Greens	Aphids Flea Beetles Whitefly	0.44 to 0.67 lbs./A (0.088 to 0.134 lbs. a.i./A)	<p><b>Higher water volumes provide improved insect control.</b></p> <p>Begin applications when first pest activity is noticed or when insects reach threshold levels per State and County Extension Service recommendations. Repeat as needed to maintain control, but not more often than every 7 days. For best results, time application before a damaging population becomes established.</p> <p>Under severe pest pressure, use the higher specified rates.</p>

The rate applied affects the length of control. Use the high rate where infestations occur later in crop development, or where pest pressure is continuous.

DINOTEFURAN 20SG may be mixed and/or alternated with commonly used insecticides to comply with local IPM and resistance management programs.

**Foliar Application:**



**Follow application instructions as indicated in Bee Hazard Direction for Use.**

Apply with air or ground equipment in adequate water for uniform coverage (3 to 10 gals./A by air or 20 to 40 gals./A by ground).

**Restrictions:** Do not apply to vegetables grown for seed.

Do not apply DINOTEFURAN 20SG within one (1) day of harvest.

Do not apply more than a total of 1.34 lbs. of DINOTEFURAN 20SG (0.262 lbs. a.i.) per acre per season.

## LEAFY VEGETABLES

CROP	PEST	PRODUCT RATE/ ACRE PER APPLICATION	REMARKS
Amaranth, Arugula, Cardoon, Celery, Chinese Celery, Celtuce, Chervil, Edible-leaved & Garland Chrysanthemum, Corn Salad, Garden & Upland Cress, Dandelion, Dock, Endive, Florence Fennel, Head & Leaf Lettuce, Orach, Parsley, Garden & Winter Purslane, Radichio, Rhubarb, Spinach, New Zealand & Vine Spinach, Swiss Chard	Potato aphid, Green peach aphid, Sweetpotato whitefly, Silverleaf whitefly, Banded wing whitefly, Leafhopper, Leafminer	FOLIAR: 0.225 - 0.67 lbs./A (0.045 - 0.134 lbs. a.i./A)  <b>OR</b>  SOIL: 1.13 - 1.65 lbs./A (0.226 - 0.33 lbs. a.i./A)	<b>Higher water volumes provide improved insect control.</b>  Begin applications when first pest activity is noticed or when insects reach threshold levels per University/Extension recommendations and repeat as needed to maintain control, but not more often than every 7 days. For best results, time application before a damaging population becomes established.  Under severe pest pressure, use the higher specified rates.
The rate applied affects the length of control. Use the high rate where infestations occur later in crop development, or where pest pressure is continuous.			
DINOTEFURAN 20SG may be mixed and/or alternated with commonly used insecticides to comply with local IPM and Resistance Management programs.			
<b>Foliar Application:</b> Apply with air or ground equipment in adequate water for uniform coverage (3 to 10 gals./acre by air or 20 to 40 gals./acre by ground).			
 <b>Follow application instructions as indicated in Bee Hazard Direction for Use.</b>			
<b>Soil Application:</b>  See conversion chart for linear application plant application rates.			
Apply specified dosage in sufficient carrier volume to insure uniform application and incorporate into the soil using one of the following methods:			
<ol style="list-style-type: none"> <li>1) In a narrow band centered on the plant row in the bedding operation just prior to planting. For best results band width should be 2" or less and placed 1 to 2" below the seed depth.</li> <li>2) In-furrow spray at or below seed level or a narrow surface band above the seedline during planting. For surface-banded applications incorporate to a depth of 1-1/2" with sufficient irrigation within 24 hours to insure satisfactory insect control.</li> <li>3) As a post-seeding drench, transplant drench or hill drench. Applications should be made with sufficient water to insure incorporation into the root zone.</li> <li>4) As a sidedress after plants are established. Applications should be placed within 2 to 4" to the side of each row and incorporated 1 or more inches deep. Applications should be made to each row if there are two rows per bed.</li> <li>5) In drip or trickle irrigation water.</li> </ol>			
<b>Restrictions:</b>  Do not apply to vegetables grown for seed.  For foliar applications, do not apply within 7 days of harvest. For soil applications, do not apply within 21 days of harvest.  <b>Do not combine foliar applications with soil applications, or vice versa. Only use one application method.</b>  Do not apply more than a total of 1.34 lbs. of DINOTEFURAN 20SG (0.268 lb. ai) per acre per season as foliar sprays. Do not apply more than a total of 2.68 lbs. of DINOTEFURAN 20SG (0.536 lb. ai) per acre per season as soil applications.			

**ONION, BULB AND GREEN**  
**(Subgroups 3-07A and 3-07B)\***

\*Not for use in California

CROPS	PESTS	PRODUCT RATES	SPECIAL INSTRUCTIONS
<b>Bulb onion, includes:</b> Daylily, bulb Fritillaria, bulb Garlic, bulb Garlic, Great-headed, bulb Garlic, serpent, bulb Lily, bulb Onion, bulb Onion, Chinese, bulb Onion, pearl Onion, potato, bulb Shallot, bulb Cultivars, varieties and/or hybrids of these	Flea Beetles Grasshoppers Leafhoppers	<b>FOLIAR:</b> 0.45 to 0.90 lbs./A (0.090 to 0.180 lbs. a.i./A)	Higher water volumes provide improved insect control.  Begin applications when first pest activity is noticed or when insects reach threshold levels per State and County Extension Service recommendations. Repeat as needed to maintain control, but not more often than every 7 days. For best results, time application before a damaging population becomes established.
<b>Green onion, includes:</b> Chive, fresh leaves Chive, Chinese, fresh leaves Elegans hosta Fritillaria leaves Kurrat Leady's leek Leek Leek, wild Onion, Beltsville bunching Onion, fresh Onion, green Onion, macrostem Onion, tree, tops Onion, Welsh, tops Shallot, fresh leaves Cultivars, varieties and/or hybrids of these	Stink bugs Leafminers Thrips Whiteflies	<b>FOLIAR:</b> 0.675 to 0.90 lbs./A (0.135 to 0.180 lbs. a.i./A)	Under severe pest pressure, use the higher specified rates.
	Leafminers Thrips Whiteflies	<b>SOIL:</b> 1.125 to 1.35 lbs./A (0.225 to 0.270 lbs. a.i./A)	The rate applied affects the length of control. Use the high rate where infestations occur later in crop development, or where pest pressure is continuous.  DINOTEFURAN 20 SG can be mixed and/or alternated with commonly used insecticides to improve length of control and/or achieve better knockdown of pests

## ONION, BULB AND GREEN (CONTINUED) (Subgroups 3-07A and 3-07B)

### Foliar Application:



Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with air or ground equipment in adequate water for uniform coverage (A minimum of 5 gals/A by air or 20 gals/A by ground).

Do not apply DINOTEFURAN 20 SG within one (1) day of harvest.

Do not apply more than a total of 1.35 lbs. of DINOTEFURAN 20 SG (0.270 lbs. a.i.) per acre per season.

### Soil Application:

Do not apply more than a total of 1.35 lbs. of DINOTEFURAN 20 SG (0.270 lbs. a.i.) per acre per season.

See conversion chart for linear application plant application rates.

Apply with ground equipment in adequate water for uniform coverage (A minimum of 10 gals/A).

Apply DINOTEFURAN 20 SG at planting or immediately after transplanting.

Apply specified dosage in sufficient carrier volume to insure uniform application and incorporate into the soil using one of the following methods:

- 1) In a narrow band centered on the plant row in the bedding operation just prior to planting. For best results band width should be 2" or less and placed 1 to 2" below the seed depth.
- 2) In-furrow spray at or below seed level or a narrow surface band above the seedline during planting. For surface-banded applications incorporate to a depth of 1-1/2" with sufficient irrigation within 24 hours to insure satisfactory insect control.
- 3) As a post-seeding drench, transplant drench or hill drench. Applications should be made with sufficient water to insure incorporation into the root zone.
- 4) As a sidedress immediately after transplanting operations are finished. Applications should be placed within 2 to 4" to the side of each row and incorporated 1 or more inches deep. Applications should be made to each row if there are two rows per bed.
- 5) In drip or trickle irrigation water immediately after transplanting.

### Restrictions:

**Note: Regardless of application method of DINOTEFURAN 20 SG do not exceed 1.915 lbs./A (0.383 lbs. a.i./A) per crop season.**

Do not apply to vegetables grown for seed.

## PEACH AND NECTARINE\*

\*Not for use in California

CROPS	PESTS	PRODUCT RATES	SPECIAL INSTRUCTIONS
Peach Nectarine	Aphids (suppression only) Sharpshooters Leafhoppers	<b>FOLIAR:</b> 0.45 to 0.90 lbs./A (0.090 to 0.180 lbs. a.i./A)	<b>Higher water volumes provide improved insect control.</b>  Begin applications when first pest activity is noticed or when insects reach threshold levels per State and County Extension Service recommendations. Repeat as needed to maintain control, but not more often than every 7 days. For best results, time application before a damaging population becomes established.
	Peach tree borer Plum curculio Aphids (suppression only) Stinkbugs	<b>FOLIAR:</b> 0.675 to 0.90 lbs./A (0.135 to 0.180 lbs. a.i./A)	Under severe pest pressure, use the higher specified rates.
	Aphids (suppression only) Sharpshooters Leafhoppers Peach tree borer	<b>SOIL:</b> 1.35 lbs./A (0.270 lbs. a.i./A)	The rate applied affects the length of control. Use the high rate where infestations occur later in crop development, or where pest pressure is continuous.  DINOTEFURAN 20 SG applied foliar can be mixed and/or alternated with commonly used insecticide to improve length of control and/or achieve better knockdown of pests

**NOTE: Regardless of application method, do not apply more than a total of 1.8 lbs. of DINOTEFURAN 20 SG (0.360 lb. a.i.) per acre per season.**

### Foliar Application:



Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with air or ground equipment in adequate water for uniform coverage (A minimum of 5 gals/A by air or 50 gals/A by ground).

Do not apply DINOTEFURAN 20 SG within three (3) days of harvest.

Do not apply more than a total of 1.35 lbs. of DINOTEFURAN 20 SG (0.270 lbs. a.i.) per acre per season.

Interval between applications cannot be less than 7 days.

### Soil Application:

Do not apply DINOTEFURAN 20 SG within twenty one (21) days of harvest

Apply with ground equipment in adequate water for uniform coverage (A minimum of 100 gals/A).

Do not apply more than a total of 1.35 lbs. of DINOTEFURAN 20 SG (0.270 lbs. a.i.) per acre per year.

Apply specified dosage in sufficient carrier volume to insure uniform application and distribution within and around the root zone of each tree using one of the following methods:

- 1) As a drench. Applications should be made with sufficient water to insure incorporation into the root zone.
- 2) Using drip, trickle, micro sprinkler or any customized irrigation system derived from those systems to water trees independently.

## POTATO\*

\*California Only

CROP	PESTS	PRODUCT RATES	SPECIAL INSTRUCTIONS
Potato	Green Peach Aphid (suppression only) Potato Aphids (suppression only) Colorado potato beetle Flea beetles Potato Leafhopper Psyllid (suppression only)	<b>FOLIAR:</b> 0.25 to 0.33 lbs./A (0.050 to 0.06 lbs. a.i./A)	<b>Higher water volumes provide improved insect control.</b>  Begin applications when first pest activity is noticed or when insects reach threshold levels per State and County Extension Service recommendations. Repeat as needed to maintain control, but not more often than every 14 days. For best results, time application before a damaging population becomes established.  Under severe pest pressure, use the higher specified rates.  <b>Aphids:</b> DINOTEFURAN 20 SG provides only suppression of established or heavy aphid populations. Control may require use of tank mixes with other labeled insecticides.

The rate applied affects the length of control. Use the high rate where infestations occur later in crop development, or where pest pressure is continuous.  
 DINOTEFURAN 20 SG can be mixed and/or alternated with other insecticides registered for this use for better knockdown and/or improved control of pests

**Note: Do not combine foliar applications with soil applications, or vice versa. Only use one application method.**

**Foliar Application:**

 **Follow application instructions as indicated in Bee Hazard Direction for Use.**

Apply with air or ground equipment in adequate water for uniform coverage (3 to 10 gals/A by air or 10 to 50 gals/A by ground). Do not apply DINOTEFURAN 20 SG within seven (7) days of harvest.  
 Do not apply more than a total of 0.99 lbs. of DINOTEFURAN 20 SG (0.198 lbs. a.i.) per acre per season.

**Soil Application:**  
 See conversion chart for linear application plant application rates.  
 Apply with ground equipment in adequate water for uniform coverage (10 to 100 gals/A).  
 Apply once at preplant, preemergence or at ground crack as directed below.  
 Do not apply more than a total of 1.65 lbs. of DINOTEFURAN 20 SG (0.33 lbs. a.i.) per acre per season.

Apply specified dosage in sufficient carrier volume to insure uniform application and incorporate into the soil using one of the following methods:

- 1) In a narrow band centered on the plant row in the bedding operation just prior to planting.
- 2) In-furrow spray at planting. Direct spray in the furrow on the seed pieces or potatoes.
- 3) As a sidedress to both sides of the row or as a spray at ground crack directly over the row during hilling. Cover immediately with soil.

**TUBEROUS AND CORM VEGETABLES\***  
**(Subgroup 1C)**

\* Not for use in California

CROPS	PESTS	PRODUCT RATES	SPECIAL INSTRUCTIONS
Arracacha Arrowroot Artichoke, Chinese Artichoke, Jerusalem Canna, edible Cassava, bitter and sweet Chayote (root) Chufa Dasheen (taro) Ginger Leren Potato Sweet Potato Tanier Turmeric Yam bean Yam, true	Colorado Potato Beetle Flea Beetle Green Peach Aphid (suppression only) Potato Aphid (suppression only) Potato Leafhopper Psyllid	<b>FOLIAR:</b> 0.225 to 0.34 lbs./A (0.045 to 0.068 lbs. a.i./A)	<b>Higher water volumes provide improved insect control.</b>  Begin applications when first pest activity is noticed or when insects reach threshold levels per State and County Extension Service recommendations Repeat as needed to maintain control, but not more often than every 14 days. For best results, time application before a damaging population becomes established.  Under severe pest pressure, use the higher specified rates.  <b>Aphids:</b> DINOTEFURAN 20 SG provides only suppression of established or heavy aphid populations. Control may require use of tank mixes with other labeled insecticides.
	Colorado Potato Beetle Flea Beetle Green Peach Aphid (suppression only) Potato Aphid (suppression only) Leafhoppers Psyllid spp. (suppression only)	<b>SOIL:</b> 1.47 to 1.69 lbs./A (0.293 to 0.338 lbs. a.i./A)	

The rate applied affects the length of control. Use the high rate where infestations occur later in crop development, or where pest pressure is continuous.

DINOTEFURAN 20 SG can be mixed and/or alternated with other insecticides registered for this use for better knockdown and/or improved control of pests

**Note: Do not combine foliar applications with soil applications, or vice versa. Only use one application method.**

**Foliar Application:**



**Follow application instructions as indicated in Bee Hazard Direction for Use.**

Apply with air or ground equipment in adequate water for uniform coverage (3 to 10 gals/A by air or 10 to 50 gals/A by ground).  
Do not apply DINOTEFURAN 20 SG within seven (7) days of harvest.

Do not apply more than a total of 1.015 lbs. of DINOTEFURAN 20 SG (0.203 lbs. a.i.) per acre per season.

**Soil Application:**

See conversion chart for linear application plant application rates.

Apply with ground equipment in adequate water for uniform coverage (10 to 100 gals/A).

Apply once at preplant, preemergence or at ground crack as directed below.

Do not apply more than a total of 1.69 lbs. of DINOTEFURAN 20 SG (0.338 lbs. a.i.) per acre per season.

Apply specified dosage in sufficient carrier volume to insure uniform application and incorporate into the soil using one of the following methods:

- 4) In a narrow band centered on the plant row in the bedding operation just prior to planting.
- 5) In-furrow spray at planting. Direct spray in the furrow on the seed pieces or potatoes.
- 6) As a sidedress to both sides of the row or as a spray at ground crack directly over the row during hilling. Cover immediately with soil.

## WATERCRESS\*

\* Not for use in California

CROPS	PESTS	PRODUCT RATES	SPECIAL INSTRUCTIONS
Watercress	Cucumber beetle Sharpshooters Leafhoppers Fleabeetles	<b>FOLIAR:</b> 0.45 to 0.9 lbs./A (0.090 to 0.180 lbs. a.i./A)	<p><b>Higher water volumes provide improved insect control.</b></p> <p>Begin applications when first pest activity is noticed or when insects reach threshold levels per State and County Extension Service recommendations. Repeat as needed to maintain control, but not more often than every 7 days. For best results, time application before a damaging population becomes established.</p>
	Aphids (suppression) Stinkbugs Whiteflies Thrips	<b>FOLIAR:</b> 0.675 to 0.9 lbs./A (0.135 to 0.180 lbs. a.i./A)	<p>Under severe pest pressure, use the higher specified rates.</p> <p>The rate applied affects the length of control. Use the high rate where infestations occur later in crop development, or where pest pressure is continuous.</p> <p>DINOTEFURAN 20 SG can be mixed and/or alternated with commonly used insecticides for better knockdown and/or improved control of pests.</p>

**Foliar Application:**



**Follow application instructions as indicated in Bee Hazard Direction for Use.**

Apply with air or ground equipment in adequate water for uniform coverage (5 to 10 gals/A by air or 50 to 300 gals/A by ground).

Do not apply DINOTEFURAN 20 SG within one (1) day of harvest.

Interval between application cannot be less than 7 days.

Do not apply more than a total of 1.8 lbs. of DINOTEFURAN 20 SG (0.360 lbs. a.i.) per acre per crop season.

CONVERSION CHART FOR LINEAR APPLICATION								
Rate/A of Product (lb.)	Row Width/Inches							
	20"	24"	28"	30"	32"	34"	36"	40"
	Ounces Product / 1000 Row Feet							
1.13	0.69	0.83	0.96	1.03	1.10	1.17	1.24	1.38
1.20	0.73	0.88	1.02	1.10	1.17	1.24	1.32	1.46
1.27	0.77	0.93	1.08	1.16	1.24	1.32	1.39	1.55
1.32	0.81	0.97	1.12	1.21	1.29	1.37	1.45	1.62
1.34	0.82	0.98	1.14	1.23	1.31	1.39	1.47	1.64
1.65	1.00	1.21	1.40	1.50	1.61	1.71	1.81	2.01

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment.

**Pesticide Storage:** Keep pesticide in original container. Do not put concentrate or dilute into food or drink containers. Store in a cool dry place. Do not store diluted spray. For help with any spill, leak, fire or exposure involving this material, call day or night 1-800-CLEANUP.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Handling:** Nonrefillable container. Do not reuse or refill this container.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip

Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## CONDITIONS OF SALE

MITSUI CHEMICALS **AGROCROP & LIFE SOLUTIONS**, INC., warrants that this product in its unopened package conforms to the chemical description on the label and is reasonably fit for the purposes set forth on the label when used according to directions under normal use conditions to the crops specified. To the extent consistent with applicable law, there are no other warranties, expressed or implied, concerning the use of this product other than indicated on the label. To the extent consisted with applicable law, this warranty does not extend to the handling or use of this product contrary to label instructions or under abnormal conditions or conditions not reasonably foreseeable to seller, and buyer assumes all risk of any such use.