Restricted Use Pesticide. Due to toxicity to aquatic invertebrate animals. For retail sale to and use only by Certified Applicators, or persons under their direct supervision, and only for those uses covered by the Certified Applicator's certification.

Dimilin® 25W

STATE OF HAWAII
Department of Agriculture
ACCEPTED
LICENSE NO.
9433.56

Insect Growth Regulator Wettable Powder

For use on trees, shrubs, ornamentals, mushrooms, commerical fish production ponds and tanks, soybeans, cotton, pears, peppers, grassland and non-crop areas.

Net Contents: 5 pounds

COMPOSITION

Active Ingredient: (% by weight)

diflubenzuron
N-[[(4-Chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide.....25%
Other Ingredients:.....75%

Total 100%

U.S. Patent Numbers: 6,057,370; 6,376,430B1 and other patents pending.

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
IF IN EYES	• **Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.** • **Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.** • **Call a poison control center or doctor for treatment advice.**
EMERGENCY ASSISTANCE: Have the product container or label with you when calling a poison control center or doctor, or going for treatment: **24 HOUR EMERGENCY PHONE 1-866-928-0789**	
For PRODUCT USE INFORMATION: Call 1-866-761-9397	

EPA REG. NO. 400-465
EPA EST. NO.
043/062714

Made in The Netherlands

Manufactured for:
MacDermid Agricultural Solutions, Inc.
245 Freight Street
Waterbury, CT 06702-1818

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing.

PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category A on a chemical-resistant selection chart.

Applicators and Other Handlers Must Wear: Long-sleeved shirt and long pants; chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, PVC or viton; shoes plus socks.

Mixers and Loaders Using Fixed-Wing Aircraft Must Wear: Long-sleeved shirt and long pants; chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, PVC or viton; shoes plus socks; dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C or a NIOSH approved respirator with any R, P or HE filter).

USER SAFETY REQUIREMENTS

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

ENGINEERING CONTROLS

When handlers use closed systems (including water soluble bags), enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

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.

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. Drift and runoff from treated areas may be hazardous to aquatic invertebrate organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

This product may contaminate water through drift of spray in wind. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination or water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

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 foliar application.

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.

DIRECTIONS FOR USE
Restricted Use Pesticide

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

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, and greenhouses, and handlers of agricultural pesticides. 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
- chemical-resistant gloves, such as barrier laminate, butyl, nitrile, neoprene or natural rubber, or polyethylene, PVC or viton.
- shoes plus socks.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.
PESTICIDE STORAGE — Store in a dry location.
PESTICIDE DISPOSAL — Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.
CONTAINER DISPOSAL — Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Completely empty bag into application equipment.Then dispose of empty bag in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

SPRAY DRIFT MANAGEMENT

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 these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to ULV applications on grassland, for the control of grasshoppers and Mormon crickets.

The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

Information on Droplet Size
The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size
Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

- Pressure - Do not exceed the nozzle manufacture's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles - Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length
For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height
Applications should not be made at a height greater than 10 feet above the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment
When applications are made with a cross-wind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for the displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

Wind
Drift potential is lowest between wind speed of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

Temperature and Humidity
When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are hot and dry.

Temperature Inversions
Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas
The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

INFORMATION

DIMILIN 25W is an insect growth regulator which is effective on a wide variety of insect pests, predominately from the families Lepidoptera and Diptera. Because of its mode of action, which results in a disruption of the normal molting process of the insect larvae, the action of DIMILIN is slow and several days may elapse before the full effect is seen.

Mixing Instructions: Fill the spray tank with half the required amount of water. Begin agitation and add the required amount of DIMILIN 25W. Continue agitation while adding the remainder of the water.

RESTRICTIONS

- Do not apply this product through any type of irrigation system.
- Do not apply this product to bodies of water where swimming is likely to occur.
- Do not apply within 25 feet by ground or 150 feet by air of bodies of water such as lakes, reservoirs, rivers, permanent streams, natural ponds, marshes or estuaries. All applications must include a 25 foot vegetative buffer strip within the buffer zone to decrease runoff.
- **Restrictions on Rotational Crops:** Do not plant food or feed crops in DIMILIN treated soils within 1 month following last application, unless DIMILIN is authorized for use on these crops.
- NOT FOR USE IN GREENHOUSES, SHADEHOUSES, OR INTERIORSCAPES.

APPLICATION INSTRUCTIONS

USE AND MIXING DIRECTIONS:

1. Fill tank with half of the required amount of water.
2. Begin agitation and add required amount of DIMILIN 25W.
3. Continue agitation while adding remainder of water.
4. If permitted for the use site, add proper quantity of oil slowly. To avoid formation of an invert emulsion use at least 2 parts water for each part oil.

Spray should be applied with aerial or ground equipment designed or modified to insure full uniform coverage of the entire plant. Adjust equipment to provide droplets with a diameter of 150 to 220 microns. Provide agitation prior to, during and after blending and while applying.

TREES AND SHRUBS

DIMILIN 25W is effective in controlling a variety of insect pests found on trees and shrubs in areas such as:

- Public and private forests
- Forest plantings and forest nurseries
- Christmas tree and conifer nurseries
- Residential and municipal shade tree areas and landscape plantings
- Recreational areas such as campgrounds, golf courses, parks, parkways*
- Shelterbelts
- Rights of way and other easements

*In campground or other recreational areas apply only during periods of minimal use. Notify persons using recreational facilities or living in the area to be sprayed before application of this or any other pesticide.

Application Notes: Determining the correct volume of water to apply is highly dependent on the tree height, canopy size and application type.

For ground applications, use an adequate amount of water to obtain thorough coverage to the foliage without excessive runoff. As a general guideline, use the specified per acre dosage of DIMILIN 25W in the following amounts of water.

High volume hydraulic sprayer
100 - 400 gallons per acre

Mist blower, air blast sprayer
5 - 30 gallons per acre

For aerial applications, apply spray volumes of 1/2 to 5 gallons per acre.

Continuous agitation during mixing and application is required to maintain suspension of DIMILIN 25W. Do not use equipment without adequate agitation.

Uniform coverage of the foliage is essential for optimum performance. The higher water volumes are recommended when application conditions are less than ideal, for very large or dense tree stands, for high population pressures or when insects have reached older instar stages.

Use Rates and Application Timing Information: The following table provides use rates and application timing for optimum performance of DIMILIN 25W. In most cases, applications should be made when insect larvae are in the early instar stages. Applications made to late instar larvae may result in reduced foliage protection and the higher listed rates should be used.

INSECT PEST	RATE OZS. / ACRE	MAX. / YEAR OZS. / ACRE	APPLICATION TIMING / NOTES
Armyworms	4 - 8	8	Early instar
Bagworms	2 - 4	4	Early instars in mid to late June
Browntail Moth	2 - 4	4	When overwintering 2nd instars become active in late April / early May.
Budworms	4 - 8	8	4th instar
Cankerworms	4 - 8	8	Early instars
Gypsy Moths	1 - 4	4	Early instar and prior to full leaf expansion (5 - 20%)
Hemlock Looper	4 - 8	8	Early instars
Leafminers (lepidopterous)	-	16	Apply at a rate of 8 - 16 ozs. per 100 gallons of water when oviposition begins on new growth flushes.
Oakworms	4 - 8	8	Early instars in August
Pandora Moth	4 - 8	8	After egg hatch in the fall or to early instars in the spring.
Pine Shoot Moth	4 - 8	8	Early instars
Pine Tip Moths	2 - 4	4	Early second generation instars or when 75% of first generation pupal cases are empty. Peak emergence can be determined by twig sampling, pheromone traps, degree days, etc.
Sawflies	4 - 8	8	Early instars
Spanworms	4 - 8	8	Early instars
Tent Caterpillars	2 - 8	8	Early instar and prior to full leaf expansion.
Tussock Moths	4 - 8	8	Early instars
Webworms	2 - 4	4	Early instars
Weevils (Diaprepes spp.)	-	16	Apply at a rate of 8 - 16 ozs. per 100 gallons of water when adult weevils are present and/or to newly expanded growth. Will not control adult weevils but will reduce reproductive potential of adult weevils, resulting in decreased egg hatch.
Weevils (Terminal) of pine and spruce (Pissodes spp.)	4 - 8	8	Treat adults in early spring after snow melt and prior to egg deposition. Aerial applications are not recommended. Thoroughly wet the leader and upper whorls of branches. Add an emulsifiable paraffinic crop oil at the rate of 1 to 2 gallons per acre.
Zimmerman Moth	4 - 8	8	Early instars in late summer prior to construction of hibernaculum.

QUARANTINE PROGRAMS (Gypsy Moth)
For use in Quarantine programs conducted by State Cooperators as well as USDA personnel of both Plant Protection and Quarantine, APHIS and the U.S. Forest Service. For use in eradication of isolated infestations make two applications of 1 to 2 ounces of DIMILIN 25W per acre 7-14 days apart. For use in quarantine programs involving the movement of nursery stock from infested to non-infested areas, make two applications of 1 to 2 ounces of DIMILIN 25W per acre 7-14 days apart on nursery stock.

ORNAMENTALS

ORNAMENTAL RESTRICTIONS

- A maximum of 26 applications per acre per year may be made.

BEET ARMYWORM: For control of beet armyworm on field or greenhouse grown chrysanthemums apply 0.5 to 1 pound of DIMILIN 25W per acre in a dilute spray not to exceed 200 gallons of water per acre. Begin applications when larvae appear and repeat at 14-day intervals as required. The insect dies during molting following contact and full effect will not be seen for 3 to 5 days following application. The user should initially treat only a small portion of his crop to confirm plant safety under his growing conditions.

COMMERCIAL FISH PRODUCTION PONDS AND TANKS

ANCHOR WORMS *(Lernaea cyprinacea):* For control of anchor worms on ornamental fish and baitfish commercially produced in ponds and tanks.

COMMERCIAL FISH PRODUCTION RESTRICTIONS:

- Areas treated with DIMILIN 25W shall contain ornamental and/or bait fish only.
- Do not apply to areas containing fish intended for human consumption.
- Application to water is allowable only to the above-specified areas where all water is contained in a completely "closed system".
- Treated waters must be contained for a period of 14 days after treatment before being disposed of or released from the ponds or tanks.
- DIMILIN 25W is intended for control of only the unattached form of the anchor worm.

For applications to known volumes of water, apply DIMILIN 25W at a rate of 1.0 gram (2/3 tsp.) per 1000 gallons of water, or 5.0 grams (1 tblspn.) per 5000 gallons of water (67 ug/L).
For applications based on surface area and water depth, apply the following amount of product:

Average Depth of Water	Amount of DIMILIN 25W Per Acre of Water Surface
1 foot	0.35 - 0.7 lbs.
2 feet	0.7 - 1.3 lbs.
3 feet	1.0 - 2.0 lbs.
4 feet	1.3 - 2.6 lbs.
5 feet	1.7 - 3.3 lbs.
6 feet	2.0 - 4.0 lbs.

Mix the required amount of DIMILIN 25W in sufficient water to enable uniform application to the pond or tank. Application should be made at first sign of infestation. To maintain consistent control, subsequent applications may be made at 14 to 60 day intervals.

MUSHROOMS

MUSHROOM RESTRICTIONS:

- Not for use in California, Idaho, Oregon or Washington.

SCIARID FLIES: DIMILIN 25W will control larvae of sciarid flies in mushroom growing facilities. DIMILIN 25W in the mushroom growing media will prevent the development of the larval stages of the sciarids. This effectively stops reproduction in the growing medium and prevents damage to the mushrooms. Because of its unique type of activity do not expect immediate reductions in adult fly populations. DIMILIN 25W does not directly affect adults but kills the larvae in the growing medium.

Compost treatment: Apply 2.4 to 4 pounds of DIMILIN 25W per 1000 square feet to the compost between filling and spawning time by thorough incorporation such as with a spawning machine. This is equivalent to 30 to 50 ppm active ingredient assuming a compost wet weight of 40 pounds per cubic foot.
Casing treatment: Apply 13.5 ounces of DIMILIN 25W in a minimum volume of 40 gallons of water per 1000 square feet at the time of casing. This is equivalent to a rate of 30 ppm active ingredient assuming a casing weight of 6700 pounds per 1000 square feet.

SOYBEANS (except California)

SOYBEAN RESTRICTIONS:

- Minimum reapplication interval is 30 days.
- Do not make more than two applications per season.
- Do not apply within 21 days of harvest.

VELVET BEAN CATERPILLAR, MEXICAN BEAN BEETLE AND GREEN CLOVER WORM: DIMILIN 25W will control larvae of velvetbean caterpillar, Mexican bean beetle and green cloverworm. Apply DIMILIN 25W at the rate of 2 to 4 ounces (0.125 to 0.25 pounds) per acre. Make application when larvae are small (less than 0.5 inches) to give greater control and minimum insect damage to leaves. Repeat application if damaging numbers reappear.

DIMILIN 25W may be applied at the lower rate (2 ounces) to prevent velvetbean caterpillar build-up when the vegetative growth of soybeans is completed and as pod formation begins. Consult local Extension Service regarding infestation levels requiring treatment.

BEET AND FALL ARMYWORM AND SOYBEAN LOOPER:
To control larvae of beet and fall armyworm and to provide suppression of soybean looper, apply 4 ounces (0.25 pounds) of DIMILIN 25W per acre. Application must be made when worms are small before the 3rd instar and before populations build.

GRASSHOPPERS: For optimum results, apply 2 oz. of DIMILIN 25W per acre when the majority of infesting grasshoppers have reached the 2nd to 3rd instar nymphal stage of development. DIMILIN is not effective in controlling grasshoppers once they reach the adult stage. Since DIMILIN is an insect growth regulator, grasshoppers must feed on DIMILIN and then molt before populations are reduced. Thus initial signs of control may not be seen until several days after treatment. If a large influx from neighboring fields should occur, the time to reduce that population may not be short enough to minimize extensive foliage feeding. A tank mix with a knockdown insecticide is recommended under these conditions.

SOYBEAN YIELD ENHANCEMENT: In the absence of significant insect pressure and under certain growing conditions, an increase in soybean seed yield has been demonstrated with DIMILIN under field conditions on both determinate and indeterminate cultivars. Application of 2 to 4 oz. DIMILIN 25W per acre to high yield potential soybean plants at the R3 to R3.5 growth stage period has been more consistent in increasing yields than applications at other reproductive stages of the soybean plant. This reproductive period represents beginning pod growth (pod $^{3}/_{16}$ inch long at one of the four uppermost nodes on the main stem with a fully developed leaf) to just prior to full pod elongation (pod $^{3}/_{4}$ inch long at one of the four uppermost nodes on the main stem with a fully developed leaf).

Aerial Application: Apply specified amount of DIMILIN 25W in sufficient water (1 to 3 gallons per acre) to achieve uniform coverage of foliage.

Ground Application: Apply specified amount of DIMILIN 25W in 9 to 35 gallons of water per acre to give uniform coverage.

ADJUVANT USAGE: See Cotton Section

DIMILIN 25W inhibits the molting process of larvae, therefore it does not provide immediate kill. From 3 to 5 days may be required before populations are reduced.

COTTON

COTTON RESTRICTIONS:

- Do not exceed **6 applications** per season.
- Do not exceed **24 oz. DIMILIN 25W** per season.
- Do not exceed 3 applications and 12 oz. DIMILIN 25W post boll opening.
- Do not apply closer than 14 days before harvest.

BEET ARMYWORM:

EARLY SEASON (before first bloom): For early infestations on young cotton, DIMILIN 25W should be applied at the first sign of beet armyworm activity (2 egg masses or hatch outs/100 feet of row) with 2 to 4 oz. per acre in multiple applications, either as directed or broadcast spray. Use on a 5 to 7 day interval until up to 8 oz. per acre have been applied. Do not exceed **6 applications** per season and do not exceed **24 oz. DIMILIN 25W** per season. Multiple applications of DIMILIN 25W will provide acceptable beet armyworm control and because it has little activity on beneficial insects (parasites and predators) and has good persistence, will help prevent populations of beet armyworm from building up later in the growing season. Use of DIMILIN 25W in this way allows for more complete coverage of new foliage during the period of rapid vegetative growth.

MID SEASON: Starting around first bloom and through mid-bloom, apply 4 to 8 oz. of DIMILIN 25W per acre. Repeat application until up to 8 oz. per acre have been applied, using a 5 to 7 day interval between applications. The higher listed application rate should be used on larger cotton and/or under conditions of greater larval pressure. Do not exceed **6 applications** per season and do not exceed **24 oz. DIMILIN 25W** per season. First application should coincide with peak beet armyworm moth catches in pheromone traps, indicating another generation of larvae is imminent. DIMILIN is more effective on early stages of larval development, therefore cotton leaves should be treated before populations become established.

LATE SEASON: After mid-bloom and prior to 14 days before harvest, apply 6 to 8 oz. of DIMILIN 25W per acre. The higher listed application rate should be used on more advanced cotton or under conditions of greater larval pressure. Do not exceed **6 applications** per season and do not exceed **24 oz. DIMILIN 25W** per season. Do not exceed 3 applications and 12 oz. DIMILIN 25W post boll opening. Application should coincide with peak beet armyworm moth catches in pheromone traps. Additional applications of 6 to 8 oz. per acre may be needed if larval pressure continues.

Adjuvant Usage: Always use oil (1 to 2 quarts) with DIMILIN 25W if conditions are favorable for water evaporation (e.g. high air temperature and/or low humidity). For ground or aerial LV application, 1 pint to 2 quarts of emulsified vegetable or paraffinic crop oil is recommended to enhance canopy penetration and to reduce spray droplet evaporation and subsequent drift.

Aerial Application: Apply in 3 to 5 gallons total volume per acre. (See preceeding sections on mixing directions and on use of adjuvants).

Ground Application: Apply in 10 to 20 gallons of total volume per acre to give uniform coverage. (See notes on use of adjuvants above and mixing directions below).

Use sufficient application volume to assure adequate coverage. DIMILIN 25W may be mixed with other insecticides being applied for other cotton insects. When emulsifiable concentrate insecticide formulations are used with oil and DIMILIN in tank mixes, they may result in phytotoxicity. Care should be taken where such mixture is used. Because of the unique mode of action of DIMILIN, its visible effects may not be seen for 5 to 7 days following application.

FALL ARMYWORM, YELLOWSTRIPED ARMYWORM, SOUTHERN ARMYWORM, SOYBEAN LOOPER, CABBAGE LOOPER AND SALTMARSH CATERPILLAR: For larvae of fall armyworm, yellowstriped armyworm and southern armyworm, and larval suppression of soybean looper, cabbage looper and saltmarsh caterpillar, apply 4 to 8 oz. of DIMILIN 25W per acre. Application should be made during early stages of larval development. Repeat application until at least 8 oz. per acre have been applied using a 5 to 7 day interval. **See BEET ARMYWORM for recommendations on adjuvants, and application by air or ground. See BEET ARMYWORM for use restrictions.**

BOLL WEEVIL:

EARLY SEASON (before first bloom): DIMILIN 25W will control boll weevil by suppressing reproduction. Apply 4 to 8 oz. of DIMILIN 25W per acre in combination with 2 to 4 quarts of emulsified cottonseed oil, vegetable oil, or paraffinic crop oil. Consult your supplier representative for oil specifications.

For best suppression of boll weevil reproduction, make first application at pinhead square stage of cotton growth when overwintering boll weevils are entering the fields. Repeat treatments should allow a minimum of 7 days between application.

LATE SEASON: DIMILIN 25W will reduce the numbers of weevils that emerge in the following spring if applications are made when adult weevils are going into diapause to overwinter. Apply when cotton plant has reached full vegetative growth or when it begins blooming out the top. For ground or aerial LV application, spray 2 to 4 oz. of DIMILIN 25W per acre in combination with 2 to 4 quarts of an emulsifiable vegetable or paraffinic oil per acre. At least 2, but not more than 3, applications at 7 to 14 day intervals should be made.

DIMILIN 25W does not kill the adult boll weevils, however, eggs deposited by affected female weevils will not hatch, thus limiting reproduction. The control of egg hatch and larval development within the square prevents its shedding and will then allow normal boll development. After initial treatment of the female weevil, 7 to 10 days are required before non-hatching eggs are laid; however, once affected, non-hatching eggs will be laid for approximately 10 days, and longer if the female encounters more DIMILIN. Thus treat early and use multiple applications.

When DIMILIN 25W is used alone for boll weevil control, it allows normal build-up of beneficial insects which may aid in control of bollworm and budworm. Emulsifiable concentrate insecticide formulations used in tank mixes, in the presence of oil, may result in phytotoxicity. Care should be taken where such mixture is used.

GRASSHOPPERS:

For optimum results, apply 2 oz. of DIMILIN 25W per acre when the majority of infesting grasshoppers have reached the 2nd to 3rd instar nymphal stage of development. DIMILIN is not effective in controlling grasshoppers once they reach the adult stage. Since DIMILIN is an insect growth regulator, grasshoppers must feed on DIMILIN and then molt before populations are reduced. Thus initial signs of control may not be seen until several days after treatment. If a large influx from neighboring fields should occur, the time to reduce that population may not be short enough to minimize extensive foliage feeding. A tank mix with a knockdown insecticide is recommended under these conditions.

Aerial application: Apply in 3 to 5 gallons total volume per acre. (See section on use of adjuvants above).

Ground application: Apply in 10 to 20 gallons of total volume per acre to give uniform coverage. (See section on use of adjuvants above).

PEARS

INFORMATION: Under normal agricultural practices, DIMILIN 25W does not interfere with the activity of beneficial insects, except with the potential loss of their food source.

PEAR RESTRICTIONS:

- Do not apply more than 4 applications of DIMILIN 25W per year.
- Do not apply more than 4.0 lb. per acre of DIMILIN 25W per year.
- Do not apply closer than 14 days prior to harvest.
- Do not use oil in tank mix with DIMILIN 25W in late season treatments (third and fourth applications).
- Do not use oil in tank mix with DIMILIN 25W in late season treatments.

PEAR PSYLLA (pre-bloom): Apply 2.5 to 3.0 pounds per acre of DIMILIN 25W in 80 to 400 gallons of water per acre during the delayed dormant to the popcorn stage period. Complete uniform coverage of the tree is essential to achieve optimum control. A horticultural mineral oil should be used with DIMILIN 25W at the rate of 4 to 6 gallons per acre during the delayed dormant period. After the delayed dormant period and through the popcorn stage, apply oil at a concentration of 0.25%, but use no more than 1 gallon per acre. A surfactant may be used to improve coverage. Follow manufacturer's label recommendations. DIMILIN 25W should be applied during egg deposition so that it will come in contact with pear psylla eggs and/or 1st and 2nd instar nymphs.

PEAR RUST MITE (pre-bloom): Apply DIMILIN 25W at the rate of 2.5 to 3.0 pounds per acre in 80 to 400 gallons of water per acre from delayed dormant to the popcorn stage. See pear psylla section above for the use of oil.

PEAR PSYLLA SUPPRESSION (post-bloom): Applications of DIMILIN 25W at normal codling moth rates and timings will provide suppression of pear psylla.

DIMILIN 25W COMBINATION WITH SUMMER OIL: DIMILIN 25W may be applied with a light summer oil, using a concentration of 0.25 to 1% oil, but use no more than 1 gallon per acre. Oil may cause injury to certain pear varieties. Check compatibility of oil mixtures with your local tree fruit specialist.

CODLING MOTH CONTROL: Apply DIMILIN 25W at the rate of 0.75 to 1 pound per acre in a minimum of 80 gallons of water per acre. Use the lower rate where there is light codling moth pressure and/or on small trees. Complete coverage of the fruit and foliage in all areas of the tree is essential for optimum control.

Time of Application: Timing is extremely important because DIMILIN 25W controls codling moth by killing the eggs. It must be applied prior to egg laying so that eggs are laid on treated plant parts.

First Application should be made as soon as possible after first moths are caught (biofix) or observed, or about 50-75 degree-days after biofix. This timing can be determined by your local pest control consultant and/or fruit specialist with the aid of pheromone traps. Normally this timing occurs at late petal fall or about 10-14 days earlier than the timing used for organophosphate insecticides.

Second Application should be made about 14-18 days after the first.

Third and Fourth Application, if necessary, should be timed prior to egg laying of the 2nd generation by using the same method as for the first generation. If traps are not used, make the third application 21-30 days after the second, followed by the fourth application 21-30 days later. The last application can be no closer than 14 days prior to harvest. If a degree-day model is used the third spray should be timed at 1000 degree-days after biofix.

COMBINATION WITH ORGANOPHOSPHATES FOR CODLING MOTH CONTROL: DIMILIN 25W can be used in combination with an organophosphate insecticide, to save a trip through the orchard and to make timing of DIMILIN 25W sprays easier. The combination is more effective than DIMILIN 25W alone when controlling moderate to heavy codling moth infestations and/or treating large trees. The combination will provide residual control of eggs laid after application.

Rate: Apply DIMILIN 25W and the organophosphate at their labeled rates.

Time of Application: Apply at the beginning of egg hatch of first generation codling moth. This is the normal timing for the first organophosphate cover spray (250 degree-days following biofix for first generation and 1250 degree-days for the second generation).

This program can be repeated for the 2nd or 3rd generation of codling moth or use DIMILIN 25W alone prior to egg laying.

With light codling moth populations, as indicated by monitoring, this combination may offer control of an entire generation with 1 application. When populations are heavy, this combination will improve control, but it may not control an entire generation with one spray. A second spray of DIMILIN 25W alone or in combination may be applied 14-18 days later.

LEAFMINER CONTROL: Apply DIMILIN 25W at the rate of 0.5 to 1 pound per acre in a minimum of 80 gallons of water just prior or during egg laying to control eggs and larvae. Timing for control of the first or second generation can be determined by your local pest control consultant or fruit specialist. Should later generations of leafminers occur, DIMILIN 25W should be applied in the same manner.

It is desirable to have DIMILIN 25W in place at the time of egg laying. It will continue to give control through the early sap feeding stage. Complete coverage of the foliage is essential to achieve control of the larvae through the early sap feeding stage.

BELL AND NON-BELL PEPPERS

PEPPER RESTRICTIONS:

- Apply up to five applications per growing season as long as 24 oz. per acre, per season are not exceeded.
- Allow a minimum of seven days between any two applications.
- Do not apply within seven days of harvest.
- Do not apply more than 24 oz. per acre per season.

FOLIAGE FEEDING LEPIDOPTERAN INSECTS: to control Lepidopteran foliage feeding insects, such as beet armyworms, fall armyworms, yellow and western yellowstriped armyworms and southern armyworms, and to suppress loopers make initial ground application of 4 to 8 oz. Dimilin 25W per acre when larvae are small to give greater control and minimum damage to leaves and/or fruit. Use a higher listed rate if being applied alone and/or infestation is considered heavy. A knockdown tank-mix partner should be used if late instar larvae are present. Use a minimum of 30 gallons of water per acre to give uniform coverage. Additional applications allow for more complete coverage of new foliage and expanding fruit.

PEPPER WEEVIL: to control pepper weevil damage, apply Dimilin 25W by ground at 4 to 8 oz. per acre starting at initial flowering. Use the higher listed rate if adult infestation is considered moderate to heavy. Use a minimum of 30 gallons of water per acre to give uniform coverage. Apply additional

applications at 7 day intervals up to 7 days before harvest. Additional applications allow for more complete coverage of new foliage and expanding fruit. Note that Dimilin will not control adults; however eggs laid by adults will exhibit reduced hatching in fruits once adults have consumed or contacted residues of Dimilin on plant tissue.

GRASSLAND AND NON-CROP AREAS

RESTRICTIONS FOR GRASSLAND AND NON-CROP AREAS:

- Do not exceed a total of 6.0 oz. DIMILIN 25W per acre per year.
- Do not exceed a total of 2 oz. per acre per cutting.
- This pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).
- Allow at least 1 day after treatment before cutting grass.

GRASSHOPPERS / MORMON CRICKETS: DIMILIN 25W will control grasshopper/Mormon cricket infestations in rangeland and pasture, improved pastures and similar areas used for production of native, domesticated forage grasses for harvest for livestock primarily for grazing or mechanical harvest. Higher listed rates and gallonages are suggested for areas with dense vegetation, when nymphs are beyond the 3rd instar stage, and when climatic conditions are favorable for grasshopper/Mormon cricket survival and increase.

APPLICATION RATES

Insect	No. of Applications	Rate per Acre	Timing
Grasshoppers and Mormon crickets	1	1.0 to 2.0 oz.	Early instar (majority in the 2nd to 3rd instar nymphal stages); use high rate for pastureland.
	1	0.75 to 1.0 oz.	Early instars; see RAATS* section; **rangeland only**
	2	0.5 to 1.0 oz.	If a second application is made, typically apply 2 to 3 weeks after the first application.

AERIAL APPLICATION: Apply in 1 to 5 gallons of water per acre and include 1 pt. to 2 qts. of emulsified vegetable or paraffinic crop oil if conditions are favorable for water evaporation (e.g. high air temperature and/or low humidity). Use at least 2 parts of water for each part of oil. For low volume applications, make sure the boom is filled with spray mixture containing the correct concentration of DIMILIN 25W before the first application begins.

GROUND APPLICATION: Apply in 5 to 20 gallons of water per acre. Include 1 pt. to 2 qts. of emulsified vegetable or paraffinic crop oil if conditions are favorable for water evaporation.

TIMING OF APPLICATION: Applications may be made anytime after eggs begin to hatch. For optimum results, applications should be made when the majority of the nymphs have reached the 2nd to 3rd instar stage of development. DIMILIN 25W remains active on the foliage and will continue to control grasshoppers/Mormon crickets that hatch later in the season. DIMILIN 25W is not effective in controlling grasshoppers/Mormon crickets once they have reached the adult stage. Since it is an insect growth regulator, effects of DIMILIN 25W may not be seen until 3 to 10 days after treatment. If adults from early hatching species are present, tank-mix DIMILIN 25W with a registered adulticide to control later hatching species. Check mixing compatibility and sprayability prior to transferring to the main spray tank.

***REDUCED AREA AND AGENT TREATMENTS (RAATs):** A RAATs application is an IPM strategy that takes advantage of grasshopper movement and conservation biological control to allow DIMILIN 25W to be applied on rangeland on a reduced treated area and at reduced rates, while sustaining acceptable grasshopper/Mormon cricket control. RAATs may provide ranchers with an economic means to reduce grasshopper competition on their rangeland, depending on insect age and plant canopy. Using this program Dimilin 25W may be applied on as little as 50% of the infested acreage (e.g. skipping a 100 ft. swath for every 100 ft. treated), up to 100% infested acreage. Apply 0.75 to 1 oz. Dimilin 25W per treated acre. The rate to use per acre and amount of area treated will depend on grasshopper/Mormon cricket age, plant canopy and topography. Skip up to 50% of the infested area and use the lower rate under uniform topography with early instar stages and sparse vegetation. If the majority of the population is late instars, vegetation is dense, terrain is considered rough, and conditions are hot during treatment, then the coverage and rate of Dimilin 25W should be increased up to a blanket (100%) coverage with 1 oz. per acre. Refer to preceeding application methods and oil requirement conditions.

NON-CROP AREAS

[Field border, fence rows, roadsides, farmsteads, ditchbanks, waste land, Conservation Reserve Program (CRP) land]

GRASSHOPPERS/MORMON CRICKETS: Apply 2.0 oz. DIMILIN 25W per acre to manage grasshoppers/Mormon crickets in their breeding areas before they move into cropland. See GRASSLAND section for timing of application.

AERIAL APPLICATION: Apply in 1 to 5 gallons of water per acre (Note preceeding oil requirement condition).

GROUND APPLICATION: Apply in 5 to 30 gallons of water per acre. (Note preceeding oil requirement condition).

MODE OF ACTION: DIMILIN affects the formation and/or deposition of chitin in the insect's exoskeleton (cuticle, exuvia). Chitin is a polysaccharide occurring mainly in the exoskeleton. When a larva/nymph is exposed to DIMILIN, the exoskeleton at molting is weakened and the larva/nymph is unable to successfully molt. If an adult female grasshopper consumes DIMILIN, the eggs she lays may not hatch (transovarial activity). Besides a fatal incomplete molting, grasshoppers may exhibit missing posterior legs, hernias, abdominal segments malformed, twisted antennae, hemolymph exudation, and wrinkled wings. Additionally, they may move slower, have limited jumps and unsteady landings, show a reduction in feeding, have atrophy of posterior legs or be unable to fly. Any nymph/adult possessing these symptoms is likely more susceptible to predatory insects. DIMILIN has been shown not to impact adult populations of various ground dwelling and flying non-target arthropods in a rangeland ecosystem.

IMPORTANT NOTICE—To the extent consistent with applicable law, seller warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with the directions and instructions specified on the label under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product, contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.

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