

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.

DIFLUBENZURON GROUP 15 INSECTICIDE

DIMILIN[®] 2L

INSECTICIDE

Insect Growth Regulator - Aqueous Flowable

For use on Alfalfa^{*,**}; Artichoke (Globe) (California only); Barley^{**}; Carrot^{**} (Not grown for seed); Oats^{**}; Triticale^{**}; Wheat^{**}; Citrus Fruit Group (Crop Group 10-10); Cottonseed (Crop Subgroup 20C); Grassland^{**}; Non-Crop Areas^{**}; Leafy Brassica (Crop Subgroup 5B)^{**} (Including Turnip Greens); Livestock/Poultry Premises^{**}; Peach (Crop Subgroup 12-12B)^{**}; Plum (Crop Subgroup 12-12C)^{**}; Peanuts^{**}; Pears^{**}; Peppers/Eggplant (Crop Subgroup 8-10B)^{**}; Rice; Soybeans^{*}; Tree Nut Group (Crop Group 14-12)^{**}; and Turfgrass^{**} (For use in sod farms only).

^{*}Not registered for use in California. ^{**}Not registered for use in New York.

ACTIVE INGREDIENT:	% BY WT.
diflubenzuron: N-[[[4-Chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide [*]	22%
OTHER INGREDIENTS:	78%
TOTAL:	100%

^{*}Contains 2 lb diflubenzuron per gallon.

EPA Reg. No. 70506-525

KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCIÓN

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand this label, find someone to explain it to you in detail.)

See inside panel for First Aid Instructions and Booklet for complete Precautionary Statements and Directions for Use.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

FOR EMERGENCY MEDICAL ASSISTANCE, CALL ROCKY MOUNTAIN POISON AND DRUG SAFETY 1-866-673-6671.

FOR 24-HOUR CHEMICAL EMERGENCY (Spill, leaks, fire, exposure or accident) CALL CHEMTREC: 1-800-424-9300 or +1-703-527-3887.

For Product Use Information Call 1-800-438-6071

Net Contents: _____ Gallons

INSECTICIDE

Produced For: **UPL NA Inc.** • 630 Freedom Business Center, Suite 402
King of Prussia, PA 19406 • 1-800-438-6071



PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed in the following paragraphs.

Applicators and Other Handlers Must Wear:

- A long-sleeved shirt & long pants;
- Chemical-resistant gloves, made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, PVC ≥ 14 mils, or viton ≥ 14 mils, when mixing and loading and also when using hand-held equipment;
- Shoes plus socks.

Mixers and Loaders Using Fixed-Wing Aircraft Must Wear:

- A long-sleeved shirt and long pants;
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, PVC ≥ 14 mils, or viton ≥ 14 mils; shoes plus socks; wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any R or P filter; OR a NIOSH-approved elastomeric particulate respirator with any R or P filter; OR a NIOSH-approved powered air-purifying respirator with a HE filter.

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

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 thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and change into 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 terrestrial juvenile insects and aquatic invertebrates/mollusks/insects. 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 may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters 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.

- 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 reducing immature bee viability.

DIRECTIONS FOR USE

RESTRICTED USE PESTICIDE

It is a violation of Federal law to use this product in a manner inconsistent with it 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 made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, PVC ≥ 14 mils, or viton ≥ 14 mils;
- Shoes plus socks.

PRODUCT INFORMATION

DIMILIN® 2L 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 2L** is slow and several days may elapse before the full effect is seen. Because of its specificity, **DIMILIN 2L** is an excellent product for use in integrated pest management (IPM) programs.

RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance-management, **DIMILIN 2L** contains a Group 15 insecticide. Any insect population may contain individuals naturally resistant to **DIMILIN 2L** and other Group 15 insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of **DIMILIN 2L** or other Group 15 insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank-mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
 - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
 - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance-management.

- When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pests.
- Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
- The insect resistance-management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance-management benefit only for the period where both insecticides are active.
- Adopt an IPM program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact UPL NA, Inc. at 1-800-438-6071.

INSTRUCTIONS AND INFORMATION

MANDATORY SPRAY DRIFT MANAGEMENT¹

Aerial Applications:

- Do not release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a fine or coarser droplet size (ASABE S572).
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- Do not apply when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not apply during temperature inversions.

Airblast Applications:

- Spray must be directed into the canopy.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- User must turn off outwind pointing nozzles at row ends and when spraying outer rows.
- Do not apply during temperature inversions.

Ground Boom Applications:

- User must only apply with the release height recommended by the manufacturer, but no more than 3 ft above the ground or crop canopy.
- Applicators are required to use a fine or coarser droplet size (ASABE S572).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

¹ These requirements do not apply for applications to control gypsy moths, and rangeland grasshoppers and Mormon crickets as part of the USDA Gypsy Moth Program and Rangeland Grasshoppers and Mormon Cricket Suppression Program.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size - Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size - Aircraft

- Adjust Nozzles - Follow nozzle manufacturers' recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

BOOM HEIGHT - Ground Boom

For ground equipment, the booms should remain level with the crop and have minimal bounce.

RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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 upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Handheld Technology Applications:

- Take precautions to minimize spray drift.

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).

USE RESTRICTIONS

- **DO NOT** apply this product to bodies of water where swimming is likely to occur.
- **For Carrots: DO NOT** apply this product to carrots grown for seed.
- **For Field Crops, Row Crops, Orchard Uses, Grassland and Non-Crop Areas: 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 2L** treated soils within 1 month following last application, unless **DIMILIN 2L** is authorized for use on these crops.

APPLICATION INSTRUCTIONS

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

TANK MIX DIRECTIONS FOR USE WITH WATER

DIMILIN 2L is physically and biologically compatible with many registered pesticides and additives. However, it is known that many components, including crop protection products, fertilizers, micronutrients, and spray adjuvants, may be present in a tank mix combination. There is potential for adverse chemical reactions. It is impossible to determine physical, biological, and plant compatibility for all scenarios that may be encountered; therefore, it is recommended that users determine the chemical, physical, biological and plant compatibility of such mixes prior to making applications on a broad commercial scale. Whenever preparing a new tank mix, always conduct a compatibility test by mixing proportional amounts of all spray ingredients in a test vessel (jar). Shake the mixture vigorously and allow it to stand for 15 minutes. Rapid precipitation of the ingredients and failure to re-suspend when shaken indicates that the mixture is incompatible and should not be applied.

DIMILIN 2L may be used with other recommended pesticides, fertilizers and micronutrients. The proper mixing procedure for **DIMILIN 2L** alone or in tank mix combinations with other pesticides is:

1. Fill the spray tank 1/4 to 1/3 of the required amount of clean water, followed by recirculation and agitation;
2. While recirculating and with the agitator running, add any products in PVA bags (See NOTE). Allow time for thorough mixing;
3. Continue to fill spray tank with water until 1/2 full;
4. Add soluble granule (SG), wettable powder (WP) or water dispersible granule (WG or WDG) products;
5. Add the required amount of **DIMILIN 2L**, and any other dispersed liquid formulations such as suspension concentrates (SC), flowables (F or FL), suspensions (SE), emulsions in water (EW), and microcapsule formulations (CS);
6. Allow enough time for thorough mixing of each product added to tank before adding the next;
7. Add any remaining liquid formulation tank mix components in this order: emulsifiable concentrates (EC), microemulsions (ME), oil dispersions (OD), solutions (S) or soluble liquids (SL). Emulsifiable concentrates often require more time to disperse throughout the spray tank solution;
8. Add adjuvants, mix thoroughly;
9. Add any micronutrients and liquid fertilizers;
10. Fill spray tank to desired level and maintain constant agitation to ensure uniformity of spray mixture.

NOTE: Do not use products contained in PVA packets in a tank mix with boron containing products, or those products that release free chlorine. This will result in the formation of a plastic that is not soluble in water or solvents.

USE AND TANK MIXING DIRECTIONS IF USED WITHOUT WATER

Always evaluate any potential mixture for compatibility and sprayability. To ensure thorough mixing of **DIMILIN 2L** with insecticides or other carriers, premix ingredients in a nurse tank prior to being transferred to aerial or ground ULV application equipment. If nurse tank is not available, or unable to simultaneously mix:

1. Fill tank with the required amount of oil and/or oil-based insecticide.
2. Begin agitation and add required amount of **DIMILIN 2L**.
3. After the contents of the tank have been thoroughly agitated, a volume of carrier sufficient to fill the booms and piping system should be drained and then added back to the tank.

AERIAL OR GROUND APPLICATION

Apply spray with aerial or ground equipment designed or modified to ensure 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.

APPLICATION THROUGH IRRIGATION SYSTEMS - CHEMIGATION

DIMILIN 2L may be applied through properly equipped chemigation systems for insect control in grassland and row crops. Apply this product only through sprinkler (including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move) irrigation systems. **DO NOT** apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

In order to calibrate the irrigation system and injector to apply the mixture, determine the following: 1) Calculate the number of acres irrigated by the system; 2) Set the irrigation rate and determine the number of minutes for the system to cover the intended treatment area; 3) Calculate the total gallons of the mixture needed to cover the desired acreage. Divide the total gallons of mixture needed by the number of minutes to cover the treated area. This value equals the gallons per minute that the injector must deliver. Convert the gallons per minute to ounces per minute. Calibrate the injector pump with the system in operation at the desired irrigation rate. It is suggested that the injector pump be calibrated at least twice before operation, and the system be monitored during operation.

If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers, or other experts.

DO NOT connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

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.

CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

If the chemigation system is connected to a public water supply, the following conditions must also be met:

- Public water systems mean 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 out of the year.
- Chemigation systems connected to public water systems must contain a functional reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from a point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must 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 shutdown.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 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.

- Upon completion of insecticide application, remove scale, pesticide residues, and other foreign matter from the supply tank and entire injector system. Flush thoroughly with clean water.
- **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

SPRINKLER CHEMIGATION

For continuously moving systems, the mixture containing **DIMILIN 2L** must be injected continuously and uniformly into the irrigation water line as the sprinkler is moving. If continuously moving irrigation equipment is used, apply in no more than 0.25 inch of water. For sprinkler systems that do not move during operation, apply in no more than 0.25 inch of irrigation immediately before the end of the irrigation cycle.

Maintain continuous agitation of the pesticide supply tank for the duration of the application period.

To apply a pesticide using sprinkler chemigation, the chemigation system must meet the following specifications:

- 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.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 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.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 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.
- 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.
- **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

ALFALFA***; ALFALFA GROWN FOR SEED***

PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Grasshopper Mormon Cricket	1 - 2 (0.016 - 0.031 lb ai)	Apply when nymphs (majority in the 1st through 4th instar) are present. Use a higher rate within the labeled range to control heavy infestations, or when the majority nymphs observed are 3rd and 4th instar. DIMILIN 2L is not effective in controlling grasshoppers once they reach the adult stage. If a large influx from neighboring fields occurs, the time to reduce that population may not be short enough to maximize extensive foliage feeding; use a tank-mix with a knockdown insecticide under these conditions.

ALFALFA***; ALFALFA GROWN FOR SEED*** (continued)

Dilution Rate: Apply **DIMILIN 2L** as a foliar spray in sufficient water to provide thorough coverage of the foliage.

Aerial Application: Apply in 2 to 5 gallons total volume per acre.

Ground Application: Apply in 5 to 15 gallons of total volume per acre.

Adjuvant Usage: The addition of 1 pint per acre of emulsified vegetable or paraffinic crop oil will aid canopy penetration and minimize water evaporation.

RESTRICTIONS:

- **DO NOT** apply more than 2 fl oz (0.031 lb ai) of **DIMILIN 2L** per acre per application.
- **DO NOT** apply more than 6 fl oz (0.094 lb ai) of **DIMILIN 2L** per acre per year.
- **DO NOT** apply more than 3 applications per year with a minimum of 14 days between applications.
- **For Alfalfa Grown for Seed: Pre-Harvest Interval: DO NOT** apply within 1 day of harvesting alfalfa seed.
- **For Alfalfa Grown for Forage or Hay: DO NOT** exceed a total of 2 fl oz (0.031 lb ai) per acre per cutting.
Pre-Harvest Interval: DO NOT apply within 1 day of cutting forage or hay.
- **For Use in the Following States Only (west of the Mississippi River):** Alaska, Arizona, Arkansas, California, Colorado, Idaho, Iowa, Kansas, Louisiana, Minnesota, Missouri, Montana, Nebraska, Nevada, New Mexico, North Dakota, South Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, Wyoming.
*** Not registered for use in California.**
**** Not registered for use in New York.**

ARTICHOKE (GLOBE) (California Only)

PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Artichoke Plume Moth	8 - 16 (0.125 - 0.250 lb ai)	Apply DIMILIN 2L when first moths are caught in pheromone traps, or when moth flights start.

DIMILIN 2L can be a part of an IPM program to manage target pest populations (in combination with cultural practices, target insect population early detection, threshold treatment levels, etc.). University or local extension representatives can give recommendations regarding IPM practices.

RESTRICTIONS:

- **For use only in California.**
- **DO NOT** apply more than 16 fl oz (0.250 lb ai) of **DIMILIN 2L** per acre per application.
- **DO NOT** apply more than 48 fl oz (0.750 lb ai) of **DIMILIN 2L** per acre per year.
- **DO NOT** apply more than 3 applications per year. Application interval is a minimum of 15 days with no more than 3 applications in any 30-day period.
- **Pre-Harvest Interval: DO NOT** apply within 1 day of harvest.

BARLEY**, OATS**, TRITICALE**, WHEAT**		
PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Grasshopper	1 - 2 (0.016 - 0.031 lb ai)	Apply when most nymphs are 1st through 4th instar. DIMILIN 2L is not effective in controlling grasshoppers once they reach the adult stage. If a large influx from neighboring fields occurs, the time to reduce that population may not be short enough to minimize extensive foliage feeding; use a tank-mix with a knockdown insecticide under these conditions.
Cereal Leaf Beetle	4 (0.063 lb ai)	Apply at first sign of egg laying. Late instar larvae are not controlled by DIMILIN 2L .
<p>Aerial Application: Apply in 2 to 5 gallons total volume per acre.</p> <p>Ground Application: Apply in 5 to 15 gallons of total volume per acre. Use sufficient application volume to assure adequate coverage. Because of the unique mode of action of DIMILIN 2L, its visible effects on larvae and nymphs may not be seen until 5 to 7 days following application.</p>		
<p>RESTRICTIONS:</p> <ul style="list-style-type: none"> • DO NOT apply more than 4 fl oz (0.063 lb ai) of DIMILIN 2L per acre per application. • DO NOT apply more than 4 fl oz (0.063 lb ai) of DIMILIN 2L per acre year. • DO NOT apply more than 1 application per year. • DO NOT apply after boot stage of growth. • For Use in the Following States Only: Alaska, Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming, Western North & South Dakota and Western Nebraska (West of Route 281 in ND, SD & NE). • Pre-Harvest Interval: DO NOT harvest grain and straw within 50 days of application. DO NOT harvest forage within three days of application. DO NOT harvest hay within 15 days of application. <p>** Not registered for use in New York.</p>		

CARROT*** (Not grown for seed)		
PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Carrot Weevil	8 (0.125 lb ai)	Apply at first sign of larval infestation.
<p>Ground Application: Apply DIMILIN 2L in sufficient water using 20 to 50 gallons of water per acre.</p>		
<p>RESTRICTIONS:</p> <ul style="list-style-type: none"> • DO NOT apply more than 8 fl oz (0.125 lb ai) of DIMILIN 2L per acre per application. • DO NOT apply more than 16 fl oz (0.250 lb ai) of DIMILIN 2L per acre per year. • DO NOT apply more than 2 applications per year. • DO NOT apply this product to carrots grown for seed. • DO NOT retreat unless at least 7 days has passed from the last application. • Pre-Harvest Interval: DO NOT harvest within 7 days after treatment. <p>* Not registered for use in California. ** Not registered for use in New York.</p>		

CITRUS FRUIT GROUP (Crop Group 10-10): Australian desert lime; Australian finger-lime; Australian round lime; Brown River finger lime; calamondin; citron; citrus hybrids; grapefruit; Japanese summer grapefruit; kumquat; lemon; lime; Mediterranean mandarin; mount white lime; New Guinea wild lime; orange, sour; orange, sweet; pummelo; Russell River lime; satsuma mandarin; sweet lime; tachibana orange; Tahiti lime; tangelo; tangerine (mandarin); tangor; trifoliolate orange; uniuq fruit; cultivars, varieties, and/or hybrids of these.		
PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Asian Citrus Psyllid (ACP) (<i>Diaphorina citri</i>)	20 (0.313 lb ai)	<p>Apply 20 fl oz (0.313 lb ai) of DIMILIN 2L per acre early citrus flush (feather flush), or oviposition by Asian citrus psyllid (ACP) is expected or seen, or leaf distortion is evident. For early citrus flush (feather flush), optimal timing starts at bud swelling to bud emergence and proceeds through initial leaf blade expansion and separation of flush with margins of lower leaves opening.</p> <p>Split Application: Applying split applications of DIMILIN 2L will maximize spray coverage of the entire citrus leaf flush. Spray 10 fl oz (0.156 lb ai) per acre when very early-feather leaf flush is present, or oviposition by ACP is expected or seen, or leaf distortion is evident. Apply the second application of DIMILIN 2L at 10 fl oz (0.156 lb ai) per acre as needed to protect new flushes of growth. Allow a minimum of 30 days between treatments of DIMILIN 2L.</p> <p>Low Volume Application: Except in California, apply in 3.0 to 5.0 gallons of finished spray solution per acre by ground using air-blast or air-assisted spray equipment. In California, apply in a volume more than 10 gallons per acre.</p> <p>The addition of a narrow-range petroleum oil such as NR-415, enhances spray coverage and penetration of DIMILIN 2L into ACP eggs, nymphs, and adults; improving activity on each life stage.</p> <p>DIMILIN 2L's activity on ACP is through contact, ingestion and/or absorption. It has direct activity on eggs and nymphs of ACP. DIMILIN 2L prevents eggs from hatching and nymphs from molting when exposed to treated surfaces. Adult female ACP that feed on or contact treated surfaces produce fewer eggs able to hatch. DIMILIN 2L reduces the reproductive potential of an existing ACP population. DIMILIN 2L does not control adult ACP.</p>

CITRUS FRUIT GROUP (Crop Group 10-10) (continued)		
PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Citrus Rust Mite (<i>Phyllocoptruta oleivora</i>)	20 (0.313 lb ai)	Apply DIMILIN 2L at 20 fl oz (0.313 lb ai) per acre when citrus rust mites (CRM) are first observed on citrus leaves and/or fruit. Rotate to a product with a different mode of action before reapplying DIMILIN 2L in a CRM control program. The addition of a narrow-range petroleum oil such as NR-415, enhances spray coverage and penetration of DIMILIN 2L into immature CRM; improving activity on each stage of instar. Petroleum spray oil also aids knockdown of the CRM population present at application. DIMILIN 2L's activity is on immature stages of CRM and has its greatest activity on late-instar CRM. DIMILIN 2L prevents immature CRM from molting. The full effect of DIMILIN 2L on a CRM population may not be apparent for up to 14 days after application. DIMILIN 2L does not control CRM eggs or adults.
Lepidopterous Miners: Citrus Leafminer (CLM) (<i>Phyllocnistis citrella</i>)	20 (0.313 lb ai)	Apply 20 fl oz (0.313 lb ai) of DIMILIN 2L per acre when leaf flush is present and the oldest leaf is approximately one-quarter expanded, or when oviposition by citrus leafminer (CLM) is expected or seen, or when leaf mining is evident. Split Application: Applying a split application of DIMILIN 2L will maximize spray coverage of the entire citrus leaf flush. Spray 10 fl oz (0.156 lb ai) per acre when leaf flush is present and the oldest leaf is approximately one-quarter expanded, or when oviposition by CLM is expected or seen, or leaf mining is evident. Apply the second application of DIMILIN 2L at 10 fl oz (0.156 lb ai) per acre as needed to protect new flushes of growth. Allow a minimum of 30 days between treatments of DIMILIN 2L . Low Volume Application: Apply in 3.0 to 5.0 gallons of finished spray solution per acre by ground using air-blast or air-assisted spray equipment. In California, apply in a volume more than 10 gallons per acre. The addition of a narrow-range petroleum oil such as NR-415, enhances spray coverage and penetration of DIMILIN 2L into CLM mines, eggs, larvae, and pupae; improving activity on each life stage. DIMILIN 2L's activity on CLM is through contact, ingestion and/or absorption. It has direct activity on eggs, larvae and pupae of CLM by preventing eggs from hatching, larvae from molting, and moths from emerging from pupae exposed to treated surfaces. DIMILIN 2L reduces the reproductive potential of an existing CLM population. DIMILIN 2L does not control CLM moths.

CITRUS FRUIT GROUP (Crop Group 10-10) (continued)		
PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Lepidopterous Miners: Citrus Peel Miner (CPM) (<i>Marmara</i> spp.)	20 (0.313 lb ai)	Apply 20 fl oz (0.313 lb ai) of DIMILIN 2L per acre when oviposition on citrus peel surfaces by citrus peel miner (CPM) is expected or seen. Split Application: Applying a split application of DIMILIN 2L will maximize spray coverage of the fruit surface. Spray 10 fl oz (0.156 lb ai) per acre when peel miner oviposition begins. Apply the second application of DIMILIN 2L at 10 fl oz (0.156 lb ai) per acre as needed to protect expanded fruit growth. Allow a minimum of 30 days between treatments of DIMILIN 2L . The addition of a narrow-range petroleum oil such as NR-415, enhances spray coverage and penetration of DIMILIN 2L into CPM eggs; improving activity on this life stage. DIMILIN 2L's activity on CPM is through absorption into eggs. It prevents eggs from hatching. Protection from fruit damage by CPM larvae may last up to several weeks. CPM larval control will lessen over time as new, unprotected tissue develops as a result of fruit expansion. DIMILIN 2L does not control CPM moths.
Citrus Root Weevil Complex: West Indian Sugarcane Rootstalk Borer Weevil (<i>Diaprepes abbreviatus</i>) Southern Blue-green Citrus Root Weevil (<i>Pachnaeus litus</i>) Blue-green Citrus Weevil (<i>Pachnaeus opalus</i>) Fuller Rose Beetle (<i>Asynonychus godmani</i>) Little Leaf Notcher (<i>Artipus floridanus</i>)	20 (0.313 lb ai)	Apply 20 fl oz (0.313 lb ai) of DIMILIN 2L per acre to citrus leaf flush when the oldest leaf is approximately one-half expanded, or when adult citrus root weevils (CRW) are seen, or recent leaf feeding is evident. The addition of a narrow-range petroleum oil such as NR-415, enhances coverage and penetration of DIMILIN 2L into adult CRW and eggs; improving activity on each life stage. Petroleum spray oil also reduces the attachment of CRW egg masses to citrus leaf surfaces. DIMILIN 2L's activity is through contact, ingestion, and/or absorption. It has direct activity on eggs laid on treated surfaces by preventing them from hatching. Adult female CRW that feed on or contact treated surfaces produce fewer eggs able to hatch. DIMILIN 2L reduces the reproductive potential of citrus root weevil populations. DIMILIN 2L does not control adult citrus root weevils.

CITRUS FRUIT GROUP (Crop Group 10-10) (continued)		
PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Katydid Grasshoppers	20 (0.313 lb ai)	<p>Apply 20 fl oz (0.313 lb ai) of DIMILIN 2L per acre when katydids or grasshoppers are first observed, or recent leaf and/or fruit feeding is seen.</p> <p>Split Application: Applying a split application of DIMILIN 2L may be useful in maximizing spray coverage and protection of fruit and leaves from katydid and/or grasshopper damage. Spray 10 fl oz (0.156 lb ai) per acre when katydids and/or grasshoppers are first observed, or recent leaf and/or fruit feeding is seen. Apply the second application of DIMILIN 2L at 10 fl oz (0.156 lb ai) per acre as needed to protect new growth. Allow a minimum of 30 days between treatments of DIMILIN 2L.</p> <p>The addition of a narrow-range petroleum oil such as NR-415, enhances spray coverage and penetration of DIMILIN 2L into katydid and grasshopper eggs, nymphs, and adults; improving activity on each life stage.</p> <p>DIMILIN 2L's activity on katydids and grasshoppers is through contact, ingestion, and/or absorption. It has direct activity on eggs and nymphs by preventing eggs from hatching and nymphs from molting. Adult female katydids and grasshoppers that feed on or contact treated surfaces produce fewer eggs able to hatch. DIMILIN 2L reduces the reproductive potential of an existing katydid and/or grasshopper population. DIMILIN 2L does not control adult katydids or grasshoppers.</p>
<p>DIMILIN 2L may be applied to citrus during any time of the year but will have greatest impact on the largest spectrum of pests when new flush is emerging and/or present.</p> <p>Split Application: DIMILIN 2L may be applied as 3 full rate applications of 20 fl oz (0.313 lb ai) per acre per year, or 6 split applications of 10 fl oz (0.156 lb ai) per acre per year, or 5 applications if using a combination of full and split applications.</p> <p>Ground Application: DIMILIN 2L may be applied by ground using hand-held, handgun, air blast or air assisted equipment. Spray last three rows windward of surface water using nozzles on one side only, with spray directed away from surface water. Avoid spray going over tops of trees by adjusting or turning off top nozzles. Shut off nozzles on the side away from the grove when spraying the outside row. Shut off nozzles when turning at ends of rows and passing tree gaps in rows.</p> <p>Aerial Application: Use fixed-wing or rotary equipment.</p> <p>Spray Volumes: Use sufficient spray volume for thorough coverage of leaf surfaces. For High Volume: Ground = 50 to 1,000 gallons per acre; Aerial = 5 to 20 gallons per acre.</p>		

CITRUS FRUIT GROUP (Crop Group 10-10) (continued)		
<p>RESTRICTIONS:</p> <ul style="list-style-type: none"> • DO NOT apply more than 20 fl oz (0.313 lb ai) of DIMILIN 2L per acre per application. • DO NOT apply more than 60 fl oz (0.938 lb ai) of DIMILIN 2L per acre per year. • DO NOT apply more than 6 applications per year at 10 fl oz (0.156 lb ai) or 3 applications per year at 20 fl oz (0.313 lb ai). DO NOT apply more than 5 applications per year if combining full (20 fl oz) and split (10 fl oz) applications. • Re-Treatment Interval: DO NOT retreat unless at least 30 days since last application, except where split applications are used. See the following pest specific sections for split application directions. • Pre-Harvest Interval: DO NOT apply within 7 days of harvest. • DO NOT harvest cover crops for animal feed or graze livestock in treated groves. • DO NOT apply within 25 feet of bodies of water including lakes, reservoirs, rivers, permanent streams, natural ponds, marshes or estuaries when applying DIMILIN 2L by ground application. • DO NOT apply within 100 feet of estuarine/marine bodies of water by ground application in the State of Florida. • DO NOT apply within 150 feet of bodies of water including lakes, reservoirs, rivers, permanent streams, natural ponds, marshes or estuaries when applying DIMILIN 2L by aerial application. • DO NOT apply within 1000 feet of estuarine/marine bodies of water when applying DIMILIN 2L by aerial application in the State of Florida. 		

COTTONSEED (Crop Subgroup 20C): Cultivars, varieties and/or hybrids of these.		
PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Beet Armyworm • early season (before first bloom)	2 - 4 (0.031 - 0.063 lb ai)	<p>For early season infestations, apply DIMILIN 2L at the first sign of beetle armyworm activity (2 egg masses or hatch outs/100 feet of row) in multiple applications, either as directed or broadcast spray. Use on a 5- to 7-day interval until 8 fl oz (0.125 lb ai) per acre have been applied.</p> <p>Multiple applications of DIMILIN 2L will provide acceptable beetle armyworm control and because it has little activity on beneficial insects (parasites and predators) and has good persistence, will help prevent populations of beetle armyworm from building up later in the growing season. Use of DIMILIN 2L in this way allows for more complete coverage of new foliage during the period of rapid vegetative growth.</p>

COTTONSEED (Crop Subgroup 20C) (continued)		
PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Beet Armyworm • mid-season (first bloom through mid-bloom)	4 - 8 (0.063 - 0.125 lb ai)	Apply mid-season starting first bloom and through mid-bloom. Repeat application until up to 8 fl oz (0.125 lb ai) per acre have been applied, using a 5- to 7-day interval between applications. Use higher labeled application rate on larger cotton and/or under conditions of greater larval pressure. Apply first application to coincide with peak beet armyworm moth catches in pheromone traps, indicating another generation of larvae is imminent. DIMILIN 2L is more effective on early stages of larval development, therefore treat cotton leaves before populations become established.
Beet Armyworm • late season (after mid-bloom)	6 - 8 (0.094 - 0.125 lb ai)	Apply after mid-bloom and prior to 14 days before harvest. Use higher labeled application rate on larger cotton and/or under conditions of greater larval pressure. Coincide application with peak beet armyworm moth catches in pheromone traps. Additional applications may be needed if larval pressure continues.
Fall Armyworm Yellowstriped Armyworm Southern Armyworm Suppression Only: Soybean Looper Cabbage Looper Saltmarsh Caterpillar	4 - 8 (0.063 - 0.125 lb ai)	Apply during early stages of larval development. Repeat application until at least 8 fl oz (0.125 lb ai) per acre have been applied using a 5- to 7-day interval.

COTTONSEED (Crop Subgroup 20C) (continued)		
PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Boll Weevil • early season (before first bloom)	4 - 8 (0.063 - 0.125 lb ai)	DIMILIN 2L will control boll weevil by suppressing reproduction. Apply with 2 to 4 qt of emulsified cottonseed oil, vegetable oil, or paraffinic crop oil. A compatibility agent may be needed if a non-emulsified cottonseed oil is used. Consult your supplier or company representative for oil specifications. For suppression of boll weevil reproduction, make first application at pinhead square stage of cotton growth when overwintering boll weevils are entering the fields. Repeat applications must allow a minimum of 7 days between applications. DIMILIN 2L does not kill the adult boll weevil; 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 the 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 2L . Thus, treat early and use multiple applications.
Boll Weevil	2 - 4 (0.031 - 0.063 lb ai)	DIMILIN 2L will reduce the number 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 LV application spray in combination with 2 to 4 qt of an emulsifiable vegetable or paraffinic oil per acre. A compatibility agent may be needed if a non-emulsified cottonseed oil is used. Apply at least 2, but not more than 3, applications at 7- to 14-day intervals.
Grasshopper	2 (0.031 lb ai)	Apply when most nymphs are 2nd and 3rd instar. DIMILIN 2L is not effective in controlling grasshoppers once they reach the adult stage. If a large influx from neighboring fields occurs, the time to reduce that population may not be short enough to minimize extensive foliage feeding; use a tank-mix with a knockdown insecticide under these conditions.

COTTONSEED (Crop Subgroup 20C) (continued)

Aerial Application: Apply in 3 to 5 gallons total volume per acre.

Ground Application: Apply in 10 to 20 gallons of total volume per acre.

Adjuvant Usage: The use of crop oil may improve control of **DIMILIN 2L** under conditions favorable for water evaporation (e.g. high air temperature and/or low humidity). For low volume (LV) aerial or ground applications, use 1 pt to 2 qt of emulsified vegetable or paraffinic crop oil to enhance canopy penetration and to reduce spray droplet evaporation and subsequent drift. A compatibility agent may be needed if non-emulsified cottonseed oil is used.

Consult your supplier or company representative for oil specifications. Use only adjuvants that are labeled for agricultural use and follow the directions on the manufacturer's label.

Use sufficient application volume to assure adequate coverage. **DIMILIN 2L** may be mixed with other insecticides being applied for other cotton insects. When emulsifiable concentrate insecticide formulations are used with oil and **DIMILIN 2L** in tank-mixes, they may result in phytotoxicity. Care must be taken where such mixture is used. Because of the unique mode of action of **DIMILIN 2L**, its visible effects on larvae/nymphs may not be seen for 5 to 7 days following application.

RESTRICTIONS:

- **DO NOT** apply more than 8 fl oz (0.125 lb ai) of **DIMILIN 2L** per acre per application.
- **DO NOT** apply more than 24 fl oz (0.375 lb ai) of **DIMILIN 2L** per acre per year.
- **DO NOT** apply more than 6 applications per year.
- **DO NOT** exceed 3 applications and 12 fl oz (0.188 lb ai) per acre per calendar year post boll opening.
- **Pre-Harvest Interval: DO NOT** harvest within 14 days of application.

GRASSLAND:** Rangeland; pastures; improved pastures and similar areas used for production of native, domesticated forage grasses for harvest for livestock primarily for grazing or mechanical harvest; grasses/forages grown for biofuel, biomass or bioenergy production.

PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Grasshopper Mormon Cricket	1 - 2 (0.016 - 0.031 lb ai)	Apply when nymphs (majority of the nymphs are in the 2nd through 4th instar) are present. Use a higher rate within the labeled range to control heavy infestations, or when the majority nymphs observed are 3rd and 4th instar. Use a higher rate within the labeled range for pastures.
	0.75 - 1 (0.012 - 0.016 lb ai)	Use on rangeland only in a RAATs (Reduced Area and Agent Treatment) application on early instars. A RAATs application is an IPM strategy that takes advantage of grasshopper movement and preservation of biological control agents. RAATs to allow DIMILIN 2L to be applied on rangeland on a reduced treated area and at reduced rates, while sustaining acceptable control. RAATs may provide ranchers with an economic means to reduce competition by these insects on their rangeland, depending on insect age and plant canopy. Using this program DIMILIN 2L may be applied in intermittent swaths within the entire infested acreage (e.g. on as little as 50% of the infested acreage; skipping a 100-ft swath for every 100 ft treated). The rate range 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 ages 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, increase the coverage and rate of DIMILIN 2L up to a blanket (100%) coverage with 1 fl oz (0.016 lb ai) per acre.
	0.5 - 1 (0.008 - 0.016 lb ai)	If a second application is made, typically apply 2 to 3 weeks after the first application.
Lepidopteran foliage feeding caterpillars such as: Fall Armyworm Striped Grass Looper	2 (0.031 lb ai)	For control use DIMILIN 2L at first sign of hatch outs and prior to larvae reaching 4th instars (<1/2 inch). DIMILIN 2L must be ingested and larvae must molt before populations are reduced.
Horn Fly Face Fly	2 (0.031 lb ai)	Apply DIMILIN 2L for the control of Horn fly and Face fly emergence from cattle manure patties for two weeks or longer.

GRASSLAND (continued)**

Apply **DIMILIN 2L** at 2 fl oz (0.031 lb ai)/acre to biofuel, biomass, or bioenergy grown grasses/forages/cellulosic crops (such as switchgrass, *miscanthus* sp., etc.) for control of Lepidopteran foliage feeding caterpillars (armyworms, grass looper, etc.), grasshoppers, or Mormon crickets.

Aerial Application: For low/high volume application, apply in 2 to 10 gallons of water per acre. For rangeland ULV application, apply in a minimum of 12 fl oz total volume per acre.

Ground Application: For low/high volume application, apply in 2 to 30 gallons of water per acre. For rangeland ULV application, apply in a minimum of 12 fl oz total volume per acre.

Regardless of application type, total spray volume used must ensure thorough coverage of the target crop. For aerial and ULV spray mixtures include an evaporation/drift retardant product at use rates prescribed on the specific product label, particularly when conditions are favorable for water evaporation (e.g., high air temperature and/or low humidity). When using oil type evaporation/drift retardant products, be sure to maintain a ratio of at least 2 parts water to 1 part oil. For low volume and ULV applications, make sure that the spray mixture in the boom contains the correct concentration of **DIMILIN 2L** before application begins, and be sure that good agitation is maintained throughout mixing and application.

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.

Apply any time after eggs begin to hatch through early instars. **DIMILIN 2L** remains active on the foliage and will continue to control larvae and grasshoppers/Mormon crickets that hatch later in the season. **DIMILIN 2L** is not effective in controlling larvae and grasshoppers/Mormon crickets once they have reached the adult stage. Since it is an insect growth regulator, effects may not be seen until these insects have molted at least once. If adult grasshoppers/Mormon crickets from early hatching and/or overwintering species are present **DIMILIN 2L** may be tank-mixed with a registered adulticide to control later hatching species and adults.

Check mixing compatibility and sprayability prior to transferring to the main spray-tank.

Besides a fatal incomplete molting, adult grasshoppers/Mormon crickets may exhibit missing posterior legs, hernias, abdominal segments malformed, twisted antennae, hemolymph exudation, reduced egg fertility, 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, birds and mammals.

RESTRICTIONS:

- **DO NOT** apply more than 2 fl oz (0.031 lb ai) of **DIMILIN 2L** per acre per application.
- **DO NOT** apply more than 6 fl oz (0.094 lb ai) of **DIMILIN 2L** per acre per year.
- **DO NOT** apply more than 12 applications per year.
- **DO NOT** cut grass within 1 day of application.

**** Not registered for use in New York.**

LEAFY BRASSICA (Crop Subgroup 5B):** Broccoli raab; Cabbage, Chinese (bok choy); Collards; Kale; Mizuna; Mustard greens; Mustard spinach; Rape greens.

TURNIP GREENS

PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Grasshopper	2 - 4 (0.031 - 0.063 lb ai)	Apply when most nymphs are 2nd and 3rd instar. Reapply in 7-day intervals if nymphal hatchout/crop reinfestation continues. DIMILIN 2L is not effective in controlling grasshoppers once they reach the adult stage. Use the higher listed rate in the range if the area has a history of heavy infestations, dense foliage is present, or greater residual control is desired. If a large influx from neighboring fields occurs, the time to reduce that population may not be short enough to minimize extensive foliage feeding; use a tank-mix with a knockdown insecticide under these conditions.

Ground Application: Use a minimum of 30 gallons of water per acre to give uniform coverage. Additional applications allow for more complete coverage of newly expanding foliage.

Since **DIMILIN 2L** is an insect growth regulator, larvae and nymphs must ingest treated plant material and then molt before populations are reduced. Thus, initial signs of control may not be seen until 5 to 7 days after treatment.

RESTRICTIONS:

- **DO NOT** apply more than 4 fl oz (0.063 lb ai) of **DIMILIN 2L** per acre per application.
- **DO NOT** apply more than 16 fl oz (0.250 lb ai) of **DIMILIN 2L** per acre per year.
- **DO NOT** apply more than 4 applications per year.
- **DO NOT** use on turnip cultivars or varieties which produce a harvestable root.
- **Pre-Harvest Interval: DO NOT** harvest within 7 days of application.

**** Not registered for use in New York.**

LIVESTOCK/POULTRY PREMISES** includes: Litter; Stale/waste feed; Manure; Manure/straw mixtures; Feed muck/spoilage; Spoiled organic refuse; Bedding material; Floors; Walls/wall footings; Posts; Cage frames; Ceilings.		
PESTS	APPLICATION RATE	INSTRUCTIONS
Carrion Beetle* Darkling Beetle* Hide Beetle*	12 fl oz (0.188 lb ai)/ 1000 ft ² in 2 to 20 gals water per 1000 ft ²	<p>Broadcast Application (indoor use only): Apply as a whole house broadcast spray to the litter following de-caking, as well as to floors, walls, posts, cage frames, and cracks and crevices around insulation. When treating the litter, pay particular attention to areas under feed and water lines. Apply in sufficient volume to uniformly and thoroughly wet the litter and other surfaces-spray volume will vary depending on the depth of litter being treated.</p> <p>Band Application (indoor use only): When the whole house is not being treated, application can be made to areas where pests are concentrated, such as under feed and water lines, as well as along perimeter walls and side/end walks. Apply in sufficient volume to thoroughly wet litter following de-caking in a 2- to 4-foot wide band under and next to these areas-spray volume will vary depending on depth of litter. Treat lower sections of walls, posts and cage frames at least 1 foot up from the floor.</p>
House Fly Stable Fly Face Fly Horn Fly	12 fl oz (0.188 lb ai)/ 1000 ft ² in 2 to 20 gals water per 1000 ft ²	<p>Broadcast Application (indoor use only): Apply as a whole house broadcast spray or spot treatment to the litter between production cycles following clean out or de-caking, as well as to floors, walls, posts, cage frames and ceilings. When treating the litter, pay particular attention to moist areas under feed and water lines. Apply in sufficient volume to uniformly and thoroughly wet the litter and other surfaces-spray volume will vary depending on the depth of litter being treated.</p>
	7.5 fl oz (0.117 lb ai) in 15 gals water	<p>Spot Treatments (indoor and outdoor use): Apply as a directed spray. A spray solution of 15 gallons will treat 600 sq ft (0.25 gallon spray solution for 10 sq ft of surface area). Begin applications when flies first appear. Additional applications may be made at 3-week intervals as needed, if adult fly numbers begin to increase, typically at 2- to 3-week intervals.</p> <p>For spot treatment in poultry houses, make applications only between production cycles, and not while birds are in the houses.</p>

LIVESTOCK/POULTRY PREMISES** (continued)
<p>Livestock/poultry operations includes farms, farm buildings, barns, feed-lots, dairies, equine facilities, poultry houses, and other production facilities. Application sites within these operations also include fence lines of holding pens, feed troughs, feed bunks, hay bale feeders, water troughs; and marginal areas of waste retention ponds.</p> <p>For insect control around hay feeding sites, treat the entire area where manure and waste hay are mixed at the soil surface by livestock activity.</p> <p>DIMILIN 2L will not control adult or pupal stages but does provide extended control of eggs and developing larvae. Exposure to adults, however, through contact or ingestion, does impact their reproductive potential, resulting in reduced numbers and viability of eggs. If a large adult population already exists at the time treatment is to be made, application with a knockdown insecticide either alone or in a tank-mix with DIMILIN 2L may be desirable to achieve rapid reduction of that population.</p>
<p>RESTRICTIONS:</p> <ul style="list-style-type: none"> • DO NOT apply directly to livestock or poultry. • DO NOT contaminate feed or water through application-cover or remove exposed feed and water from the area to be treated. • Band and Broadcast Applications (for indoor use only): DO NOT apply more than once per production cycle. DO NOT apply more than 4 gals (8 lb ai) of DIMILIN 2L per calendar year. • Spot Treatment Applications (indoor use): DO NOT apply more than 4 gals (8 lb ai) of DIMILIN 2L per acre per calendar year. • Spot Treatment Application (outdoor use): DO NOT apply more than 7.5 fl oz (0.117 lb ai) of DIMILIN 2L per acre per application and do not exceed 17 applications per calendar year. DO NOT apply more than 4 gals (8 lb ai) of DIMILIN 2L per acre per calendar year. • DO NOT apply manure and process wastewater closer than 100 feet to any down gradient surface waters, open tile line intake structures, sink-holes, agricultural or domestic well heads, or other conduits to surface waters, unless a 35-foot wide vegetated buffer or physical barrier is substituted for the 100-foot setback or alternative conservation practices or field-specific conditions will provide pollutant reductions equivalent or better than the reductions achieved by the 100-foot setback. <p>* Not registered for use in California. ** Not registered for use in New York.</p>

NON-CROP AREAS**: Field border; fence rows; roadsides; farmsteads; ditch-banks; wasteland; Conservation Reserve Program (CRP) Land.		
PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Grasshopper Mormon Cricket	2 (0.031 lb ai)	Apply DIMILIN 2L to manage these insects in their breeding areas before they move into cropland. See Grassland section for timing of application.
Lepidopteran foliage feeding caterpillars such as: Fall Armyworms Striped Grass Looper	2 (0.031 lb ai)	For control use DIMILIN 2L at first sign of hatch outs and prior to larvae reaching 4th instars (<1/2 inch). DIMILIN 2L must be ingested and larvae must molt before populations are reduced.
Aerial Application: See Aerial Application section of Grassland . Ground Application: See Ground Application section of Grassland .		
RESTRICTIONS:		
<ul style="list-style-type: none"> • DO NOT apply more than 2 fl oz (0.031 lb ai) of DIMILIN 2L per acre per application. • DO NOT apply more than 6 fl oz (0.094 lb ai) of DIMILIN 2L per acre per year. • DO NOT apply more than 12 applications per year. • DO NOT cut grass within 1 day of application. 		
** Not registered for use in New York.		

PEACH (Crop Subgroup 12-12B):** includes: nectarine; and peach; cultivars, varieties and hybrids of these.

PLUM (Crop Subgroup 12-12C): includes: apricot; Japanese apricot; Chinese jujube; plum; American plum; beach plum; Canada plum; cherry plum; Chickasaw plum; Damson plum; Japanese plum; Klamath plum; prune plum; plumcot; sloe; cultivars, varieties and hybrids of these.

PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Peach Twig Borer	12 - 16 (0.188 - 0.250 lb ai)	Apply DIMILIN 2L at a rate 12 - 16 fl oz/acre (0.188 - 0.250 lb ai/acre). Two applications can be made with a 14-day interval between applications. Dormant/Delayed Dormant: Apply DIMILIN 2L with 4 to 6 gallons per acre (1.5 to 2.0 gallons per 100 gallons in a dilute spray) narrow range oil. Always use the higher listed rate of DIMILIN 2L if the crop has a history of heavy infestations. Bloom to Harvest: Apply starting at early bloom. Vegetable oil may be used during bloom at the rate of 1 qt per acre. Always use the higher listed rate in the range if the crop has a history of heavy infestations.

PEACH (Crop Subgroup 12-12B)**; PLUM (Crop Subgroup 12-12C) (continued)		
PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Fall Webworm Filbert Leafroller Oblique Banded Leafroller Omnivorous Leafroller Omnivorous Leaf-tier Oriental Fruit Moth Redhumped Caterpillar Variegated Leafroller Walnut Caterpillar Winter Moth Codling Moth* Katydid* Plum Curculio*	8 - 16 (0.125 - 0.250 lb ai)	Apply DIMILIN 2L at a rate of 8 - 16 fl oz/acre (0.125 - 0.250 lb ai/acre). Two applications can be made with a 14-day interval between applications. Apply DIMILIN 2L at first sign of larval infestation. Use the higher listed rate for longer residual control, higher pest infestations, low crop load, larger trees or heavy, dense foliage. For adult control of plum curculio, tank-mix with an adulticide.
Ground applications must be made in sufficient water for thorough coverage, using at least 50 gallons per acre for small trees (10 feet tall) and at least 100 gallons per acre for larger trees. Using insufficient water for thorough coverage and/or using an uneven spray pattern across the canopy will likely result in less than desired efficacy. Adjuvant: Crop oil at a rate of 0.25% v/v may be included in the tank-mixture.		
RESTRICTIONS:		
<ul style="list-style-type: none"> • DO NOT apply more than 16 fl oz (0.250 lb ai) of DIMILIN 2L per acre per application. • DO NOT apply more than 32 fl oz (0.500 lb ai) of DIMILIN 2L per acre per year. • DO NOT apply more than 2 applications per year. • DO NOT apply unless at least 14 days between applications. • Pre-Harvest Interval: DO NOT harvest within 14 days of application. 		
* Not registered for use in California.		
** Not registered for use in New York.		

PEANUTS**		
PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Velvet Bean Caterpillar Mexican Bean Beetle Green Cloverworm	2 - 4 (0.031 - 0.063 lb ai)	Make applications when larvae are small (< 0.5 inches) to give greater control and minimum insect damage to leaves. Repeat application if damaging numbers reappear. The minimum reapplication interval is 14 days. Use the higher listed rate in the range if the crop has a history of heavy infestations, dense foliage is present, or greater residual control is desired.
Redneck Peanut Worm*	4 (0.063 lb ai)	
Armyworms, such as: • Beet Armyworm • Fall Armyworm • Southern Armyworm • Yellow-Striped Armyworm • Velvetbean Caterpillar Lesser Cornstalk Borer Soybean Looper (suppression)	2 - 8 (0.031 - 0.125 lb ai) California Only: 4 - 8 (0.063 - 0.125 lb ai)	Split Applications for Armyworms and Velvetbean Caterpillar Only: 2 - 4 fl oz (0.031 - 0.063 lb ai)/acre may be applied to cover new foliage at a maximum of 4 fl oz (0.063 lb ai)/acre as needed to protect new foliage growth but not less than 7 days apart and not to exceed a total of 8 fl oz (0.125 lb ai)/acre within a 14-day period.
Grasshopper	2 (0.031 lb ai)	Apply when most nymphs are 2nd and 3rd instar. DIMILIN 2L is not effective in controlling grasshoppers once they reach the adult stage. If a large influx from neighboring fields occurs, the time to reduce that population may not be short enough to minimize extensive foliage feeding. Use a tank-mix with a knockdown insecticide under these conditions.

Aerial Application: Apply in sufficient water (3 to 5 gallons per acre) to achieve uniform coverage of foliage.

Ground Application: Apply in 9 to 35 gallons of water per acre to give uniform coverage.

Adjuvant Usage: The use of crop oil may improve control of **DIMILIN 2L** under conditions favorable for water evaporation (e.g. high air temperature and/or low humidity). For low volume (LV) aerial or ground applications, use 1 pt to 2 qt of emulsified vegetable or paraffinic crop oil to enhance canopy penetration and to reduce spray droplet evaporation and subsequent drift. A compatibility agent may be needed if non-emulsified cottonseed oil is used.

Consult your supplier or company representative for oil specifications. Use only adjuvants that are labeled for agricultural use and follow the directions on the manufacturer's label.

Use sufficient application volume to assure adequate coverage. **DIMILIN 2L** may be mixed with other insecticides being applied for other peanut insects. When emulsifiable concentrate insecticide formulations are used with oil and **DIMILIN 2L** in tank-mixes, they may result in phytotoxicity. Care must be taken where such mixture is used. Because of the unique mode of action of **DIMILIN 2L**, its visible effects on larvae/nymphs may not be seen for 5 to 7 days following application.

PEANUTS** (continued)
RESTRICTIONS:
<ul style="list-style-type: none"> • DO NOT apply more than 8 fl oz (0.125 lb ai) of DIMILIN 2L per acre per application. • DO NOT apply more than 24 fl oz (0.375 lb ai) of DIMILIN 2L per acre per year. • DO NOT apply more than 3 applications per year. • Pre-Harvest Interval: DO NOT harvest within 28 days of application.
* Not registered for use in California.
** Not registered for use in New York.

PEARS**		
PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Pear Psylla (pre-bloom)	40 - 48 (0.625 - 0.750 lb ai)	Apply 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 insect control. A horticultural mineral oil should be used at a rate of 4 to 6 gallons per acre during the delayed dormant period. After this 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 specifications. DIMILIN 2L 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 Psylla (post-bloom)	12 - 16 (0.188 - 0.250 lb ai)	Applications at normal codling moth rates and timings will provide suppression of pear psylla.
Pear Rust Mite (pre-bloom)	40 - 48 (0.625 - 0.750 lb ai)	Apply in 80 to 400 gallons of water per acre from delayed dormant to the popcorn stage. See Pear Psylla (pre-bloom) for the use of oil.

PEARS** (continued)		
PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Codling Moth	12 - 16 (0.188 - 0.250 lb ai)	<p>Apply in a minimum of 80 gallons of water per acre. Use the lower labeled 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 trees is essential for insect control. Timing of application is extremely important because DIMILIN 2L controls codling moth by prohibiting the hatching of eggs. It must be applied prior to egg laying so that eggs are laid on treated plant parts.</p> <p>Apply first application as soon as possible after first moths are caught (biofix) or observed, or about 50- to 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 to 14 days earlier than the timing used for organophosphate insecticides.</p> <p>Apply second application about 14 to 18 days after the first.</p> <p>If necessary, apply 3rd and 4th application, timed prior to egg laying of the 2nd generation by using the same method as for the 1st generation. If traps are not used, make the 3rd application 21 to 30 days after the second, followed by the 4th application 21 to 30 days later. If a degree day model is used the 3rd spray should be timed at 1000-degree-days after biofix.</p> <p>Combination with organophosphates for codling moth control: DIMILIN 2L can be used in combination with an organophosphate insecticide, to save a trip through the orchard and to make timing of the DIMILIN 2L sprays easier. The combination is more effective than DIMILIN 2L 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. Apply DIMILIN 2L and the organophosphates at their labeled rates. Apply at the beginning of egg hatch of 1st generation codling moth. This is the normal timing for the first organophosphate cover spray (250-degree-days following biofix for 1st generation and 1250-degree-days for the 2nd generation). This program can be repeated for the 2nd or 3rd generation of codling moth or use DIMILIN 2L 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 2L alone or in combination may be applied 14 to 18 days later.</p>


PEARS** (continued)		
PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Leafminer	8 - 16 (0.125 - 0.250 lb ai)	<p>Apply in a minimum of 80 gallons of water just prior or during egg laying to control eggs and larvae. Timing for control of the 1st or 2nd generation can be determined by your local pest control consultant or fruit specialist. Should later generations of leafminers occur, apply DIMILIN 2L in the same manner.</p> <p>It is desirable to have DIMILIN 2L 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.</p>
<p>Oil may cause injury to certain pear varieties. Check compatibility of oil mixtures with your local tree fruit specialist.</p> <p>RESTRICTIONS:</p> <ul style="list-style-type: none"> • DO NOT apply more than 48 fl oz (0.750 lb ai) of DIMILIN 2L per acre per application. • DO NOT apply more than 64 fl oz (1.000 lb ai) of DIMILIN 2L per acre per year. • DO NOT apply more than 4 applications per year. • DO NOT use oil in tank-mix in late season treatments (3rd and 4th applications). • Pre-Harvest Interval: DO NOT harvest within 14 days of application. <p>* Not registered for use in California. ** Not registered for use in New York.</p>		

PEPPER/EGGPLANT (Crop Subgroup 8-10B)**: African eggplant; bell pepper; eggplant; martynia; nonbell pepper; okra; pea eggplant; pepino; roselle; scarlet eggplant; cultivars, varieties, and/or hybrids of these.		
PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Beet Armyworm Fall Armyworm Southern Armyworm Other Foliage Feeding Lepidopteran Insects	4 - 8 (0.063 - 0.125 lb ai)	Make initial application of 4 - 8 fl oz (0.063 - 0.125 lb ai) DIMILIN 2L per acre when larvae are small to give greater control and minimum damage to leaves and/or to 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	4 - 8 (0.063 - 0.125 lb ai)	Apply DIMILIN 2L at 4 - 8 fl oz (0.063 - 0.125 lb ai) per acre starting at initial flowering. Use at the higher listed rate if adult infestation is considered moderate to heavy. 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 2L will not control adults; however, eggs laid by adults will exhibit reduced hatching in fruits once adults have consumed or contacted residues of DIMILIN 2L on pepper tissue.
<p>Aerial Application: Apply in sufficient water (3 to 10 gallons per acre) to achieve uniform coverage of foliage.</p> <p>Ground Application: Use a minimum of 30 gallons of water per acre to give uniform coverage.</p> <p>Adjuvant Usage: The use of crop oil may improve control of DIMILIN 2L under conditions favorable for water evaporation (e.g. high air temperature and/or low humidity). For low volume (LV) aerial or ground applications, use 1 pt to 2 qt of emulsified vegetable or paraffinic crop oil to enhance canopy penetration and to reduce spray droplet evaporation and subsequent drift. A compatibility agent may be needed if non-emulsified cottonseed oil is used. Consult your supplier or company representative for oil specifications. Use only adjuvants that are labeled for agricultural use and follow the directions on the manufacturer's label.</p> <p>Use sufficient application volume to assure adequate coverage. DIMILIN 2L may be mixed with other insecticides being applied for other pepper/eggplant insects. When emulsifiable concentrate insecticide formulations are used with oil or oil-based adjuvants and DIMILIN 2L in tank-mixes, they may result in phytotoxicity. Care must be taken where such mixture is used. Because of the unique mode of action of DIMILIN 2L, its visible effects on larvae/nymphs may not be seen for 5 to 7 days following application.</p>		
<p>RESTRICTIONS:</p> <ul style="list-style-type: none"> • DO NOT apply more than 8 fl oz (0.125 lb ai) of DIMILIN 2L per acre per application. • DO NOT apply more than 24 fl oz (0.375 lb ai) of DIMILIN 2L per acre per year. • DO NOT apply more than 5 applications per year. • DO NOT apply if less than seven days between any two applications. • Pre-Harvest Interval: DO NOT apply within seven days of harvest. <p>** Not registered for use in New York.</p>		

RICE		
PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Rice Water Weevil (Southern U.S. Rice Belt) • for drill seeded; dry seeded; or water seeded, delayed flood rice	12 - 16 (0.188 - 0.250 lb ai)	Make a single application of DIMILIN 2L per acre per year to control larvae when adult infestations reach economic threshold and/or at initial oviposition, usually within a time frame of 2 to 5 days after permanent flood establishment. If adult weevil infestations are historically high and/or migration into the field is prolonged, use the higher listed application rate.
Rice Water Weevil (Southern U.S. Rice Belt) • for water seeded; pinpoint flood; or continuous flood rice	8 (0.125 lb ai)	To control larvae, apply split applications. Apply 8 fl oz (0.125 lb ai) per acre after the permanent flood when adult infestations reach economic threshold and/or at initial oviposition, usually when rice leaves are exposed above the water surface. The 2nd 8 fl oz (0.125 lb ai) treatment must be made 5 to 7 days after the 1st application. Failure to make the second application 5 to 7 days after the 1st application could result in inadequate control of rice water weevil larvae, especially if adult infestations are high and/or migration into the field is prolonged.
Rice Water Weevil (California)	8 - 16 (0.125 - 0.250 lb ai)	To control larvae, apply DIMILIN 2L once per year at initiation of oviposition by adults. During a typical year this coincides with 2 to 8 days after rice emergence above the water. Target the application for 2 to 5 days after rice emergence above the water (2- to 4-leaf stage). Use 12 - 16 fl oz (0.188 - 0.250 lb ai) DIMILIN 2L if infestations have been historically high.
Tadpole Shrimp	4 - 8 (0.063 - 0.125 lb ai)	Apply DIMILIN 2L at 4 - 8 fl oz (0.063 - 0.125 lb ai) per acre as a broadcast application to water when tadpole shrimp first hatch and are present, which is early post-flood or 1 to 3 days after the field is flooded. Apply DIMILIN 2L 8 fl oz (0.125 lb ai) per acre in a strip and perimeter configuration covering an area equal to 50% of the field water coverage area. ¹
Yellowstriped Armyworm	4 - 8 (0.063 - 0.125 lb ai)	Apply DIMILIN 2L at 4 - 8 fl oz (0.063 - 0.125 lb ai) per acre to rice when Yellowstriped armyworm eggs or larvae are first observed on plants. Use 4 fl oz (0.063 lb ai) per acre for small larvae (1st to 3rd instar), and 8 fl oz (0.125 lb ai) per acre for large larvae (4th to 6th instar).

RICE (continued)
<p>Consult your local extension service or UC IPM online for determination of economic threshold and/or determination of oviposition.</p> <p>DIMILIN 2L does not appear to control adult weevils. It controls rice water weevil by preventing larval emergence from the egg. Eggs laid under the surface of treated water are controlled. Additionally, adults feeding on treated plant surfaces DO NOT lay viable eggs.</p> <p>DIMILIN 2L will prevent tadpole shrimp from successfully molting. DIMILIN 2L does not appear to control adult tadpole shrimp.</p> <p>DIMILIN 2L will prevent Yellowstriped armyworm larvae from successfully molting. DIMILIN 2L does not control adult Yellowstriped armyworm moths.</p> <p>Apply DIMILIN 2L by air using at least 5 gallons total volume per acre.</p> <p>DIMILIN 2L is not phytotoxic to rice.</p> <p>DIMILIN 2L can be applied in combination with post-permanent flood herbicides containing propanil, quinclorac, triclopyr or bensulfuron-methyl. However, users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.</p>
<p>RESTRICTIONS:</p> <ul style="list-style-type: none"> • DO NOT apply more than 16 fl oz (0.250 lb ai) of DIMILIN 2L per acre per application. • DO NOT apply more than 16 fl oz (0.250 lb ai) of DIMILIN 2L per acre per year. • DO NOT apply more than 4 applications per year. • DO NOT use on rice fields in which crayfish (crawfish) farming is included in the cultural practice. • DO NOT drain treated water into fields where crayfish farming is intended. • DO NOT apply to rice immediately adjacent to sites of crayfish aquaculture. • DO NOT use treated rice flood waters for irrigated crops except for uses currently established for DIMILIN 2L. • DO NOT impregnate on granular materials. • DO NOT use on wild rice (<i>Zizania</i> spp.). • Pre-Harvest Interval: DO NOT harvest within 80 days of application. • DO NOT apply DIMILIN 2L if flooding is in progress. Activity will be reduced. Since DIMILIN 2L is water active, the entire field must be treated, except for tadpole shrimp control for which 50% of field water coverage area is treated. For control leave flood undisturbed after a single application for at least 7 days. With split applications in water seeded, pinpoint or continuous flood rice, flood must not be disturbed for a minimum of 4 days following the 1st treatment and 7 days following the 2nd application. Hold treated water at least 14 days to allow for dissipation of DIMILIN 2L.

¹ Example of perimeter and strip application.



Treated Area Untreated Area

SOYBEANS*		
PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Velvet Bean Caterpillar Mexican Bean Beetle Green Cloverworm	2 - 4 (0.031 - 0.063 lb ai)	<p>Make applications when larvae are small (< 0.5 inches) to give greater control and minimum insect damage to leaves. Repeat application if damaging numbers reappear.</p> <p>The minimum reapplication interval is 30 days.</p> <p>DIMILIN 2L may be applied at the lower labeled rate (2 fl oz; 0.031 lb ai) to prevent velvet bean caterpillar build-up when the vegetative growth of soybeans is completed and as pod formation begins.</p> <p>Consult local Extension Service regarding infestation levels requiring treatment.</p>
Beet Armyworm Fall Armyworm Soybean Looper (suppression)	4 (0.063 lb ai)	Application must be made when worms are small before populations build.
Grasshopper	2 (0.031 lb ai)	<p>Apply when most nymphs are 2nd and 3rd instar.</p> <p>DIMILIN 2L is not effective in controlling grasshoppers once they reach the adult stage.</p> <p>If a large influx from neighboring fields occurs, the time to reduce that population may not be short enough to minimize extensive foliage feeding; use a tank-mix with a knockdown insecticide under these conditions.</p>

SOYBEANS* (continued)

Aerial Application: Apply in sufficient water (3 to 5 gallons per acre) to achieve uniform coverage of foliage.

Ground Application: Apply in 9 to 35 gallons of water per acre to give uniform coverage.

Adjuvant Usage: The use of crop oil may improve control of **DIMILIN 2L** under conditions favorable for water evaporation (e.g. high air temperature and/or low humidity). For ground or aerial low volume (LV) application, use 1 pt to 2 qt of emulsified vegetable or paraffinic crop oil to enhance canopy penetration and to reduce spray droplet evaporation and subsequent drift. A compatibility agent may be needed if non-emulsified cottonseed oil is used.

Consult your supplier or company representative for oil specifications. Use only adjuvants that are labeled for agricultural use and follow the directions on the manufacturer's label.

Use sufficient application volume to assure adequate coverage. **DIMILIN 2L** may be mixed with other insecticides being applied for other soybean insects. When emulsifiable concentrate insecticide formulations are used with oil and **DIMILIN 2L** in tank-mixes, they may result in phytotoxicity. Care must be taken where such mixture is used. Because of the unique mode of action of **DIMILIN 2L**, its visible effects on larvae/nymphs may not be seen for 5 to 7 days following application.

Since **DIMILIN 2L** is an insect growth regulator, larvae/nymphs must feed on it and then molt before populations are reduced. Thus, initial signs of control may not be seen until several days after treatment.

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 2L** under field conditions on both determinate and indeterminate cultivars. Application of 2 - 4 fl oz (0.031 - 0.063 lb ai) 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 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 4 uppermost nodes on the main stem with a fully developed leaf).

RESTRICTIONS:

- **DO NOT** apply more than 4 fl oz (0.063 lb ai) of **DIMILIN 2L** per acre per application.
- **DO NOT** apply more than 8 fl oz (0.125 lb ai) of **DIMILIN 2L** per acre per year.
- **DO NOT** apply more than 2 applications per year.
- **Pre-Harvest Interval: DO NOT** harvest within 21 days of application.

* **Not registered for use in California.**

TREE NUT GROUP (Crop Group 14-12):** African tree nut; almond; beech nut; Brazil nut; Brazilian pine; bunya; bur oak; butternut, cajou nut; candlenut; cashew; chestnut; chinquapin; coconut; coquito nut; dika nut; filbert (hazelnut); ginkgo; Guiana chestnut; heartnut; hickory nut; Japanese horse-chestnut; macadamia nut (bush nut); mongongo nut; monkey-pot; monkey puzzle nut, okari nut; pachira nut, peach palm nut; pecan; pequi, pili nut; pine nut; pistachio; sapucaia nut; tropical almond; walnut (black & English); yellowhorn; cultivars, varieties, and/or hybrids of these.

PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Codling Moth	16 (0.250 lb ai)	DIMILIN 2L is most effective when applied prior to egg laying. DIMILIN 2L must be present on the surface upon which eggs are laid; therefore, full coverage spray is necessary. Apply first application when moth flights begin or when moths are found in pheromone traps. Apply the 2nd application approximately 21 days after the 1st application. For control of the 2nd brood, application should be timed prior to egg laying, similar to 1st brood. For suppression of overwintering codling moth which may improve nut set in cultivars susceptible to pistillate flower abscission (PFA), apply at 8 fl oz (0.125 lb ai) per acre beginning at 10 to 40% receptive pistillate flower bloom. Retreat at 4 to 11 days up to 100% receptive pistillate flower bloom.
Filbert Worm	12 - 16 (0.188 - 0.250 lb ai)	The lower rate may be used where filbert worm pressure is low, and/or the trees are small. The higher listed rate is necessary when worm pressure is moderate to high and/or the trees are large. Apply DIMILIN 2L 2 to 3 days after the 1st moth is caught in pheromone detection traps. Mating takes place within several days of emergence and egg laying begins the next day. DIMILIN 2L must be applied prior to egg deposition on the treated foliage. Good uniform coverage of the tree is essential to achieve optimum control of filbert worm with DIMILIN 2L . Normally DIMILIN 2L will give season long control. If moth pressure remains high, make additional applications up to maximum labeled rate.
Hickory Shuckworm	8 - 16 (0.125 - 0.250 lb ai)	Apply split applications of DIMILIN 2L at 4 - 8 fl oz (0.063 - 0.125 lb ai) per acre when hickory shuckworm moth emergence begins or larval feeding is detected and then again two weeks later for maximum nut protection and hickory shuckworm control. Apply DIMILIN 2L starting at half-shell hardening. Make subsequent applications at 21-day intervals to shuck split, or while nuts are susceptible to hickory shuckworm under heavy infestations. Use the higher listed rate under higher pest infestations, low crop load, larger trees or heavy, dense foliage.

TREE NUT GROUP (Crop Group 14-12)** (continued)		
PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Peach Twig Borer	12 - 16 (0.188 - 0.250 lb ai)	<p>Dormant/Delayed Dormant: Apply DIMILIN 2L at the rate of 12 - 16 fl oz (0.188 - 0.250 lb ai) per acre with 4 to 8 gallons per acre (1.5 to 2.0 gallons per 100 gallons in a dilute spray) narrow range oil. Always use the higher listed rate of DIMILIN 2L in the rate range if the crop has a history of heavy infestations.</p> <p>Bloom: Apply DIMILIN 2L at the rate of 12 - 16 fl oz (0.188 - 0.250 lb ai) per acre starting at early bloom. Always use the higher listed rate of DIMILIN 2L in the rate range if the crop has a history of heavy infestations.</p> <p>Spring Flight ("May Spray"): Using pheromone traps to determine flight activity, apply DIMILIN 2L at the rate of 16 fl oz (0.250 lb ai) per acre at initial flight activity.</p> <p>Summer Flight: Using pheromone traps to determine flight activity, apply DIMILIN 2L at the rate of 16 fl oz (0.250 lb ai) per acre at initial flight activity.</p>
Pecan Nut Casebearer	8 - 16 (0.125 - 0.250 lb ai)	<p>Apply split applications of DIMILIN 2L at 4 - 8 fl oz (0.063 - 0.125 lb ai) per acre beginning at bud break and then again two weeks later for maximum nut set and pecan nut case bearer control. Normal timing in southeastern US would be from mid-April for bud break and then two weeks later (early May).</p> <p>Apply DIMILIN 2L in split applications at the initiation of each adult generation to target egg hatch. Note for the 1st generation this is approximately 8 to 15 days following the first prolonged moth catch (biofix which is defined as the date on which the total of 5 moths are captured in 3 pheromone traps within a 7-day period). States may have a different recommendation for initiation of spraying; please consult authorities such as county and university extension specialists on current recommendations. Use the higher listed rate for longer residual control, higher pest infestations, low crop load, larger trees or heavy, dense foliage.</p>
Pecan Weevil (suppression)	8 - 16 (0.125 - 0.250 lb ai)	Use the higher listed rate if weevils are attacking fruit and for higher infestations.

TREE NUT GROUP (Crop Group 14-12)** (continued)		
PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Others, Including: Fall Webworm Filbert Leafroller Obliquebanded Leafroller Omnivorous Leafroller Omnivorous Leaf-tier Oriental Fruit Moth Redhumped Caterpillar Variegated Leafroller Walnut Caterpillar Winter Moth	8 - 16 (0.125 - 0.250 lb ai)	Apply DIMILIN 2L at the first sign of larval infestations. Use the higher listed rate for longer residual control, higher pest infestations, low crop load, larger trees or heavy, dense foliage.
Tent Caterpillars*	8 - 16 (0.125 - 0.250 lb ai)	<p>DIMILIN 2L may be applied by ground equipment to almonds, pecans, pistachios, and walnuts (black and English). Apply at first sign of larval infestation. Use higher listed rate for longer residual control, higher pest infestations, low crop load, larger trees or heavy dense foliage.</p>
<p>Apply ground applications in sufficient water for thorough coverage, using at least 50 gallons per acre for small trees (10 feet tall) and at least 100 to 300 gallons per acre for larger trees. Using insufficient water for thorough coverage and/or using an uneven spray pattern across the canopy will likely result in less than desired efficacy.</p> <p>If 4 applications are used, application timing should correspond to dormant to pre-bud swell, bloom to petal fall, and at leaves/immature nut fruit formation and at hull split.</p>		
<p>RESTRICTIONS:</p> <ul style="list-style-type: none"> • DO NOT apply more than 16 fl oz (0.250 lb ai) of DIMILIN 2L per acre per application. • DO NOT apply more than 64 fl oz (1.000 lb ai) of DIMILIN 2L per acre per year, except for walnuts. • Walnuts: DO NOT apply more than 48 fl oz (0.750 lb ai) of DIMILIN 2L per acre per year. • DO NOT apply more than 4 applications per year, except for walnuts. • Walnuts: DO NOT apply more than 3 applications per year. • Pre-Harvest Interval: DO NOT harvest within 28 days of application. <p>* Not registered for use in California. ** Not registered for use in New York.</p>		

TURFGRASS** (For use in sod farms only)		
PESTS	APPLICATION RATE (fl oz/acre)	INSTRUCTIONS
Lepidopteran foliage feeding caterpillars such as: Sod webworm Armyworms • Fall • True • Southern • Beet • Yellow-striped • Striped Grass Looper • Granulate Cutworm	2 (0.031 lb ai)	Apply DIMILIN 2L at first sign of hatchouts and prior to larvae reaching 4th instars (>1/2 inch). Apply in 20 to 50 gallons of water per acre depending on density of turf and caterpillar pressure. DIMILIN 2L must be ingested and larvae must molt before populations are reduced. Repeat applications at 14-day intervals or as needed to protect new foliage growth.
RESTRICTIONS: <ul style="list-style-type: none"> • DO NOT apply more than 2 fl oz (0.031 lb ai) of DIMILIN 2L per acre per application. • DO NOT apply more than 8 fl oz (0.125 lb ai) of DIMILIN 2L per acre per year. • DO NOT apply more than 4 applications per year. ** Not registered for use in New York.		

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Keep this product in its tightly closed original container only. Store in a cool, dry (preferably locked) area that is inaccessible to children and animals.

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:

Plastic containers: Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse (or equivalent) promptly after emptying.

Triple rinse as follows: For containers small enough to shake: Empty the remaining contents into a mix-tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and then recap. Shake for 10 seconds. Pour rinsate into 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.

For containers too large to shake: Empty remaining contents into a mix-tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into a mix-tank or store for later use or disposal. Repeat this procedure two more times.

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

Then offer container for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

Recycling: Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer or contact the Ag Container Recycling Council (ACRC) at 1-877-952-2272 (toll free) or www.acrecycle.org.

Warranty and Disclaimer Statement

The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Such risks may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of UPL NA INC. ("UPL"), and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. All such risks shall be assumed by the user or buyer.

To the extent consistent with applicable law, UPL warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions. This warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to UPL and is subject to the inherent risks described above.

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