UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

November 18, 2022

Kyleigh Toomey
Label Facilitator
Atticus, LLC
5000 CentreGreen Way, Suite 100
Cary, NC 27513

Subject: Notification per PRN 98-10 – Correction of typographical error for peanuts
Product Name: A167.02
EPA Registration Number: 91234-103
Application Date: December 9, 2021
Decision Number: 586746

Dear Ms. Toomey:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

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

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

If you have any questions, you may contact please contact David Gardner at (202) 566-2677 or by email at gardner.david@epa.gov.

Sincerely,

Tamica Cain

Tamica Cain, Product Manager 10
Invertebrate & Vertebrate Branch 2
Registration Division (7505T)

{Note to reviewer: [Text] in brackets denotes optional text.}
{Note to reviewer: {Text} in braces denotes where in the final label text will appear.}
{Note to reviewer: For bracketed text where optional language combination(s) are present, language will be combined as such to ensure complete, coherent sentences.}

{BOOKLET FRONT PANEL LANGUAGE}

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

A167.02

[*Alternate Brand Name:* Durant 2 L, Durant 2 L IGR]

Contains diflubenzuron, the active ingredient used in [Dimilin®] [2L] [and] [Micromite®] [2L].

[Insect Growth Regulator]
[Aqueous Flowable]

[For use on alfalfa; artichoke; barley; carrot (not grown for seed); citrus crop group 10-10[*]; cottonseed, subgroup 20C; leafy brassica, subgroup 5B (including turnip greens); oats; peach, subgroup 12-12B; plum, subgroup 12-12C; peanuts; pears; peppers/eggplant, subgroup 8-10B; rice; soybeans; tree nuts, crop group 14-12; triticale; wheat; grassland; livestock / poultry premises; non-crop areas; and turfgrass (for use on sod farms only).]

[*In California – only approved for use on orange, grapefruit, tangerine, pummelo and their hybrids.]

[Not for Homeowner/Residential Use]

ACTIVE INGREDIENT(S):	**(% by weight)**
Diflubenzuron: [((4-Chlorophenyl)amino)carbonyl]-2,6-difluorobenzamide*	22.0%
OTHER INGREDIENTS:	78.0%
TOTAL:	100.0%

*Contains 2 lbs. diflubenzuron per gallon

KEEP OUT OF REACH OF CHILDREN

CAUTION

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

See [below] [inside label booklet] for [additional] [First Aid,] [and] [Precautionary Statements] [and] [Directions for Use].

EPA Reg. No. 91234-103
EPA Est. No.:
20211029a

Manufactured for:
Atticus, LLC
5000 CentreGreen Way, Suite 100
Cary, NC 27513

NOTIFICATION
91234-103
The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:
11/18/2022

[A167.02] is not manufactured, or distributed by Arysta LifeScience North America LLC, seller of [Dimilin®] [2 L] [and] [Micromite®] [2 L].

{LANGUAGE INSIDE BOOKLET}

FIRST AID	
If swallowed:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If on skin or clothing:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If in eyes:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at **1-844-685-9173** for emergency medical treatment information.	

For Chemical Emergency:
Spill, Leak, Fire, Exposure, or Accident,
Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

PERSONAL PROTECTIVE EQUIPMENT (PPE)
Some materials that are chemical-resistant to this product are listed below.

Applicators and Other Handlers (Other than Mixers and Loaders) Must Wear:

- long-sleeved shirt & long pants;
- shoes plus socks;
- chemical-resistant gloves, made of barrier laminate, butyl rubber ≥14 mils , nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils or Viton ≥14 mils, when mixing and loading and also when using hand-held equipment.

Mixers and Loaders Using Fixed-Wing Aircraft Must Wear:

- long-sleeved shirt and long pants;
- shoes plus socks;
- chemical-resistant gloves, made of barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils or Viton ≥14 mils;
- 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 HE filters.

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 170.607(d-f)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS

This pesticide is toxic to 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 of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

Bees and other insect pollinators can be exposed to this pesticide from:

- Direct contact during foliar applications, or contact with residues on plant surfaces after foliar applications.
- Ingestion of residues in nectar and pollen when the pesticide is applied as a foliar application.

When Using This Product, Take Steps To:

- Minimize exposure of this product to bees and other insect pollinators when they are foraging on pollinator attractive plants around the application site.
- Minimize drift of this product on to beehives or to off-site pollinator attractive habitat. Drift of this product onto beehives or off-site to pollinator attractive habitat can result in reduced immature bee viability.

PHYSICAL OR CHEMICAL HAZARDS

Do not mix or allow this product to come in contact with an oxidizing agent such as potassium permanganate. Hazardous chemical reaction may occur.

DIRECTIONS FOR USE

RESTRICTED USE PESTICIDE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

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

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

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

- coveralls;
- chemical-resistant gloves, made of barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils or Viton ≥14 mils, and;
- shoes plus socks.

INSTRUCTIONS AND INFORMATION

RUNOFF

A167.02 has a potential for runoff, which can occur up to several months or more after use. Runoff containing this product is more likely to occur in soils that have shallow water tables or are poorly draining.

The following will decrease the likelihood of contaminating water from runoff:

- a well maintained, level vegetative buffer strip situated between application areas and surface water features (i.e., ponds, springs, streams)
- application of product avoided if forecasts predict rainfall within 48 hours
- practices that foster sound erosion control

SPRAY DRIFT MANAGEMENT

This product may contaminate water through drift or spray in wind. Avoiding spray drift at the application site is the responsibility of the applicator.

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 of 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. Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making decisions.

MANDATORY SPRAY DRIFT

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 S572.1).
- Applicators must use½ 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 wind speed 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 dia1reter 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:

- Sprays must be directed into the canopy.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- User must tum off outward 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 feet above the ground or crop canopy.
- Applicators are required to use a fine or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

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 boom 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.

PRODUCT INFORMATION

A167.02 is an insect growth regulator, whose mode of action disrupts the regular molting process of insect larvae. It is effective against Lepidoptera and Diptera species and a wide variety of listed insect pests, and performs well when used in IPM programs. Due to mode of action, insects could take several days following application to show visible effects of **A167.02**.

USE RESTRICTIONS

- Do not apply **A167.02** to water bodies where swimming is likely to occur.
- For Field Crops, Row Crops, Orchard Uses, Grassland, 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.
- ROTATIONAL CROPS: Unless diflubenzuron is registered for use on a particular crop, wait one month after last application to plant food or feed crops in soils treated with **A167.02**.
- **[Do not apply through irrigation systems (chemigation) in the state of California.]**

APPLICATION INSTRUCTIONS

Mixing Directions – if used with water

- Fill a clean spray tank with half of the amount of water required for treatment
- Begin agitation and add appropriate amount of **A167.02** to spray tank
- Add second half of water while maintaining agitation
- If permitted for the use site, add the proper quantity of oil slowly into the mixing tank. Making sure to use at least 2 parts of water to one part of oil will help avoid development of an invert emulsion

Mixing Directions – if used without water

Always evaluate any potential mixture for compatibility and sprayability. To ensure thorough mixing of **A167.02** with insecticides or other carriers, premix ingredients in a nurse tank before transferring into appropriate aerial or ground ULV application equipment. If a nurse tank is not available, or unable to simultaneously mix:

- Fill a clean tank with required amount of oil and/or oil-based insecticide
- Begin agitation and add appropriate amount of **A167.02** to spray tank
- Thoroughly mix contents of spray tank
- Drain a volume of carrier adequate to fill booms and piping system from the contents of the tank and then add back to the tank

Compatibility – when combining **A167.02** with other pesticides, additives or adjuvants, test for compatibility and sprayability. In a lidded glass jar (~1 quart size), add all mix partners, in their relative proportions. Invert, shake or mix the jar thoroughly. Observe mixture for approximately 30 minutes (though signs of incompatibility will often be seen within 5 minutes). Read and follow the label of each tank mix **A167.02** used for precautionary statements, directions for use, rates and timings, and other restrictions.

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.

Application – aerial or ground application

Spray should be applied with aerial or ground equipment designed or modified to insure uniform and complete coverage of the whole plant / crop surface. Continue constant agitation while mixing and while applying **A167.02**.

Application Through Irrigation Systems – Chemigation[*]

[*DO NOT APPLY VIA CHEMIGATION IN THE STATE OF CALIFORNIA]

A167.02 can be applied through properly equipped chemigation systems for insect control in grassland and row crops. **A167.02** can be applied only through sprinkler irrigation systems (center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move). Do not apply this product through any other type of irrigation system. If treated water is not uniformly distributed, crop injury, illegal pesticide residues or lack of efficacy could occur.

In order to calibrate the irrigation system and injector to apply the mixture:

- Determine how many acres are irrigated by the chemigation system.
- Once the irrigation rate has been set, determine how long (minutes) the system takes to cover the intended treatment area.
- Determine the amount of mixture (total gallons) necessary to cover the desired acreage.
- Determine injector's gallon per minute rate by dividing amount of mixture (gallons) needed by time (minutes) to cover intended treatment area.
- Determine the correct ounces per minute rate (converting from gallons per minute).
- Operate system at desired irrigation rate and calibrate injector pump.

It is suggested that the injector pump be calibrated at least twice before operation and the system be monitored during operation.

Your local extension service, university experts or equipment manufacturers or representatives can answer questions regarding calibration.

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 system' means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days 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, 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 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.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.
- 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 **A167.02** 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.

RESISTANCE MANAGEMENT

For resistance-management, **A167.02** contains a Group 15 insecticide. Any insect population may contain individuals naturally resistant to **A167.02** 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 **A167.02** or other Group 15 insecticides within a growing season, or among growing seasons, with different groups that control the same pests. Avoid application of more than the maximum seasonal use rate or the total number of consecutive sprays of **A167.02** per season.
- 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 pest(s).
    - 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 integrated pest management program for insecticide/acaricides 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 your Atticus, LLC representative.

SPECIFIC USE DIRECTIONS

Crops	Pests	Application Rate (fl. oz./acre)	Application Timing
ALFALFA[*], [**] **ALFALFA GROWN FOR SEED[*], [**]**	Grasshopper Mormon cricket	1 – 2 (0.016-0.031 lb. a.i.)	Apply at early instar stages (majority in the 1st through 4th instar nymphal stages) of growth. Use a higher rate in the rate range for heavy infestations or advanced growth stage of target pest. **A167.02** is not effective in controlling grasshoppers once they reach the adult stage. If a large influx from neighboring fields should occur, 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.
	Dilution Rate: Apply **A167.02** 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 to15 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.		
	ALFALFA RESTRICTIONS: • DO NOT apply more than 2 fl. oz. of **A167.02** (0.031 lb. a.i.) per acre per application. • DO NOT apply more than 6 fl. oz. of **A167.02** (0.094 lb. a.i.) per acre per calendar year. • DO NOT make more than 3 applications per calendar year, with a minimum of 14 days between applications. • **For alfalfa grown for seed: Preharvest Interval:** Allow at least 1 day after the last treatment before harvest of alfalfa seed. • **For alfalfa grown for forage or hay:** DO NOT exceed a total of 2 fl. oz. per acre per cutting. **Preharvest Interval:** Allow at least 1 day after treatment before cutting forage or hay. • For use West of the Mississippi River. **[*Not registered for use in California]** **[**Not registered for use in New York]**		

Crops	Pests	Application Rate (fl. oz./acre)	Application Timing
ARTICHOKE (California only)	Artichoke Plume Moth	8 – 16 (0.125-0.250 lb. a.i.)	Optimum results are obtained when **A167.02** is applied when first moths are caught in pheromone traps, or when moth flights start.
	A167.02 can be applied aerially in 10 to 20 gallons (total volume) per acre, or by ground application in 50 to 250 gallons (total volume) per acre. Make sure that application volume is sufficient for adequate coverage. **IMPORTANT** A167.02 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.		
	ARTICHOKE RESTRICTIONS: • For use only in California. • DO NOT apply more than 16 fl. oz. of **A167.02** (0.250 lb. a.i.) per acre per application. • DO NOT apply more than 48 fl. oz. of **A167.02** (0.750 lb. a.i.) per acre per year. • DO NOT apply more than 3 applications per year. Application interval is a minimum of 15 days. Maximum number of applications is 3 in any 30 day period. • **Pre-harvest interval** is 1 day before harvest.		

Crops	Pests	Application Rate (fl. oz./acre)	Application Timing
BARLEY[**] **OATS[**]** **TRITICALE[**]** **WHEAT[**]**	Grasshoppers	1 – 2 (0.016-0.031 lb. a.i.)	For best results, apply when the majority of infesting grasshoppers have reached the 2nd to 3rd nymphal stage of development. **A167.02** is not effective in controlling grasshoppers once they reach the adult stage. If a large influx from neighboring fields should occur, the time to reduce that population may not be short enough to minimize extensive foliage feeding; use a tank mix with a knockdown insecticide under these conditions.
	Cereal Leaf Beetle	4 (0.063 lb. a.i.)	For best results, apply at first sign of egg laying.
	Aerial Application: Apply in 2 to 5 gallons total volume per acre. **Ground Application:** Apply in 5 to 15 gallons total volume per acre. Use sufficient application volume to assure adequate coverage. Because of the unique mode of action of **A167.02**, its visible effects on larvae and nymphs may not be seen until 5 to 7 days following application.		
	BARLEY, OATS, TRITICALE, & WHEAT RESTRICTIONS: • DO NOT make more than 1 application per season. • DO NOT apply more than 4 fl. oz. of **A167.02** (0.063 lb. a.i.) per acre per application. • DO NOT apply more than 4 fl. oz. of **A167.02** (0.063 lb. a.i.) per acre per year. • For use only 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). • DO NOT apply after the boot stage of growth. • For Cereal Leaf Beetle, DO NOT apply if infestation has advanced into later instar larvae. • **Pre-harvest Interval:** DO NOT harvest grain and straw within 50 days of application. DO NOT harvest forage within 3 days of application; DO NOT harvest hay within 15 days of application. [**Not registered for use in New York]		

Crops	Pests	Application Rate (fl. oz./acre)	Application Timing
CARROT[*] [**] (Not grown for seed)	Carrot weevil	8 (0.125 lb. a.i.)	Apply at first sign of larval infestation.
	Ground application: Apply **A167.02** in sufficient water using 20 to 50 gallons of water per acre.		
	CARROT (not grown for seed) RESTRICTIONS: • DO NOT apply this product to carrots grown for seed. • DO NOT apply more than 8 fl. oz. of **A167.02** (0.125 lb. a.i.) per acre per application. • DO NOT apply more than 16 fl. oz. of A167.02 (0.250 lb. a.i.) per acre per calendar year. • DO NOT make more than 2 applications per calendar year. • Allow a minimum of 7 days between treatments. • **Pre-harvest Interval:** Allow at least 7 days after treatment before harvest. [* Not registered for use in California] [**Not registered for use in New York]		

Crops	Pests	Application Rate (fl. oz./acre)	Application Timing
CITRUS FRUIT 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; trifoliate orange; uniq fruit; cultivars, varieties, and/or hybrids of these [*In California – only approved for use on orange, grapefruit, tangerine, pummelo and their hybrids.]	Asian Citrus Psyllid (ACP) (*Diaphonia citri*)	20 (0.313 lb. a.i.)	Apply 20 fl. oz. of **A167.02** (0.313 lb. a.i.) per acre when very early-feather leaf flush is present, or oviposition by Asian citrus psyllid (ACP) is expected or seen, or leaf distortion is evident. **Split Application:** Applying split applications of **A167.02** will maximize spray coverage of the entire citrus leaf flush. Spray 10 fl. oz. (0.156 lb. a.i.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 **A167.02** at 10 fl. oz. (0.156 lb. a.i.) per acre as needed to protect new flushes of growth. Do not apply subsequent applications of **A167.02** for at least 30 days. **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, do not apply in a volume of less than 10 gallons per acre.] The addition of petroleum spray oil, such as FC435-66, enhances spray coverage and penetration of **A167.02** into ACP eggs, nymphs, and adults; improving activity on each life stage. **A167.02**'s activity on ACP is through contact, ingestion and/or absorption. It has direct activity on eggs and nymphs of ACP. **A167.02** 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. **A167.02** reduces the reproductive potential of an existing ACP population. **A167.02 *does not control adult ACP.***
	Citrus Rust Mite (*Phyllocoptruta oleivora*)	20 (0.313 lb. a.i.)	Apply **A167.02** at 20 fl. oz. (0.313 lb. a.i.) 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 **A167.02** in a CRM control program. The addition of petroleum spray oil, such as FC435-66, enhances spray coverage and penetration of **A167.02** into immature CRM; improving activity on each stage of instar. Petroleum spray oil also aids knockdown of the CRM population present at application. **A167.02**'s activity is on immature stages of CRM and has its greatest activity on late-instar CRM. **A167.02** prevents immature CRM from molting. The full effect of **A167.02** on a CRM population may not be apparent for up to 14 days after application. **A167.02 *does not control CRM eggs or adults.***
	Lepidopterous Miners: Citrus Leafminer (*Phyllocnistis citrella*)	20 (0.313 lb. a.i.)	Make application when Citrus Leafminer (CLM) oviposition is seen or expected, when leaf flush is present and oldest leaf is expanded by one-quarter, or when leaf mining is evident. To maximize coverage of the entire leaf flush, make split application by spraying half of volume of product (10 fl. oz. (0.156 lb. a.i.) per acre) as indicated above (ovipostion seen or expected, leaf flush is present, leaf distortion is evident), and the other half (10 fl. oz. per acre) to protect new growth flush, as needed. Wait at least 30 days [**(90 days in CA)**] for subsequent applications of **A167.02**. **Low Volume Application** – apply by ground (air-assisted or air blast spray equipment) in 3 to 5 gallons (total volume) per acre.
	Lepidopterous Miners: Citrus Peel Mine (*Marmara* spp.)	20 (0.313 lb. a.i.)	Make application when citrus peel surfaces show Citrus peel miner (CPM) oviposition, or when expected. To maximize coverage of the fruit surface, make split application by spraying half volume of product (10 fl. oz. per acre) when CPM oviposition begins, and the other half (10 fl. oz. (0.156 lb. a.i.) per acre) to protect expanded fruit growth, as needed. Wait at least 30 days [**(90 days in CA)**] for subsequent applications of **A167.02**. Protection from CPM larvae will lessen over time as fruit expands and new, unprotected tissue develops, but may last up to several weeks.
	Citrus Root Weevil Complex: West Indian Sugarcane Rootstalk Borer Weevil (*Diaprepes abbreviatus*) Southern Blue-Green Citrus Root Weevil (*Pachnaeus litus*) Blue-Green Citrus Weevil (*Pachnaeus opalus*) Fuller Rose Beetle (*Asynonychus godmani*) Little Leaf Notcher (*Artipus flondanus*)	20 (0.313 lb. a.i.)	Make application to citrus leaf flush when Citrus root weevils (CRW) are seen, when oldest leaf is expanded by one-half, or when recent leaf feeding is evident. The addition of a narrow-range petroleum oil such as NR-415, enhances coverage and penetration of A167.02 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. A167.02'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. A167.02 reduces the reproductive potential of citrus root weevil populations. A167.02 does not control adult citrus root weevils.

Crops	Pests	Application Rate (fl. oz./acre)	Application Timing
	Katydids Grasshoppers	20 (0.313 lb. a.i.)	Make application when katydids or grasshoppers are seen, or recent feeding on leaves or fruit is noticed. To maximize coverage and protection of leaves and fruit, make split application by spraying half of volume of product (10 fl. oz. per acre) as indicated above (katydids or grasshoppers are seen, recent feeding on leaves or fruit), and the other half (10 fl. oz. (0.156 lb. a.i.) per acre) to protect new growth, as needed. Wait at least 30 days [**(90 days in CA)**] for subsequent applications of **A167.02**. The addition of a narrow-range petroleum oil such as NR-415, enhances spray coverage and penetration of A167.02 into katydid and grasshopper eggs, nymphs, and adults; improving activity on each life stage. A167.02'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. A167.02 reduces the reproductive potential of an existing katydid and/or grasshopper population. A167.02 does not control adult katydids or grasshoppers.

IMPORTANT:

- Application of **A167.02** when new citrus flush has emerged will give best control of the most pests, however it can be applied anytime during the year.
- **A167.02** affects existing Asian citrus psyllid, citrus leafminer and citrus root weevil populations by diminishing their reproductive ability.
- **A167.02** does not control the following insect growth stages:
  - Adult Asian citrus psyllid, citrus root weevils, katydids or grasshoppers
  - Adult Citrus Rust mite or Citrus rust mite eggs
  - Citrus Leafminer or Citrus peel miner moths

Adjuvants - To enhance spray coverage, add a CDA approved or other quality surfactant such as Dine-Amic® or Kinetic® or addition of a spray oil, such as FC435-66. Consult your supplier representative for oil specifications. Addition of a spray oil also aids knockdown of existing populations (CRM), penetration or absorption of **A167.02** into immature stages of insects[2], mites[3], eggs[1,3,4,5,6,7], larvae[3], pupae[3], nymphs[1,6,7] and adults[1,6,7]. The use of a spray oil may improve **A167.02**'s activity, which is to prevent eggs from hatching, larvae or nymphs from molting, moths from emerging from pupae, and limiting eggs laid or able to hatch by adult females when exposed to **A167.02** through contact, ingestion and/or absorption. Spray oil also limits egg mass attachment to citrus leaf surface[3].

1 – Asian Citrus Psyllid
2 – Citrus Rust Mite
3 – Citrus Leafminer
4 – Citrus Peel Miner
5 – Citrus Root Weevil Complex
6 – Katydid
7 – Grasshopper

DIRECTIONS FOR USE

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. If making a low volume application, see pest specific sections below [**(low volume applications to citrus fruit are not approved in California)**]. Note: 1 fl. oz. **A167.02** per acre equals 0.0156 pounds active ingredient per acre.

CITRUS FRUIT GROUP 10-10 RESTRICTIONS:

- **Maximum A167.02 allowed per year:** DO NOT apply more than 60 fl. oz. of **A167.02** (0.938 lb. a.i.) per acre per calendar year. **A167.02** may be applied as three full rate applications of 20 fl. oz. per acre per calendar year, or six split applications of 10 fl. oz. per acre per calendar year, or a combination of full and split applications.
- DO NOT apply more than 20 fl. oz. of **A167.02** (0.313 lb. a.i.) per acre per application.
- **Maximum number of applications allowed per calendar year:** three full rate applications or six split applications, not to exceed 60 fl. oz. of **A167.02** (0.938 lb. a.i.) per acre per calendar year.
- **Re-treatment interval:** Repeat applications no closer than 30 days apart, 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.
- **Ground Application: A167.02** may be applied by ground using hand-held, hand gun, air blast or air assisted equipment. DO NOT apply within 25 feet of bodies of water such as lakes, reservoirs, rivers, permanent streams, natural ponds, marshes or estuaries. **In the State of Florida**, do not apply within 100 feet of estuarine/marine bodies of water. 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.
- **Aerial Application:** Use fixed-wing or rotary equipment. DO NOT apply within 150 feet of bodies of water such as lakes, reservoirs, rivers, permanent streams, natural ponds, marshes or estuaries. **In the State of Florida,** do not apply within 1000 feet of estuarine/marine bodies of water.

Crops	Pests	Application Rate (fl. oz./acre)	Application Timing
COTTONSEED SUBGROUP 20C Cultivars, varieties and/or hybrids of these	Beet Armyworm (early season before first bloom)	2 – 4 (0.031-0.063 lb. a.i.)	For early infestations, apply **A167.02** at the first sign of beet 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. a.i.) per acre have been applied. Multiple applications of **A167.02** will provide acceptable beet armyworm control and because it has little activity on beneficial insects (parasites and predators) and has good persistence, will help prevent populations of beet armyworm from building up later in the growing season. Use of **A167.02** in this way allows for more complete coverage of new foliage during the period of rapid vegetative growth.
	Beet Armyworm (mid-season)	4 – 8 (0.063-0.125 lb. a.i.)	Apply starting around first bloom and through mid-bloom. Repeat application until up to 8 fl. oz. (0.125 lb. a.i.) per acre have been applied, using a 5- to 7-day interval between applications. Use higher listed 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. **A167.02** is more effective on early stages of larval development, therefore treat cotton leaves before populations become established.
	Beet Armyworm (late season)	6 – 8 (0.094-0.125 lb. a.i.)	Apply after mid-bloom and prior to 14 days before harvest. Use higher 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. a.i.)	Apply during early stages of larval development. Repeat application until at least 8 fl. oz. (0.125 lb. a.i.) per acre have been applied using a 5- to 7-day interval.
	Boll Weevil (early season, before first bloom)	4 – 8 (0.063-0.125 lb. a.i.)	**A167.02** 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 cotton-seed oil is used. Consult your supplier or company representative for oil specifications. For best suppression of boll weevil reproduction, make first application at pinhead square stage of cotton growth when overwintering boll weevils are entering the fields. Repeat applications must allow a minimum of 7 days between applications. **A167.02** 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 **A167.02**. Thus treat early and use multiple applications.
	Boll Weevil	2 – 4 (0.031-0.063 lb. a.i.)	**A167.02** 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. a.i.)	Apply when the majority of infesting grasshoppers have reached the 2nd to 3rd nymphal stage of development. **A167.02** is not effective in controlling grasshoppers once they reach the adult stage. If a large influx from neighboring fields should occur, the time to reduce that population may not be short enough to minimize extensive foliage feeding; use a tank mix with a knockdown insecticide under these conditions.

Crops	Pests	Application Rate (fl. oz./acre)	Application Timing
	Aerial Application: Apply in 3 to 5 gallons total volume per acre. **Ground Application:** Apply in 10 to 20 gallons total volume per acre. **Adjuvant usage:** The use of crop oil (1 to 2 qt) with **A167.02** for larva/nymphs may improve control if conditions are favorable for water evaporation (e.g. high air temperature and/or low humidity). For ground or aerial 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 sufficient application volume to assure adequate coverage. **A167.02** may be mixed with other insecticides being applied for other cotton insects. When emulsify able concentrate insecticide formulations are used with oil and **A167.02** 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 **A167.02**, its visible effects on larvae/nymphs may not be seen for 5 to 7 days following application.		
	COTTONSEED SUBGROUP 20C RESTRICTIONS: • DO NOT make more than 6 applications per season. • DO NOT application more than 8 fl. oz. of **A167.02** (0.125 lb. a.i.) per acre per application. • DO NOT apply more than 24 fl. oz. of **A167.02** (0.375 lb. a.i.) per acre per calendar year. • DO NOT exceed 3 applications and 12 fl. oz. (0.188 lb. a.i.) per acre per calendar year post boll opening. • **Pre-harvest interval:** DO NOT harvest within 14 days of application.		

Crops	Pests	Application Rate (fl. oz./acre)	Application Timing
GRASSLAND[**] (includes 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)	Grasshopper Mormon Cricket	1 - 2 (0.016-0.031 lb. a.i.)	Use 1 application on early instar (majority in the 2nd through 4th instar nymphal stages); use higher listed rate for pastureland.
		0.75 – 1 (0.012-0.016 lb. a.i.)	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 conservation biological, control to allow **A167.02** 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 **A167.02** may be applied on as little as 50% of the infested acreage (e.g. skipping a 100-ft swath for every 100 ft treated), up to 100% infested acreage. 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 **A167.02** up to a blanket (100%) coverage with 1 fl. oz. per acre.
		0.5 – 1 (0.008-0.016 lb. a.i.)	If a second application is made, apply 2 to 3 weeks after the first application.
	Lepidopteran foliage feeding caterpillars such as: Fall Armyworm Striped Grass Looper	2 (0.031 lb. a.i.)	For maximum control use **A167.02** at first sign of hatch outs and prior to larvae reaching fourth instars (<1/2 inch). **A167.02** must be ingested and larvae must molt before populations are reduced.
	Horn Fly Face Fly	2 (0.031 lb. a.i.)	Apply **A167.02** for the control of Horn fly and Face fly emergence from cattle manure patties for two weeks or longer.
	Apply **A167.02** at 2 fl. oz. (0.031 lb. a.i.)/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 **A167.02** 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. **A167.02** remains active on the foliage and will continue to control larvae and grasshoppers/Mormon crickets that hatch later in the season. **A167.02** 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, tank-mix **A167.02** with a registered adulticide to control later hatching species. 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, 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.		
	GRASSLAND RESTRICTIONS: • DO NOT apply more than 2 fl. oz. of **A167.02** (0.031 lb. a.i.) per acre per application. • DO NOT apply more than 6 fl. oz. of **A167.02** (0.094 lb. a.i.) per acre per calendar year. • DO NOT apply more than 12 applications per year. • Allow at least 1 day after treatment before cutting grass. • Apply only 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). [**Not registered for use in New York]		

Crops	Pests	Application Rate (fl. oz./acre)	Application Timing
LEAFY BRASSICA GREENS SUBGROUP 5B[**] includes: Broccoli raab Cabbage Chinese (bok choy) Collards Kale Mizuna Mustard greens Mustard spinach Rape greens Turnip greens	Grasshopper	2 – 4 (0.031-0.063 lb. a.i.)	Apply to grasshoppers in the 2nd to 3rd nymphal stage of development. Reapply in 7-day intervals if nymphal hatchout/crop reinfestation continues. **A167.02** 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 should occur, 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 **A167.02** 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.		
	LEAFY BRASSICA GREENS SUBGROUP 5B RESTRICTIONS: • DO NOT make more than 4 applications per year. • DO NOT apply more than 4 fl. oz. of **A167.02** (0.063 lb. a.i.) per acre per application. • DO NOT apply more than 16 fl. oz. of **A167.02** (0.250 lb. a.i.) per acre per calendar 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]		

Crops	Pests	Application Rate (fl. oz./acre)	Application Timing
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	Carrion Beetle[*] Darkling Beetle[*] Hide Beetle[*] [*Not registered for use in California]	12 fl. oz. (0.188 lb. a.i.) /1000 ft^2 in 2 to 20 gals water per 1000 ft^2	**Broadcast Application** – Apply as a whole house broadcast spray to the litter following de-caking, as well as to floors, walls, posts, cage frames (at least 1 foot up from floor), 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. **Band Application** – 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. Lower sections of walls, posts and cage frames should also be treated at least 1 foot up from the floor.
	House Fly Stable Fly Face Fly Horn Fly	12 fl. oz. (0.188 lb. a.i.) /1000 ft^2 in 2 to 20 gals water per 1000 ft^2	**Broadcast Application** - 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.
		7.5 fl. oz. (0.117 lb. a.i.) in 15 gals water	**Spot Treatments** – Apply as a directed spray at a volume of 1 quart of spray solution to 10 sq ft of surface area. 15 gallons of spray solution will treat 600 sq ft. 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.
	Livestock / poultry operations includes farms, farm buildings, barns, feedlots, 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. 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. **A167.02** 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 **A167.02** may be desirable to achieve rapid reduction of that population.		
	LIVESTOCK / POULTRY PREMISES RESTRICTIONS: • 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) - Apply only once per production cycle at a rate not to exceed 520 fl. oz. of **A167.02** per calendar year. • Spot treatment applications - For outdoor use, DO NOT apply more than 7.5 fl. oz. of **A167.02** (0.117 lb. a.i.) per acre per application and do not exceed 17 applications per calendar year. For indoor use, do not apply more than 4 gal. of **A167.02** (8 lb. a.i.) per acre per calendar year. • Manure and process wastewater shall not be applied closer than 100 feet to any down gradient surface waters, open tile line intake structures, sinkholes, 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. • For spot treatment in poultry houses, make applications only between production cycles, and not while birds are in the houses. **[**Not registered for use in New York]**		

Crops	Pests	Application Rate (fl. oz./acre)	Application Timing
NON-CROP AREAS [**] (includes field border, fence rows, roadsides, farmsteads, ditchbanks, wasteland, Conservation Reserve Program CRP Land)	Grasshopper Mormon Cricket	2 (0.031 lb. a.i.)	Apply **A167.02** 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. a.i.)	For maximum control use **A167.02** at first sign of hatch outs and prior to larvae reaching fourth instars (<1/2 inch). **A167.02** 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.		
	NON-CROP AREAS RESTRICTIONS: • DO NOT apply more than 2 fl. oz. of A167.02 (0.031 lb. a.i.) per acre per application. • DO NOT apply more than 6 fl. oz. of A167.02 (0.094 lb. a.i.) per acre per calendar year. • DO NOT apply more than 12 applications per year. • Allow at least 1 day after treatment before cutting grass. [**Not registered for use in New York]		

Crops	Pests	Application Rate (fl. oz./acre)	Application Timing
PEACH SUBGROUP[**] 12-12B includes: nectarine and peach and cultivars, varieties and hybrids of these. **PLUM 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.	Peach Twig Borer	12 – 16 (0.188-0.250 lb. a.i.)	Apply **A167.02** at a rate 12 - 16 fl. oz. (0.188-0.250 lb. a.i.) per acre. Two applications can be made with a 14-day interval between applications. **Dormant/delayed dormant:** Apply **A167.02** 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 **A167.02** 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.
	Fall webworm Filbert leafroller Oblique banded leafroller Omnivorous leafroller Omnivorous leaftier Oriental fruit moth Redhumped caterpillar Variegated leafroller Walnut caterpillar Winter moth Codling moth[*] Katydids[*] Plum curculio[*] [*Not registered for use in California]	8 – 16 (0.125-0.250 lb. a.i.)	Apply **A167.02** at a rate of 8 to 16 fl. oz. (0.125-0.250 lb. a.i.) per acre. Two applications can be made with a 14-day interval between applications. Apply **A167.02** 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.		
	PEACH AND PLUM RESTRICTIONS: • DO NOT make more than 2 applications per calendar year. • DO Not apply more than 16 fl. oz. of **A167.02** (0.250 lb. a.i.) per acre per application. • DO NOT apply more than 32 fl. oz. of **A167.02** (0.500 lb. a.i.) per acre per calendar year. • Allow at least 14 days between applications. • **Pre-Harvest Interval:** Allow at least 14 days after treatment before harvest. [**Not registered for use in New York]		

<table>
<tr><th>Crops</th><th>Pests</th><th>Application Rate
(fl. oz./acre)</th><th>Application Timing</th></tr>
<tr><td rowspan="4">PEANUTS[**]</td><td>Velvet Bean Caterpillar
Mexican Bean Beetle
Green Cloverworm</td><td>2 – 4
(0.031-0.063 lb. a.i.)</td><td rowspan="3">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.</td></tr>
<tr><td>Redneck Peanut Worm[*]

[*Not registered for use in California]</td><td>4
(0.063 lb. a.i.)</td></tr>
<tr><td>Armyworm, such as:
Beet armyworm
Fall armyworm
Southern armyworm
Yellow-striped armyworm
Lesser Cornstalk Borer
Soybean Looper (suppression)</td><td>2 – 8
(0.031-0.125 lb. a.i.)

California only:
4 – 8
(0.063-0.125 lb. a.i.)</td></tr>
<tr><td>Grasshopper</td><td>2
(0.031 lb. a.i.)</td><td>For best results, apply when the majority of infesting grasshoppers have reached the 2nd to 3rd nymphal stage of development. A167.02 is not effective in controlling grasshoppers once they reach the adult stage. If a large influx from neighboring fields should occur, the time to reduce that population may not be short enough to minimize extensive foliage feeding. Use a tank mix with a knockdown insecticide under these conditions.</td></tr>
<tr><td colspan="3">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: See Cotton section.

Since A167.02 is an insect growth regulator, larvae/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.</td></tr>
<tr><td colspan="3">PEANUT RESTRICTIONS:
DO NOT make more than 3 applications per season.
DO NOT apply more than 8 fl. oz. of A167.02 (0.125 lb. a.i.) per acre per application.
DO NOT apply more than 24 fl. oz. of A167.02 (0.375 lb. a.i.) per acre per calendar year.
Pre-harvest interval: DO NOT harvest within 28 days of application.
[**Not for use in New York]</td></tr>
</table>

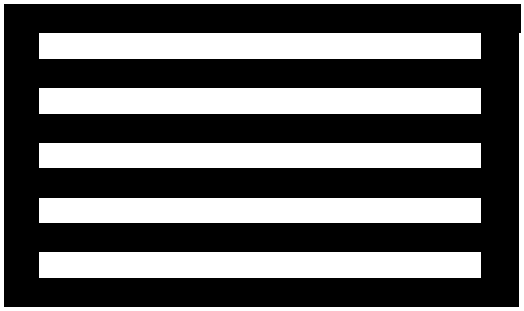
Crops	Pests	Application Rate (fl. oz./acre)	Application Timing
PEARS[**]	Pear Psylla (pre-bloom)	40 – 48 (0.625-0.750 lb. a.i.)	Apply in 80 to 400 gallons of water per acre during the delayed dormant to the popcorn stage period. Complete uniform coverage of the tree is essential to achieve insect control. 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. **A167.02** 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. a.i.)	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. a.i.)	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.
	Codling Moth	12 – 16 (0.188-0.250 lb. a.i.)	Apply in a minimum of 80 gallons of water per acre. Use the lower rate where there is light codling moth pressure and/or on small trees. Complete coverage of the fruit and foliage in all areas of the trees is essential for insect control. Timing of application is extremely important because **A167.02** 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. 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. Apply second application about 14 to 18 days after the first. If necessary, apply third and fourth 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. Combination with organophosphates for codling moth control: **A167.02** can be used in combination with an organophosphate insecticide, to save a trip through the orchard and to make timing of the **A167.02** sprays easier. The combination is more effective than **A167.02** 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 **A167.02** 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 **A167.02** alone prior to egg laying. Do not use oil in tank mix with **A167.02** in late season treatments. 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 **A167.02** alone or in combination may be applied 14 to 18 days later.
	Leafminer	8 – 16 (0.125-0.250 lb. a.i.)	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 **A167.02** in the same manner. It is desirable to have **A167.02** 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.
	Katydids[*] Pear slugs (sawflies)[*]	8 (0.125 lb. a.i.)	Apply when early instars are first notices. **A167.02** must be ingested and nymphs/instars must molt before populations are reduced. **A167.02** will not control katydids and pear slugs once in the adult insect stage. Repeat application for subsequent generations. Allow at least 14 days between successive applications.
	Oil may cause injury to certain pear varieties. Check compatibility of oil mixtures with your local tree fruit specialist.		

	PEAR RESTRICTIONS: • DO NOT apply more than 4 applications per year. • DO NOT apply more than 48 fl. oz. of **A167.02** (0.750 lb. a.i.) per acre per application. • DO NOT apply more than 64 fl. oz. of **A167.02** (1.000 lb. a.i.) per acre per calendar year. • **Pre harvest interval:** DO NOT harvest within 14 days of application. • DO NOT use oil in tank mix in late season treatments (3rd and 4th applications). [* Not registered for use in California] [**Not registered for use in New York]

Crops	Pests	Application Rate (fl. oz./acre)	Application Timing
PEPPER / EGGPLANT SUBGROUP[**] 8-10B includes: African eggplant; bell pepper; eggplant; martynia; nonbell pepper; okra; pea eggplant; pepino; roselle; scarlet eggplant; cultivars, varieties, and/or hybrids of these.	Beet armyworm Fall armyworm Southern armyworm and other foliage feeding Lepidopteran insects	4 – 8 (0.063-0.125 lb. a.i.)	Make initial application of 4 - 8 fl. oz. (0.063-0.125 lb. a.i.) **A167.02** 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. a.i.)	Apply **A167.02** at 4 - 8 fl. oz. (0.063-0.125 lb. a.i.) 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 **A167.02** will not control adults; however eggs laid by adults will exhibit reduced hatching in fruits once adults have consumed or contacted residues of **A167.02** on pepper tissue.
	Aerial application: Apply in sufficient water (3 to 10 gallons per acre) to achieve uniform coverage of foliage. **Ground application:** Use a minimum of 30 gallons of water per acre to give uniform coverage. **Adjuvant Usage:** See Cotton Section. Since **A167.02** 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.		
	PEPPER/EGGPLANT SUBGROUP 8-10B RESTRICTIONS: • DO NOT apply more than 8 fl. oz. of **A167.02** (0.125 lb. a.i.) per acre per application • DO NOT apply more than 24 fl. oz. of **A167.02** (0.375 lb. a.i.) per acre per calendar year. • DO NOT apply more than 5 applications per year. • Allow a minimum of 7 days between any two applications. • **Pre-harvest interval:** DO NOT apply within 7 days of harvest. [**Not registered for use in New York]		

Crops	Pests	Application Rate (fl. oz./acre)	Application Timing
RICE	Rice Water Weevil (Southern U. S. Rice Belt) - drill seeded, dry seeded or water seeded delayed flood rice	12 – 16 (0.188-0.250 lb. a.i.)	Make a single application of **A167.02** 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) – water seeded, pinpoint flood or continuous flood rice	8 + 8 (0.125 + 0.125 lb. a.i.)	To control larvae, apply split applications. Apply 8 fl. oz. (0.125 lb. a.i.) 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. a.i.) 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. a.i.)	To control larvae apply **A167.02** 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. a.i.) **A167.02** if infestations have been historically high.
	Tadpole Shrimp[*]	4 – 8 (0.063-0.125 lb. a.i.)	Apply **A167.02** at 4-8 fl. oz. (0.063-0.125 lb. a.i.) 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 **A167.02** at 8 fl. oz. (0.125 lb. a.i.) 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. a.i.)	Apply **A167.02** at 4-8 fl. oz. (0.063-0.125 lb. a.i.) per acre to rice when Yellowstiped armyworm eggs or larvae are first observed on plants. Use 4 fl. oz. (0.063 lb. a.i.) per acre for small larvae (1st to 3rd instar), and 8 fl. oz. (0.125 lb. a.i.) per acre for large larvae (4th to 6th instar).
	Consult your local extension service for determination of economic threshold and/or determination of oviposition. **A167.02** 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. **A167.02** will prevent tadpole shrimp from successfully molting. **A167.02** does not appear to control adult tadpole shrimp. **A167.02** will prevent Yellowstriped armyworm larvae from successfully molting. **A167.02** does not control adult Yellowstriped armyworm moths. Apply **A167.02** by air using at least 5 gallons total volume per acre. **A167.02** is not phytotoxic to rice. **A167.02** can be safely applied in combination with post permanent flood herbicides containing propanil, quinclorac, triclopyr, or bensulfuron-methyl. However, before using a tank-mix combination, read each product label carefully and follow Precautionary Statements on each label.		
	RICE RESTRICTIONS: • DO NOT apply more than 16 fl. oz. of **167.02** (0.250 lb. a.i.) per acre per application. • DO NOT apply more than 16 fl. oz. of **A167.02** (0.250 lb. a.i.) per acre per calendar year. • DO NOT apply more than 4 applications per year. • **Preharvest interval:** DO NOT harvest within is 80 days of application. • DO NOT use on rice fields in which crayfish (crawfish) farming is included in the cultural practice. • DO NOT drain treated water onto 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 **A167.02**. • DO NOT impregnate on granular materials. • DO NOT use on wild rice (*Zizania* spp.) • DO NOT apply **A167.02** if flooding is in progress. Activity will be reduced. Since **A167.02** is water active, the entire field must be treated. For maximum activity of **A167.02** do not disturb flood 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 **A167.02**. [* Not registered for use in California]		

[1] Example of perimeter and strip application.



Treated Area **Untreated Area**

Crops	Pests	Application Rate (fl. oz./acre)	Application Timing
SOYBEANS[*]	Velvet Bean Caterpillar Mexican Bean Beetle Green Cloverworm	2 – 4 (0.031-0.063 lb. a.i.)	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 30 days. **A167.02** may be applied at the lower rate (2 fl. oz.; 0.031 lb. a.i.) to prevent velvet bean caterpillar build-up when the vegetative growth of soybeans is completed and as pod formation begins. Consult local Extension Service regarding infestation levels requiring treatment.
	Beet Armyworm Fall Armyworm Soybean Looper (suppression)	4 (0.063 lb. a.i.)	Application must be made when worms are small before populations build.
	Grasshopper	2 (0.031 lb a.i.)	Apply when the majority of infesting grasshoppers have reached the 2nd to 3rd nymphal stage of development. **A167.02** is not effective in controlling grasshoppers once they reach the adult stage. If a large influx from neighboring fields should occur, the time to reduce that population may not be short enough to minimize extensive foliage feeding; 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:** See Cotton Section. Since **A167.02** 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 **A167.02** under field conditions on both determinate and indeterminate cultivars. Application of 2 - 4 fl. oz. 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).		
	SOYBEANS RESTRICTIONS: • DO NOT make more than 2 applications per season. • DO NOT apply more than 4 fl. oz. of **A167.02** (0.063 lb. a.i.) per acre per application. • DO NOT apply more than 8 fl. oz. of **A167.02** (0.125 lb. a.i.) per acre per calendar year. • **Pre-harvest interval:** DO NOT harvest within 21 days of application. [*Not registered for use in California]		

Crops	Pests	Application Rate (fl. oz./acre)	Application Timing
TREE NUTS GROUP 14-12[**] includes: African tree nut Almond Beech nut Brazil nut Butternut Brazilian pine Bunya Bur oak 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 Pecan Pistachio Sapucaia nut Tropical almond Walnut (black & English) Yellowhorn Cultivars, varieties, and/or hybrids of these	Codling Moth	16 (0.250 lb. a.i.)	**A167.02** is most effective when applied prior to egg laying. **A167.02** 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. Because of fluctuations in temperature, the emergence and moth flights of the over-wintering population may be extended over a long period of time. Under such circumstances, **A167.02** should be tank mixed with an organophosphate insecticide at its lowest label rate. This tank mix should be applied at normal 1st organophosphate timing. Later in the season, if egg laying has already occurred before application of **A167.02**, tank mix **A167.02** with an organophosphate as previously described.
	Filbert Worm	12 – 16 (0.188-0.250 lb. a.i.)	The lower rate may be used where filbert worm pressure is low and/or the trees aresmall. The higher listed rate is necessary when worm pressure is moderate to high and/or the trees are large. Apply **A167.02** 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. **A167.02** 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 **A167.02**. Normally **A167.02** will give season long control. If moth pressure remains high, additional applications should be made.
	Hickory Shuckworm	8 – 16 (0.125-0.250 lb. a.i.)	Apply split applications of **A167.02** at 4 - 8 fl. oz. (0.063-0.125 lb. a.i.) 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 **A167.02** 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.
	Peach Twig Borer	12 – 16 (0.188-0.250 lb. a.i.)	**Dormant/delayed dormant:** Apply **A167.02** at the rate of 12 - 16 fl. oz. (0.188-0.250 lb. a.i.) 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 **A167.02** in the rate range if the crop has a history of heavy infestations. **Bloom:** Apply **A167.02** at the rate of 12 - 16 fl. oz. (0.188-0.250 lb. a.i.) per acre starting at early bloom. Always use the higher listed rate of **A167.02** in the rate range if the crop has a history of heavy infestations. **Spring flight ("May Spray"):** Using pheromone traps to determine flight activity, apply **A167.02** at the rate of 16 fl. oz. (0.250 lb. a.i.) per acre at initial flight activity. **Summer flight:** Using pheromone traps to determine flight activity, apply **A167.02** at the rate of 16 fl. oz. (0.250 lb. a.i.) per acre at initial flight activity.
	Pecan Nut Case-Bearer	8 – 16 (0.125-0.250 lb. a.i.)	Apply split applications of **A167.02** at 4 - 8 fl. oz. (0.063-0.125 lb. a.i.) 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). Apply **A167.02** 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.
	Pecan Weevil (suppression)	8 – 16 (0.125-0.250 lb. a.i.)	Use the higher listed rate if weevils are attacking fruit and for higher infestations.

Crops	Pests	Application Rate (fl. oz./acre)	Application Timing
	Others, including: Fall webworm Filbert leafroller Oblique banded leafroller Omniverous leafroller Omniverous leaftier Oriental fruit moth Redhumped caterpillar Variegated leafroller Walnut caterpillar Winter moth	8 – 16 (0.125-0.250 lb. a.i.)	Apply **A167.02** 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. a.i.)	**A167.02** 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.
	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. For optimal results, use enough water for thorough coverage and make sure that canopy is evenly and thoroughly covered.. 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.		
	TREE NUTS GROUP 14-12 RESTRICTIONS: • Pre-harvest interval is 28 days. • DO NOT apply more than 16 fl. oz. of **A167.02** (0.250 lb. a.i.) per acre per application. • DO NOT exceed 64 fl. oz. of **A167.02** (1.000 lb. a.i.) per acre per year. • DO NOT make more than 4 applications per season (3 for walnuts). [* Not registered for use in California] [**Not registered for use in New York]		

Crops	Pests	Application Rate (fl. oz./acre)	Application Timing
TURFGRASS[**] (for use on sod farms only)	Lepidopteran foliage feeding caterpillars such as: Sod webworm Armyworms, including: Fall, True, Southern, Beet, Yellow-striped, Striped Grass Looper, Granulate Cutworm	2 (0.031 lb. a.i.)	Apply **A167.02** 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. **A167.02** 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.
	Application Instructions **A167.02** can be applied in 20 to 50 gallons of water per acre depending on the density of turf and caterpillar pressure. Use higher volume of water for greater insect pressure or dense foliage. **A167.02** can be reapplied, if necessary, after an application interval of 14 days.		
	TURFGRASS (for use on sod farms only) RESTRICTIONS: • DO NOT exceed a total of 4 applications per year. • DO NOT apply more than 2 fl. oz. of **A167.02** (0.031 lb. a.i.) per acre per application. • DO NOT apply more than 8 fl. oz. of **A167.02** (0.125 lb. a.i.) per acre per calendar year. [**Not registered for use in New York]		

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a tightly closed container in a cool, dry place.

PESTICIDE DISPOSAL: Pesticide spray mixture or rinsate that cannot be used should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING:

For plastic containers ≤ 5 gallons: Nonrefillable Container: Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.

For plastic containers > 5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Recap 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. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.

LIMITATION OF WARRANTY AND LIABILITY

IMPORTANT: READ BEFORE USE. Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Disclaimer of Warranties and Limitations of Liability. **CONDITIONS:** 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. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of ATTICUS, LLC. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, ATTICUS, LLC makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label. **LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, neither ATTICUS, LLC the manufacturer, nor the Seller shall be liable for any indirect, special, incidental or consequential damages resulting from the use, handling, application, storage, or disposal of this product. To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use, handling, application, or storage of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid.

[A167.02] is a trademark of Atticus, LLC

[[Micromite®] [2 L] is a registered trademark of MacDermid Agricultural Solutions, Inc. [Dimilin®] [2 L] is a registered trademark of an Arysta LifeScience Group Company.]

[Facet L® (7969-315, quinclorac, dimethylamine salt)[is a registered trademark of BASF Corporation.]]

[Grandstand® R (62719-215, triclopyr, triethylamine salt)[is a registered trademark of Corteva Agriscience, LLC.]]

[Londax® Herbicide (70506-372, bensulfuron methyl)[is a registered trademark of UPL NA, Inc.]]

{LANGUAGE ON LABEL AFFIXED TO CONTAINER}

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

A167.02™

[*Alternate Brand Name:* Durant 2 L, Durant 2 L IGR]

Contains diflubenzuron, the active ingredient used in [Dimilin®] [2L] [and] [Micromite®] [2L].

[Insect Growth Regulator]
[Aqueous Flowable]

[For use on alfalfa; artichoke; barley; carrot (not grown for seed); citrus crop group 10-10[*]; cottonseed, subgroup 20C; leafy brassica, subgroup 5B (including turnip greens); oats, ; peach, subgroup 12-12B; plum, subgroup 12-12C; peanuts; pears; peppers/eggplant, subgroup 8-10B; rice; soybeans; tree nuts, crop group 14-12; triticale; wheat; citrus crop group 10-10; cottonseed, subgroup 20C; grassland; non-crop areas; leafy brassica, subgroup 5B (including turnip greens); livestock / poultry premises; peach, subgroup 12-12B; plum, subgroup 12-12C; peanuts; pears; peppers/eggplant, subgroup 8-10B; rice; soybeans; tree nuts, crop group 14-12; grassland; livestock / poultry premises; non-crop areas; and turfgrass (for use on sod farms only).]

[*In California – only approved for use on orange, grapefruit, tangerine, pummelo and their hybrids.]

[Not for Homeowner/Residential Use]

ACTIVE INGREDIENT:	**(% by weight)**
Diflubenzuron: [((4-Chlorophenyl)amino)carbonyl]-2,6-difluorobenzamide*	22.0%
OTHER INGREDIENTS:	78.0%
TOTAL	100.0%

*Contains 2 lbs. diflubenzuron per gallon

KEEP OUT OF REACH OF CHILDREN

CAUTION

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

FIRST AID	
If swallowed:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If on skin or clothing:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If in eyes:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at **1-844-685-9173** for emergency medical treatment information.	

For Chemical Emergency:
Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

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 of 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 application
- Ingestion of residues in nectar and pollen when the pesticide is applied as a foliar application

When Using This Product, Take Steps To:

- Minimize exposure of this product to bees and other insect pollinators when they are foraging on pollinator attractive plants around the application site
- inimize 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 reduced immature bee viability.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a tightly closed container in a cool, dry place.

PESTICIDE DISPOSAL: Pesticide spray mixture or rinsate that cannot be used should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING:

For plastic containers ≤ 5 gallons: Nonrefillable Container: Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.

For plastic containers > 5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Recap 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. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.

See inside label booklet for additional Precautionary Statements and Directions for Use.

[A167.02] is not manufactured, or distributed by Arysta LifeScience North America LLC, seller of [Dimilin®] [2 L] [and] [Micromite®] [2 L].

Manufactured for:
Atticus, LLC
5000 CentreGreen Way, Suite 100
Cary, NC 27513

EPA Reg. No. 91234-103
EPA Est. No. _____
NET WEIGHT: _____
20211029a