



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505T)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number: **91234-436** Date of Issuance: **2/5/26**

NOTICE OF PESTICIDE:

Registration
 Reregistration
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

A109.101

Name and Address of Registrant (include ZIP Code):

Atticus, LLC
940 NW Cary Parkway, Suite 200
Cary, NC 27513

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
2. The data requirements for storage stability (Guideline 830.6317) are not satisfied. You have 18 months from the date of registration to provide these data.

Continues page 2

Signature of Approving Official:

Date:

2/5/26

Jacquelyn Herrick, Product Manager 3
Invertebrate-Vertebrate Branch 1, Registration Division (7505T)

EPA Form 8570-6

3. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, "EPA Reg. No. 91234-436."
4. Submit one copy of the final printed label for the record before you release the product for shipment.

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 FIFRA 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) lists 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 these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

The record for this product currently contains the following CSF:

- Basic CSF dated 02/28/2025

If you have any questions, please contact Laura Rademacher at Rademacher.Laura@epa.gov.

Enclosure

ACCEPTED

02/05/2026

Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No. 91234-436

{Note to reviewer: [Text] in brackets denotes optional or explanatory language}

{Note to reviewer: {Text} in braces denotes where in the final label text will appear}

{BOOKLET FRONT PANEL LANGUAGE}**RESTRICTED USE PESTICIDE**

Due to Toxicity to Fish and Aquatic Organisms

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.

CYFLUTHRIN GROUP 3A INSECTICIDE

A109.101 [TM]

*[Alternate Brand Name: Ringo with Uviate Technology]
[INSECTICIDE]*

[Emulsifiable Pyrethroid Insecticide]**[For Control of Certain Insect Pests on Field, Vegetable, Tree and Vine Crops.]****ACTIVE INGREDIENT:****(% by weight)**

Cyfluthrin:

Cyano(4-fluoro-3-phenoxyphenyl)methyl-3-(2,2-dichloroethenyl)-2,2-dimethyl-cyclopropanecarboxylate.....25.0%

OTHER INGREDIENTS*:.....75.0%**TOTAL**.....100.0%

Contains 2.0 pound Cyfluthrin per gallon.

*This product contains aromatic petroleum distillates.

KEEP OUT OF REACH OF CHILDREN**WARNING/AVISO**

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 inside label booklet for [additional] Precautionary Statements, and Directions for Use.]

[See below for additional Precautionary Statements]

FIRST AID	
If in eyes:	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If swallowed:	<ul style="list-style-type: none"> Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
If inhaled:	<ul style="list-style-type: none"> Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.
If on skin or clothing:	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
NOTE TO PHYSICIAN: Antidote – No specific antidote is available. Treat symptomatically. Published data indicate vitamin E acetate can prevent and/or mitigate symptoms of paresthesia caused by synthetic pyrethroids. Contains petroleum distillates. Vomiting may cause aspiration pneumonia.	

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)

EPA Reg. No.: 91234-XXX

EPA Est. No.:

Net Contents:

Manufactured for:

Atticus, LLC

940 NW Cary Parkway, Suite 200

Cary, NC 27513

{LANGUAGE INSIDE BOOKLET}

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING/AVISO

Causes substantial but temporary eye injury. Harmful if swallowed. Harmful if inhaled. Do not get in eyes or on clothing. Avoid contact with skin. Avoid breathing (vapor or spray mist). Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Do not contaminate feed or food.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Applicators and other handlers must wear:

- Protective eyewear such as goggles, face shield or safety glasses.
- Long-sleeved shirt and long pants,
- Chemical-resistant gloves, such as barrier laminate or Viton > 14 mils.
- Shoes plus socks

Mixers/loaders supporting aerial applications and chemigation applications must wear also (except when using closed mixing/loading systems): A minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R or P filter; OR a NIOSH-approved elastomeric particulate respirator with any N, R or P filter; OR a NIOSH-approved powered air purifying respirator with HE filters.

Discard clothing and other absorbent materials that have been drenched or contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls Statements

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

User Safety Recommendations

Users should:

- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and aquatic invertebrates. For terrestrial uses: Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops if bees are foraging treatment area. **Protect pollinating insects by following label directions intended to minimize drift and to reduce risk to these organisms.** Additional information may be obtained by consulting your Cooperative Extension Service.

PHYSICAL OR CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flame. Do not mix or allow to come in contact with any oxidizing agent. 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 exemptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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

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

- Coveralls,
- Chemical-resistant gloves, such as barrier laminate or viton
- Shoes plus socks, and
- Protective eyewear

A109.101 may be used for control of a broad spectrum of insect pests by contact action. Because of this contact activity, good spray coverage of the crop is needed for the highest level of control.

VEGETATIVE BUFFER STRIP

Construct and maintain a vegetative filter strip, according to the width specified below, of grass or other permanent vegetation between the field edge and nearby down gradient aquatic habitat (such as, but not limited to, lakes; reservoirs; rivers; streams; marshes or natural ponds; estuaries; and commercial fish farm ponds).

Only apply products containing cyfluthrin onto fields where a maintained vegetative filter strip of **at least 25 feet** exists between the field edge and where a down gradient aquatic habitat exists. This minimum required width of 25 feet may be reduced or removed under the following conditions:

- For Western irrigated agriculture, a maintained vegetative filter strip of at least 10 feet wide is required. Western irrigated agriculture is defined as irrigated farmland in the following states: WA, OR, CA, ID, NV, UT, AZ, MT, WY, CO, NM, and TX (west of I-35).
 - For Western irrigated agriculture, if a sediment control basin is present, a vegetative filter strip is not required.
- In all other areas, a vegetative filter strip with a minimum width of 25 feet is required, unless the following conditions are met. The vegetative filter strip requirement may be reduced from 25 feet to 15 feet if at least one of the following applies:
 - The area of application is considered prime farmland (as defined in 7 CFR § 657.5).
 - Conservation tillage is being implemented on the area of application. Conservation tillage is defined as any system that leaves at least 30% of the soil surface covered by residue after planting. Conservation tillage practices can include mulch-till, no-till, or strip-till.
 - A functional terrace system is maintained on the area of application.
 - Water and sediment control basins for the area of application are functional and maintained.
 - The area of application is less than or equal to 10 acres

For further guidance on vegetated filter strips, refer to the following publication for information on constructing and maintaining effective buffers: *Conservation Buffers to Reduce Pesticide Losses*. Natural Resources Conservation Services. <https://www.regulations.gov/document?D=EPA-HQ-OPP-2008-0331-0175>

BUFFER ZONES

Ground Application

- Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

Ultra Low Volume (ULV) Aerial Application

- Do not apply within 450 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds). Applications made by mosquito control districts and other public health officials are exempt from this requirement.

Non-ULV Aerial Application

- Do not apply within 150 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

MANDATORY SPRAY DRIFT MANAGEMENT

Aerial Applications

- Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to select nozzle and pressure that deliver medium or coarser droplets (ASABE S641).
- 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 diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- If the windspeed is 10 miles per hour or less, applicators must use $\frac{1}{2}$ swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use $\frac{3}{4}$ swath displacement upwind at the downwind edge of the field.
- Do not apply during temperature inversions.

Airblast Applications

- Sprays must be directed into the canopy.
- Do not apply when wind speeds exceed 15 mph at the application site.
- User must turn off outward pointing nozzles at row ends and when spraying outer row.
- Do not apply during temperature inversions.

Ground Boom Applications

- User must only apply with the nozzle height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to select nozzle and pressure that deliver medium or coarser droplets (ASABE S572).
- Do not apply when wind speeds exceed 15 mph 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.

RESISTANCE MANAGEMENT

For resistance management, **A109.101** contains a Group 3 insecticide. Any insect population may contain individuals naturally resistant to **A109.101** and other Group 3 insecticides. The resistant individuals may dominate the insect population if this group of insecticides/acaricides 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 **A109.101** or other Group 3 insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides/acaricides 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 Atticus, LLC at 984-465-4800.

APPLICATION DIRECTIONS

For all insects, timing of application should be based on careful scouting and local economic thresholds.

FOLIAR SPRAY APPLICATION

Foliar applications may be made using properly calibrated ground sprayers, fixed- or rotary-winged aircraft or through properly designed, sprinkler-type, chemigation equipment (See **Chemigation Application** directions below). Thorough and uniform coverage of plants, with direct contact of the spray mixture to the target pests, is required for satisfactory control.

Avoid application procedures where thorough coverage of plant is not possible. Applications made with less than thorough coverage may result in slower activity and/or less overall control from a single application than an application made with higher gallonages. See general, Spray Drift Reduction Management, section below for application guidelines on minimizing drift from all application methods.

GROUND APPLICATION

Ground applications should be made in a minimum of 10.0 gallons per acre unless specified otherwise in crop-specific recommended application section.

AERIAL APPLICATION

Aerial applications should be made in a minimum of 2.0 gallons per acre, unless specified otherwise in crop-specific recommended application section; however 5.0 gallons per acre are recommended. See crop specific gallonage requirements. Aerial applications made to dense canopies may not provide sufficient coverage of lower leaves to provide pest control. Higher labeled rates of **A109.101** may be necessary for aerial applications.

CHEMIGATION APPLICATION

Chemigation applications (See **Chemigation Application directions** below) should be made as concentrated as possible. For best results apply at 100% input/travel speed, for center pivots or 0.10 inch (2,716 gallons) up to 0.15 inch (4,073 gallons) of water per acre, for other systems. Higher labeled rates of **A109.101** may be necessary for chemigation applications.

CHEMIGATION APPLICATION DIRECTIONS

Types of Irrigation Systems

A109.101 may be applied through sprinkler type irrigation systems, only. These types include; center pivot, lateral move, or solid set irrigation systems. Do not apply **A109.101** through any other type of irrigation system.

Injection for Chemigation

Inject the specified dosage of **A109.101** into the irrigation main, water stream:

- (1) through a constant flow, metering device;
- (2) into the center of the main line flow via a pitot tube or equivalent;
- (3) at a point ahead of at least one, right-angle turn in main stream flow such that thorough mixing with the irrigation water is ensured.

Uniform Water Distribution and System Calibration

The irrigation system must provide uniform distribution of **A109.101** treated water. Crop injury, lack of effectiveness, or illegal pesticide residues in or on the crop can result from non-uniform distribution. The system must be calibrated to uniformly distribute the rates specified for chemigation application to specific crops. If you have questions about calibration, contact your Cooperative Extension Service agent, equipment manufacturers, or other experts.

Chemigation Monitoring

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.

Required Injection and Sprinkler System Safety Devices

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 back-flow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection. 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/engine stops, or in cases where there is no water pump, when water pressure decreases to the point where pesticide distribution is adversely affected. Injection systems must use a metering pump or equivalent, such as a positive displacement injection pump (e.g., diaphragm pump, venturi injection) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Using Water from Public Water Systems

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, back flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the 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 outlet end of the fill pipe and to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional automatic quick-closing check valve to prevent the flow of fluid back toward the injection. 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.

Chemical Supply Tank Dilution and Agitation

For injection of **A109.101** use a chemical supply tank for pre-mixing **A109.101** with either, water or non-emulsifiable oil before injecting mixture into the irrigation line. Dilution ratio should be at least 4 parts of either water/or non-emulsifiable oil, to 1 part **A109.101**. If necessary, constant mechanical or hydraulic agitation should be maintained in the chemical supply tank during the entire period of application. Determine the required amounts of **A109.101** and either water or non-emulsifiable oil, to mix in the tank. The amount of **A109.101** needed equals the number of fluid ounces of **A109.101** to be applied per acre multiplied by the number of acres to be chemigated.

The amount of emulsion needed equals the gallons of emulsion delivered per hour by the injection pump, multiplied by the number of hours chemigation will take place. The amount of either water or non-emulsifiable oil needed equals the amount of emulsion needed minus the amount of **A109.101** needed.

Posting Requirements

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to the following requirements: Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period. All words shall consist of letters at least 2-1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

This sign is in addition to any sign posted to comply with the Worker Protection Standard.

Cleaning the Chemical Injection System

In order to apply pesticides accurately, the chemical injection system must be kept clean; free from chemical or fertilizer residues and sediments. Refer to your owner's manual or ask your equipment supplier for the cleaning procedure for your injection system.

Flushing the Irrigation System: At the end of the application period, allow time for all lines to flush the pesticide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of pesticides, a dye indicator may be injected into the lines to mark the end of the application period. **Center-Pivot and Automatic-Move Linear Systems:** Inject the specified dosage per acre continuously for one complete revolution (center pivot) or move of the system. The system should be run at maximum speed. It is recommended that nozzles in the immediate area of control panels, chemical supply tanks, pumps and system safety devices be plugged to prevent chemical contamination of these areas. The use of END GUNS is NOT recommended. End guns that provide uneven distribution of treated water can result in crop injury, lack of effectiveness, or illegal pesticide residues in or on the crop.

Solid Set and Manually Controlled Linear Systems

Injection should be during the last 30 to 60 minutes of a regular irrigation period or as a separate 30 to 60 minute application not associated with a regular irrigation.

CROP ROTATION STATEMENT

Treated areas may be replanted with any crop as soon as practical after last application.

MAXIMUM USAGE WHEN APPLYING BOTH CYFLUTHRIN AND BETA-CYFLUTHRIN PRODUCTS TO THE SAME CROP WITHIN THE SAME SEASON: Do not apply more than the maximum seasonal total for each product when used alone, and do not apply more than the combined maximum seasonal total for both products as outlined in the table below.

Crop	Maximum Seasonal Total for Either Product Used Alone (Lb. AI/A)		Maximum Seasonal Total When Applying Both Products to the Same Crop (Lb. AI/A)
	Beta-cyfluthrin*	Cyfluthrin**	Beta-cyfluthrin* PLUS Cyfluthrin**
Alfalfa	0.175	0.350	0.350
Corn (field, pop, seed)	0.088	0.175	0.175
Cotton	0.250	0.500	0.500
Grasses	0.089	0.176	0.176
Peanut	0.066	0.131	0.131
Sorghum	0.066	0.131	0.131
Soybean	0.088	0.175	0.175
Sugarcane	0.132	0.263	0.263
Sunflower	0.066	0.131	0.131
Tobacco	0.002	0.004	0.004
Wheat	0.038	0.076	0.076
Brassica (Cole) Leafy Vegetables, Crop Group 5	0.100	0.200	0.200
Cucurbits, Crop Group 9	0.088	0.175	0.175
Fruiting vegetables, Crop Group 8	0.132	0.263	0.263
Leafy vegetables, Crop Group 4	0.100	0.200	0.200
Dried Shelled Legume Vegetables, Crop Subgroup 6C	0.050	0.100	0.100
Pea, Southern	0.083	0.165	0.165
Potato, and other tuberous &	0.132	0.263	0.263

corm vegetables, Crop Subgroup 1C			
Carrot and Radish	0.110	0.220	0.220
Sweet corn	0.220	0.440	0.440
Citrus, Crop Group 10	0.050	0.100	0.100
Grape	0.100	0.200	0.200
Hops	0.125	0.250	0.250
Pome fruit, Crop Group 11	0.022	0.044	0.044
Stone fruit, Crop Group 12	0.044	0.088	0.088
Tree nut crops, Crop Group 14	0.022	0.044	0.044

*Products such as Cryptoid™ XL (EPA Reg No. 91234-295)

**Any cyfluthrin product approved for crop use.

Following best management practices can help reduce risk to terrestrial pollinators. Examples of best management practices include applying pesticides in the evening and at night when pollinators are not foraging and checking to confirm hive locations before spraying. For additional resources on pollinator best management practices, visit <https://www.epa.gov/pollinator-protection/find-bestmanagement-practices-protect-pollinators>.

Managed pollinator protection plans are developed by states/tribes to promote communication between growers, landowners, farmers, beekeepers, pesticide users, and other pest management professionals to reduce exposure of bees to pesticides. If available, visit state plans for additional information on how to protect pollinators.

How to Report Bee Kills

It is recommended that users contact both the state lead agency and the U.S. Environmental Protection Agency to report bee kills due to pesticide application. Bee kills can be reported to EPA at beekill@epa.gov. To contact your state lead agency, see the current listing of state pesticide regulatory agencies at the National Pesticide Information Center's website: http://npic.orst.edu/reg/state_agencies.htm

FIELD CROPS

APPLICATION DIRECTIONS

For all crops, apply specific dosage of **A109.101** at early threshold for target pest, as population begins to develop. Degree of control or suppression of additional labeled pests will be determined, in part by the stage of pest development at application and infestation level of those pests.

Base application timing on local economic thresholds. **A109.101** may be applied before, during, or after planting. Use the higher rates for moderate to heavy insect pressure. Lower rates are generally adequate for low to moderate insect pressure but require careful scouting and may require more frequent application.

A109.101 is an Emulsifiable Concentrate formulation and is active by contact and ingestion. Thorough coverage is necessary for optimum performance. See **application directions** section for more information.

ALFALFA

Pests Controlled	Rate (Fl. Oz./A)
Alfalfa looper Army cutworms Cutworms Green cloverworm Meadow spittlebug Potato leafhopper	0.8 – 1.6 (0.013 – 0.025 lb. ai)
Alfalfa caterpillar Alfalfa plant bug Alfalfa webworm Alfalfa weevil Armyworm (1st and 2nd instar) Aster leafhopper Beet armyworm (1st and 2nd instar) Corn earworm Corn rootworms (adult) Cucumber beetle (adult) Egyptian alfalfa weevil Fall armyworm (1st and 2nd instar) Grape colaspis (adult) Japanese beetle (adult) June beetle (adult) Loopers Lygus bug Mexican bean beetle Stink bugs Tarnished plant bug Threecornered alfalfa hopper Velvetbean caterpillar Yellowstriped armyworm (1st and 2nd instar)	1.6 – 2.8 (0.025 – 0.044 lb. ai)
Blotch leafminer Grasshoppers Western yellowstriped armyworm (1st and 2nd instar)	2.0 – 2.8 (0.031 – 0.044 lb. ai)
Pests Suppressed: Blue pea aphid Cowpea aphid Pea aphid Whitefly (adult)	2.8 (0.044 lb. ai)
For applications to mixed-stands of ALFALFA with GRASSES intentionally grown for forage or hay, please see the section of this label entitled: GRASS - Pasture/ Rangeland/Grass for Seed/Grass for Hay/Grass in mixed-stands with Alfalfa . Carefully observe the restrictions and use directions associated with both crops.	
Notes and Restrictions: <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI)/Pre-Grazing Interval: 7 days. • Maximum A109.101 allowed per cutting: 5.6 fl. oz./A (0.088 lb. ai/A) • Maximum A109.101 allowed per crop season: 22.4 fl. oz./A (0.35 lb. ai/A) • Make applications as necessary but no closer than a 5-day interval. • Due to potential injury to bees, do not apply to alfalfa grown for seed. 	

CORN - FOLIAR APPLICATIONS
Field Corn, Popcorn, Seed Corn (see Sweet Corn directions in Vegetable Crops Section)

Pests Controlled	Rate (Fl. Oz./A)
Black cutworm	0.8 – 1.6 (0.013 – 0.025 lb. ai)
Flea beetles	
Granulate cutworm	
Sand hill cutworm	
Armyworm (1st and 2nd instar)	1.6 – 2.8 (0.025 – 0.044 lb. ai)
Bean leaf beetle	
Cereal leaf beetle	
Chinch bug	
Click beetle (adult)	
Corn earworm	
Corn rootworms (adult)	
European corn borer*	
Grape colapsis (adult)	
Japanese beetle (adult)	
June beetle (adult)	
Leafhoppers	
Masked chafer (adult)	
Southern armyworm (1st and 2 nd instar)	
Southern corn leaf beetle	
Southwestern corn borer*	
Stalk borer	
Stink bugs	
Webworm	
Western bean cutworm	
Yellowstriped armyworm (1st and 2nd instar)	
Grasshoppers	2.1 – 2.8 (0.033 – 0.044 lb. ai)
Fall armyworm (1st and 2nd instar)	2.8 (0.044 lb. ai)

Notes and Restrictions:

- **Pre-Harvest Interval (PHI):** For grain or fodder 21 days; Green forage may be fed 0 days after last application.
- **Maximum A109.101 allowed per 7-day interval:** 2.8 fl. oz./A (0.044 lb. ai/A)
- **Maximum A109.101 allowed per crop season:** 11.2 fl. zo./A (0.175 lb. ai/A)
- **Maximum number of applications per season:** 4; three applications may be applied up to early dent stage.
- One application may be made between early dent and 21 days before harvest.
- **Minimum ULV application volume (once refined cotton seed/vegetable oil):** 1.0 quart per acre – aerial

*Application must be made prior to the larva boring into the plant.

CORN - SOIL APPLICATIONS
Field Corn, Popcorn, Seed Corn

Pests Controlled	Rate (Fl. Oz./1,000 Row Ft.)	Rate* (Fl. Oz./A) (Based on 30-inch Row Spacing)
Seedcorn maggot Wireworm	0.12 – 0.16	2.0 -2.8
Pests Suppressed: White grub	0.14 – 0.16	2.5 – 2.8
Carrier: A109.101 may be applied in water or in liquid pop-up fertilizer at planting. Apply in a minimum of 2.0 gallons per acre of total mix volume when applied in water. Good agitation must be maintained at all times during application.		
Instructions for Liquid pop-up fertilizer application: Perform a compatibility test prior to mixing the entire tank to ensure that A109.101 will remain in solution while applying. Take a known amount of the fertilizer to be used as a carrier and place in a glass jar. Add the appropriate amount of A109.101 based on the labeled use rate. Add other components to be tank mixed. Gently agitate the solution. Examine the solution for signs of incompatibility such as flocculation, precipitation, separation, etc. If incompatibility occurs contact your local Atticus, LLC representative for additional information. Fertilizers containing zinc have been shown to be incompatible with A109.101 and should not be mixed with A109.101 .		
Placement: Apply total mix volume in the open furrow ahead of the closing wheels for optimum coverage.		
Notes and Restrictions: <ul style="list-style-type: none"> Pre-Harvest Interval (PHI): For grain or fodder 21 days; Green forage may be fed 0 days after last application. Maximum A109.101 allowed at planting: 2.8 fl. oz/A (0.044 lb. ai/A) Maximum A109.101 allowed per crop season: 11.2 fl. oz./A (0.175 lb. ai/A) 		

*Row width adjustment: The above rate calculations are based on a standard 30 inch row spacing. For row spacing of less than 30 inches, adjust the rate of **A109.101** not to exceed 2.8 fluid ounces per acre (0.044 pounds active ingredient per acre). Diminished control may occur when rates are decreased below the recommended minimum rates per 1,000 row feet.

COTTON

Pests Controlled	Rate (Fl. Oz./A)
Cotton leafperforator Cotton leafworm Cutworms Thrips	0.8 – 1.6 (0.013 – 0.025 lb. ai)
Boll weevil Cabbage looper Cotton aphid Cotton bollworm* Cotton fleahopper Cucumber beetle European corn borer Flea beetles Garden webworm Lygus bug* Pink bollworm Saltmarsh caterpillar Southern garden leafhopper Stink bugs	1.6 – 2.6 (0.025 – 0.041 lb. ai)

Tarnished plant bug*	
Threecornered alfalfa hopper	
Tobacco budworm*	
Ovicidal Control:	
Cotton bollworm and tobacco budworm	
Grasshopper	2.0 – 2.8 (0.031 – 0.044 lb. ai)
Beet armyworm (1st and 2nd instar)	3.2
Cotton leafminer	(0.050 lb. ai)
Fall armyworm (1st and 2nd instar)	
Soybean looper	
Yellowstriped armyworm	
Pest Suppressed:	3.2
Whitefly (adult)	(0.050 lb. ai)

Notes and Restrictions:

- **Pre-Harvest Interval (PHI):** 0 day.
- **Maximum A109.101 allowed per 3-day interval:** 3.2 fl. oz./A (0.05 lb. ai/A)
- **Maximum A109.101 allowed per crop season:** 32.0 fl. oz./A (0.5 lb. ai/A)
- **Minimum ULV application volume (once refined cotton seed/vegetable oil):** 1.0 quart per acre – aerial
- Do not graze treated fields.
- Do not make more than a total of 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season.

*See Resistance Management elsewhere on this label.

GRASS

Pasture/Rangeland/Grass for Seed/Grass for Hay/Grass in mixed-stands with Alfalfa

Pests Controlled	Rate (Fl. Oz./A)
Armyworms (1st and 2nd instar)	1.6 – 1.9 (0.025 – 0.030 lb. ai)
Grass thrips	2.6 – 2.8
Grasshoppers	(0.040 – 0.044 lb. ai)

Notes and Restrictions:

Grass for Pasture, Rangeland and Grass for Seed

- **Pre-Grazing Interval:** 0 day (minimum time between last application and beginning of foraging or seed harvest).
- **Maximum A109.101 allowed per 5-day interval:** 2.8 fl. oz./A (0.044 lb. ai/A)
- **Maximum A109.101 allowed per crop season:** 11.3 fl. oz./A (0.176 lb. ai/A)

Grass for Hay

- **Pre-Harvest Interval (PHI):** 0 day (minimum time between last application and baling for harvest).
- **Maximum A109.101 allowed per 5-day interval:** 2.8 fl. oz./A (0.044 lb. ai/A)
- **Maximum A109.101 allowed per cutting:** 11.3 fl. oz./A (0.176 lb. ai/A)

Grass in mixed-stands with Alfalfa

- See additional pests controlled from **ALFALFA** section of label.
- **Pre-Harvest Interval (PHI)/Pre-Grazing Interval:** 7 days (minimum time between last application and beginning of foraging or baling).
- **Maximum A109.101 allowed per cutting:** 2.8 fl. oz./A (0.044 lb. ai/A)
- **Maximum A109.101 allowed per crop season:** 11.3 fl. oz./A (0.176 lb. ai/A)

PEANUT

Pests Controlled	Rate (Fl. Oz./A)
Cutworms Green cloverworm Potato leafhopper Rednecked peanutworm Velvetbean caterpillar	1.0 – 1.8 (0.016 – 0.028 lb. ai)
Armyworm (1st and 2nd instar) Bean leaf beetle Corn earworm Corn rootworms (adult) Grape colaspis (adult) Grasshoppers Japanese beetle (adult) June beetle (adult) Stink bugs Threecornered alfalfa hopper Vegetable weevil	1.8 – 2.4 (0.028 – 0.038 lb. ai)
Beet armyworm (1st and 2nd instar) Fall armyworm (1st and 2nd instar) Southern armyworm (1st and 2nd instar) Whitefringed beetle (adult)	2.4 – 2.8 (0.038 – 0.044 lb. ai)
Pests Suppressed: Soybean looper Thrips Whitefly (adult)	2.8 (0.044 lb. ai)
Notes and Restrictions:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 14 days (minimum time between final application and threshing for seed). • Maximum A109.101 allowed per 10 day interval: 2.8 fl. oz./A (0.044 lb. ai/A) • Maximum A109.101 allowed per crop season: 8.4 fl. oz./A (0.131 lb. ai/A) • Minimum ULV application volume (once refined cotton seed/vegetable oil): 1.0 quart per acre - aerial 	

SORGHUM

Pests Controlled	Rate (Fl. Oz./A)
Cutworms	1.0 – 1.3 (0.016 – 0.020 lb. ai)
Sorghum midge	
Armyworm (1st and 2nd instar)	1.3 – 2.8
Beet armyworm (1st and 2nd instar)	(0.020 – 0.044 lb. ai)
Black woollybear	
European corn borer*	
Fall armyworm (1st and 2nd instar)	
False chinch bug	
Flea beetle	
Sorghum headworm (corn earworm)	
Sorghum webworm	
Southern armyworm (1st and 2nd instar)	
Southwestern corn borer*	
Stalk borer*	
Stink bugs	
True armyworm (1st and 2nd instar)	
Webworms	
Yellowstriped armyworm (1st and 2nd instar)	
Chinch bug	2.0 – 2.8
Grasshoppers	(0.038 – 0.044 lb. ai)
Sugarcane rootstock weevil	
Notes and Restrictions:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 14 days. • If more than 5.6 fluid ounces per acre is applied, allow at least 14 days between last application and grazing. • Maximum A109.101 allowed per 10-day interval: 2.8 fl. oz./A (0.044 lb. ai./A) • Maximum A109.101 allowed per crop season: 8.4 fl. oz./A (0.131 lb. ai./A) • Minimum ULV application volume (once refined cotton seed/vegetable oil): 1.0 quart per acre – aerial 	

*Application must be made prior to the larva boring into the plant.

SOYBEAN

Pests Controlled	Rate (Fl. Oz./A)
Bean leaf beetle (growth stage VC – V2)	0.8 – 1.6
Cutworms	(0.013 – 0.025 lb. ai)
Potato leafhopper	
Thrips	
Green cloverworm	
Bean Leaf Beetles[**]	1.0 – 1.6 (0.016 - 0.025 lb. ai)
Armyworm	1.6 – 2.8
Bean leaf beetle	(0.025 – 0.044 lb. ai)
Bean leaf webber	
Beet armyworm (1st and 2nd instar)	
Blister beetle	
Cabbage looper	
Click beetle (adult)	
Corn earworm	
Corn rootworms (adult)	

Cucumber beetle European corn borer Fall armyworm (1st and 2nd instar) Grape colaspis (adult) Japanese beetle (adult) June beetle (adult) Lygus bug Masked chafer (adult) Mexican bean beetle Saltmarsh caterpillar Silverspotted skipper Southern armyworm (1st and 2nd instar) Stink bugs Tarnished plant bug* Threecornered alfalfa hopper Tobacco budworm* Velvetbean caterpillar Webworm Woollybear caterpillar Yellowstriped armyworm	
Grasshoppers Soybean aphid	2.0 – 2.8 (0.031 – 0.044 lb. ai)
Pests Suppressed: Lesser cornstalk borer Soybean looper*	2.8 (0.044 lb. ai)
[**]Bean Leaf Beetles: Apply specified dosage per acre as a foliar spray when bean leaf beetles begin to migrate into soybean fields. A109.101 should be applied when soybeans are between growth stages VC-V2. To control infestations occurring in soybean past the V2 growth stage or in areas where Bean Pod Mottle Virus transmission is a concern, refer to application rate information contained on the A109.101 label.	
Notes and Restrictions: <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI) or feeding of dry vines: 45 days. Green forage may be fed 15 days after last application. • Maximum A109.101 allowed per 7-day interval: 2.8 fl. oz./A (0.044 lb. ai/A) • Maximum A109.101 allowed per crop season: 11.2 fl. oz./A (0.175 lb. ai/A) • Minimum ULV application volume (once refined cotton seed/vegetable oil): 1.0 quart per acre – aerial 	

*See **Resistance Management** elsewhere on this label.

[**Not Registered for Use by California.]

SUGARCANE

Pests Controlled	Rate (Fl. Oz./A)
Sugarcane borer*	2.1 (0.033 lb. ai)
Rice stalk borer*	2.8 (0.044 lb. ai)

Notes and Restrictions:

- **Pre-Harvest Interval (PHI):** 15 days
- **Maximum A109.101 allowed per 7-day interval:** 2.8 fl. oz./A (0.044 lb. ai/A)
- **Maximum A109.101 allowed per crop season:** 16.8 fl. oz./A (0.263 lb. ai/A)
- For ground application, apply in a minimum of 20.0 gallons per acre.
- **Minimum ULV application volume (once refined cotton seed/vegetable oil):** 1.0 quart per acre – aerial
- Do not apply if soil is saturated with water.
- Do not apply when under conditions that favor runoff.
- Do not apply in the rain.

*Application must be made prior to the larva boring into the plant.

SUNFLOWER

Pests Controlled	Rate (Fl. Oz./A)
Cutworms	0.8 – 1.6
Sunflower beetle	(0.013 – 0.025 lb. ai)
Sunflower stem weevil (adult)	1.6 – 2.4 (0.025 – 0.038 lb. ai)
Banded sunflower moth	2.0 - 2.8
Grasshoppers	(0.031 to 0.044 lb. ai)
Stink bugs	
Sunflower bud moth	
Sunflower headclipping weevil	
Sunflower midge	
Sunflower moth	
Sunflower seed weevil	
Palestripped flea beetle	2.8 (0.044 lb. ai)

Notes and Restrictions:

- **Pre-Harvest Interval (PHI) and Pre-grazing or Foraging interval:** 30 days.
- **Maximum A109.101 allowed per 7-day interval:** 2.8 fl. oz./A (0.044 lb. ai/A)
- **Maximum A109.101 allowed per crop season:** 8.4 fl. oz./A (0.131 lb. ai/A).
- **DO NOT** apply by ULV.

TOBACCO

Pests Controlled	Rate (Fl. Oz./A)
Cutworms	0.28 (0.0044 lb. ai)

Notes and Restrictions:

- Apply up to 7 days following transplanting as an individual plant treatment. **Maximum A109.101 allowed per crop season:** 0.28 fl. oz./A (0.0044 lb.ai/A)
- **Maximum number of applications :** 1
- **Minimum application volume (water):** 15.0 gallons per acre - ground

WHEAT

Pests Controlled	Rate (Fl. Oz./A)
Army cutworm Cereal leaf beetle Cutworms	1.0 - 1.8 (0.016 - 0.028 lb. ai)
Hessian Fly[*]	1.6 – 2.2 (0.025 – 0.034 lb. ai)
Armyworm (1 st and 2 nd instar) Bird cherry-oat aphid* English grain aphid* Fall armyworm (1 st and 2 nd instar) Flea beetles Grasshoppers Grass sawfly Pale western cutworm Russian wheat aphid* Southern armyworm (1 st and 2 nd instar) Stink bugs Yellowstriped armyworm (1 st and 2 nd instar)	1.8 – 2.4 (0.028 – 0.038 lb. ai)
Chinch bug	2.4 (0.038 lb. ai)
For best control, applications must be made prior to insects damaging the plants. Use the higher rate range and increased water volume for applications occurring after plant damage has taken place or following booting in order to receive better coverage. Once damage occurs or plant growth stage reaches booting, control may be limited to suppression only.	
[*] Hessian Fly: For preventative use to break life cycle of and further re-infestation after adult emergence. This product aids in the control of Hessian Fly infestations by targeting adults. A109.101 may be tank-mixed with other pesticides or liquid fertilizers. A jar test for compatibility is suggested before mixing to apply to a commercial field. Make applications when adult Hessian Flies emerge. Refer to local Cooperative Extension Pest Management Guidelines and/or scouting results.	
Notes and Restrictions: <ul style="list-style-type: none"> • Pre-Grazing or Foraging Interval: 3 days. • Pre-Harvest Interval (PHI): 30 days. • Maximum A109.101 allowed per 3-day interval: 2.4 fl. oz./A (0.038 lb. ai/A). • Maximum A109.101 allowed per crop season: 4.8 fl. oz. (0.076 lb. ai/A). • Minimum ULV application volume (cotton seed/vegetable oil): 1.0 quart per acre – aerial 	

[*Not Registered for Use by California.]

VEGETABLE CROPS

APPLICATION DIRECTIONS

For all crops, apply specific dosage of **A109.101** at early threshold for target pest, as population begins to develop. Degree of control or suppression of additional labeled pests will be determined, in part by the stage of pest development at application and infestation level of those pests.

Base application timing on local economic thresholds. **A109.101** may be applied before, during, or after planting. Use the higher rates for moderate to heavy insect pressure. Lower rates are generally adequate for low to moderate insect pressure but require careful scouting and may require more frequent application.

A109.101 is an Emulsifiable Concentrate formulation and is active by contact and ingestion. Thorough coverage is necessary for optimum performance.

BRASSICA (COLE) LEAFY VEGETABLES

Includes all members of Crop Group 5 and Turnip greens: Broccoli, Broccoli raab (rapini)[**], Chinese (gai lon) broccoli, Brussels sprouts, Cabbage, Chinese (bok choy) cabbage[**], Chinese (napa) cabbage, Chinese mustard (gai choy) cabbage, Cauliflower, Cavallo broccoli, Collards[**], Kale[**], Kohlrabi, Mizuna**, Mustard greens, Mustard spinach[**], Rape greens[**]

Pests Controlled	Rate (Fl. Oz./A)
Cutworms	0.8 - 1.6 (0.013 - 0.025 lb. ai)
Potato leafhopper	
Thrips	
Alfalfa looper	1.6 - 2.4 (0.025 - 0.038 lb. ai)
Cabbage looper	
Cabbage webworm	
Imported cabbageworm	
Southern cabbageworm	
Armyworm	2.4 – 3.2 (0.038 - 0.05 lb. ai)
Beet armyworm (1st and 2nd instar)	
Cabbage flea beetle	
Corn earworm	
Diamondback moth (larvae)*	
Fall armyworm (1st and 2nd instar)	
Grasshoppers	
Japanese beetle (adult)	
Lygus bug	
Meadow spittlebug	
Southern armyworm (1st and 2nd instar)	
Stink bugs	
Tarnished plant bug*	
Vegetable weevil (adult)	
Yellowstriped armyworm	
Pests Suppressed:	3.2 (0.05 lb. ai)
Whitefly (adult)	
Notes and Restrictions:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 0 day. • Maximum A109.101 allowed per 7-day interval: 3.2 fl. oz./A (0.05 lb. ai/A) • Maximum A109.101 allowed per crop season: 12.8 fl. oz./A (0.2 lb. ai/A). • For aerial applications, apply in a minimum of 5.0 gallons per acre. • Due to potential injury to bees, do not apply to cole crops grown for seed. 	

*See **Resistance Management** elsewhere on this label.

[**Not Registered for Use by California.]

CUCURBITS (except crops grown for seed)

Includes all members of Crop Group 9: Balsam apple, Balsam pear, Bitter melon, Chayote, Chinese cucumber, Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Edible gourd (includes: hyotan, cucuzza, hechima and Chinese okra), Muskmelon (includes: cantaloupe, true cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon), Pumpkin, Summer squash (includes: crookneck squash, scallop squash, straightneck squash, vegetable marrow, and zucchini), Watermelon, Winter squash (includes: butternut squash, calabaza, hubbard squash, acorn squash and spaghetti squash)

Pests Controlled	Rate (Fl. Oz./A)
Cutworms Potato leafhopper	0.8 - 1.6 (0.013 - 0.025 lb. ai)
Armyworm (1 st and 2 nd instar) Cabbage looper Corn earworm Grasshoppers Melonworm Pickleworm Rindworm Stink bugs	1.6 - 2.4 (0.025 - 0.038)
Cucumber beetle Lygus bug Stripped cucumber beetle Tarnished plant bug* Tobacco budworm	2.4 – 2.8 (0.038 - 0.044)
Pests Suppressed: Whitefly (adult)	2.8 (0.044 lb. ai)
Notes and Restrictions:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 0 day. • Maximum A109.101 allowed per 7-day interval: 2.8 fl. oz./A (0.044 lb. ai/A) • Maximum A109.101 allowed per crop season: 11.2 fl. oz./A (0.175 lb. ai/A) 	

*See Resistance Management elsewhere in this label.

FRUITING VEGETABLES

Includes all members of Crop Group 8: Eggplant, Groundcherry, Pepino, Pepper (includes: bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), Tomatillo, and Tomato

Pests Controlled	Rate (Fl. Oz./A)
Celery leaftier Colorado potato beetle* European corn borer Garden webworm Potato aphid Potato leafhopper Stink bugs Tomato fruitworm (corn earworm) Tomato hornworm	1.6 – 2.8 (0.025 – 0.044)
Beet armyworm (1st and 2nd instar) Cabbage looper Southern armyworm (1st and 2nd instar) Tarnished plant bug* Thrips (except <i>Thrips palmi</i>) Tomato pinworm Variegated cutworm Western yellowstriped armyworm (1st and 2nd instar)	2.1 - 2.8 (0.033 - 0.044 lb. ai)
Flea beetles Garden symphytan[**]	2.8 (0.044 lb. ai)
Pests Suppressed: Leafminers Pepper weevil Whitefly (adult)	2.8 (0.044 lb. ai)
For reduction of damage caused by garden symphytan. Apply specified dosage to the top of the planting beds prior to transplanting. Spray should cover the entire top of the beds.	
Thoroughly incorporate to a depth of approximately 4 to 6 inches. A maximum of 1 pre-transplant application is allowed per crop season.	
Notes and Restrictions: <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI) for tomato: 0 day; PHI for all other fruiting vegetables included in this section: 7 days • Maximum A109.101 allowed per 7-day interval: 2.8 fl. oz./A (0.044 lb. ai/A) • Maximum A109.101 allowed per crop season: 16.8 fl. oz./A (0.263 lb. ai/A) 	

*See **Resistance Management** elsewhere in this label.

[**Not Registered for Use by California.]

LEAFY VEGETABLES

Includes all members of Crop Group 4: Amaranth (Chinese spinach), Arugula (roquette), Cardoon, Celery, Chinese celery, Celuce, Chervil, Chrysanthemum (edible-leaved and garland), Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Florence fennel, Lettuce (head and leaf), New Zealand spinach, Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Rhubarb, Spinach, Swiss chard, Vine spinach

Pests Controlled	Rate (Fl. Oz./A)
Cutworms	0.8 – 1.6 (0.013 – 0.025 lb. ai)
Potato leafhopper	
Thrips	
Alfalfa looper	1.6 – 2.4 (0.025 - 0.038 lb. ai)
Cabbage looper	
Green cloverworm	
Imported cabbageworm	
Saltmarsh caterpillar	
Beet armyworm (1st and 2nd instar)	2.4 – 3.2 (0.038 – 0.05 lb. ai)
Corn earworm	
Diamondback moth (larvae)*	
European corn borer	
Fall armyworm (1st and 2nd instar)	
Flea beetles	
Grasshoppers	
Japanese beetle (adult)	
Leafhoppers	
Lygus bug	
Meadow spittlebug	
Southern armyworm (1st and 2nd instar)	
Stink bugs	
Tarnished plant bug*	
Vegetable weevil (adult)	
Yellowstriped armyworm	
Pests Suppressed:	3.2 (0.05 lb. ai)
Whitefly (adult)	

Notes and Restrictions:

- **Pre-Harvest Interval (PHI):** 0 day
- **Maximum A109.101 allowed per 7-day interval:** 3.2 fl. oz./A (0.05 lb. ai/A).
- **Maximum A109.101 allowed per crop season:** 12.8 fl. oz./A (0.20 lb. ai/A).
- **Minimum application volume (water):** 10.0 gallons per acre – ground; 5.0 gallons per acre – aerial
- Due to potential injury to bees, do not apply to crops grown for seed.

*See Resistance Management elsewhere on this label.

DRIED SHELLLED LEGUME VEGETABLES

Includes all members of Crop Subgroup 6C: Adzuki bean, Blackeyed pea, Broad bean, Catjang, Chickpea, Cowpea, Crowder pea, Field bean, Field pea, Garbanzo bean, Guar, Kidney bean, Lablab bean, Lentil, Lima bean, Lupin (grain, sweet, white and white sweet), Moth bean, Mung bean, Navy bean, Pigeon pea, Pinto bean, Rice bean, Tepary bean, Urd bean (southern pea included in separate section.)

Pests Controlled	Rate (Fl. Oz./A)
Cutworms	0.8 – 1.6
Potato leafhopper	(0.013 – 0.025 lb. ai)
Cowpea curculio*	1.6 – 2.4
Stink bugs	(0.025 - 0.038 lb. ai)
Tarnished plant bug*	
Bean leaf beetle	2.4 – 3.2
Bean leaf webber	(0.038 – 0.05 lb. ai)
Beet armyworm (1st and 2nd instar)	
Blister Beetle	
Cabbage looper	
Corn earworm	
Cucumber beetle	
European corn borer	
Fall armyworm (1st and 2nd instar)	
Grasshoppers	
Green cloverworm	
Japanese beetle (adult)	
Lygus bug	
Mexican bean beetle	
Pea leaf weevil	
Pea weevil	
Saltmarsh caterpillar	
Silverspotted skipper	
Soybean looper*	
Threecornered alfalfa hopper	
Tobacco budworm*	
Velvetbean caterpillar	
Webworm	
Woollybear caterpillar	
Yellowstriped armyworm (1st and 2nd instar)	
Pests Suppressed:	3.2
Pea aphid	(0.05 lb. ai)
Notes and Restrictions:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 7 days (minimum time between final application and threshing for seed) • Maximum A109.101 allowed per 14-day interval: 3.2 fl. oz./A (0.05 lb. ai/A). • Maximum A109.101 allowed per crop season: 6.4 fl. oz./A (0.10 lb. ai/A). • Minimum application volume (water): 10.0 gallons per acre – ground; 5.0 gallons per acre – aerial • For aerial applications, apply in a minimum of 5.0 gallons per acre. • Do not feed treated vines or hay to livestock. 	

*See **Resistance Management** elsewhere on this label.

SOUTHERN PEA

Pests Controlled	Rate (Fl. Oz./A)
Cutworms	0.8 – 1.6
Potato leafhopper	(0.013 – 0.025 lb. ai)
Beet armyworm (1 st and 2 nd instar)	1.6 – 2.1
Fall armyworm (1st and 2nd instar)	(0.025 - 0.033 lb. ai)
Corn earworm	
Cowpea curculio	
Grasshoppers	
Lygus bug	
Stink bugs	
Southern armyworm (1st and 2nd instar)	
Tarnished plant bug*	
Thrips	
Yellowstriped armyworm (1st and 2nd instar)	
Notes and Restrictions:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 3 days • Maximum A109.101 allowed per 5-day interval: 2.1 fl. oz./A (0.033 lb. ai/A). • Maximum A109.101 allowed per crop season: 10.5 fl. oz./A (0.165 lb. ai/A). • Due to potential injury to bees, do not apply to southern peas grown for seed. • Do not feed treated vines or hay to livestock. • Do not apply to cowpea or southern pea varieties grown for livestock feed. 	

*See Resistance Management elsewhere on this label.

POTATO, SWEET POTATO AND OTHER TUBEROUS AND CORM VEGETABLES

Includes all members of Crop Group 1C: Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Edible canna, Cassava (bitter and sweet), Chayote root, Chufa, Dasheen, Ginger, Leren, Potato, Sweet potato, Tanier, True yam, Turmeric, Yam bean

Pests Controlled	Rate (Fl. Oz./A)
Cutworms	0.8 – 1.6
Potato leafhopper	(0.013 – 0.025 lb. ai)
Cabbage looper	1.6 – 2.8
Colorado potato beetle*	(0.025 - 0.044 lb. ai)
European corn borer	
Potato flea beetles	
Potato psyllid	
Potato tuberworm	
Sweet potato weevil (adult)	
Tarnished plant bug*	
Pests Suppressed:	
Aphid	2.8 (0.044 lb. ai)
Notes and Restrictions:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 0 day • If more than 5.6 fluid ounces per acre is applied, allow at least 14 days between last application and grazing. • Maximum A109.101 allowed per 5-day interval: 2.8 fl. oz./A (0.044 lb. ai/A). • Maximum A109.101 allowed per crop season: 16.8 fl. oz./A (0.263 lb. ai/A). 	

*See Resistance Management elsewhere on this label.

CARROT and RADISH

Pests Controlled	Rate (Fl. Oz./A)
Aster leafhopper	1.6 – 2.8 (0.025 – 0.044 lb. ai)
Cutworms	
Flea Beetle	
Potato leafhopper	
Carrot weevil	2.8 (0.044 lb. ai)

Notes and Restrictions:

- **Pre-Harvest Interval (PHI):** 0 day
- **Maximum A109.101 allowed per 7-day interval:** 2.8 fl. oz./A (0.044 lb. ai/A).
- **Maximum A109.101 allowed per crop season:** 14.0 fl. oz./A (0.220 lb. ai/A).
- Do not harvest radish tops (leaves) for human consumption.
- Due to potential injury to bees, do not apply to any of the crops listed in this section grown for seed.

SWEET CORN – Foliar Applications

Pests Controlled	Rate (Fl. Oz./A)
Black cutworm	0.8 – 1.6 (0.013 – 0.025 lb. ai)
Flea beetles	
Granulate cutworm	
Sand hill cutworm	
Armyworm (1 st and 2 nd instar)	1.6 - 2.8 (0.025 - 0.044 lb. ai)
Bean leaf beetle	
Cereal leaf beetle	
Chinch bug	
Click beetle (adult)	
Corn earworm	
Corn rootworms (adult)	
Corn silk fly	
European corn borer*	
Grape colaspis (adult)	
Japanese beetle (adult)	
June beetle (adult)	
Leafhoppers	
Masked chafer (adult)	
Southern armyworm (1st and 2nd instar)	
Southern corn leaf beetle	
Southwestern corn borer*	
Stalk borer*	
Stink bugs	
Webworm	
Western bean cutworm	
Yellowstriped armyworm (1st and 2nd instar)	
Grasshoppers	2.0 – 2.8 (0.031 – 0.044 lb. ai)
Fall armyworm (1 st and 2 nd instar)	2.8 (0.044 lb. ai)

Notes and Restrictions:

- **Pre-Harvest Interval (PHI):** 0 day
- **Maximum A109.101 allowed per 2-day interval:** 2.8 fl. oz./A (0.044 lb. ai/A).

<ul style="list-style-type: none"> • Maximum A109.101 allowed per crop season: 28.0 fl. oz./A (0.44 lb. ai/A). • Minimum ULV application volume (once refined cotton seed/vegetable oil): 1.0 quart per acre – aerial

* Application must be made prior to the larva boring into the plant.

SWEET CORN – Soil Applications[*]

Pests Controlled	Rate (Fl. Oz./1,000 Row Ft.)	Rate (Fl. Oz./A)
Seed corn maggot Wireworm	0.12 – 0.16	2.0 – 2.8
Pest Suppressed: White grub	0.14 – 0.16	2.5 – 2.8

A109.101 may be applied in water or in liquid, pop-up fertilizer at planting. Apply in a minimum of 2.0 gallons per acre of total mix volume when applied in water. Good agitation must be maintained at all times during application.

Instructions For Liquid Pop-Up Fertilizer Application: Perform a compatibility test prior to mixing the entire tank to ensure that **A109.101** will remain in solution while applying. Take a known amount of the fertilizer to be used as a carrier and place in a glass jar. Add the appropriate amount of **A109.101** based on the labeled use rate. Add other components to be tank mixed. Gently agitate the solution. Examine the solution for signs of incompatibility such as flocculation, precipitation, separation, etc. If incompatibility occurs, contact your local Atticus, LLC representative for additional information. Fertilizers containing zinc have been shown to be incompatible with **A109.101**.

Placement: Apply total mix volume in the open furrow ahead of the closing wheels for optimum coverage.

Notes and Restrictions:

- **Pre-Harvest Interval (PHI):** 0 day
- **Maximum A109.101 allowed at planting:** 2.8 fl. oz./A (0.044 lb. ai/A).

[*Not Registered for Use by California.]

TREE AND VINE CROPS

APPLICATION DIRECTIONS

For all crops, apply specific dosage of **A109.101** at early threshold for target pest, as population begins to develop. Degree of control or suppression of additional labeled pests will be determined, in part by the stage of pest development at application and infestation level of those pests.

Application rates within this label are based on full-size mature trees and vines. Base application timing on careful scouting and local economic thresholds. Use the higher rates for moderate to heavy insect pressure. Lower rates are generally adequate for smaller trees/vines or low to moderate insect pressure but require careful scouting and may require more frequent application.

A109.101 is an Emulsifiable Concentrate (EC) formulation and is active by contact and ingestion. Thorough coverage of foliage and fruit is necessary for optimum performance.

CITRUS
[(California and Arizona Only)]

Includes all members of Crop Group 10: Calamondin, Citrus citron, Citrus hybrids (includes chironja, tangelo, and tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Orange (sweet and sour), Pummelo, Satsuma mandarin, Tangelo, White sapote, and other cultivars and/or hybrids of these.

Pests Controlled	Rate (Fl. Oz./A)
Glassywinged sharpshooter	1.6 – 3.2 (0.025 – 0.05 lb. ai)
Foliar feeding cutworms Fuller rose beetle (larvae and adults on foliage) Grasshoppers Root-weevil complex (larvae and adults on foliage)	2.4 – 3.2 (0.038 - 0.05 lb. ai)
Citrus thrips Katydid	6.4 (0.1 lb. ai)
Notes and Restrictions:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 0 day • Maximum A109.101 allowed per 7-day interval: 6.4 fl. oz./A (0.10 lb. ai/A) • Maximum A109.101 allowed per crop season: 6.4 fl. oz./A (0.10 lb. ai/A). • Minimum application volume (water): 25.0 gallons per acre – ground; 25.0 gallons per acre – aerial 	

GRAPE

Includes: Table grape, Raisin, Wine and Muscadine grape

Pests Controlled	Rate (Fl. Oz./A)
Glassywinged sharpshooter	1.6 – 3.2
Grape leaf skeletonizer	(0.025 – 0.05 lb. ai)
Western grape skeletonizer	
Climbing cutworm	2.4 – 3.2
Grape berry moth	(0.038 - 0.05 lb. ai)
Grape bud beetle	
Grape cane gallmaker (adult)	
Grape flea beetle	
Grape leaffolder	
Grape leafhopper	
Grape leafroller	
Grape mealybug (crawlers)	
Omnivorous leafroller	
Orange tortrix	
Thrips	
Variegated leafhopper	
Notes and Restrictions:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 3 days • Maximum A109.101 allowed per 14-day interval: 3.2 fl. oz./A (0.05 lb. ai/A) • Maximum A109.101 allowed per crop season: 12.8 fl. oz./A (0.2 lb. ai/A) • Minimum application volume (water): 50.0 gallons per acre – ground; 25.0 gallons per acre – aerial 	

HOP

Pests Controlled	Rate (Fl. Oz./A)
Hop aphid	3.2
Hop flea beetle	(0.05 lb. ai)
Hop looper	
Hop plant bug	

Notes and Restrictions:

- **Pre-Harvest Interval (PHI):** 7 days
- **Maximum A109.101 allowed per 14-day interval:** 3.2 fl. oz./A (0.05 lb. ai/A)
- **Maximum A109.101 allowed per crop season:** 16.0 fl. oz./A (0.25 lb. ai/A)
- **Minimum application volume (water):** 25.0 gallons per acre – ground; 25.0 gallons per acre – aerial

POME FRUIT

Includes all members of Crop Group 11: Apple, Crabapple, Loquat, Mayhaw, Pear, Oriental pear, Quince

Pests Controlled	Rate (Fl. Oz./A)
Green fruitworm	1.4 – 2.0
Potato leafhopper	(0.022 – 0.031 lb. ai)
White apple leafhopper	
Codling moth	2.0 – 2.4
Oriental fruit moth	(0.031 – 0.038 lb. ai)
Spotted tentiform leafminer	
Stink bugs	
Tarnished plant bug	
Western tentiform leafminer	
Apple leafroller	2.4 – 2.8
Apple maggot	(0.038 – 0.044 lb. ai)
Ermine moth	
European apple sawfly	
Lesser appleworm	
Obliquebanded leafroller	
Pandemis leafroller	
Pear sawfly (larvae = pear slug)	
Periodical cicada	
Plum curculio	
Redbanded leafroller	
San Jose scale (crawlers)	
Tufted apple bud moth	
Variegated leafroller	

Notes and Restrictions:

- **Pre-Harvest Interval (PHI):** 7 days
- **Maximum A109.101 allowed per 14-day interval:** 2.8 fl. oz./A (0.044 lb. ai/A).
- **Maximum A109.101 allowed per crop season:** 2.8 fl. oz./A (0.044 lb. ai/A).
- **Minimum application volume (water):** 100 gallons per acre – ground; 25.0 gallons per acre – aerial

STONE FRUIT

Includes all members of Crop Group 12: Apricot, Cherry (sweet and tart), Nectarine, Peach, Plum (includes chickasaw plum, damson plum, and Japanese plum), Plumcot, Prune (fresh and dried)

Pests Controlled	Rate (Fl. Oz./A)
Green fruitworm	1.4 – 2.0 (0.022 – 0.031 lb. ai)
Lesser peach tree borer	
White apple leafhopper	
Codling moth	2.0 – 2.4 (0.031 - 0.038 lb. ai)
Lygus bug	
Oriental fruit moth	
Stink bugs	
Tarnished plant bug	
American plum borer	2.4 – 2.8 (0.038 – 0.044 lb. ai)
Black cherry aphid	
Cherry fruit fly	
Obliquebanded leafroller	
Omnivorous leafroller	
Peach twig borer	
Periodical cicada	
Plum curculio	
Redbanded leafroller	
Western cherry fruit fly	
Notes and Restrictions:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 7 days • Maximum A109.101 allowed per 14-day interval: 2.8 fl. oz./A (0.044 lb. ai/A). • Maximum A109.101 allowed per crop season: 5.6 fl. oz./A (0.088 lb. ai/A) • Minimum application volume (water): 50.0 gallons per acre – ground; 25.0 gallons per acre – aerial 	

TREE NUT CROPS

Includes all members of Crop Group 14 and Pistachio: Almond, Beechnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert, Hickory nut, Macadamia nut, Pecan, Walnut (black and English)

Pests Controlled	Rate (Fl. Oz./A)
Potato leafhopper	1.4 – 2.0
White apple leafhopper	(0.022 – 0.031 lb. ai)
Ants (on foliage)	2.0 – 2.4
Codling moth	(0.031 – 0.038 lb. ai)
Common earwig	
Filbertworm	
Leaffooted bug	
Navel orangeworm	
Pecan nut casebearer	
Pecan weevil	
Stink bugs	
Tarnished plant bug	
Twolined spittlebug	
Hickory shuckworm	2.4 – 2.8
Obliquebanded leafroller	(0.038 – 0.044 lb. ai)
Peach twig borer	
Walnut husk fly	

Notes and Restrictions:

- **Pre-Harvest Interval (PHI):** 14 days
- **Maximum A109.101 allowed per 14-day interval:** 2.8 fl. oz./A (0.044 lb. ai/A).
- **Maximum A109.101 allowed per crop season:** 2.8 fl. oz./A (0.044 lb. ai/A).
- **Minimum application volume (water):** 100 gallons per acre – ground; 25.0 gallons per acre – aerial

RATE CONVERSION CHART

FL OZ/A	LB. AI/A	A/GAL
0.8	0.013	160
1.0	0.016	128
1.2	0.019	107
1.4	0.022	91
1.6	0.025	80
1.8	0.028	71
2.0	0.031	64
2.2	0.034	56
2.4	0.038	53
2.6	0.041	49
2.8	0.044	46
3.0	0.047	43
3.2	0.050	40
6.4	0.100	20

RATE CONVERSION CHART FOR TREE AND VINE APPLICATIONS**FL OZ/100 GAL OF WATER WHEN USING SPRAY VOLUME OF:**

FL OZ/A	25.0 GPA	50.0 GPA	100 GPA	150 GPA	200 GPA	250 GPA	500 GPA
1.4	5.6	2.8	1.4	0.9	0.7	0.56	0.28
1.6	6.4	3.2	1.6	1.1	0.8	0.64	0.32
2.0	8.0	4.0	2.0	1.3	1.0	0.8	0.4
2.4	9.6	4.8	2.4	1.6	1.2	1.0	0.5
2.8	11.2	5.6	2.8	1.9	1.4	1.1	0.6
3.2	12.8	6.4	3.2	2.1	1.6	1.3	0.65
6.4	25.6	12.8	6.4	4.3	3.2	2.6	1.3

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. Store in original container and out of reach of children, preferably in a locked storage area.

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 $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. 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 $\frac{1}{4}$ 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.

[A109.101 is a trademark of Atticus, LLC.]

[Cryptoid™ XL is a registered trademark of Atticus, LLC.]

{LANGUAGE ON LABEL AFFIXED TO CONTAINER}

RESTRICTED USE PESTICIDE

Due to Toxicity to Fish and Aquatic Organisms

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.

CYFLUTHRIN | **GROUP 3A** **INSECTICIDE**

A109.101[™]

[*Alternate Brand Name: Ringo with Uviate Technology*]

[**INSECTICIDE**]

[**Emulsifiable Pyrethroid Insecticide**]

[**For Control of Certain Insect Pests on Field, Vegetable, Tree and Vine Crops.**]

ACTIVE INGREDIENT: **(% by weight)**

Cyfluthrin:

Cyano(4-fluoro-3-phenoxyphenyl)methyl-3-(2,2-dichloroethyl)-2,2-Dimethyl cyclopropanecarboxylate.....25.0%

OTHER INGREDIENTS:.....75.0%

TOTAL100.0%

Contains 2.0 pound Cyfluthrin per gallon.

*This product contains aromatic petroleum distillates.

KEEP OUT OF REACH OF CHILDREN

WARNING/AVISO

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 in eyes:	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If swallowed:	<ul style="list-style-type: none"> Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
If inhaled:	<ul style="list-style-type: none"> Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.
If on skin or clothing:	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN: Antidote – No specific antidote is available. Treat symptomatically. Published data indicate vitamin E acetate can prevent and/or mitigate symptoms of paresthesia caused by synthetic pyrethroids. Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

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 CHEMTRAC 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

WARNING/AVISO

Causes substantial but temporary eye injury. Harmful if swallowed. Harmful if inhaled. Do not get in eyes or on clothing. Avoid contact with skin. Avoid breathing (vapor or spray mist). Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Do not contaminate feed or food.

ENVIRONMENTAL HAZARDS: This pesticide is extremely toxic to fish and aquatic invertebrates. For terrestrial uses: Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops if bees are foraging treatment area. **Protect pollinating insects by following label directions intended to minimize drift and to reduce risk to these organisms.** Additional information may be obtained by consulting your Cooperative Extension Service.

PHYSICAL OR CHEMICAL HAZARDS: Combustible. Do not use or store near heat or open flame. Do not mix or allow to come in contact with any oxidizing agent. Hazardous chemical reaction may occur.

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. Store in original container and out of reach of children, preferably in a locked storage area.

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 $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. 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 $\frac{1}{4}$ 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.

Manufactured for:

EPA Reg. No.: 91234-XX

Atticus, LLC

EPA Est. No.: _____

940 NW Cary Parkway, Suite 200

NET CONTENTS: _____

Cary, NC 27513

{Optional Marketing graphics}

