

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

December 30, 2019

Beth Anderson Sr. Regulatory Manager Atticus, LLC 5000 CentreGreen Way Suite 100 Cary, NC 27513

Subject: Label Amendment – Addition of Camelina crop use (under Crop Group 20A) Product Name: A110.02 EPA Registration Number: 91234-104 Application Date: 08/27/2019 Decision Number: 555576

Dear Ms. Anderson:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance

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with FIFRA section 6. If you have any questions, please contact Anna Briley by phone at (703) 347-0262, or via email at briley.anna-katrina@epa.gov.

Sincerely,

I d Herrick

Jacquelyn Herrick, Product Manager 03 Invertebrate & Vertebrate Branch 1 Registration Division (7505P) Office of Pesticide Programs

Enclosure

[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} Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

ACCEPTED

12/30/2019

91234-104

RESTRICTED USE PESTICIDE Toxic to fish and aquatic organisms For retail sale to and use only by certified applicators or persons under their direct supervision and only for the uses covered by the certified applicator's certification.

BIFENTHRIN GROUP 3A INSECTICIDE

A110.02™

[Alternate Brand Name: Batallion, Batallion 2 EC]

Contains bifenthrin, the active ingredient used in Brigade® [2EC].

[Insecticide/Miticide]

[For use to control listed insects and mites on artichokes, brassicas, caneberries, canola, cilantro, citrus, coriander, corn, cotton, crambe, cucurbits, dried beans and peas, fruiting vegetables, grapes, head lettuce, hops, leafy brassicas, mayhaw, okra, peanuts, pears, rapeseed, root crops, soybeans, spinach, succulent peas and beans, tobacco, and tuberous and corm vegetables.]

[For use to control listed insect pests on Ornamentals and Trees* (including Field and Container Grown Nursery Stock, Christmas Trees, Interiorscapes and Plantscapes, Lawns, Trees and Shrubs, and on Golf Courses and Sod Farms) * Not for Use in California]

[DO NOT APPLY THIS PRODUCT ON GOLF COURSES AND SOD FARMS IN NASSAU OR SUFFOLK COUNTY, NEW YORK].

ACTIVE INGREDIENT:	%BY WT.
Bifenthrin: (2 methyl[1,1 –biphenyl]-3-yl)methyl 3-(2-chloro-3,3,3-	
trifluoro-1-propenyl)-2,2-dimethyl-cyclopropanecarboxylate*	25.0%
OTHER INGREDIENTS**:	<u>75.0%</u>
TOTAL	

*Cis isomers 97% minimum, trans isomers 3% maximum.

**Contains xylene range aromatic solvents.

This product contains 2 pounds active ingredient per gallon.

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 First Aid, Precautionary Statements and Directions for Use.

[A110.02[™]] is not manufactured, or distributed by FMC Corporation, seller of Brigade[®] [2 EC].

EPA Reg. No.: 91234-104

EPA Est. No.

Manufactured For: Atticus, LLC 5000 CentreGreen Way, Suite 100 Cary, NC 27613

{LANGUAGE INSIDE BOOKLET}

	FIRST AID							
IF SWALLOWED:	Immediately call a poison control center or doctor.							
	• Do not induce vomiting unless told to do so by a poison control center or doctor.							
	• Do not give any liquid to the person.							
	• Do not give anything by mouth to an unconscious person.							
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.							
IF ON SKIN OR	Take off contaminated clothing.							
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.							
NOTE TO PHYSICIAN: 1	This product is a pyrethroid. If large amounts have been ingested, the stomach and intestines should be							
evacuated. Treatment	is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and should be							
avoided. This product of	contains a petroleum distillate. Vomiting may cause aspiration pneumonia.							
	HOT LINE NUMBER							
Have the product con	tainer or label with you when calling a poison control center or doctor, or going for treatment. You may							
also contact SafetyCal	l 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

WARNING

May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Harmful if inhaled or absorbed through skin. Avoid breathing vapor or spray mist. Avoid contact with skin. Wash 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.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

Handlers who may be exposed to the dilute through application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, nitrile rubber, neoprene rubber, or viton
- shoes plus socks

Handlers who may be exposed to the concentrate through mixing, loading, application, or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, nitrile rubber, neoprene rubber, or viton
- shoes plus socks

Users should:

• Protective eyewear

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

USER SAFETY RECOMMENDATIONS

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash 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. Use with care when applying in areas adjacent to any body of water. 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 make applications 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 or weeds while bees are actively visiting the treatment area.

The use of **A110.02** is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

PHYSICAL/CHEMICAL HAZARDS

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

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

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

AGRICULTURAL USE REQUIREMENTS

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

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

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

- Coveralls
- Chemical-resistant gloves, such as barrier laminate, nitrile rubber, neoprene rubber, or Viton
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protections Standards for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries and greenhouses.

Do not allow people or pets on treated areas until the spray has dried.

RESISTANCE MANAGEMENT

A110.02 contains a Group 3 Insecticide. With repeated use of Group 3 insecticide as the primary method of control in the same field or in successive years, insect/mite populations can develop resistant biotypes. If this occurs, insect/mite biotypes with acquired resistance to Group 3 insecticides may eventually dominate the insect/mite population. This may result in partial or total loss of control of those species by **A110.02** or other Group 3 insecticides.

To delay development of insecticide resistance, the following practices are suggested:

- Base insecticide applications on comprehensive IPM programs. This program should include an insect management program that includes cultural and biological control where possible.
- Use good resistance management strategies established for the use area. This may include the use of insecticide rotations or tank mixes with other groups of insecticide and miticides in an IPM program.
- Always apply **A110.02** at the labeled rates and according to label directions. Do not use less than label rates alone or in tank mixtures unless directed otherwise in supplemental labeling supplied by Atticus, LLC.
- Monitor treated populations in the field for loss of control. If poor performance cannot be attributed to improper
 application or extreme weather conditions, a resistant strain may be present. Immediately consult your local Atticus, LLC
 representative or agricultural advisor for the best alternative method of control for your area.
- Do not treat seedling plants grown for transplant in greenhouses, shade houses, or field plots.
- Consult your local extension specialist, certified crop advisor, and/or manufacturer for insecticide resistance management and /or IPM guidance for the specific site and resistant pest problems.

APPLICATIONS INSTRUCTIONS

The rate of **A110.02** applied will vary according to pest pressure and timing of application. Use lower rates under light to moderate infestations and higher rates under heavy insect pressure and for mite control. Arid climates generally require higher rates.

Unless otherwise specified for a specific crop, apply when pest population reaches economic (damaging) threshold and repeat as necessary to maintain control. Thorough coverage is essential to achieve control.

In the COMMENTS section of the label for each crop, the application rate when applied by ground and/or air is listed as an amount of spray per acre. In all cases, this refers to finished spray per acre.

CHEMIGATION USE DIRECTIONS

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. Contact your State Agricultural Extension Service specialists, equipment manufacturers, or other experts for consultation on the suitability of the equipment setup to obtain effective control of the target insect pests.

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. Failure to cease application during a mechanical stoppage may result in undesirable residues to adjacent area.

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.

For sprinkler irrigation, meter **A110.02** at a continuous uniform rate during the entire irrigation period. To ensure accurate application over the treated area, apply in sufficient volume of water or other diluent. If non-emulsified oil is used as the diluent, use 1 to 2 pints per acre. Maintain continuous agitation of the pesticide supply tank for the duration of the application period. When chemigation systems are used, 0.5 inch per acre of irrigation water is suggested except that for Low Energy Precision Application (LEPA) irrigation, a minimum of 0.75 inch of water per acre is suggested.

BUFFER ZONES

Vegetative Buffer Strip

Construct and maintain a minimum 10-foot-wide vegetative filter strip of grass or other permanent vegetation between the field edge and down gradient aquatic habitat (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries; and commercial fish farm ponds).

Only apply products containing bifenthrin onto fields where a maintained vegetative buffer strip of at least 10 feet exists between the field and down gradient aquatic habitat.

For guidance, refer to the following publication for information on constructing and maintaining effective buffers:

• Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. USDA, NRCS. 2000. Fort Worth, Texas. 21 pp.

http://www.in.nrcs. usda.gov/technical/agronomy/newconbuf.pdf.

Buffer Zone for Ground Application (ground boom, overhead chemigation, or airblast)

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

Buffer Zone for ULV Aerial Application

Do not apply within 450 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, natural ponds, estuaries, and commercial fish ponds).

Buffer Zone for Non-ULV Aerial Application

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

SPRAY DRIFT REQUIREMENTS

Wind Direction and Speed

Only apply this product if the wind direction favors on-target deposition. Do not apply when wind velocity exceeds 15 mph.

Temperature Inversions

Do not make aerial or ground applications into temperature inversions.

Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

Droplet size

Use only Medium or coarse spray nozzles (for ground and non-ULV aerial application) according to ASAE (S572) definition for standard nozzles. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size.

Additional Requirements for Ground Application

Wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.

For ground boom applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy. For airblast applications, turn off outward-pointing nozzles at row ends and when spraying the outer two rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

Additional Requirements for Aerial Application

The spray boom should be mounted on the aircraft as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or 80% rotor diameter.

Flight speed and nozzle orientation must be considered in determining droplet size.

Spray must be released at the lowest height consistent with pest control and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless greater height is required for а aircraft safety.

When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

In New York State, this product may not be applied within100 feet (using ground equipment) to 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

ROTATIONAL CROPS

If applying to crops for which Bifenthrin tolerances exist, the crops may be rotated at any time. All other crops may be rotated 30 days following the final application of **A110.02**.

MIXING INSTRUCTIONS

The spray tank must be clean, thoroughly rinsed, and decontaminated before adding either **A110.02** alone or with tank mix combinations (see **A110.02 in Tank Mixtures** section below). If water is used as the carrier, use clean water.

For aerial applications made on brassicas (see **CROPS** section of the label below for full list of approved brassicas), canola, crambe, rapeseed, foliar applications on corn, cucurbits (see **CROPS** section of the label below for full list of approved cucurbits), eggplant, grapes, head lettuce, and succulent peas and beans (see **CROPS** section of the label below for full list of approved succulent peas and beans), 1 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray. For aerial applications made on cotton, 1 quart of emulsified oil may be substituted for one quart of water in the finished spray. Thorough coverage is essential to achieve control.

A110.02 Used Alone: When A110.02 is used alone, add the labeled amount to the spray tank when the tank is half filled with water or other carrier; then add the rest of the water or other carrier (as permitted on this label). Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

A110.02 with Fertilizer: Fill the spray tank approximately one-half full with water and/or liquid fertilizer, add the proper amount of **A110.02**, and then add the rest of the water and/or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.

Perform a jar compatibility test with the appropriate ratio of **A110.02** and fertilizer to ensure the mixture will stay in solution. Maintain constant agitation during mixing and application.

A110.02 in Tank Mixtures: If a tank mixture is used, perform a compatibility test before actual tank mixing. Test all untried mixtures using proper ratios and mixing sequences of all ingredients to be included in the mixture. Once compatibility is confirmed for the tank mix, fill the tank half full with water or other carrier. Start and continue agitation throughout mixing following conventional mixing order practices. **A110.02** may be applied in tank mixtures with other products approved for use on registered crops. Observe all restrictions and precautions which appear on the labels of these products.

FOOD CROPS USE INSTRUCTIONS

	DOS	AGE	
PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Artichoke Plume Moth	0.10	6.4	Repeat as necessary to maintain control, but not apply more often
Cribrate Weevil			than 15 day intervals.
			Ground Application: Apply in water in a minimum of 75 gallons per acre as a full cover spray.
			Air Application: Apply in water in a minimum of 10 gallons per acre.
RESTRICTIONS:			

• Do not apply more than 0.5 lb. active ingredient (32 ounces formulated) per acre per season.

• Do not apply within 5 days of harvest (PHI).

ARTICHOKE

BRASSICAS

		DOSAGE		
CROP	PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Head and Stem	Aphids	0.033-0.10	2.1-6.4	Ground Application: Apply in water in a minimum of 10
Brassica	Armyworms			gallons per acre.
Vegetables	Corn Earworm			Air Application: Apply in water in a minimum of 2
including: Broccoli	Crickets			gallons per acre. Emulsified oil may be substituted for
Chinese Broccoli	Cucumber Beetle			water.
(gai lon, white	Cutworms			
flowering	Diamondback Moth			See section entitled MIXING INSTRUCTIONS for detail
broccoli)	Flea Beetle			on the amount of oil to use in the spray tank in lieu o
Brussels Sprouts	Ground Beetles			water.
Cauliflower	Imported			
Cavalo Broccolo	Cabbageworm			Repeat applications if needed to maintain control, bu
Kohlrabi	Leafhoppers			do not make applications less than 7 days apart.
Cabbage	Loopers			
Chinese Cabbage	Saltmarsh			
(napa)	Caterpillar			
Chinese Mustard	Stink Bugs			
Cabbage (gai	Thrips			
choy)	Tobacco Budworm			
	Whitefly			
	Wireworm (Adults)			
	Banks Grass Mite	0.08-0.10	5.12-6.4	
	Carmine Mite			
	Lygus Spp.			
	Pacific Spider Mite			
	Twospotted Spider			
	Mite			

• Do not make more than 5 applications after bloom.

• Do not apply within 7 days of harvest (PHI).

CANEBERRIES

		DOSAGE		
CROP	PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Caneberries	Leafrollers	0.05-0.10	3.2-6.4	Apply by air or ground equipment using sufficient
including:	Orange Tortrix			water to obtain full coverage of foliage (minimum of
Blackberries	Root Weevils			10 gallons per acre by air and 50 gallons per acre by
Bingleberries				ground).
Dewberries				
Loganberries				Ground Application: Apply in water in a minimum of 50
Lowberries				gallons per acre.
Marionberries				
Olallieberries				Air Application: Apply in water in a minimum of 10 gallons
Raspberries				per acre.
Youngberries				
	Spider Mites	0.10	6.4	A total of two applications may be made.
				One application may be made pre-bloom and a second
				application may be made post bloom.

RESTRICTIONS:

- Do not apply more than 0.2 lb. active ingredient (12.8 ounces formulated) per acre per season. ٠
- Do not apply within 3 days of harvest (PHI). •

CAMELINA, CANOLA, CRAMBE, RAPESEED

	DOSAGE		
PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Aphids	0.033-0.04	2.1-2.6	Ground Application: Apply in water in a minimum of 10 gallons per
Armyworms			acre.
Cutworms			
Diamondback Moth			Air Application: Apply in water in a minimum of 2 gallons per acre.
Flea Beetles			Emulsified oil may be substituted for water.
Flea Hoppers			
Grasshoppers			See section entitled MIXING INSTRUCTIONS for details on the amount
Loopers			of oil to use in the spray tank in lieu of water.
Lygus Bugs			
Other			Repeat applications if needed to maintain control, but do not make
Lepidopterous Larvae			applications less than 14 days apart.
Plant Bugs			
Seedpod Weevil			
Stink Bugs			
Thrips			
Whitefly			
RESTRICTIONS:			
 Do not apply more t 	han 0.08 lb. active in	gredient (5.12 o	unces formulated) per acre per season.

Do not apply within 35 days of harvest (PHI). •

CHRISTMAS TREES (For use only in Washington and Oregon)

	DOSAGE		
PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Root Weevil	0.06-0.10	3.9-6.4	Ground Application: Apply in water in a minimum of 20 gallons per
Spruce Spider Mite			acre.
			Air Application: Apply in water in a minimum of 5 gallons per acre.
			A110.02 is usually not phytotoxic to Christmas trees. However, make applications to a small representative group of plants to ensure that a particular variety grown under current conditions is not unusually sensitive to A110.02 .
			Maintain a minimum of 21 days between applications.
RESTRICTIONS:		•	

Do not apply more than 0.1 lb. active ingredient (6.4 ounces formulated) per acre per season. •

• Do not make more than 3 applications in a crop year.

• Do not make applications through irrigation systems.

CILANTRO, CORIANDER

	DOSAGE		
PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Aphids	0.033-0.10	2.1-6.4	Ground Application: Apply in water in a minimum of 10 gallons per
Beet Armyworm			acre.
Cabbage Looper			
Cutworm			Air Application: Apply in water in a minimum of 2 gallons per acre.
Flea Beetle			
Grasshoppers			Apply in sufficient water to obtain thorough coverage.
Leafminer			
Saltmarsh caterpillar			
Spotted Cucumber			
Beetle			
Thrips			
Whitefly			
Two Spotted Spider	0.08-0.1 <u>0</u>	5.12-6.4	
Mite			
RESTRICTIONS:			
 Do not apply more tl 	han 0.5 lb. active ing	gredient (32 ound	es formulated) per acre per season.
 Do not make applica 			

Do not make applications less than 7 days apart.
Do not apply within 3 days of harvest (PHI).

CITRUS (Except Florida)*

	DOSA	AGE	
PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Asian Cockroach	0.25 - 0.50	16-32	Ground Application: Apply in water in a
Diaprepes Root Weevil (Diaprepes abbreviatus),			minimum of 30 gallons per acre.
Fire Ants			Use a handgun or shielded sprayer to apply to individual
			citrus trees if they are not planted in solid rows.
			Diaprepes root weevil emergence generally occurs in the spring, but weather conditions can prompt a second emergence in the fall. In areas where only a spring emergence is expected, use 32 ounces of A110.02 . In area where a second emergence is expected, use 16 ounces of A110.02 in the early season and 16 ounces of A110.02 lat in the season.
			If the length of control of A110.02 is not sufficient to cove the emergence of the root weevil, use other pest control measures from State Agricultural Extension Specialists or other local experts.
			*Use in California not permitted unless accompanied by a supplemental label

RESTRICTIONS:

- Do not apply through irrigation systems.
- Do not allow any application of A110.02 to contact fruit or foliage.
- Do not apply more than 0.5 lb. active ingredient (32 ounces formulated) per acre per year.
- Do not apply by air.
- Do not apply within 1 day of harvest (PHI).

CITRUS (Florida only)

	DOS	AGE	
PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Blue Green Citrus Root Weevil (Pachnaeus opalus) Brown Leaf Notcher (Epicaerus mexicanus) Diaprepes Root Weevil (Diaprepes abbreviatus) Little Leaf Notcher (Artipus floridanus) Southern Blue Green Citrus Root Weevil (Pachnaeus Litus)	0.25-0.50	16-32	 Ground Application: Apply in water in a minimum of 40 gallons per acre. Greater spray volumes increase uniformity of coverage. Also coverage uniformity may be aided by using a pre-and post-irrigation application. Use a handgun or shielded sprayer to apply to individual citrus trees if they are not planted in solid rows. All citrus root weevils have a similar life cycle. They have three immature stages: egg, larva, and pupa. Adult weevils emerge from the soil and lay eggs on host plants above ground, the larvae enter the soil to feed on roots, and the pupae and teneral adult stages are spent below ground.
Asian Cockroach, Fire Ants	0.1-0.25	6.4-16	 Adults emerge beneath citrus trees throughout the year; it is at this time that A110.02 applications should be timed. Peak adult emergence varies within and among species and by region. Peak emergence for the bluegreen root weevil is normally April and May. Diaprepes adult emergence from the soil appears to be triggered by the onset of regular rainfall events and can have two emergence peaks, in mid-May to mid-July and/or late-August to mid-October. The second peak is variable and may relate to host plant availability. Little leaf notcher has three generations per year. Although there is considerable overlap of generations, adults appear most abundant in April/May, July/August, and October/November. For best control of emerging root weevils, apply A110.02 to the soil beneath the citrus trees from the trunk to the drip line of the tree. A110.02 protects citrus tree roots from citrus root weevils by forming a barrier which provides contact activity on neonate larvae when they fall to the ground shortly after hatching from eggs which were oviposited in the citrus tree foliage. Once application is made, be careful not to disturb the treated soil. In areas where only a spring emergence is expected, use 32 ounces of A110.02. In areas where a second emergence is expected, use 16 ounces of A110.02 in the early season and 16 ounces of A110.02 later in the season. If the length of control of A110.02 is not sufficient to cover the emergence of the root weevil, use other pest control measures from State Agricultural Extension Specialists or other local experts.

RESTRICTIONS:

• Do not apply through irrigation systems.

- Do not allow any application of A110.02 to contact fruit or foliage.
- Do not apply more than 0.5 lb. active ingredient (32 ounces formulated) per acre per year.
- Do not apply by air.
- Do not apply within 1 day of harvest (PHI).

CONIFER SEED ORCHARDS (For Use Only in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Oklahoma, South Carolina, Tennessee, Texas, Virginia)

	DOSAGE		
PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Cone Worms Seed Bugs Seed Worms	0.1-0.2	6.4-12.8	 Ground Application: Apply in water in a minimum of 100-500 gallons per acre Air Application: Apply in water in a minimum of 10 gallons per acre or 0.5 gallon refined vegetable oil per acre. Apply in sufficient water to obtain thorough coverage. Begin applications 7 days after peak pollen flight and continue on 30-day intervals up to a maximum of 0.6 lb. active per acre per season.
RESTRICTIONS:	•	•	·

• Do not make more than six applications per season or apply more than 0.6 lb. active ingredient (38.4 ounces formulated) per acre per season.

CORN: FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED

(AT PLANTING)

PEST	DOS	AGE	APPLICATION INSTRUCTIONS
Corn Rootworm Larvae Northern	0.0046 pound	0.30 fluid ounces per	Ground Application: Apply in water in a minimum of 3 gallons per acre.
Southern Western	active per 1000 linear feet of	1000 linear feet of row	For use on corn at planting, apply a 5- inch to 7 inch T-band over the open seed furrow.
	row		Center the spray nozzle over the row behind the planter shoe in front of
Army Cutworm Cutworm Species Grubs Seedcorn Beetle Seedcorn Maggot True Armyworm or Armyworm Species Wireworms	0.0023 to 0.0046 pound active per 1000 linear feet of row	0.15 to 0.30 fluid ounces per 1000 linear feet of row	the press wheel. In-furrow pop-up fertilizers may be used alone or in tank mixtures with A110.02. See the section entitled MIXING INSTRUCTIONS, A110.02 with Fertilizer for additional instructions and precautions when mixing with fertilizers.

RESTRICTIONS:

- Do not apply to soil where there is greater than 30% cover of crop residue remaining.
- Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.
- Do not apply more than 0.1 lb. active ingredient (6.4 ounces formulated) per acre per season as an at plant application.
- Do not apply within 30 days of harvest (PHI).

Row Spacings (inches) ¹	40	38	36	30
A110.02 (pounds ai per acre)	0.060	0.064	0.069	0.080
A110.02 (formulated ounces per acre)	3.9	4.1	4.4	5.12

¹Use this table to determine the **A110.02** needs per acre.

CORN: FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED (PRE & PPI)

	DOSA	GE	
PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Armyworm spp.	0.047 to 0.062	3 to 4	Ground Application: Apply in water in a minimum of 3 gallons per acre.
Black Cutworm	Pre-Plant	Pre-Plant	
Seedcorn Maggot	Incorporated	Incorporated	Use the labeled dosage as a preplant incorporated treatment either alone
Stalkborer	(PPI)	(PPI)	or in tank mix combination with registered preplant incorporated
White Grub			herbicides.
Wireworm			Incorporate A110.02 to the intended planting depth, but no deeper than 3
Black Cutworm	0.040 lb/ai per	2.56 fl. oz. per	incorporate A110.02 to the intended planting depth, but no deeper than 5 inches.
Armyworm spp.	acre Pre-	acre Pre-	
Stalkborer	emergence (PRE)	emergence	The 3 to 4 oz. rate must be applied as PPI and can be tank mixed and
		(PRE)	applied with PPI herbicides.
			The 2.56 oz. rate may be applied PRE and can be tank mixed and applied
			with PRE herbicides.

CORN: FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED (FOLIAR)

	DOS	AGE	
PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Aphids	0.033-0.10	2.1-6.4	Ground Application: Apply in water in a minimum of 10 gallons per acre
Army Cutworm			except see specific comment below for TX, NM, OK, and AZ mite control.
Beet Armyworm			
Cereal Leaf Beetle			Air Application: Apply in water in a minimum of 2 to 5 gallons per acre
Chinch Bug			except see specific comment below for TX, NM, OK, and AZ mite control.
Common Stalk Borer			
Corn Earworm			In all states, insect control will be improved by increasing the finished spray
Corn Rootworm Adult			per acre to 5 gallons.
Cucumber Beetle Adult			
Cutworm Species			In Texas, New Mexico, Oklahoma, and Arizona, use a minimum of 10 gallons
European Corn Borer			of water per acre by ground and 5 gallons of water per acre by air when
Fall Armyworm			making applications to control mites.
Flea Beetle			
Grasshoppers			Emulsified oil may be substituted for water. See section entitled MIXING
Greenbug			INSTRUCTIONS for details on the amount of oil to use in the spray tank in lieu of water.
Japanese Beetle Adult			of water.
Sap Beetle			Make applications of A110.02 as necessary to maintain control being careful
Southern Armyworm			not to exceed reapplication intervals or maximum dosage rates specified in
Southern Corn Leaf Beetle			this section.
Southwestern Corn Borer			
Stink Bugs			For pests which attack the ear, apply just before silking.
Tarnished Plant Bug			For corn borer control, make application just before or at egg hatch.
True Armyworm or			
Armyworm			For mite control, apply when colonies first form prior to leaf damage and
Species			before they disperse into the canopy (for Banks Grass Mite-before dispersal
Webworms			into the upper 2/3 of the plant).
Western Bean Cutworm			Use higher rates of A110.02 when pest pressure is severe or crop is under
Yellowstriped Armyworm			stress from drought and/or heat. When these conditions exist, tank mixtures
Banks Grass Mite	0.08-0.10	5.12-6.4	with dimethoate have shown good control.
Carmine Mite			
Twospotted Spider Mite			Apply for Banks Grass Mite control when colonies first form prior to leaf
			damage or discoloration and before dispersal above the bottom third of the plant.

For Twospotted Spider Mite and Carmine Mite control, apply when colonies first form prior to leaf damage or discoloration and before widespread mite dispersal throughout the canopy. Higher rates will be necessary for heavier initial populations and corn under heat or drought stress. Field experience with dimethoate at 0.5 lb. active per acre in tank mixture has demonstrated good control under these conditions.
For Mite Control In Texas, New Mexico, Oklahoma, and Arizona: Apply in a minimum of 5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment.

Restrictions:

- Do not apply more than 0.3 lb. active ingredient (19.2 ounces formulated) per acre per season including PRE and PPI, atplanting, plus foliar applications.
- Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application.
- Use of ultra low volume (ULV) application on corn is prohibited.
- Do not make aerial or ground applications to corn if heavy rainfall is imminent.
- Do not apply within 30 days of harvest (PHI).

CORN: SWEET CORN, SWEET CORN GROWN FOR SEED

(AT PLANTING)

PEST	DOS	AGE	APPLICATION INSTRUCTIONS
Corn Rootworm Larvae	0.0046	0.30	Ground Application: Apply in water in a minimum of 3 gallons per acre.
Northern	pound active	fluid ounces	
Southern	per 1,000	per 1,000	For use on corn at planting, apply in a 5- inch to 7-inch T-band over the open
Western	linear feet	linear feet	seed furrow. Center the spray nozzle over the row behind the planter shoe in
	of row	of row	front of the press wheel.
Army Cutworm	0.0023 to	0.15 to 0.30	In-furrow pop-up fertilizers may be used alone or in tank mixtures with
Cutworm Species	0.0046	fluid ounces	A110.02. See the section entitled MIXING INSTRUCTIONS, A110.02 with
Grubs	pound active	per 1,000	Fertilizer for additional instructions and precautions when mixing with
Seedcorn Beetle	per 1,000	linear feet	fertilizers.
Seedcorn Maggot	linear feet	of row	
True Armyworm or	of row		
Armyworm Species			
Wireworms			
RESTRICTIONS:			

- Do not apply to soil where there is greater than 30% cover of crop residue remaining.
- Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.
- Do not apply more than 0.1 lb. active ingredient (6.4 ounces formulated) per acre per season as an at plant application.

• Do not apply within 30 days of harvest (PHI).

Row Spacings (inches) ¹	40	38	36	30
A110.02 (pounds ai per acre)	0.060	0.064	0.069	0.080
A110.02 (formulated ounces per acre)	3.9	4.1	4.4	5.12

¹Use this table to determine the **A110.02** needs per acre.

CORN: SWEET CORN, SWEET CORN GROWN FOR SEED (FOLIAR)

PEST Aphids Army Cutworm	LB AI/A 0.033-0.10	FL OZ/A	APPLICATION INSTRUCTIONS			
•	0.033-0.10		APPLICATION INSTRUCTIONS			
Army Cutworm		2.1-6.4	Ground Application: Apply in water in a minimum of 10 gallons per acre.			
,						
Beet Armyworm			Air Application: Apply in water in a minimum of 2 gallons per acre.			
Cereal Leaf Beetle			Emulsified oil may be substituted for water.			
Chinch Bug						
Common Stalk Borer			See section entitled MIXING INSTRUCTIONS for details on the amount			
Corn Earworm			of oil to use in the spray tank in lieu of water. Make applications of			
Corn Rootworm Adult			A110.02 as necessary to maintain control being careful not to exceed			
Cucumber Beetle Adult			reapplication intervals or maximum dosage rates specified in this			
Cutworm Species			section.			
European Corn Borer			For pasta which attack the part apply just before silking			
Fall Armyworm			For pests which attack the ear, apply just before silking. For corn borer control, make application just before or at egg			
Flea Beetle			hatch.			
Grasshoppers						
Greenbugs			For mite control, apply when colonies first form prior to leaf			
Japanese Beetle Adult			damage and before they disperse into the canopy (for Banks			
Sap Beetle			Grass Mite - before dispersal into the upper 2/3 of the plant). Use			
Southern Armyworm			higher rates of A110.02 when pest pressure is severe or crop is			
Southern Corn Leaf Beetle			under stress from drought and/or heat. When these conditions			
Southwestern Corn Borer			exist, tank mixtures with dimethoate have shown acceptable			
Stink Bugs			control.			
Tarnished Plant Bug						
True Armyworm or Armyworm						
Species						
Webworms						
Western Bean Cutworm						
Yellowstriped Armyworm						
Banks Grass Mite	0.08-0.10	5.12-6.4	1			
Carmine Mite						
Twospotted Spider Mite						
RESTRICTIONS:						

- Do not apply more than 0.2 lb. active ingredient (12.8 ounces formulated) per acre per season.
- Do not graze livestock in treated areas or cut treated crops for feed within 1 day of the last application.
- Use of ultra low volume (ULV) application on corn is prohibited.
- Do not make aerial or ground applications to corn if heavy rainfall is imminent.
- Do not apply within 1 day of harvest (PHI).

COTTON

	DOS	AGE	
PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
European Corn Borer	0.02-0.10	1.3-6.4	Ground Application: Apply in water in a minimum of 5
Soybean (Banded) Thrips			gallons per acre.
Tobacco Thrips			
Boll Weevil	0.04-0.10	2.6-6.4	Air Application: Apply in water in a minimum of 1 gallon per
Bollworm			acre. Emulsified oil may be substituted for water.
Cabbage Looper			
Cotton Aphid			See section entitled MIXING INSTRUCTIONS for details on
Cotton Fleahopper			the amount of oil to use in the spray tank in lieu of water.
Cotton Leafperforator			
Cutworms			ULV Application: Apply in a minimum of 1 quart per acre
Fall Armyworm			using refined vegetable oil with aircraft calibrated to give
Plant Bugs			adequate coverage.
Saltmarsh Caterpillar			
Southern Garden Leafhopper			Make applications of A110.02 as necessary to maintain
Stink Bugs			control being careful not to exceed reapplication intervals or
Tobacco Budworm			maximum dosage rates specified in this section.
Whitefly			
Yellowstriped Armyworm			To Control Boll Weevil: Apply A110.02 at 3- to 4- day
Beet Armyworm	0.06-0.10	3.8-6.4	intervals until pest populations are reduced below economic
Carmine Spider Mite			threshold levels.
Lygus spp.			
Pink Bollworm			To Control Mites and Aphids: Apply when pests first
Twospotted Spider Mite			appear. Repeat as necessary to maintain control without
			exceeding maximum application rates and reapplication
			intervals. Use higher rates when an economic threshold has
			been established.

RESTRICTIONS:

• Do not apply more than 0.5 lb. active ingredient (32 ounces formulated) per acre per season.

• Do not graze livestock in treated areas or cut treated crops for feed.

Do not make more than 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season. Synthetic pyrethroid products include Ambush[®], Ammo[®], Asana[®] XL, Baythroid[®], Capture[®], Danitol[®], Karate[®], Mustang[®], and Scout X-TRA[®].

• Do not apply within 14 days of harvest (PHI).

CUCURBITS

	DOSAGE			-
CROP	PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
hayote (fruit)	Aphids	0.04-0.10	2.6-6.4	Ground Application: Apply in water in a
hinese waxgourd (Chinese	Armyworms			minimum of 20 gallons per acre.
preserving melon)	Cabbage Looper			
itron Melon	Corn Earworm			Air Application: Apply in water in a minimum
ucumber	Cucumber Beetles			of 5 gallons per acre. Emulsified oil may be
iherkin	Cutworms			substituted for water.
dible Gourd,	Grasshoppers			
[(includes hyotan, cucuzza),	Leafhoppers			See section entitled MIXING INSTRUCTIONS fo
Luffa spp. (includes hechima,	Melonworms			details on the amount of oil to use in the spray
Chinese okra),	Pickleworms			tank in lieu of water.
Momordica spp.	Rindworms			
(includes balsam apple,	Squash Bugs			
balsam pear, bitter melon,	Squash Vine Borer			
Chinese cucumber)]	Stink Bugs			
/luskmelon (hybrids and/or	Tobacco Budworm			
cultivars of Cucumis melo)				
(includes true cantaloupe,				
cantaloupe, casaba, crenshaw				
melon, golden pershaw melon,	Whitefly	0.08-0.10	5.12-6.4	
honeydew melon,	Banks Grass Mite			
honey balls, mango melon,	Twospotted Spider			
Persian melon, pineapple	Mite			
melon, Santa Claus melon,	Carmine Mite			
and snake melon)	Lygus spp.			
umpkin (<i>Cucurbita spp</i> .)				
quash, summer (includes				
crookneck squash, scallop				
squash, straightneck				
squash, vegetable marrow,				
zucchini),				
guash, winter				
(includes butternut squash,				
calabaza, hubbard squash				
(<i>C. mixta; C. pepo</i>) includes				
acorn squash, spaghetti				
squash)				
Vatermelon				
(includes hybrids and/				
or varieties of <i>Citrullus</i>				
spp.)				

• Do not apply more than 0.3 lb. active ingredient (19.2 ounces formulated) per acre per season.

- Do not make more than two applications after bloom.
- Repeat applications if needed to maintain control, but do not make applications less than 7 days apart.
- Do not apply within 3 days of harvest (PHI).

DRIED BEANS AND PEAS

CROPPESDried cultivars of BeanBanks Grass I(Lupinus spp.)Twospotted IGrain LupinMiteSweet LupinCarmine MiteWhite LupinLygus spp.White Sweet LupinAster LeafhBean (Phaseolus spp.)Flea BeetleField BeanGrasshopperLima Bean (dry)AphidsNavy BeanBeet ArmywPinto BeanFall ArmyworTepary BeanSouthern ABean (Vigna spp.)YellowstripeAdzuki BeanAdultMoth BeanSap BeetleCowpeaJapanese BaCrowder PeaAdultMoth BeanSap BeetleMung BeanStink BugsSouthern PeaCloverwornChickpeasEuropean CGuarBorerLablab BeanCutwormsLentilsWestern BePea (Piscum spp.)CutwormsField PeaCorn RootwAdultsThripsWebwormsSap SeetleStink BugsSouthern PeaCorn RootwAlfalfa CateBroad bean (dry)CutwormsLentilsWestern BePea (Piscum spp.)CutwormsLentilsWestern BePigeon PeaLoopersCorn RootwAdultsThripsWestern BeCorn RootwAdultsMature Strangen St	Mite 0.08 to 0.10 Spider e 0.025 to 0.1	APPLICATION INSTRUCTIONS application: Apply in water in a minimum of s per acre. cation: Apply in water in a minimum of 2 er acre.
(Lupinus spp.)Twospotted 3Grain LupinMiteSweet LupinCarmine MiteWhite LupinLygus spp.White Sweet LupinAster LeafhBean (Phaseolus spp.)Flea BeetleField BeanGrasshopperLima Bean (dry)AphidsNavy BeanBeet ArmywPinto BeanFall ArmyworTepary BeanSouthern ABean (Vigna spp.)YellowstripeAdzuki BeanArmyworBlackeyed PeaBean Leaf BCatjangCucumber BCrowder PeaAdultMoth BeanSap BeetleMung BeanPlant BugRice BeanStink BugsSouthern PeaTarnished PUrd BeanAlfalfa CateBroad bean (dry)CloverwormChickpeasEuropean CGuarBorerLablab BeanCutwormsLentilsWestern BePea (Piscum spp.)CutwormField PeaCorn EarworPigeon PeaLoopersCorn RootwAdultsThripsCorn Rootw	Spider e opper 0.025 to 0.1	s per acre. cation: Apply in water in a minimum of 2
Grain LupinMiteSweet LupinCarmine MiteWhite LupinLygus spp.White Sweet LupinAster LeafhBean (Phaseolus spp.)Flea BeetleField BeanGrasshopperLima Bean (dry)AphidsNavy BeanBeet ArmywPinto BeanFall ArmywTepary BeanSouthern ABean (Vigna spp.)YellowstripeAdzuki BeanArmyworBlackeyed PeaBean Leaf BCatjangCucumber BCowpeaJapanese BCrowder PeaAdultMoth BeanStink BugsSouthern PeaTarnished PUrd BeanAlfalfa CateBroad bean (dry)CloverwornChickpeasBorerCutwormsBorerLablab BeanCutwormsLentilsWestern BePea (Piscum spp.)Corn EarworField PeaCorn RootwAdultsThrips	e 0.025 to 0.1	cation: Apply in water in a minimum of 2
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Thrips	vorm	
Webworms		
Pea Weevil		
Pea Leaf W	eevil	
Whitefly		
Imported		
Cabbagew		
Saltmarsh C		
Tobacco Bu		
Leafminer		
RESTRICTIONS:		

• Do not apply within 14 days of harvest (PHI).

FRUITING VEGETABLES

CROP	PEST	DOSA	AGE	
		LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Eggplant	Armyworms (including Beet	0.033 to 0.10	2.1 to 6.4	Ground Application: Apply in water in a minimum of 10
Groundcherry	Armyworm, Fall Armyworm,			gallons per acre.
Pepino	Southern Yellowstriped			
Pepper (Bell &	Armyworm)			Air Application: Apply in water in a minimum of 2 gallons
Non-Bell)	Cabbage Loopers			per acre.
	Colorado Potato Beetle			
	Corn Earworm			Emulsified oil may be substituted for water, See section
	Cucumber Beetles			entitled MIXING INSTRUCTIONS for details on the amoun
	European Corn Borer			of oil to use in the spray tank in lieu of water.
	Flea Beetles			
	Leafminers			
	Loopers			
	Pepper weevil			
	Plant Bugs			
	Stink Bugs			
	Thrips			
	Tomato Hornworm			
	Tomato Pinworm			
	Vegetable Leafminer			
	Whitefly			
	Banks Grass Mite	0.08 to 0.10	5.12 to 6.4	
	Broad Mite			
	Carmine Mite			
	Lygus spp			
	Pacific Spider Mite			
	Twospotted Spider Mite			

RESTRICTIONS:

- To maintain a proper spray interval, do not make applications less than 7 days apart.
- Do not apply more than 0.2 lb. active ingredient (12.8 ounces formulated) per acre per season.
- Do not apply within 7 days of harvest (PHI).

Tomatoes	Aphids	0.033 to 0.08	2.1 to 5.2	
Tomatillo	Armyworms (including Beet			Ground Application: Apply in water in a minimum of 15
	Armyworm, Fall			gallons per acre.
	Armyworm,			
	Southern			Air Application: Apply in water in a minimum of 3 gallons
	Yellowstriped Armyworm)			per acre.
	Bean Leaf Beetle			
	Cabbageworms			
	Carmine Mite			
	Cloverworm			
	Corn Earworm			
	Corn Rootworm			
	Cucumber Beetle			
	Cutworms			
	Diamondback Moth			
	European Corn Borer			
	Flea Beetles			
	Flea Hoppers			
	Grasshoppers			
	Japanese Beetle (Adult)			
	Leafhoppers			
	Loopers			
	Lygus spp.			
	Melonworms			
	Pea Weevil			
	Pea Leaf Weevil			

Pickleworms Plant Bugs Rindworms			
Salt Marsh Caterpillar Sap Beetle Seedpod Weevil			
Squash Bugs			
Stink Bug spp. Tobacco Budworm			
Tarnished Plant Bug Thrips Whitefly			
Twospotted Spider Mite	0.08 to 0.10	5.12 to 6.4	

- Do not make more than 4 applications per season.
- Do not apply within 1 day of harvest (PHI).

GRAPES

	DOSA	GE	
PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Eastern Grape Leafhopper	0.05 to 0.10	3.2 to 6.4	Ground Application: Apply in water in a minimum of 25 gallons per acre.
Variegated Leafhopper Western Grape Leafhopper			Air Application: Apply in water in a minimum of 10 gallons per acre. Emulsified oil may be substituted for water.
Black Vine Weevil Glassywinged Sharpshooter	0.10	6.4	See section entitled MIXING INSTRUCTIONS for details on the amount of oil to use in the spray tank in lieu of water.
Twospotted Spider Mite			When pest pressure is moderate to severe, use the higher rate.
RESTRICTIONS:	-		·
,	re than 0.1 lb. act	0	t (6.4 ounces formulated) per acre per season.

• Do not apply within 30 days of harvest (PHI).

HOPS

	DOSA	GE	
PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Aphids	0.06-0.10	3.8-6.4	Ground Application: Apply in water in a minimum of 100 – 150 gallons per acre in
Armyworms			early season; 200-250 gallons per acre late season.
Cutworms			
Leafrollers			Air Application: Apply in water in a minimum of 10 gallons per acre.
Loopers			
Root Weevils	0.05-0.10	3.2-6.4	Make a directed spray up the vine 3 feet and the soil surface 1.5 to 2 feet on either side of the plant to control root weevil.
Twospotted Spider Mite	0.10	6.4	
RESTRICTIONS:	1	•	

- Do not apply more than 0.1 lb. active ingredient (6.4 ounces formulated) per acre per application.
- Do not apply more than 0.3 lb. active ingredient (19.2 ounces formulated) per acre per season.
- To maintain a proper spray interval, do not make applications less than 21 days apart.
- Use of ultra low volume (ULV) application on hops is prohibited. ٠
- Do not apply within 14 days of harvest (PHI).

LEAFY BRASSICAS AND TURNIP GREENS

		DOS	AGE	
CROP	PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Broccoli Raab	Aphids	0.033 to	2.1 to 6.4	Ground Application: Apply in water in a minimum of 10
Bok Choy	Armyworms	0.10		gallons per acre.
Kale	Corn Earworm			
Mizuna	Crickets			Air Application: Apply in water in a minimum of 2 gallons per
Mustard Greens	Cucumber Beetles			acre. Emulsified oil may be substituted for water.
Mustard Spinach	Cutworms			
Rape Greens	Diamondback Moth			See section entitled MIXING INSTRUCTIONS for details on the
Turnip Greens*	Flea Beetles			amount of oil to use in the spray tank in lieu of water.
	Grasshoppers			
	Ground Beetles			Thorough coverage is essential to achieve control.
	Imported			
	Cabbageworm			* Not for use in California.
	Japanese Beetle			
	(adult)			
	Leafhoppers			
	Loopers			
	Saltmarsh Caterpillar			
	Stink Bugs			
	Thrips			
	Tobacco Budworm			
	Whitefly			
	Wireworm (adults)			
	Banks Grass Mite	0.08 to 0.10	5.12 to 6.4	
	Twospotted Spider			
	Mite			
	Carmine Mite			
	Pacific Spider Mite			
	Lygus spp.			

- Do not apply more than 0.4 lb. active ingredient (25.6 ounces formulated) per acre per season.
- Repeat applications if needed to maintain control, but do not make applications less than 7 days apart. •
- Do not apply within 7 days of harvest (PHI).

LETTUCE, HEAD

	00.	SAGE	
PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Aphids	0.033-0.10	2.1-6.4	Ground Application: Apply in water in a minimum of 15 gallons per acre.
Armyworms			
Corn Earworm			Air Application: Apply in water in a minimum of 5 gallons per acre.
Cucumber Beetles			Emulsified oil may be substituted for water. See section entitled MIXING
Cutworms			INSTRUCTIONS for details on the amount of oil to use in the spray tank in lieu of
Diamondback Moth			water.
Flea Beetle			
Imported			
Cabbageworm			
Leafhoppers			
Loopers			
Salt Marsh Caterpillar			
Stink Bug spp.			
Tobacco Budworm			
Whitefly			
Carmine Mite	0.08-0.10	5.12-6.4	-
Lygus spp.			
Twospotted Spider			
Mite			
RESTRICTIONS:	· · ·		
• To maintain a	proper sprav int	erval, do not m	ake applications less than 7 days apart.
			ent (32 ounces formulated) per acre per season.

Do not apply within 7 days of harvest (PHI).

MAYHAW*

	DOS	SAGE	
PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Plum Curculio	0.08 -0.10	5.12 -6.4	Ground Application: Apply in water in a minimum of 28 gallons of finished
			spray per acre.
			Air Application: Apply in water in a minimum of 2 gallons per acre.
			Apply in sufficient water to obtain uniform coverage as needed.
RESTRICTIONS:			

• Do not apply more than 0.2 lb. active ingredient (12.8 ounces formulated) per acre per season.

- To maintain a proper spray interval, do not make applications less than 7 days apart.
- Do not apply within 30 days of harvest (PHI).

*Not registered for use in California unless accompanied by a supplemental label.

OKRA

	DOS	AGE	
PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Aphids	0.033 - 0.10	2.1 - 6.4	Ground Application: Apply in water in a minimum of 10 gallons of finished
Armyworms			spray per acre.
Corn Earworm			
Cucumber Beetles			Air Application: Apply in water in a minimum of 2 gallons per acre.
Cutworms			
European Corn Borer			Apply in sufficient water to obtain uniform coverage as needed.
Flea Beetles			
Japanese Beetle (Adult)			
Leafminers			
Loopers			
Stink bugs			
Thrips			
Whitefly			
Broad Mite	0.08 - 0.10	5.12 - 6.4	
Carmine Mite			
Lygus spp.			
Two Spotted Spider Mite			
RESTRICTIONS:	·		
	er sprav interval, do	not make app	lications less than 7 days apart.

• Do not apply more than 0.20 lb. active ingredient (12.8 ounces formulated) per acre per season.

• Do not apply within 7 days of harvest (PHI).

PEANUT *

	DOS	AGE	
PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Beet Armyworm	0.033 -0.1	2.1 - 6.4	Ground Application: Apply in water in a minimum of 10 gallons of finished
Corn Earworm			spray per acre.
Cutworm species			
Fall Armyworm			Air Application: Apply in water in a minimum of 2 gallons per acre.
Grasshoppers			
Green Cloverworm			Apply in sufficient water to obtain uniform coverage as needed.
Leafhoppers			
Lesser Cornstalk Borer			
Loopers			
Rednecked Peanut Worm			
Southern Armyworm			
Southern Corn Rootworm			
Stink Bugs			
Threecornered Alfalfa Hopper			
Velvetbean Caterpillar			
Yellowstriped Armyworm			
Aphids	0.06 - 0.1	3.8 - 6.4	
Spider Mites			
Thrips			
Whitefly			
RESTRICTIONS:			

- Do not apply more than 0.5 lb. active ingredient (32 ounces formulated) per acre per season.
- To maintain a proper spray interval, do not make applications less than 14 days apart.
- Do not feed immature plants and peanut hay to livestock.
- Do not apply within 14 days of harvest (PHI).

* Not For Use in California.

PEARS

	DOS	AGE	
PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Aphids	0.04 - 0.2	2.6 - 12.8	Ground Application: Apply in water in a minimum of 200 gallons per acre
Codling Moth			(dilute) and 50 gallons per acre (concentrate).
Cutworms			
Green			Air Application: Apply in water in a minimum of 10 gallons per acre by air.
Fruitworm			
Leafhoppers			
Leafminers			
Leafrollers			
Lygus spp.			
Plant Bugs			
Plum Curculio			
San Jose			
Scale (Crawlers)			
Stink Bugs			
Tarnished			
Plant Bugs			
Twospotted Spider	0.06 - 0.2	3.8 - 12.8	
Mite			
Yellow Mite			
European Red Mite	0.08 - 0.2	5.12 - 12.8	
RESTRICTIONS:	•	·	

RESTRICTIONS:

• Do not apply more than 0.5 lb. active ingredient (32 ounces formulated) per acre per season with no more than 0.45 (28.8 ounces formulated) pound active per acre applied after petal fall.

- To maintain a proper spray interval, do not make applications less than 30 days apart.
- Do not graze livestock in treated orchards or cut treated cover crops for feed.
- Do not apply within 14 days of harvest (PHI).

ROOT CROPS (except Sugar Beets)

		DOSA	AGE	
CROP	PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Burdock, edible	Aphids	0.08 - 0.10	5.12 - 6.4	Ground Application: Apply in water in a minimum
Carrot	Beet Armyworm			of 25 gallons of finished spray per acre.
Celeriac	Celery Leaftier			
Chervil, Turnip rooted	Corn Earworm			Air Application: Apply in water in a minimum of 2
Chicory	Cross-Striped			gallons per acre.
Ginseng	Cabbageworm			
Horseradish	Cutworm species			Apply in sufficient water to obtain uniform
Parsley, Turnip rooted	Diamondback moth			coverage as needed.
Parsnip	European Corn Borer			
Radish	Fall Armyworm			
Radish, Oriental	Fire Ants			
Rutabaga	Flea Beetles			
Salsify	Green Cloverworm			
Salsify, Black	Hornworms			
Salsify, Spanish	Imported Cabbageworm			
Skirret	Loopers			
Turnip	Southern Armyworm			
	Spider Mites			
	Tobacco Budworm			
	Velvetbean Caterpillar			
	Whitefly			
	Yellowstriped Armyworm			

• Do not apply more than 0.5 lb. active ingredient (32 ounces formulated) per acre per season.

• To maintain a proper spray interval, do not make applications less than 7 days apart.

• Do not apply within 21 days of harvest (PHI).

		Dos	sage	
CROP	PEST	LB AI/A	FL OZ/A	COMMENTS
Garden Beet	Aphids Fire Ants Flea Beetles Lepidopterous Larvae Spider Mites Whitefly	0.08 - 0.10	5.12 - 6.4	 Ground Application: Apply in water in a minimum of 25 gallons of finished spray per acre. Air Application: Apply in water in a minimum of 2 gallons per acre. Apply in sufficient water to obtain uniform coverage as needed.
RESTRICTIONS:				

- Do not apply more than 0.40 lb. active ingredient (25.6 ounces formulated) per acre per season.
- To maintain a proper spray interval, do not make applications less than 7 days apart.
- Do not apply within 1 day of harvest (PHI).

SOYBEANS

PEST Alfalfa Caterpillar Aphids Aster Leafhopper Bean Leaf Beetle Beet Armyworm* Cloverworm Corn Earworm Corn Rootworm Adult Cucumber Beetles Cutworms European Corn Borer Fall Armyworm Flea Beetle	LB AI/A 0.033 - 0.10	FL OZ/A 2.1 - 6.4	APPLICATION INSTRUCTIONS Ground Application: Apply in water in a minimum of 10 gallons per acre.
Aphids Aster Leafhopper Bean Leaf Beetle Beet Armyworm* Cloverworm Corn Earworm Corn Rootworm Adult Cucumber Beetles Cutworms European Corn Borer Fall Armyworm Flea Beetle	0.033 - 0.10	2.1 - 6.4	Ground Application: Apply in water in a minimum of 10 gallons per acre.
Aster Leafhopper Bean Leaf Beetle Beet Armyworm* Cloverworm Corn Earworm Corn Rootworm Adult Cucumber Beetles Cutworms European Corn Borer Fall Armyworm Flea Beetle			
Bean Leaf Beetle Beet Armyworm* Cloverworm Corn Earworm Corn Rootworm Adult Cucumber Beetles Cutworms European Corn Borer Fall Armyworm Flea Beetle			
Beet Armyworm* Cloverworm Corn Earworm Corn Rootworm Adult Cucumber Beetles Cutworms European Corn Borer Fall Armyworm Flea Beetle			Air Application: Apply in water in a minimum of 2 gallon per acre.
Corn Earworm Corn Rootworm Adult Cucumber Beetles Cutworms European Corn Borer Fall Armyworm Flea Beetle			
Corn Rootworm Adult Cucumber Beetles Cutworms European Corn Borer Fall Armyworm Flea Beetle			*Durothraid registered is common for Deat Armywarm and Tobacco
Cucumber Beetles Cutworms European Corn Borer Fall Armyworm Flea Beetle			*Pyrethroid resistance is common for Beet Armyworm and Tobacco Budworm. Consult your local extension specialist, certified crop advisor,
Cutworms European Corn Borer Fall Armyworm Flea Beetle			and/or manufacturer for insecticide resistance management and/or IPM
European Corn Borer Fall Armyworm Flea Beetle			guidance for the specific site and resistant pest problems.
Fall Armyworm Flea Beetle			guidance for the specific site and resistant pest problems.
Flea Beetle			
Sus ash a was and			
Grasshoppers			
Imported Cabbageworm			
Japanese Beetle Adult			
Leafhoppers			
Leafminers			
Loopers			
Mexican Bean Beetle Adult			
Pea Leaf Weevil			
Pea Weevil			
Plant Bug			
Saltmarsh Caterpillar			
Sap Beetle			
Southern Armyworm Soybean			
Aphid			
Stink Bugs			
Tarnished Plant Bug			
Thrips			
Tobacco Budworm*			
Webworms			
Western Bean Cutworm			
Whitefly			
Yellowstriped Armyworm			
Lygus spp.	0.08 - 0.10	5.12 - 6.4]
Whitefly			
Twospotted Spider Mite			
RESTRICTIONS:		-	-
 To maintain a proper sp 	orav interval do n		

• Do not apply more than 0.3 lb. active ingredient (12.8 ounces formulated) per acre per season.

• Do not apply within 18 days of harvest (PHI).

SPINACH

	DOSAGE						
PESTS	LB AI/A FL OZ/A		- APPLICATION INSTRUCTIONS				
Armyworms	0.033 - 0.10	2.1 - 6.4	Ground Application: Apply in water in a minimum of 10 gallons per acre.				
Colorado Potato Beetle							
Corn Earworm			Air Application: Apply in water in a minimum of 5 gallons per acre.				
Cucumber Beetles							
Cutworms			For whitefly and fire ant control either at planting or as a foliar treatment,				
European Corn Borer			apply up to 6.4 oz. (0.1 lb. active) per acre being careful not to exceed				
Flea Beetles			reapplication intervals or maximum dosage rates specified in this section.				
Leafminers							
Loopers							
Pepper Weevil							
Thrips							
Tomato Hornworm							
Tomato Pinworm							
Whitefly							
Banks Grass Mite	0.08 - 0.10	5.12 - 6.4					
Broad Mite							
Carmine Mite							
Fire Ants							
Lygus spp.							
Pacific Spider Mite							
Twospotted Spider Mite							
RESTRICTIONS:							
To maintain a pro	per spray interval,	do not make a	pplications less than 7 days apart.				
 Do not apply more 	o than 0.4 lb. activ	o ingradiant (2	5.6 aunces formulated) per acre per season				

• Do not apply more than 0.4 lb. active ingredient (25.6 ounces formulated) per acre per season.

• Do not apply within 40 days of harvest (PHI).

SUCCULENT PEAS AND BEANS

		DOSAGE		
CROP	CROP PEST		FL OZ/A	APPLICATION INSTRUCTIONS
Pea (Pisum spp.)	Aster Leafhopper	0.025-0.10	1.6-6.4	Ground Application: Apply in water in a minimum of 10 gallor
Dwarf Pea	Flea Beetle			per acre.
Edible-pod Pea	Grasshoppers			
English Pea	Leafhoppers			Air Application: Apply in water in a minimum of 2 gallons pe
Garden Pea	Alfalfa Caterpillar	0.033-0.10	2.1-6.4	acre. Emulsified oil may be substituted for water.
Green Pea	Aphids			
Snow Pea	Bean Leaf Beetle			See section entitled MIXING INSTRUCTIONS for details on
Sugar Snap Pea	Beet Armyworm			amount of oil to use in the spray tank.
Pigeon Pea	Cloverworm			
Bean (Phaseolus	Corn Earworm			
spp.)	Corn Rootworm			
Broadbean	Adult			
(succulent)	Cucumber Beetle			
Lima bean (green)	Cutworms			
Runner bean	European Corn			
Snap bean	Borer			
Wax bean	Fall Armyworm			
Bean (Vigna spp.)	Japanese Beetle			
Asparagus Bean	Adult			
Blackeyed Pea	Loopers			
, Chinese Longbean	Pea Leaf Weevil			
Cowpea	Pea Weevil			
Moth Bean	Plant Bugs			
Southern Pea	Sap Beetle			
Yardlong bean	Southern Armyworm			
Jackbean	Stink Bugs			
Soybean	Tarnished Plant			
, (immature seed)	Bug			
Sword bean	Thrips			
	Webworms			
	Western Bean			
	Cutworm			
	Whitefly			
	Yellowstriped			
	Armyworm			
	Banks Grass Mite	0.08-0.10	5.12-6.4	
	Carmine Mite	0.00 0.10	0.12 0.4	
	Lygus spp.			
	Twospotted Spider			
	Mite			
RESTRICTIONS:	white	1	1	1
	marathan 0.2 lb active in	aradiant (12 0	uncos formes	lated product) per acre per season.

• Do not apply within 3 days of harvest (PHI).

TOBACCO

	DOSAGE		
PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Armyworm spp.	0.0625-0.10	4.0 - 6.4	Pre-Transplant Soil Applications: Apply 0.0625 - 0.1 lb. active ingredient per
Cutworm spp.			acre in a minimum of 10 gallons per acre to control soil pests. Use of suitable
Mole Crickets			equipment to incorporate into top 4" of the soil is required to control below-
Stalkborers			ground pests.
Tobacco Flea Beetle (larvae)			
White Grubs			Transplant Water Treatment Application: Apply 0.0625 - 0.1 lb. active
Wireworms			ingredient per acre in a water treatment application volume of 10-200 gallons
			per acre.
Aphid spp.	0.04 - 0.10	2.56 - 6.4	Foliar Applications: Apply 0.04 - 0.1 lb. active ingredient per acre foliar
Armyworm spp.			application up to and including layby in a minimum of 10 gallons per acre.
Flea Beetle (Adult)			
Chinch bugs			
Stink bugs			
Japanese Beetles			
Grasshoppers			
Cutworm spp.			
Tarnished Plant Bugs			
Green bugs			
Thrips			
Whiteflies			
Spider Mites	0.10	6.4	
<i>Lygus</i> spp.			
RESTRICTIONS:			

- For foliar applications, do not make more than 2 applications per season.
- May be tank mixed with Command[®], Spartan[®], and other herbicides approved for tobacco use.
- For all applications do not apply more than 0.2 lb. active ingredient (12.8 ounces formulated) per acre per season.
- Do not apply later than layby.

TREE NUT CROPS

Tree Nut Crops including: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory nut, Macadamia nut (bush nut), Pecan, pistachio, and Walnut (Black & English)

	DOSAGE		
PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Black Pecan Aphid	0.052-0.20	3.2-12.8	Ground Application: Apply as a dilute (minimum of 200 gallons of finished
Codling Moth			spray per acre) or concentrate (minimum of 50 gallons of finished spray per
Filbert Worm			acre) spray in sufficient water to provide thorough coverage.
Hickory Shuckworm Leaffooted			
Bugs			Air Application: Apply in a minimum of 10 gallons of finished spray per acre.
Navel Orangeworm			
Oblique Banded Leafroller Peach			
Twig Borer			
Pecan Leaf Casebearer			
Pecan Nut Casebearer			
Pecan Phylloxera			
Plant Bugs			
Stink Bugs			
Walnut Aphid			
Yellow Pecan Aphid			
European Red Mite	0.08-0.20	5.1-12.8	
Spider Mites			
Fire Ants	0.1-0.20	6.4-12.8	
Walnut Husk Fly			
RESTRICTIONS:			
 Minimum spray intervals: 	Apply A110.02	as needed to r	naintain control, but not apply at intervals sooner than 15 days.

- Observe a 21-day Pre-Harvest Interval (PHI) for Pecans and a 7-day Pre-Harvest Interval (PHI) for all other registered tree nut crops.
- Do not exceed 0.2 lb. active ingredient per acre per application; do not exceed 0.50 lb. active ingredient per acre per season.
- Do not graze livestock in treated orchards or cut treated cover crops for feed.
- Do not apply within 21 days of harvest (PHI) for Pecans.
- Do not apply within 7 days of harvest (PHI) for all other nut crops.

TUBEROUS AND CORM VEGETABLES

		DOSAGE		
CROP	PEST	LB AI/A	FL OZ/A	APPLICATION INSTRUCTIONS
Arracacha Arrowroot Potato Chinese Artichoke Jerusalem Artichoke Edible Canna Cassava (bitter & sweet)	Corn Wireworm Tobacco Wireworm	0.30 (at-plant)	19.2 (at-plant)	 In-Furrow planting time treatment: A110.02 may be applied as an infurrow planting time treatment for the control of wireworms, rootworms, and white grubs. Apply A110.02 at the rate of 0.3 lb. active ingredient per acre as an in-furrow spray or T-band spray at planting time. Lay-By treatment: A110.02 may be applied as a layby treatment for the control of wireworms, rootworms and white grubs. Apply A110.02 to
Chayote (root) Chufa Dasheen (taro) Ginger Leren	Japanese Beetle Grubs June Beetle Southern Potato Wireworm	0.05-0.15 (layby)	3.2-9.6 (layby)	the drill area and cover with soil utilizing cultivation equipment set to throw soil to the drill area. Apply A110.02 as a banded spray over the row at a rate of 0.05 -0.15 lb. active ingredient per acre (3.2 - 9.6 ounces formulated) in 10 gallons per acre of spray.
Potato Sweet Potato Tanier Turmeric Yam bean True yam	Banded Cucumber Beetle Black Flea Beetle Cucumber Beetle Rootworms Sweetpotato Flea Beetle Sweetpotato Weevil Whitefringed Beetle White Grub Sugarcane Beetle	0.033-0.10 (foliar)	2.1-6.4 (foliar)	Foliar spray: A110.02 may be applied as a foliar spray for the control of the adult life stages of flea beetles, click beetles (wireworms), cucumber beetles (rootworms), whitefringed beetles and May/June beetles (white grubs). Apply A110.02 at the rate of 0.033 to 0.10 lb. active ingredient per acre (2.1 to 6.4 ounces formulated) in 10 gallons of spray by ground and 3 gallons of spray by air.
RESTRICTIONS:	l	1	1	1

For foliar applications, do not make more than 2 foliar applications per season and do not make application less than 21 days apart.

Do not apply more than 0.5 lb. active ingredient (32 ounces formulated) per acre per season, including soil applications.

Do not apply within 21 days of harvest (PHI).

ORNAMENTALS*

* NOT FOR USE IN CALIFORNIA TO CONTROL LISTED INSECT PESTS ON ORNAMENTALS AND TREES (INCLUDING FIELD AND CONTAINER GROWN NURSERY STOCK, CHRISTMAS TREES, INTERIORSCAPES AND PLANTSCAPES, LAWNS, TREES AND SHRUBS, AND ON GOLF COURSES AND SOD FARMS).

For use on plants intended for aesthetic purposes or climatic modifications and being grown in interior plantscapes and on outdoor ornamentals, Christmas trees, nurseries, lawns, sod farms and golf courses.

USE INSTRUCTIONS

A110.02 mixes with water and other aqueous carriers to control a broad assortment of insects and mites on trees, shrubs, foliage plants, non-bearing fruit and nut trees, and flowers in interiorscapes, including hotels, shopping malls, office buildings, etc. and outdoor plantscapes such as, but not limited to, nurseries, residential dwellings, parks, institutional buildings, recreational areas, athletic fields, golf courses, sod farms, and home lawns. Non-bearing crops are perennial crops that will not produce a harvestable raw agricultural commodity during the season of application.

A110.02 may be tank-mixed with other products, including insect growth regulators. When tank mixing **A110.02** with other products observe all precautions and limitations on each separate product label. The addition of spreader stickers is not necessary. The physical compatibility of **A110.02** may vary with different sources of pesticide products, and local cultural practices. Any tank mixture which has not been previously tested should be prepared on a small scale (pint or quart jar), using the proper proportions of chemicals and water to ensure the physical compatibility of the mixture.

The following procedure is recommended for preparation of a new tank mix, unless specified otherwise in label directions:

- 1. Add wettable powders to tank water
- 2. Agitate
- 3. Add fluids and flowables
- 4. Agitate
- 5. Add emulsifiable concentrates
- 6. Agitate

If a mixture is found to be incompatible following the order of addition, try reversing the order of addition, or increase the volume of water. **Note**: If the tank mixture is found to be compatible after increasing the amount of water then the sprayer will need to be recalibrated for a higher volume application. Do not allow tank mix to stand overnight. When using tank mixes, observe all restrictions and precautions which appear on the labels of these products. Provide constant agitation to keep the mixture in solution.

APPLICATION INSTRUCTIONS

TRUNK SPRAYS TO ORNAMENTAL TREES (including Christmas trees)

For Control of Bark Beetles and Boring Beetles

Refer to the table below. Application rates and timing differ according to the target pest and other factors specific to each local situation. Consult your local State Extension specialist or other qualified expert for recommendations. **Note:** Do not apply more than 12.8 fl. oz. (0.2 lbs. AI) per acre of this product to trees. Repeat application may be necessary if reinfestation is likely.

PEST	DOSAGE	SPRAY VOLUME	REMARKS AND RESTRICTIONS
Dandroctonus bark beetles such as mountain pine beetle, southern pine beetle, western pine beetle, and black turpentine beetle.	16 -32 fl. oz. per 100 gallons (0.25 – 0.5 lb. Al per 100 gallons)	Use 1-4 gallons of finished spray per tree.	Make applications to the trunk of the tree with a hydraulic sprayer in the early spring or prior to adult beetle flight and tree infestation.
Engraver beetle (<i>lps</i> spp.)	16 – 32 fl. oz. per 100 gallons (0.25 – 0.5 lb. Al per 100 gallons)	Use 10-14 gallons of finished spray per tree.	Apply spray directly to the main trunk from the base of the tree to at least half-way into the live crown. Spray until the bark is thoroughly wet.
Other bark beetles such as ambrosia beetles, elm bark beetles, and metallic wood borers such as emerald ash borer.	16 – 32 fl. oz. per 100 gallons (0.25 – 0.5 lb. Al per 100 gallons)	Use 2-5 gallons of finished spray per tree.	Make applications of a spray mixture to the trunk, scaffolding and limbs of the tree with a hydraulic sprayer in the early spring or prior to adult beetle flight and tree infestations. Spray until the bark is thoroughly wet.
Clearwing moth borers such as ash borer, banded ash clearwing, dogwood borer, lesser peachtree borer, lilac borer, oak borer, peachtree borer, rhododendron borer	6.4 – 12.8 fl. oz. per 100 gallons (0.1 – 0.2 lb. Al per 100 gallons)	Use 1-4 gallons of finished spray per tree.	Apply to the branches and trunks prior to adult emergence. Spray until the bark is thoroughly wet. For maximum residual control, use highest recommended rate.
Coleopteran borers such as bronze birch borer, flatheaded apple tree borer			

Treatment of Infested Trees to Control Emerging Brood

Make applications of a spray mixture containing 2.0 pints of **A110.02** per 100 gallons of water to trees that still have beetles in the bark. Apply spray directly to the main trunk from the base of the tree to at least half-way into the live crown. Spray until the bark is thoroughly wet (usually 1 to 4 gallons of spray per tree). Do not apply more than 0.2 lbs. AI (12.8 fl. oz.) of this product to trees per acre.

Trees on which all needles have turned brown generally have been vacated and should not be sprayed unless infestation is confirmed. To confirm an infestation, scrape off the outer bark to determine if trees are still infested. If live infestations remain in the trunks, fell the trees and cut into sections. Spray the trunk and large limbs and turn sections so that all of the surface area can be treated. Do not apply more than 0.2 lbs. Al (12.8 fl. oz.) of this product to trees per acre.

FOLIAR SPRAYS TO ORNAMENTALS AND TREES

(Including Field and Container Grown Nursery Stock, Christmas Trees, Interiorscapes and Plantscapes, Lawns, Trees and Shrubs, and on Golf Courses and Sod Farms)

For applications to ornamentals (including trees, shrubs, ground covers, bedding plants and foliage plants, conifers (field and container grown), Christmas Trees and pine seed orchards) apply 0.04 to 0.32 fl. oz. **A110.02** per 1,000 sq. ft. or 1.8 to 14.4 fl. oz. per 100 gallons. **A110.02** may be diluted and applied in various volumes of water providing that the maximum label rate (0.32 fl. oz. per 1,000 sq. ft. or 14.4 fl. oz. per 100 gallons) is not exceeded. **A110.02** may be applied through low volume application equipment by dilution with water or other carriers and providing that the maximum label rate (0.32 fl. oz. per 1,000 sq. ft. or 14.4 fl. oz. per 100 gallons) is not exceeded.

Calculating Dilution Rates Using the Ornamental Application Rates Table and the A110.02 Dilution Chart

Use the following steps to determine the appropriate dilution of this product required to control the specific pests:

- 1. Find the least susceptible target pest (the pest that requires the highest application rate for control).
- 2. Select an application rate in terms of fluid ounces of this product.
- 3. Find your application volume and how much spray you want to prepare.
- 4. Use the **Ornamental Dilution Chart** to determine the appropriate volume of this product that must be mixed in your desired volume of water.

For example, to control black vine weevil adults on rhododendron, the **Ornamental Application Rates** table shows that 0.08 to 0.16 fl. oz. of this product should be applied per 1,000 sq. ft. You select an application rate of 0.16 fl. oz. per 1,000 sq. ft. because maximum residual control is desired. Your application volume is approximately 300 gallons per acre which is equivalent to 6.9 gallons per 1,000 sq. ft. Consulting the **Ornamental Dilution Chart** shows that you should dilute 0.24 fl. oz. of this product in 10 gallons of water.

	A110.02 ORNAMENTAL DILUTION CHART										
Application	Application Fluid Ounces (mL) of A110.02 diluted to the Volumes of Finished Spray										
Rate	1 Ga	1 Gallon 5 Gallons 10 Gallons									
Fl. oz./1,000 sq.	Fl. oz.	mL	Fl. oz.	mL	Fl. oz.	mL	Fl. oz.				
ft.											
0.04	0.018	0.5	0.09	2.6	0.18	5.3	1.8				
0.08	0.036	1.1	0.18	5.3	0.36	10.6	3.6				
0.16	0.072	2.1	0.36	10.6	0.72	21.3	7.2				
0.32	0.144	4.3	0.72	21.3	1.44	42.6	14.4				

(7.9)(Fl. Oz. of A110.02 added to tank (gallons of finished spray mix)(128)

Percent Active Ingredient of Spray Mix

ORNAMENTAL AND TREE FOLIAR APPLICATION RATES

The application rates listed in the following table will provide excellent control of the noted pests under typical conditions. However, at the discretion of the applicator, this product may be applied at up to 0.32 fl. oz. per 1,000 sq. ft (14.4 fl. oz. per 100 gallons) to control each of the pest listed in this table. The higher application rates should be used when maximum residual control is desired.

PEST	DOSAGE	
PESI	DUSAGE	REMARKS AND RESTRICTIONS
Bagworms ¹		¹ Bagworms: For best results, apply when larvae begin to
Cutworms	0.04 – 0.08 fl. oz. per 1,000 sq.	hatch and spray larvae directly. Applications when larvae
Elm Leaf Beetles	ft.	are young will be most effective.
Fall Webworms		
Gypsy Moth Caterpillars	(1.8 – 3.8 fl. oz. per 100 gallons)	² Beetles, Scale Crawlers, Twig Borers, and Weevils: May
Lace Bugs		treat trunks, stems and twigs in addition to plant foliage.
Leaf Feeding Caterpillars		
Tent Caterpillars		³ Spider Mites: A110.02 provides optimal twospotted
Tussock moth		spider mite control when applied during spring to mid-
Adelgids	0.08 – 0.16 fl. oz. per 1,000 sq.	summer. Higher application rates and/or more frequent
Ants	ft.	treatments may be required for acceptable twospotted
Aphids		spider mite control during mid- to late-summer. The
Bees	(3.6 – 7.2 fl. oz. per 100 gallons)	addition of a surfactant or horticultural oil may increase the
Beet Armyworm		effectiveness of this product. Combinations of this product
Beetles ²		with other registered miticides have also proven effective.
Black Vine Weevil (Adults)		Alternately, A110.02 applications may be rotated with those
Scales, such as		of other products that have different modes of action in
Brown Soft Scales		control programs that <i>are</i> designed to manage resistance
California Red Scale (Crawlers) ²		by twospotted spider mites. Consult your local
Elongated Hemlock Scale		Cooperative Extension Service for resistance management
Pine Needle Scales (crawlers) ²		recommendations in your region.
San Jose Scales (Crawlers) ²		
Broad Mites		
Budworms		
Cicadas Citrus Theire		
Citrus Thrips Clover Mites		
Crickets		
Earwigs		
European Red Mite		
Flea Beetles		
Fungus Gnats (Adults)		
Glassywinged Sharpshooter		
Grasshoppers		
Japanese Beetle (Adult)		
Leafhoppers		
Leafrollers		
Mealybugs		
Mites		
Mosquitoes		
Nantucket Pine Tip Moth		
Pillbugs		
Pine sawflies		
Plant Bugs (including Lygus spp.)		
Psyllids		
Scorpions		
Spider Mites ³		
Spiders		
Spittlebugs		
Thrips		
Tip Moths		

Treehoppers		
Twig Borers ²		
Wasps		
Weevils ² such as		
White Pine Weevil		
Pales Weevil		
Diaprepes adults		
Orchid Weevil		
White flies		
Zimmerman pine moths		
Imported Fire Ants**	0.16 – 0.32 fl. oz. per 1,000 sq.	** For foraging ants
Leafminers	ft.	
Pecan Leaf Scorch Mite		
Pine Shoot Beetle (Adults)	(7.2 – 14.4 fl. oz. per 100	
Spider Mites ³	gallons)	

BROADCAST SPRAYS TO TURFGRASS (including lawns, golf courses, sod farms, parks, etc).

Apply **A110.02** as a broadcast treatment. Use higher volumes up to 10 gallons of carrier per 1000 square feet to get uniform coverage when treating dense grass foliage.

For low water volume usage, less than 2 gallons/1000 square feet, addition of a non-ionic or silicone-based surfactant (0.25% v/v) is recommended. Irrigation to treated area within a few hours following application can improve efficacy to sub-surface pests such as, but not limited to, mole crickets.

Restrictions:

- In New York State, this product may NOT be applied to any grass or turf area within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch).
- In New York State, do make a single repeat application of this product if there are signs of renewed insect activity, but not sooner than two weeks after the first application.

Spray Drift Precautions (For Turf & Ornamental Uses)

Do not apply when wind conditions laver downwind drift to nearby water bodies.

Do not apply when wind velocity exceeds 10 miles per hour. Avoid application when wind gusts approach 10 mph.

Apply using nozzles that provide the largest droplet size compatible with adequate coverage

Turfgrass Application Rates

The application rates listed in the following table will provide excellent control of the respective pests under typical conditions. However, at the discretion of the applicator, **A110.02** may be applied at up to 0.32 fl. oz. per 1000 square feet to control each of the pests listed in this table. The higher application rates should be used when maximum residual control is desired or heavy pest populations occur.

PEST	DOSAGE
Armyworms ¹	0.05 to 0.08 fl. oz. per 1,000 sq. ft.
Cutworms ¹	
Sod Webworm ¹	
Annual Bluegrass Weevil (Hyperodes) (Adult) ²	0.08 to 0.16 fl. oz. per 1,000 sq. ft.
Banks Grass Mite ⁶	
Billbugs (Adult) ³	
Black Turfgrass Ataenius (Adult) ⁴	
Crickets	
Earwigs	
Fleas (Adult)	
Grasshoppers	
Mealybugs	
Mites ⁶	
Ants	0.16 to 0.32 fl. oz. per 1,000 sq. ft.
Chinch Bugs ⁵	
Fleas (Larvae) ⁷	

Imported Fire Ants ⁸	
Japanese Beetle (Adult)	
Mole Cricket (Adult) ⁹	
Mole Cricket (Nymph) ¹⁰	
Ticks ¹¹	

1. Armyworms, Cutworms and Sod Webworms: To ensure optimum control, delay watering (irrigation) or mowing for 24 hours after application. If the grass area is being maintained at a mowing height of greater than 1 inch, then higher application rates (up to 0.32 fluid oz. per 1000 square feet) may be required during periods of high pest pressure.

2. Annual Bluegrass Weevil (Hyperodes) adults: Applications should be timed to control adult weevils as they leave their overwintering sites and move into grass areas. This movement generally begins when Forsythia is in full bloom and concludes when flowering dogwood (Carnes florida) is in full bloom. Consult your State Cooperative Extension Service for more specific information regarding application timing.

3. **Billbug adults:** Applications should be made when adult billbugs are first observed during April and May. Degree day models have been developed to optimize application timing. Consult your State Cooperative Extension Service for information specific to your region. In temperate regions, spring applications targeting billbug adults will also provide control of over-wintered chinch bugs.

4. Black Turfgrass Ataenius adults: Applications should be made during May and July to control the first and second generation of black turfgrass ataenius adults, respectively. The May application should be tamed to coincide with the full bloom stage of Vanhoutte spiraea (Spiraea vanhouttei) and horse chestnut (Aesculus hippocastanum). The July application should be timed to coincide with this blooming of Rose of Sharon (Hibiscus syriacus).

5. **Chinch Bugs:** Chinch Bugs infest the base of grass plants and are often found in the thatch layer. Irrigation of the grass area before treatment will optimize the penetration at the insecticide to the area where the chinch bugs are located. Use higher volume applications if the thatch layer is excessive or if a relatively long mowing height is being maintained. Chinch bugs can be one of the most difficult pests to control in grasses and the higher application rates (up to 0.32 fluid oz. per 1000 square feet) may be required to control populations that contain both nymphs and adults during the middle of the summer.

6. Mites: To ensure optimal control of eriophyid mites, apply in combination with the labeled application rate of a surfactant. A second application, five to seven days after the first, may be necessary to achieve acceptable control.

7. Flea larvae: Flea larvae develop in the soil of shaded areas that are accessible to pets or other animals. Use a higher volume application when treating these areas to ensure penetration of the insecticide into the soil. Note: if the lawn area is being treated with this product at 0.08 fluid ea, per 1000 square feet for adult flea control, then the larval application rate may be achieved by increasing the application volume two- to four-fold.

8. **Imported Fire Ants:** Control will be optimized by combining broadcast applications that will control foraging workers and newly mated fly-in queens with mound drenches that will control existing colonies. If the soil is not moist, then it is important to irrigate before application or use a high volume application. Broadcast treatments should apply 0.32 fluid oz. per 1,000 square feet. Mounds should be treated by diluting 0.05 fluid oz. of **A110.02** per gallon of water and applying 1 to 2 gallons of finished spray per mound. The mounds should be treated with sufficient force to break their apex and allow the insecticide solution to flow into the ant tunnels. A four-foot diameter circle around the mound should also be treated. For best results, apply in cool weather (65 - 80°F) or in early morning or late evening hours.

9. **Mole Cricket adults:** Achieving acceptable control of adult mole crickets is difficult because preferred grass areas are subject to continuous invasion during the early spring by this extremely active stage. Applications should be made as late in the day as possible and should be watered in with up to 0.5 inches of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized. Grass areas that receive pressure from adult mole crickets should be treated at peak egg hatch to ensure optimum control of subsequent nymph populations (see below).

10. **Mole Cricket nymphs:** Grass areas that received intense adult mole cricket pressure in the spring should be treated immediately prior to peak egg hatch. Optimal control is achieved at this time because young nymphs are more susceptible to insecticides and they are located near the soil surface where the insecticide is most concentrated. Control of larger, more damaging, nymphs later in the year may require both higher application rates and more frequent applications to maintain acceptable control. Applications should be made as late in the day as possible and should be watered in with up to 0.5 inches of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized.

11. Ticks (Including ticks that may transmit Lyme Disease and Rocky Mountain Spotted fever): Do not make spot applications. Treat the entire area where exposure to ticks may occur. Use higher spray volumes when treating areas with dense ground cover or heavy leaf liner. Ticks may be reintroduced from surrounding areas on host animals. Retreatment may be necessary to achieve and/or maintain control during periods of high past pressure. Repeat application is necessary only if there are signs of renewed activity. Repeat application must be limited to no more than once per seven days.

Deer ticks (*Ixodes* **spp.)** have a complicated lice cycle that ranges over a two-year period and involves four life stages. Applications should be made in the late fall and/or early spring to control adult ticks that are usually located on brush or grass above the soil surface and in mid to late spring to control larvae and nymphs that reside in the soil and leaf litter.

American dog ticks may be a considerable nuisance in suburban settings, particularly where homes are built on land that was previously field or forest. These ticks commonly congregate along paths or roadways where humans are likely to be encountered. Applications should be made as necessary from mid-spring to early fall to control American dog tick larvae, nymphs and adults.

Application	Application	Fluid Ounces (mL) of A110.02 diluted to the Volumes of Finished Spray								
Volume:	olume: Rate:		1 Gallon		5 Gallons		allons	100 Gallons		
Gallons/	Fl. Oz./	Fl. oz.	mL	Fl. oz.	mL	Fl. oz.	mL	Fl. oz.		
1000 sq. ft.	1000 sq. ft.									
1	0.05	0.05	1.48	0.25	7.39	0.50	14.8	5.00		
1	0.08	0.08	2.37	0.40	11.83	0.80	23.7	8.00		
1	0.16	0.16	4.73	0.80	23.66	1.60	47.3	16.00		
1	0.32	0.32	9.46	1.60	47.32	3.20	94.6	32.00		
2	0.05	0.025	0.74	0.13	3.70	0.25	7.4	2.50		
2	0.08	0.040	1.18	0.20	5.91	0.40	11.8	4.00		
2	0.16	0.080	2.37	0.40	11.83	0.80	23.7	8.00		
2	0.32	0.160	4.73	0.80	23.66	1.60	47.3	16.00		
3	0.05	0.017	0.49	0.08	2.46	0.17	4.9	1.67		
3	0.08	0.027	0.79	0.13	3.94	0.27	7.9	2.67		
3	0.16	0.053	1.58	0.27	7.89	0.53	15.8	5.33		
3	0.32	0.107	3.15	0.53	15.77	1.07	31.5	10.67		
4	0.05	0.013	0.37	0.06	1.85	0.13	3.7	1.25		
4	0.08	0.020	0.59	0.10	2.96	0.20	5.9	2.00		
4	0.16	0.040	1.18	0.20	5.91	0.40	11.8	4.00		
4	0.32	0.080	2.37	0.40	11.83	0.80	23.7	8.00		
5	0.05	0.010	0.30	0.05	1.48	0.10	3.0	1.00		
5	0.08	0.016	0.47	0.08	2.37	0.16	4.7	1.60		
5	0.16	0.032	0.95	0.16	4.73	0.32	9.5	3.20		
5	0.32	0.064	1.89	0.32	9.46	0.64	18.9	6.40		
10	0.05	0.005	0.15	0.03	0.74	0.05	1.5	0.50		
10	0.08	0.008	0.24	0.04	1.18	0.08	2.4	0.80		
10	0.16	0.016	0.47	0.08	2.37	0.16	4.7	1.60		
10	0.32	0.032	0.95	0.16	4.73	0.32	9.5	3.20		

A110.02 LAWN DILUTION CHART

Attention

- Do not apply to pets, crops, or sources of electricity.
- Firewood is not to be treated.
- Do not allow spray to contact food, foodstuffs, food contacting surfaces, food utensils or water supplies.
- Do not apply this pesticide in livestock buildings (barns).
- Keep children and *pets off* treated areas following application until the spray has dried.
- Do not apply by air.
- Do not use in greenhouses.
- Do not apply this product through any type of irrigation system. Do not apply when a temperature inversion exists.
- Do not apply for surface feeding pests if rain is expected within 12 hours (or whatever time is necessary for the spray to dry).
- For turf treatment, apply with nozzles not more than 2 feet above the grass.
- Do not apply within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.
- Do not apply when grass areas are water logged or the soil is saturated with water (i.e., will not accept irrigation).
- Vinyl and Aluminum Siding: Do not spray directly onto vinyl or aluminum siding. If **A110.02** inadvertently contacts vinyl and aluminum siding (particularly lightly colored, aged, weathered or otherwise damaged), it may result in staining, bleaching or discoloration. Wash off thoroughly with detergent and water. Factors such as extreme heat and direct sunlight can promote

damage when using emulsifiable concentrates. Avoid application to vinyl or aluminum siding while exposed to direct sunlight or during the heat of the day.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE AND SPILL PROCEDURES: Keep out of reach of children and animals. Store in original containers only, in a cool, dry place and avoid excess heat. Do not freeze. Do not store below 40° F. Carefully open containers. If crystals are observed, warm material to above 60°F by placing container in warm location. Shake or roll container periodically to redissolve solids. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of 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 incineration. 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 ½ 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. Turn the container over inste or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sinitary landfill, or by inciner over onto its other 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

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. 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.

[A110.02] is a trademark of Atticus, LLC

Ammo, Capture, Mustang – trademarks of FMC Corporation Ambush, Karate – trademarks of a Syngenta Group Company. Asana – trademark of E.I. duPont de Nemours & Company Baythroid – trademark of Bayer Danitol – trademark of Sumitomo Chemical Company, Ltd. Scout Xtra – trademark of Hoechst Schering Agrevo S.A.

{LANGUAGE ON LABEL AFFIXED TO CONTAINER}

BIFENTHRIN GROUP ^{3A} INSECTICIDE

A110.02™

[Alternate Brand Name: Batallion, Batallion 2 EC]

Contains bifenthrin, the active ingredient used in Brigade[®] [2EC].

ACTIVE INGREDIENT:	(% by weight)
Bifenthrin: (2 methyl[1,1 –biphenyl]-3-yl)methyl 3-(2-chloro-3,3,3-	
trifluoro-1-propenyl)-2,2-dimethyl-	
cyclopropanecarboxylate*	75.0%
OTHER INGREDIENTS:	25.0%

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 swallowed	 Immediately call a poison control center or doctor. 		
	• Do not induce vomiting unless told to do so by a poison		
	control center or doctor.		
	 Do not give any liquid to the person. 		
	• Do not give anything by mouth to an unconscious person.		
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.		
lf on skin or	 Take off contaminated clothing. 		
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. 		
	VSICIAN: This product is a purathroid. If large amounts have		

NOTE TO PHYSICIAN: This product is a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and should be avoided. This product contains a petroleum distillate. 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)

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING-AVISO

May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Harmful if inhaled or absorbed through skin. Avoid breathing vapor or spray mist. Avoid contact with skin. Wash 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.

ENVIRONMENTAL HAZARDS: This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. 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 make applications 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 or weeds while bees are actively visiting the treatment area.

The use of **A110.02** is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

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

[A110.02] is not manufactured, or distributed by FMC Corporation, seller of Brigade[®] [2 EC].

Manufactured for: Atticus, LLC 5000 CentreGreen Way, Suite 100 Cary, NC 27513 EPA Reg. No. 91234-104 EPA Est. No. _____