RESTRICTED USE PESTICIDE

DUE TO TOXICITY TO FISH AND AQUATIC ORGANISMS

For retail sale to and use only by Certified Applicators, or persons under their direct supervision, and only for those uses covered by the Certified Applicator's certification.

FIRESTONE™

ACTIVE INGREDIENT:

Lambda-cyhalothrin [1α(S*), 3α(Z)]-(±)-cyano-(3-phenoxyphenyl)methyl-3-(2-chloro-3,3,3,-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate	13.1%
OTHER INGREDIENTS*:	86.9%
TOTAL:	100.0%

*Contains petroleum distillates

KEEP OUT OF REACH OF CHILDREN

WARNING/AVISO

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

EPA Reg. No. 89168-16-91395

Distributed By:
ALTITUDE CROP INNOVATIONS®, LLC
1880 Fall River Drive, Suite 100
Loveland, CO 80538

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FIRST AID	
If swallowed	• Call a poison control center or doctor immediately for treatment advice. • **DO NOT** give any liquid to the person. • **DO NOT** induce vomiting unless told to do so by the poison control center or doctor. • **DO NOT** give anything by mouth to an unconscious person.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If 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 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: Contains petroleum distillate-vomiting may cause aspiration pneumonia.	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
HOT LINE NUMBER: For 24-Hour Medical Emergency Assistance (Human or Animal) Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident) Call **1-800-424-9300**	

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
WARNING/AVISO

May be fatal if swallowed or inhaled. Causes substantial but temporary eye injury. Causes skin irritation. **DO NOT** get in eyes or on skin or clothing. **DO NOT** breathe vapor or mist. Harmful if absorbed through skin. Wear appropriate protective clothing and eye wear as specified in the Personal Protective Equipment (PPE) section of this label. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse.

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Skin exposure may also result in a sensation described as a tingling, itching, burning, or prickly feeling. Onset may occur immediately to 4 hrs. after exposure and may last 2-30 hrs., without damage. Wash exposed areas once with soap and water. Relief from the skin sensation may be obtained by applying an oil-based cream.

Personal Protective Equipment (PPE)
Some materials that are chemical-resistant to this product are listed below.

Applicators and other handlers must wear:
- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves, such as barrier laminate or nitrile rubber.
- Chemical resistant footwear plus socks
- Protective eyewear
- Chemical resistant headgear for overhead exposure
- Chemical resistant apron when cleaning equipment, mixing, or loading
- For exposures in enclosed areas, use a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE prefilter.
- For exposures outdoors, use a NIOSH approved respirator with any R, P, or HE filter.

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, use detergent and hot water. Keep and wash PPE separately from other laundry.

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

User Safety Recommendations

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

Environmental Hazards
This pesticide is toxic to fish, aquatic invertebrates and wildlife. To protect the environment, **DO NOT** allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

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 if bees are visiting the treatment area.

Physical and Chemical Hazards
Combustible liquid. **DO NOT** use or store near heat or open flame.

DIRECTIONS FOR USE
RESTRICTED USE PESTICIDE

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

SHAKE WELL BEFORE USING.
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.

This labeling must be in the possession of the user at the time of application.

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 24 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 over short-sleeved shirt and short pants
- Chemical-resistant gloves, such as barrier laminate or nitrile rubber.
- Chemical resistant footwear plus socks
- Protective eyewear
- Chemical resistant headgear for overhead exposure

FIRESTONE can be used for the control of the listed insects on Alfalfa, Alfalfa grown for seed, Beans and Peas, Broccoli, Brussels Sprouts, Canola, Cabbage, Cavalo Broccoli, Cauliflower, Cereal Grains, Chinese Broccoli (gai lon), Chinese Cabbage (napa), Chinese Mustard Cabbage (gai choy), Corn (Field, Seed, Sweet, Popcorn), Cotton, Cucurbits, Eggplant, Garlic, Grass Forage, Fodder and Hay, Ground Cherry, Kohlrabi, Lettuce (Head and Leaf), Onions (Bulb), Peanuts, Peppers (Bell and Non-Bell), Pepinos, Pome Fruits (Apples, Crabapple, Loquat, Mayhaw, Pears, Quince), Rice and Wild Rice, Sorghum (grain), Soybeans, Stone Fruits (Apricot, Plums, Nectarine, Peach, Prune, Cherries), Sugarcane, Sunflowers, Tobacco, Tomato and Tomatillo, Tree Nuts, Tuberous and Corm Vegetables, Wheat (Wheat Hay and Triticale), and non-agricultural uses (Conifer and Deciduous Trees; see also under Specific Use Directions).

Initial and residual control is contingent upon thorough crop coverage. Apply with ground or aerial equipment using sufficient water to obtain full coverage of foliage. Apply in a minimum of 2 gal/acre by air or 10 gal/acre by ground unless otherwise specified in this label. When foliage is dense or pest pressure is high (heavier insect or egg pressure, larger larval stages), use of higher application volumes and/or higher use rates may improve initial and residual control.

For cutworm control, *FIRESTONE* may be applied before, during, or after planting. For soil-incorporated applications, use higher rates for improved control.

RESISTANCE MANAGEMENT

FIRESTONE is a Group 3 Insecticide. Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state agricultural authorities for details.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area.

SPRAY DRIFT PRECAUTIONS

OBSERVE THE FOLLOWING PRECAUTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES, RESERVOIRS, RIVERS, PERMANENT STREAMS, MARSHES, OR NATURAL PONDS, ESTUARIES, AND COMMERCIAL FISH FARM PONDS.

- **DO NOT** apply by ground within 25 ft or by air within 150 ft of lakes, reservoirs, rivers, permanent streams, marshes, pot holes, or natural ponds, estuaries, and commercial fish farm ponds. Increase the buffer zone to 450 ft when ultralow volume (ULV) application is made.
- All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.
- For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The minimum practical boom length should be used and must not exceed 75% of the wing span or rotor diameter.
- Use the largest droplet size consistent with good pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.
- Spray should be released at the lowest height consistent with pest control and flight safety. Applications more than 10 ft above the crop canopy should be avoided.
- Make aerial or ground applications when the wind velocity favors on-target product deposition (approximately 3-10 mph). **DO NOT** apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.
- Risk of exposure to aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.
- **DO NOT** cultivate within 10 ft of the aquatic area so as to allow growth of a vegetative filter strip.
- Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.
- **DO NOT** make aerial or ground applications during 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.
- In the State of New York, a 25 ft. vegetated, non-cropped buffer strip untraversed by drainage tiles must be maintained between a treated field and a coastal salt marsh or stream that drains into a coastal salt marsh, for both aerial or ground application. For aerial applications, the 25 ft. vegetated non-cropped buffer strip for runoff protection would be part of the larger 150 ft. buffer strip (or 450 ft. buffer strip for ULV application) required for spray drift.

TANK MIX APPLICATION

Fill the spray tank at least 1/3 full of clean water or diluents. With the pump and agitator running continuously, add the specified amount of each product in the tank mix to the spray tank and allow to fully disperse, adding ***FIRESTONE*** last. Add the remainder of water or diluent to the spray tank. Follow the precautions and limitations of the most restricted product in the tank mixture.

Compatibility testing for tank mixing partners: Test compatibility of the intended tank mixture by adding proportionate amounts of each ingredient to a pint or quart jar, cap, shake, and let set for 15 minutes, Formation of precipitates that **DO NOT** readily redisperse indicates an incompatible mixture that should not be used.

CHEMIGATION

Sprinkler Irrigation Application

Apply ***FIRESTONE*** at rates and timing described elsewhere in this label. As local recommendations differ, consult your local State Extension Service or other local experts for recommendations on adjuvant or diluent types, rates and mixing instructions. These recommendations should be proven, through university and extension field trials, to be effective with ***FIRESTONE*** applied by chemigation.

Check the irrigation system to insure uniform application of water to all areas. Thorough coverage of foliage is required for good control. Good agitation in the pesticide supply tank should be maintained prior to and during the entire application period.

Apply by injecting the recommended rate of ***FIRESTONE*** into the irrigation system using a metering device that will introduce a constant flow and by distributing the product to the target area in 0.1-0.2 acre-inch of water. In general, use the least amount of water required for proper distribution and coverage. It is recommended that the product be injected into the main irrigation line ahead of a right angle turn in the line to insure adequate dispersion or mixing in the irrigation water. Once the application is completed, flush the entire irrigation and injection system with clean water before stopping the system.

In addition to the above recommendations, if application is being made during a normal irrigation set of a stationary sprinkler, the recommended rate of ***FIRESTONE*** for the area covered should be injected into the system only during the end of the irrigation set for sufficient time to provide adequate coverage and product distribution.

It is not recommended that ***FIRESTONE*** be applied through an irrigation system connected to a public water system. Public water system means a system for the provision to the public of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Use Precautions - Sprinkler Irrigation Applications

A. Apply this product only through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move. **DO NOT** apply this product through any other type of irrigation system.
B. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
C. If you have any questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers, or other experts.
D. **DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the pesticide label prescribed safety devices for public water systems are in place.
E. 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.
F. The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back-flow.
G. The pesticide injection pipeline must contain a functional, automatic, quick-closing check- valve to prevent the flow of fluid back toward the injection pump.
H. 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.
I. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
J. 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.
K. 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 are capable of being fitted with a system interlock.
L. Any alternatives to the above required safety devices must conform to the list of EPA-approved alternative devices.
M. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment or non-uniform distribution of treated water.
N. **DO NOT** apply through chemigation systems connected to public water systems.

SPECIFIC USE DIRECTIONS

AGRICULTURAL USES

Crop	Target Pests	Rate	
		lb a.i./A	fl oz/A
ALFALFA AND ALFALFA GROWN FOR SEED	Alfalfa Caterpillar Army Cutworm Cutworm species Green Cloverworm Leafhopper species Looper species Threecornered Alfalfa Hopper Velvetbean Caterpillar Webworm species	0.015-0.025	1.92-3.20

(continued)

Crop	Target Pests	Rate	
		lb a.i./A	fl oz/A
ALFALFA AND ALFALFA GROWN FOR SEED	Alfalfa Seed Chalcid (Adult) Alfalfa Weevil Armyworm Bean Leaf Beetle (Adult) Blister Beetle species Blue Alfalfa Aphid Clover Leaf Weevil species Clover Root Borer (Adult) Clover Root Curculio species (Adult) Clover Stem Borer (Adult) Corn Earworm Cowpea Aphid Cowpea Curculio (Adult) Cowpea Weevil (Adult) Cucumber Beetle species (Adult) Egyptian Alfalfa Weevil Fall Armyworm[1] Grape Colaspis (Adult) Grasshopper species Green June Beetle (Adult) Green Peach Aphid[3] Japanese Beetle (Adult) Meadow Spittlebug Mexican Bean Beetle Pea Aphid Pea Weevil (Adult) Plant Bug species including Lygus species[3] Spotted Alfalfa Aphid Stink Bug species Sweet Clover Weevil (Adult) Thrips species[4] Western Yellowstriped Armyworm Whitefringed Beetle species (Adult) Yellowstriped Armyworm	0.02-0.03	2.56-3.84
	Beet Armyworm[1,3] Blotch Leafminer[3] Spider Mites[2]	0.03	3.84

Remarks:

- Apply only to fields planted to pure stands of alfalfa.
- Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. Apply in a minimum of 2 gal/A by air or 10 gal/A by ground. When foliage is dense and/or pest populations are high 5-10 gal/A by air or 20 gal/A by ground and higher use rates are recommended. Use higher rates for increased residual control.
- Avoid application when bees are actively foraging by applying during the early morning or during the evening hours. Be aware of bee hazard resulting from a cool evening and/or morning dew. It may be advisable to remove bee shelters during and for 2-3 days following application. Avoid direct application to bee shelters.
- **DO NOT** apply more than 0.03 lb. a.i. (0.24 pt) per acre per cutting.
- **DO NOT** apply more than 0.12 lb. a.i. (0.96 pt) per acre per season.
- **DO NOT** apply within 1 day of harvest for forage or within 7 days of harvest for hay.

[1] Use higher rates for large larvae.
[2] Suppression only.
[3] See **Resistance** statement under **Directions for Use.**
[4] Does not include Western Flower Thrips.

Crop	Target Pests	Rate	
		lb a.i./A	fl oz./A
CANOLA	Armyworm species Cabbage Seedpod Weevil Cutworm species Diamondback Moth Flea Beetle Grasshoppers Looper species Lygus Bug	0.015-0.03	1.92-3.84
	Cabbage Aphid	0.03	3.84

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply a minimum of 2 gals. of water/A.
- **DO NOT** apply within 7 days of harvest.
- **DO NOT** apply more than 0.09 lb. a.i. (0.72 pts)/A per year.

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
CEREAL GRAINS			
Corn (at Plant): Field Corn Popcorn Seed Corn Sweet Corn	Corn Rootworm Larvae: Mexican Northern Southern Western Cutworm species Lesser Cornstalk Borer Red Imported Fire Ant[1] Seedcorn Beetle Seedcorn Maggot White Grub species Wireworm species	0.005 lbs. a.i. per 1000 ft .of row[2]	0.66 fl. oz. per 1000 ft. of row[2]

Remarks:

- **Banded Applications** - Apply at planting as a 5-7 inch T-band sprayed across the open seed furrow between the furrow openers and the press wheels or as a band application behind the press wheel.
- **In-Furrow Applications** - Apply into the seed furrow through spray nozzles or microtubes, behind the planter furrow openers and in front of the press wheel.
- Apply a minimum of 3 gals. finished spray per acre.
- **DO NOT** harvest or graze livestock or cut treated crops for feed within 21 days of at plant application.
- **DO NOT** apply more than 0.09 lb. a.i. (0.72 pts.)/A per crop at plant.
- For field corn, popcorn, and seed corn **DO NOT** apply more than 0.12 lb. a.i. (0.96 pts.)/A per crop from at plant and foliar applications. For sweet corn **DO NOT** apply more than 0.48 lb. a.i. (3.84 pts.)/A per crop from at plant and foliar applications.

[1] Suppression only.

[2]lbs. a.i. and fl. oz./A of *FIRESTONE* Applied at 0.66 fl. oz./1000 ft. of Row for Various Row Spacings						
Row Spacing	40"	38"	36"	34"	32"	30"
Linear Ft./A	13,068	13,756	14,520	15,374	16,335	17,424
Lbs. a.i./A	0.067	0.07	0.075	0.079	0.084	0.09
Fl. oz./A	8.6	9.1	9.6	10.1	10.8	11.5

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
CEREAL GRAINS			
Corn (Foliar) Field Corn Popcorn Seed Corn	Corn Earworm[1] Cutworm species Green Cloverworm Meadow Spittlebug Western Bean Cutworm[1]	0.015-0.025	1.92-3.20
	Armyworm[2] Bean Leaf Beetle Bird Cherry-Oat Aphid[3] Cereal Leaf Beetle Corn Leaf Aphid[3] Corn Rootworm Beetle (Adult): Mexican Northern Southern Western English Grain Aphid[3] European Corn Borer[1] Fall Armyworm[2] Flea Beetle species Grasshopper species Hop Vine Borer[1] Japanese Beetle (Adult) Lesser Cornstalk Borer Sap Beetle (Adult) Seedcorn Beetle Southwestern Corn Borer[1] Stalk Borer[1] Stink Bug species Tobacco Budworm[1,4] Webworm species Yellowstriped Armyworm[2]	0.02 - 0.03	2.56-3.84
	Beet Armyworm[4] Chinch Bug Greenbug[3,4] Mexican Rice Borer[1] Rice Stalk Borer[1] Southern Corn Leaf Beetle[3] Sugarcane Borer[1]	0.03	3.84

Remarks:

- Apply as required by scouting, or locally prescribed corn growth stages, usually at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds or other locally recommended methods.
- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of target location. When applying by air, apply in a minimum of 2 gals of water/A.
- For chinch bug control, begin applications when bugs migrate from small grains or grass weeds to small corn. Direct spray to the base of corn plants. Repeat applications at 3-5 day intervals if needed. ***FIRESTONE*** may only suppress heavy infestations and/or subsequent migrations.
- For control of adult corn rootworm beetles *(Diabrotica* species) as part of an aerial applied corn rootworm control program use a minimum of 0.03 lb. a.i./A (3.84 fl oz/A).
- **DO NOT** apply within 21 days of harvest.
- **DO NOT** allow livestock to graze in treated areas or harvest treated corn forage as feed for meat or dairy animals within 1 day after last treatment.
- **DO NOT** feed treated corn fodder or silage to meat or dairy animals within 21 days after last treatment.
- **DO NOT** apply more than 0.12 lb. a.i. (0.96 pt.)/A acre per crop from at plant and foliar application.
- **DO NOT** apply more than 0.06 lb. a.i. (0.48 pt.)/A after silk initiation.
- **DO NOT** apply more than 0.03 lb. a.i. (0.24 pt.)/A after corn has reached the milk stage (yellow kernels with milky fluid).

[1]For control before the larva bores into the plant stalk or ear.
[2]Use higher rates for large larvae.
[3]Suppression only.
[4]See **Resistance** statement under **Directions for Use.**

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
CEREAL GRAINS			
Sweet Corn (Foliar)	Aphid species[2,3] Army worm[1] Aster Leafhopper Beet Armyworm[1,3] Chinch Bug Common Cornstalk Borer Corn Earworm Corn Rootworm Beetle (Adult): Mexican Northern Southern Western Cutworm species European Corn Borer Fall Armyworm[1] Flea Beetle species Grasshopper species Japanese Beetle (Adult) Sap Beetle (Adult) Southern Armyworm[1] Southwestern Corn Borer Spider Mite species[2] Stink Bug species Tarnished Plant Bug Webworm species Western Bean Cutworm Yellowstriped Armyworm[1]	0.02 - 0.03	2.56-3.84
	Corn Silkfly (Adult)[2]	0.03	3.84

Remarks:

- Apply as required by scouting, or locally prescribed corn growth stages, usually at intervals of 4 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds or other locally recommended methods and should be targeted for control before insects enter the stalk or ear.
- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage and ears (if present). When applying by air, apply in a minimum of 2 gals. of water/A.
- For control of adult corn rootworm beetles (*Diabrotica* species) as part of an aerial applied corn rootworm control program use a minimum of 0.025 lb. a.i. (3.2 fl. oz.)/A.
- **DO NOT** apply within 1 day of harvest.
- **DO NOT** allow livestock to graze in treated areas or harvest treated corn forage as feed for meat or dairy animals within 1 day after last treatment. **DO NOT** feed treated corn fodder or silage to meat or dairy animals within 21 days after last treatment.
- **DO NOT** apply more than 0.48 lb. a.i. (3.84pts.)/A per crop from at plant and foliar applications.

[1] Use higher rates for large larvae.
[2] Suppression only.
[3] See **Resistance** statement under **Directions for Use.**

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
CEREAL GRAINS			
Rice Wild Rice	Bird Cherry-Oat Aphid Chinch Bug Fall Armyworm Grasshopper species Greenbug Leaf hopper species Rice Stink Bug Rice Water Weevil (Adult) Riceworm Sharpshooter species True Armyworm Yellow Sugarcane Aphid Yellowstriped Armyworm	0.025-0.04	3.20-5.12
	European Corn Borer[1] Mexican Rice Borer[1] Rice Seed Midge[1] Rice Stalk Borer[1] Sugarcane Borer[1]	0.03-0.04	3.84-5.12

Remarks:

- Apply as required by scouting. Timing and frequency of application should be based upon insect populations reaching locally determined economic thresholds. Determine the need for repeat applications, usually at intervals of 5 - 7 days, by scouting.
- ***FIRESTONE*** can be safely used when propanil products are being used for weed control.
- Apply by air or by ground equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water (or total carrier volume) per acre, but ensure sufficient volume is used to provide adequate coverage. In addition, adding an emulsified crop oil (e.g., 1 pt. per acre) when lower aerial application volumes are used is recommended to help improve coverage, reduce evaporation and improve efficacy.
- For control of rice water weevil in dry-seeded rice, make a foliar application as indicated by scouting for the presence of adults and/or feeding scars, usually within a time-frame of 0-5 days after permanent flood establishment. **DO NOT** exceed 10 days from starting permanent flood until insecticide application unless scouting indicates weevils have not been previously present. Adults may also be treated at later stages of rice development to reduce overwintering populations.
- For control of rice water weevil in water-seeded rice, make the first foliar application after pinpoint flood as indicated by scouting for the presence of adults and/or feeding scars, usually when rice has emerged 0.5 inch above the waterline. Under conditions of prolonged migration into the field, start field scouting for rice water weevil adults and/or feeding scars 3-5 days after the initial treatment and, if needed, apply a second application within 7-10 days of the first application. Adults may also be treated at later stages of rice development to reduce overwintering populations.
- California: In addition to above directions for control of rice water weevil in water seeded rice, ***FIRESTONE*** may be applied at the 1-3 leaf growth stage, with the majority at the 2 leaf growth stage. Adults are vulnerable on levees and in the water. Larvae are vulnerable while feeding on the leaf prior to entering the soil. Monitor for adults, based upon field history and density of population. Monitor field edges and levee areas for adults. Treat in the following manner: a) spray the inside perimeter of the field, or b) spray the entire field.
- Greenbug is known to have many biotypes. ***FIRESTONE*** may only provide suppression. If satisfactory control is not achieved with the first application of ***FIRESTONE***, a resistant biotype may be present. Use alternate chemistry for control.
- For control of stem borers, scout fields, when rice growth is near panicle differentiation, for early symptoms of damaging populations exhibited as discoloration (orange-tan) around the junction of the leaf sheath and leaf blade which is caused by feeding of young larvae within the sheath. Applications must be made before larvae bore into rice stems. Make the first application at panicle differentiation to 2 inch panicle for partial control. Make the second application at boot to heading for maximum control. All rice varieties are susceptible to stem borer damage, but Cocodrie and Priscilla are particularly susceptible.
- Mixers/loaders supporting aerial applications to wild rice at a rate of 0.04 lb. ai/A, and treating 1200 acres (or more) per day must wear dust-mist respirator.
- **DO NOT** release flood water within 7 days of an application.
- **DO NOT** apply more than 0.12 lb. a.i. (0.96 pt.)/A per season.
- **DO NOT** apply more than 0.04 lb. a.i. (0.32 pt.)/A within 21 to 27 days of harvest.
- **DO NOT** apply within 21 days of harvest.
- **DO NOT** use treated rice fields for the aquaculture of edible fish and crustacea.
- **DO NOT** apply as an ultra-low volume (ULV) spray.

[1] For control before the larvae bores into the plant stalk.

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
CEREAL GRAINS			
Sorghum (Grain)	Cutworm species Sorghum Midge	0.015-0.02	1.92-2.56
	Armyworm Beet Armyworm[3] Corn Earworm European Corn Borer[2] Fall Armyworm[1] Flea Beetle species Grasshopper species Lesser Cornstalk Borer[2] Southwestern Corn Borer[2] Stink Bug species Webworm species Yellowstriped Armyworm[1]	0.02-0.03	2.56-3.84
	Chinch Bug Mexican Rice Borer[2] Rice Stalk Borer[2] Sugarcane Borer[2]	0.03	3.84

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or aerial equipment using sufficient water and application methods to obtain full coverage of target location. When applying by air, apply in a minimum of 2 gals. of water per acre.
- For sorghum midge control, begin applications when 25% of the sorghum heads have emerged and are in tip bloom. Repeat applications at 5-day intervals if needed.
- For chinch bug control, begin applications when bugs migrate from small grains or grass weeds to small sorghum. Direct spray to the base of sorghum plants. Repeat applications at 3 – 5 day intervals if needed. ***FIRESTONE*** may only suppress heavy infestations and/or subsequent migrations.
- **DO NOT** apply more than 0.08 lb. a.i. (0.64 pt.)/A per season.
- **DO NOT** apply more than 0.06 lb. a.i. (0.48 pt.)/A per season after crop emergence.
- **DO NOT** apply more than 0.02 lb. a.i. (0.16 pt)/A per season once crop is in soft-dough stage.
- **DO NOT** apply within 30 days of harvest.

[1] Use higher rates for large larvae.
[2] For control before the larva bores into the plant stalk.
[3] See **Resistance** statement under **Directions for Use.**

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
CEREAL GRAINS			
Barley Buckwheat Oats Rye Triticale Wheat Wheat Hay	Army Cutworm Cutworm species	0.015-0.025	1.92-3.20
	Armyworm Bird Cherry-Oat Aphid[1] Cereal Leaf Beetle English Grain Aphid[1] Fall Armyworm Flea Beetle species Grasshopper species Hessian Fly[4] Orange Blossom Wheat Midge Russian Wheat Aphid[1] Stink Bug species Yellowstriped Armyworm	0.02-0.03	2.56-3.84
	Grass Sawfly	0.025-0.03	3.20-3.84
	Chinch Bug Corn Leaf Aphid[2] Greenbug[1,3] Mite species[2]	0.03	3.84

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water per acre.
- For chinch bug control, repeat applications at 3-5 day intervals if needed. ***FIRESTONE*** may only suppress heavy infestations and/or migrations.
- Greenbug is known to have many biotypes. ***FIRESTONE*** may provide suppression only. In this situation, a second application using an alternative chemistry may be needed.
- **DO NOT** apply within 30 days of harvest.
- **DO NOT** allow livestock to graze in treated areas or harvest treated wheat forage as feed for meat or dairy animals within 7 days after treatment. **DO NOT** feed treated straw to meat or dairy animals within 30 days after the last treatment.
- **DO NOT** apply more than 0.06 lb. a.i. (0.48 pt.)/A per season.

[1] Best control is obtained before insects begin to roll leaves. Once crop has started to boot, ***FIRESTONE*** may provide suppression only. Higher rates and increased coverage will be necessary.
[2] Suppression only.
[3] See **Resistance** statement under **Directions for Use.**
[4] Make applications when adults emerge.

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
COLE CROPS(HEAD AND STEM *BRASSICA)*			
Broccoli Brussels Sprouts Cabbage Cauliflower Cavalo Broccoli Chinese Broccoli (gai lon) Chinese Cabbage (napa) Chinese Mustard Cabbage (gai choy) Kohlrabi	Alfalfa Looper Cabbage Looper Cabbage Webworm Cutworm species Imported Cabbageworm Southern Cabbageworm	0.015-0.025	1.92-3.20
	Aphid species[2,3] Armyworm Beet Army worm[1,3] Corn Earworm Diamondback Moth[3] Fall Armyworm[1] Flea Beetle species Grasshopper species Japanese Beetle (Adult) Leaf hopper species Meadow Spittlebug Plant Bug species including Lygus species[2] Spider Mite species[2] Stink Bug species Thrips species[2] Vegetable Weevil (Adult) Whitefly species[2,3] Yellowstriped Armyworm	0.02 - 0.03	2.56-3.84

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water/A.
- **DO NOT** apply within 1 day of harvest.
- **DO NOT** apply more than 0.24 lb. a.i. (1.92 pts.)/A per season.

[1] For control of first and second instar only.
[2] Suppression only.
[3] See **Resistance** statement under **Directions for Use.**

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
COTTON	Cutworm species Soybean Thrips Tobacco Thrips	0.015-0.02	1.92-2.56
	Cabbage Looper Cotton Fleahopper Cotton Leafperforator Cotton Leafworm Lygus Bug species[3] Pink Bollworm Saltmarsh Caterpillar	0.02-0.03	2.56-3.84
	Bandedwing Whitefly[2,3] Beet Army worm[1,3] Boll Weevil Brown Stink Bug Cotton Aphid[2,3] Cotton Bollworm European Corn Borer Fall Armyworm Green Stink Bug Southern Green Stink Bug Sweet Potato Whitefly[2,3] Tobacco Budworm[3] Twospotted Spider Mite[2]	0.025-0.04	3.20-5.12

Remarks:

- Apply as required by scouting, usually at intervals of 5 - 7 days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or aerial equipment using sufficient water to obtain full coverage of foliage.
- Applications may also be made with equipment adapted and calibrated for ULV sprays. ***FIRESTONE*** may be mixed with once-refined vegetable oil and applied in a minimum of at least one qt. of finished spray per acre.
- Under light bollworm/budworm infestation levels, 0.02 lb. a.i./A may be applied in conjunction with intense field monitoring.
- For boll weevil control, spray on a 3-5 day schedule.
- When applied according to label directions for control of cotton bollworm and tobacco budworm, ***FIRESTONE*** also provides ovicidal control of unhatched Heliothine species eggs.
- **DO NOT** apply within 21 days of harvest.
- **DO NOT** graze livestock in treated areas.
- **DO NOT** apply more than 0.2 lb. a.i. (1.6 pints)/A per season.
- **DO NOT** make more than a total of 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season.

[1] For control of the first and second instar only.
[2] Suppression only.
[3] See **Resistance** statement under **Directions for Use.**

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
CUCURBIT VEGETABLES Chayote (fruit) Chinese Waxgourd (Chinese preserving melon) Citron Melon Cucumber Gherkin Gourd (edible) *Lagenaria* species -includes: hyotan, cucuzza *Luffa acutangula, L cylindrical*-includes: hechima, Chinese okra *Momordica* species-includes: balsam apple,balsam pear, bitter melon, Chinese cucumber Muskmelon (hybrids and/or cultivars of *Cucumis meld)*-includes: true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls,mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon Pumpkin Squash, summer (*Cucurbits pepo* var.*melopepo)* includes: crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini Squash, winter *(Cucurbita maxima; C moschata)*-includes butternut squash, calabaza, hubbard squash (C *mixta;* C *pepo)* includes: acorn squash, spaghetti squash Watermelon-includes: hybrids and/or varieties of *Citrulius lanatus*	Armyworm species[1] Blister Beetle species Cabbage Looper Corn Earworm Cricket species Cucumber Beetle species (adults) Cutworm species Flea Beetle species Grasshopper species June Beetle species Leaffooted Bug Leaf hopper species Lygus Bug species[1] Melonworm Pickleworm Plant Bug species Rindworm species complex Saltmarsh Caterpillar Squash Beetle Squash Bug species Squash Vine Borer species Stink Bug species Thrips species[1,2] Tobacco Budworm[1] Webworm species	0.02-0.03	2.56-3.84
	Aphid species[1] Leafminer species[1,3] Whitefly species[1,3] Spider Mite species[3]	0.03	3.84

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of all plant parts. When applying by air, apply in a minimum of 2 gal. total solution per acre. When applying by ground, a minimum of 10 gal. total solution per acre is recommended.
- Use higher application volumes and/or rates when foliage is dense, pest populations are high, larvae are large, weather conditions are adverse and/or as plant size increases. Use higher rates for longer residual.
- Insects that bore or tunnel into leaves, vines, stems or fruit must be controlled before penetration. Only exposed insects (larvae and/or adults) can be controlled with foliar applications of ***FIRESTONE***.
- **DO NOT** apply more than 0.18 lb. a.i. (23 fl. oz. or 1.44 pts of product) per acre per season.
- **DO NOT** apply within 1 day of harvest.

[1] See **Resistance** statement under **Directions for Use**.
[2] Does not include Western Flower Thrips
[3] Suppression only.

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
FRUITING VEGETABLES Eggplant Ground cherry Pepino Peppers (bell and nonbell) Tomatillo Tomato	Cabbage Looper Cutworm species Hornworm species	0.015-0.025	1.92-3.20
	Aphid species[2,3] Beet Armyworm[1,3] Blister Beetle species Colorado Potato Beetle[3] Cucumber Beetle species (Adult) European Corn Borer[4] Fall Armyworm[1] Flea Beetle species Grasshopper species Japanese Beetle (Adult) Leaf hopper species Leaf miner species[2] Meadow Spittlebug Pepper Weevil (Adult)[2] Plant Bug species Southern Armyworm[1] Spider Mite species[2] Stalk Borer[4] Stink Bug species Thrips[5] Tobacco Budworm[3] Tomato Fruitworm Tomato Pinworm Tomato Psyllid[2,3] Vegetable Weevil (Adult) Whitefly species[2,3] Yellowstriped Armyworm[1]	0.02 - 0.03	2.56-3.84

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water per acre.
- **DO NOT** apply within 5 days of harvest.
- **DO NOT** apply more than 0.36 lb. a.i. (2.88 pts)/A per season.

[1] For control of first and second instar only.
[2] Suppression only.
[3] See **Resistance** statement under **Directions for Use.**
[4] For control before the larva bores into the plant stalk or fruit.
[5] Does not include Western Flower Thrips.

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
GRASS FORAGE, FODDER AND HAY Pasture and Rangeland Grass, Grass Grown for Hay or Silage and Grass Grown for Seed	Army Cutworm Cutworm species Essex Skipper Range Caterpillar Striped Grass Looper	0.015-0.02	1.92-3.2
	Beet Armyworm Billbug species[3] Bird Cherry-Oat Aphid[1] Black Grass Bug Black Turfgrass Beetle (adult) Blue Stem Midge Cereal Leaf Beetle Chinch Bug Crane Fly species Cricket species English Grain Aphid[1] Fall Armyworm Flea Beetle species Grass Mealybug Grass Sawfly (adult) Grasshopper species Green June Beetle (adult) Greenbug[1,2] Japanese Beetle (adult) Katydid species Leafhopper species Mite species[3] Russian Wheat Aphid[1] Southern Armyworm Spittlebug species Stink Bug species Sugarcane Aphid Thrips species Tick species True Armyworm Webworm species Yellowstriped Armyworm	0.02-0.03	2.56-3.84

Remarks:

- Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gal. total solution per acre. When applying by ground, a minimum of 7 gal. total solution per acre is recommended.
- Use higher application volumes and rates when foliage is dense, pest populations are high, larvae are large and/or weather conditions are adverse. Use higher rates for longer residual.
- For chinch bug control, ***FIRESTONE*** may only suppress heavy infestations and/or migrations. In this situation, a second application using an alternative chemistry may be needed.
- Greenbug is known to have many biotypes. ***FIRESTONE*** may provide suppression only. In this situation, a second application using an alternative chemistry may be needed.
- Pasture and rangeland grass may be used for grazing or cut for forage 0 days after application. **DO NOT** cut grass to be dried and harvested for hay until 7 days after the last application.
- Grass grown for seed:
  Straw, hay and mature seed (seed screenings) may be used as feed 7 days after the last application. Regrowth of grass grown for seed may be used for grazing, cut for forage or cut to be dried and harvested for hay.
- **DO NOT** apply more than 0.03 lb. a.i. (3.84 fl. oz. or 0.24 pts. of product) per acre per cutting for pastures, rangeland and grasses grown for seed. A minimum re-treatment interval (RTI) of 30 days is required for pastures and rangeland receiving 0.03 lb. ai. per acre which have not been cut between applications.
- **DO NOT** apply more than 0.09 lb. a.i. (11.52 fl. oz. or 0.72 pts. of product) per acre per season.

[1] Best control is obtained before insects begin to roll leaves.
[2] See **Resistance** statement under **Directions for Use.**
[3] Suppression only.

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
LEGUME VEGETABLES (BEANS AND PEAS)			
Edible Podded (Only) *Canavalia ensiformis*-jackbean *Canavalia gladiata*-sword bean *Glycine max*-soybean (immature seed)	Cutworm species Green Cloverworm Imported Cabbageworm Mexican Bean Beetle Saltmarsh Caterpillar Velvetleaf Caterpillar	0.015-0.025	1.92-3.20
Edible Podded, Succulent Shelled or Dried Shelled *Cajanus cajan*-Pigeon pea *Phaseolus* species-includes: field, kidney, lima, navy, pinto, runner, snap, tepary and wax beans *Pisum* species-includes: dwarf, edible-pod, English, field, garden, green, snow and sugar snap peas *Vigna* species-includes: adzuki, asparagus, moth, mung, rice, urd and yardlong beans, black-eye pea, catjang, Chinese longbean, cowpea, Crowder pea, and Southern pea **Succulent Shelled or Dried Shelled** *Vicia faba.*-broadbean (favabean) **Dried Shelled (Only)** *Cicer arietimum*-chickpea (garbonzo bean) *Cyamopsis tetragonoloba*-guar *Lablab pupureus*-Lablab bean (hyacinth bean) *Lupinus* species-includes: grain, sweet, white and sweet white lupines *Lens esculata*-Lentils	Alfalfa Caterpillar Aphid species[4] Armyworm[2] Bean Leaf Beetle Bean Leafskeletonizer Blister Beetle species Corn Earworm Corn Rootworm Beetle species (Adult) Cucumber Beetle species (Adult) Curculio and Weevil species[1] (foliage and pod feeding adults and larvae) European Corn Borer Fall Armyworm[2] Flea Beetle species (Adult) Flea Hopper species Grasshopper species Japanese Beetle (Adult) Leaf hopper species Leaftier species Looper Species Meadow Spittlebug Painted Lady Butterfly (Larva) Plant Bug species including Lygus species[4] Stalk Borer[4] Stink Bug species Threecornered Alfalfa Hopper Thrips species[4,5] Tobacco Budworm[4] Webworm species Western Bean Cutworm Western Yellowstriped Armyworm[2] Yellowstriped Armyworm[2]	0.02-0.03	2.56-3.84
	Beet Armyworm [3,4] Leafminer species [3,4] Lesser Cornstalk Borer [3] Soybean Looper [3,4] Spider Mite species [3] Whitefly species [3,4]	0.03	3.84

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water per acre.
- For edible podded and succulent shelled legume vegetables, **DO NOT** apply within 7 days of harvest.
- For dried shelled legume vegetables, **DO NOT** apply within 21 days of harvest.
- **DO NOT** apply more than 0.12 lb .a.i. (0.96 pts)/A per season.
- For succulent and dried shelled peas and beans, **DO NOT** graze livestock in treated areas or harvest vines for forage or hay.

[1] For control before the larva bores into the plant stalk or pods.
[2] Use higher rates for large larvae.
[3] For suppression only.
[4] See **Resistance** statement under **Directions for Use.**
[5] Does not include Western Flower Thrips.

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
LEGUME VEGETABLES (SOYBEANS)			
Soybeans	Bean Leaf Beetle Cabbage Looper Corn Earworm Corn Rootworm Beetle (Adult): Mexican Northern Southern Western Cutworm species Green Cloverworm Mexican Bean Beetle Painted Lady (Thistle) Caterpillar Potato Leafhopper Saltmarsh Caterpillar Soybean Aphids[4] Threecornered Alfalfa Hopper Thrips species[5] Velvetbean Caterpillar Woollybear Caterpillar	0.015-0.025	1.92-3.20
	Armyworm[1] Blister Beetle species European Corn Borer Fall Armyworm[1] Grasshopper species Japanese Beetle (Adult) Plant Bug species Silverspotted Skipper Stink Bug species Tobacco Budworm[3] Webworm species Yellowstriped Armyworm[1]	0.025-0.03	3.20-3.84
	Beet Armyworm[2,3] Lesser Cornstalk Borer[2] Soybean Looper[2,3] Spider Mite species[2]	0.03	3.84

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- **DO NOT** graze or harvest treated soybean forage, straw, or hay for livestock feed.
- Apply with ground or aerial equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water per acre.
- For control of adult corn rootworm beetles (*Diabrotica* species) as part of an aerial-applied corn rootworm control program use a minimum of 0.02 lb. a.i (2.56 fl. oz)/A.
- **DO NOT** apply within 30 days of harvest.
- **DO NOT** apply more than 0.06 lb. a.i. (0.48 pts.)/A per season.

[1] Use higher rates for large larvae.
[2] Suppression only.
[3] See **Resistance** statement under **Directions for Use.**
[4] Use lower rates for early season applications and/or lighter populations.
[5] Does not include Western Flower Thrips.

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
LETTUCE (HEAD AND LEAF)	Alfalfa Looper Cabbage Looper Cutworm species Green Cloverworm Imported Cabbageworm Saltmarsh Caterpillar	0.015-0.025	1.92-3.20
	Aphid species[2,3] Armyworm Beet Armyworm[1,3] Corn Earworm Diamondback Moth[3] European Corn Borer Fall Armyworm[1] Flea Beetle species Grasshopper species Japanese Beetle (Adult) Leaf hopper species Meadow Spittlebug Plant Bug species including Lygus species[3] Southern Armyworm Spider Mite species[2] Stink Bug species Tobacco Budworm[3] Vegetable Weevil (Adult) Whitefly species[2,3]	0.02-0.03	2.56-3.84

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water per acre.
- **DO NOT** apply within 1 day of harvest.
- **DO NOT** apply more than 0.3 lb. a.i. (2.4 pts. of product)/A per season.

[1] For control of first and second instar only.
[2] Suppression only.
[3] See **Resistance** statement under **Directions for Use.**

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
ONION (BULB) AND GARLIC	Cutworm species Leafminer species (Adult) Onion Maggot (Adult) Seedcorn Maggot (Adult)	0.015-0.025	1.92-3.20
	Aphid species[2] Armyworm species[1] Flower Thrips[2,3] Onion Thrips[3] Plant Bug species Stink Bug species Tobacco Thrips[3] Western Flower Thrips[2,3]	0.02 - 0.03	2.56-3.84

Remarks:
- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Use the higher label rates as thrips population increases and avoid rescue situations.
- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water per acre.
- **DO NOT** apply within 14 days of harvest.
- **DO NOT** apply more than 0.24 lb. a.i. (1.92 pts. of product) per acre per season.

[1] For control of the first and second instar only.
[2] Suppression only.
[3] See **Resistance** statement under **Directions for Use.**

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
PEANUTS	Cutworm species Green Cloverworm Potato Leafhopper Rednecked Peanut Worm Threecornered Alfalfa Hopper Velvetbean Caterpillar	0.015-0.025	1.92-3.20
	Bean Leaf Beetle Corn Earworm Fall Armyworm[1] Grasshopper species Southern Corn Rootworm (Adult) Stink Bug species Tobacco Thrips Vegetable Weevil Whitefringed Beetle (Adult)	0.02-0.03	2.56-3.84
	Aphid species[2] Beet Armyworm[2,3] Lesser Cornstalk Borer[2] Soybean Looper[2,3] Spider Mite species[2]	0.03	3.84

Remarks:
- Apply as required by scouting, usually at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or aerial equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water per acre.
- **DO NOT** apply within 14 days of harvest.
- **DO NOT** apply more than 0.12 lb. a.i. (0.96 pints)/A per season.

[1] Use higher rates for large larvae.
[2] Suppression only.
[3] See **Resistance** statement under **Directions for Use**

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
POME FRUITS Apple Crabapple Loquat Mayhaw Oriental Pear Pear Quince	Apple Aphid Apple Maggot (Adult) Cherry Fruit Fly species (Adult) Codling Moth Green Fruitworm Japanese Beetle Leaf hopper species Leafroller species Lesser Appleworm Omnivorous Leafroller Orange Tortrix Oriental Fruit Moth Pear Psylia [1] Pear Sawfly Periodical Cicada Plant bug species Plum Curculio Rosy Apple aphid San Jose Scale (fruit infestations only) Spirea Aphid[1] Stink Bug species Tent Caterpillar species Tentiform Leaf Miner species Tree Borer species Tufted Apple Budworm Webworm species	0.02 - 0.04	2.56-5.12

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds and IPM recommendations.
- Apply with ground or air equipment using sufficient water to obtain full coverage of the foliage or target area. When applying by air, apply in a minimum of 5 gals. of water/per acre, but use higher volumes as appropriate for thorough coverage.
- **DO NOT** apply within 21 days of harvest.
- **DO NOT** apply more than 0.2 lb. a.i. (1.6 pts. of product)/A per season.
- **DO NOT** apply more than 0.16 lb. a.i. (1.28 pts.)/A per year post bloom.

[1] Suppression only

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
STONE FRUITS Apricot Chickasaw Plum Damson Plum Japanese Plum Nectarine Peach Plum Plumcot Prune Sweet and Tart Cherry	American Plum Borer Apple Maggot (Adult) Black Cherry Aphid Cherry Fruit Fly species (Adult) Codling Moth Green Fruitworm Japanese Beetle June Beetle Leaf hopper species Leafroller species Oriental Fruit Moth Peach Twig Borer Peachtree Borer species Pear Sawfly Periodical Cicada Plant Bug species Plum Curculio Rose Chafer Stink Bug species Tent Caterpillar species Thrips species	0.02 - 0.04	2.56-5.12

Remarks:
- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold and IPM recommendations.
- Apply with ground or air equipment using sufficient water to obtain full coverage of the foliage or target area. When applying by air, apply a minimum of 5 gals. of water/per acre, but use higher volumes as appropriate for thorough coverage.
- **DO NOT** apply within 14 days of harvest.
- **DO NOT** apply more than 0.2 lb. a.i. (1.6 pts.)/acre per year.
- **DO NOT** apply more than 0.16 lb. a.i. (1.28 pts.)/A per year post bloom.

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
SUGARCANE	Mexican Rice Borer[1] Pygmy Mole Cricket Rice Stalk Borer[1] Sugarcane Aphid[3] Sugarcane Beetle (Adult)[2] Sugarcane Borer[1] West Indian Cranefly Yellow Sugarcane Aphid[3]	0.025 - 0.04	3.20-5.12

Remarks:
- Apply as required by scouting, usually at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold.
- Apply with ground or air equipment using sufficient water to obtain full coverage of the foliage or target area. When applying by air, apply a minimum of 2 gal. of water per acre.
- **DO NOT** apply within 21 days of harvest.
- **DO NOT** apply more than 0.16 lb. a.i. (1.28 pts.)/A per season.

[1]For control before the larva bores into the plant stalk.
[2]Suppression only of beetles active above ground.
[3]See **Resistance** statement under **Directions for Use.**

Crop	Target Pests	Rate	
		ib. a.i./A	fl. **oz./A**
SUNFLOWER	Cutworm species Sunflower Beetle	0.015-0.025	1.92-3.20
	Banded Sunflower Moth Fall Army worm[1] Grasshopper species Head-Clipper Weevil (Adult) Japanese Beetle (Adult) Leaf hopper species Meadow Spittlebug Painted Lady (Thistle) Caterpillar Seed Weevil (Adult) Spotted Cabbage Looper Stem Weevil (Adult) Stink Bug species Sunflower Maggot (Adult) Sunflower Moth Woollybear Caterpillar	0.02 - 0.03	2.56-3.84
	Beet Armyworm[2,3] Spider Mite species[2]	0.03	3.84

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water to obtain full coverage of sunflower heads and/or foliage. When applying by air, apply in a minimum of 2 gals. of water per acre.
- **DO NOT** apply within 45 days of harvest.
- **DO NOT** apply more than 0.12 lb. a.i. (0.96 pts.)/A per season.
- **DO NOT** apply more than 0.09 lb. a.i. (0.72 pts.)/A per season after bloom initiation.
- **DO NOT** apply as an ultra-low volume (ULV) spray.

[1] Use higher rates for large larvae.
[2] Suppression only.
[3] See **Resistance** statement under **Directions for Use.**

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
TOBACCO	Armyworm species[1] Blister Beetle species Cabbage Looper Corn Earworm Cucumber Beetle species (Adult) Cutworm species Grasshopper species Japanese Beetle (Adult) Katydid species Plant Bug species[3] Potato Tuberworm Salt Marsh Caterpillar Stinkbug species Tobacco Aphid species[2,3] Tobacco Budworm[3] Tobacco Flea Beetle (Adult) Tobacco Hornworm Tobacco Thrips species[2] Tomato Hornworm Tree Cricket species Vegetable Weevil (Adult) Webworm species	0.015-0.03	1.92-3.84

Remarks:

- Apply as required by scouting, usually at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold.
- Apply with ground or air equipment using sufficient water to obtain full coverage of the foliage. When applying by air, apply in a minimum of 2 gals. of water per acre.
- **DO NOT** apply within 40 days of harvest.
- **DO NOT** apply more than 0.09 lb. a.i. (0.72 pts.)/A per year.

[1] For control of first and second instars only.
[2] Suppression only.
[3] See **Resistance** statement under **Directions for Use.**

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
TREE NUTS			
Almond Beech Nut Brazil Nut Butternut Cashew Chestnut Chinquapin Filbert (Hazlenut) Hickory Nut Macadamia Nut (Bush Nut) Pistachio Walnut Black Walnut English (Persian)	Ants Chinch Bug Codling Moth Filbertworm Leaffooted Bug Leafroller species Navel Orangeworm Peach Twig Borer Plant Bug species Stink Bug species Walnut Aphid Walnut Husk Fly species (Adult)	0.02 - 0.04	2.56-5.12
Pecan	Hickory Shuckworm Pecan Aphid species Pecan Casebearer species Pecan Phylloxera species Pecan Spittlebug Pecan Weevil Stink Bug species	0.02 - 0.04	2.56-5.12

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold.
- Apply with ground or air equipment using sufficient water to obtain full coverage of the foliage or target area. When applying by air, apply in a minimum of 5 gals. of water/per acre, but use higher rates as appropriate for thorough coverage.
- **DO NOT** apply within 14 days of harvest.
- **DO NOT** apply more than 0.16 lb. a.i. (1.28 pts.)/A per year.
- **DO NOT** apply more than 0.12 lb. a.i. (0.96 pts.)/A per year post bloom.

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
TUBEROUS AND CORM VEGETABLES (Potato, Sweet Potato, Yams and Related)			
Arracacha Arrowroot Artichoke (Chinese and Jerusalem only) Canna (edible) Cassava (bitter and sweet) Chayote (root) Chufa Dasheen Ginger Leren Potato Sweet Potato Tanier Turmeric Yam (bean and true)	Cutworm species Leaf hopper species Saltmarsh Caterpillar Sweet Potato Hornworm Woolybear Caterpillar species	0.015-0.025	1.92-3.20
	Aphid species[1] Armyworm species[1] Blister Beetle species Colorado Potato Beetle[1] Corn Earworm Cricket species Cucumber Beetle species (adults) European Corn Borer Flea Beetle species (adults) Grasshopper species Looper species[1] Lygus Bug species[1] Plant Bug species Potato Psyllid Potato Tuberworm Stink Bug species Sweet Potato Leaf Beetle (adults) Sweet Potato Vine Borer Thrips species[1,2] Tortoise Beetle species Webworm species Weevil species (adults)	0.02-0.03	2.56-3.84
	Leaf miner species[1,3] Spider Mite species[1] Whitefly species[1,3]	0.03	3.84

Remarks:

- Apply as required by scouting, usually at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of all above ground plant parts. When applying by air, apply in a minimum of 2 gal. total solution per acre. When applying by ground, a minimum of 10 gal. total solution per acre is recommended.
- Use higher application volumes and/or rates when foliage is dense, pest populations are high, larvae are large, weather conditions are adverse and/or as plant size increases. Use higher rates for longer residual.
- Insects that bore or tunnel into leaves, vines, stems, tubers or corms must be controlled before penetration. Only exposed insects (larvae and/or adults) can be controlled with foliar applications of ***FIRESTONE***.
- **DO NOT** apply more than 0.12 lb. a.i. (15.36 fl. oz. or 0.96 pts. of product) per acre per season.
- **DO NOT** apply within 7 days of harvest.

[1] See **Resistance** statement under **Directions for Use.**
[2] Does not include Western Flower Thrips.
[3] Suppression only.

NON-AGRICULTURAL USES

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
CONIFER AND DECIDUOUS TREES			
Plantations and Nurseries	Bagworm Balsam Twig Aphid Balsam Wooly Aphid Birch Leafminer Black Pine Weevil Elm Leaf Beetle European Elm Bark Beetle Gypsy Moth Japanese Beetle June Beetle species Leaf Beetle species Leaf roller species May Beetle species Mealybug species[1] Pales Weevil Pine Chafer Pine Colaspis Beetle Pine Conelet Bug Pine Leaf Chermid Pine Needle Scale Pine Sawfly species Pine Tip Moth species Pine Tortoise Scale Pine Weevil species Poplar Aphid species Sawfly species Spittlebug species Spruce Budworm Tent Caterpillar species Tussock Moth species Webworm species	0.02 - 0.04	2.56-5.12

Remarks:

- To control exposed foliage, flower, cone, seed and bark feeding insects, apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground equipment using sufficient water to obtain full coverage of target site. When applying by air, apply a minimum of 2 gals. of water per acre.
- **DO NOT** apply more than 0.24 lb. a.i. (1.92 pts.)/A per year.

[1] Suppression only.

Crop	Target Pests	Rate	
		lb. a.i./A	fl.oz./A
CONIFER AND DECIDUOUS TREES			
Seed Orchards	Coneworm species Seed Bug species Thrips species	See Remarks	See Remarks

Remarks:
- For high volume sprayers, dilute 5.12 fl. oz. per 100 gals. of water and apply 5-10 gals. of finished spray per tree.
- For low volume sprayers, dilute 20 fl. oz. per 100 gals. of water and apply 100 gals. of finished spray per acre.
- For aerial applications, apply 15 fl. oz./A in a minimum of 10 gals. finish spray per acre.
- **DO NOT** apply more than 0.5 lb. a.i. (4 pts.)/A per year.

Crop	Target Pests	Rate	
		lb.a.i./A	fl. oz./A
Non-Cropland (Excluding Public Land)	See Crop Outlets on this *FIRESTONE* label for targe pests and rates.	See Crop Outlets	See Crop Outlets

Remarks:
- Spray non-cropland adjacent to agricultural areas to control migratory insects, which may threaten crops.
- Follow **Use Directions** rates and spray recommendations found elsewhere in this label for the adjacent crop outlet and target pests.
- Use highest labeled rates for dense/large foliage, high insect populations and larger larval stages.
- Repeat as necessary to maintain control.
- **DO NOT** exceed 0.2 lb. a.i. (1.6 pt.) per acre per year.
- **DO NOT** graze livestock in treated areas.

Rate Conversion Chart

Lb. a.i. Per Acre	Fl. oz. Per Acre	Pints Per Acre	Treated Acres Per Gal.
0.015	1.92	0.12	66
0.02	2.56	0.16	50
0.025	3.20	0.20	40
0.03	3.84	0.24	33
0.04	5.12	0.32	25

STORAGE AND DISPOSAL

Prohibitions

DO NOT contaminate water, food, or feed by storage and disposal.

Storage

Store in original containers only. Keep container closed when not in use. **DO NOT** store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with sand, earth, or synthetic absorbent. Remove to chemical waste area.

Pesticide Disposal

Pesticide wastes are acutely hazardous. 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 at the nearest EPA Regional Office for guidance.

Container Disposal

NONREFILLABLE CONTAINER (EQUAL TO OR LESS THAN 5 GALLONS): 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. Offer for recycling, if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

NONREFILLABLE CONTAINER (GREATER THAN 5 GALLONS): DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling, if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

REFILLABLE CONTAINER: Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

REFILL ONLY WITH *FIRESTONE*. The contents of RETURNABLE CONTAINERS cannot be completely removed by cleaning. Refilling with materials other than *FIRESTONE* will result in contamination and may weaken container.

After filling and before transporting, check for leaks. **DO NOT** refill or transport damaged or leaking container.

CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions tor Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of ALTITUDE CROP INNOVATIONS, LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold ALTITUDE CROP INNOVATIONS, LLC and Seller harmless for any claims relating to such factors.

ALTITUDE CROP INNOVATIONS, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or ALTITUDE CROP INNOVATIONS, LLC and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ALTITUDE CROP INNOVATIONS, LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither ALTITUDE CROP INNOVATIONS, LLC nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ALTITUDE CROP INNOVATIONS, LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ALTITUDE CROP INNOVATIONS, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

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