(Master Label)

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.

Group	7	Insecticide

Bugtox

For control of listed insects on certain field, tree, and vegetable crops.

Active Ingredient:	
Toxicol	50.0%
Other Ingredients:	50.0%
Total:	100.0%

Bugtox contains 5.0 lbs. of active ingredient per gal.

Contains petroleum distillate.

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 additional precautionary statements and directions for use in booklet.

EPA Reg. No. 999-9999

EPA Est. No.XXXX

Net Contents XXXX

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 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 clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
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 **1-866-555-1234**	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

WARNING/AVISO

May be fatal if swallowed. Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin or clothing. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. 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 G on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, Category G, such as barrier laminate or Viton® ≥ 14 mils
- Shoes plus socks
- 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, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls

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 extremely toxic to fish and aquatic organisms and toxic to wildlife.

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

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 foraging the treatment area.

PROTECTION OF POLLINATORS

APPLICATION RESTRICTIONS EXIST FOR THIS PRODUCT BECAUSE OF RISK TO BEES AND OTHER INSECT POLLINATORS. FOLLOW APPLICATION RESTRICTIONS FOUND IN THE DIRECTIONS FOR USE TO PROTECT POLLINATORS.

Look for the bee hazard icon  in the Directions for Use for each application site for specific use restrictions and instructions to protect bees and other insect pollinators.

This product can kill bees and other insect pollinators.

Bees and other insect pollinators will forage on plants when they flower, shed pollen, or produce nectar. Bees and other insect pollinators can be exposed to this pesticide from:

- Direct contact during foliar applications, or contact with residues on plant surfaces after foliar applications
- Ingestion of residues in nectar and pollen when the pesticide is applied as well as foliar applications. When Using This Product Take Steps To:
- Minimize exposure of this product to bees and other insect pollinators when they are foraging on pollinator attractive plants around the application site.
- Minimize drift of this product on to beehives or to off-site pollinator attractive habitat. Drift of this product onto beehives or off-site to pollinator attractive habitat can result in bee kills.

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at: http://pesticidestewardship.org/PollinatorProtection/Pages/default.aspx.

Pesticide incidents (for example, bee kills) should immediately be reported to the state/tribal lead agency. For contact infor- mation for your state, go to: www.aapco.org/officials.html. Pesticide incidents should also be reported to the National Pesticide Information Center at: www.npic.orst.edu or directly to EPA at: beekill@epa.gov

DIRECTIONS FOR USE

RESTRICTED USE PESTICIDE

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

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

See individual crops for specific pollinator protection application restrictions. If none exist under the specific crop, for foliar applications, follow these application directions for crops that are contracted to have pollinator services or for food/feed crops & commercially grown ornamentals that are attractive to pollinators:

1. FOR CROPS UNDER CONTRACTED POLLINATION SERVICES

Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen unless the following condition has been met:

If an application must be made when managed bees are at the treatment site, the beekeeper providing the pollination services must be notified no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.

2. FOR FOOD/FEED CROPS AND COMMERCIALLY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SERVICES BUT ARE ATTRACTIVE TO POLLINATORS

Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen unless one of the following conditions is met:

- The application is made to the target site after sunset.
- The application is made to the target site when temperatures are below 55˚F.
- The application is made in accordance with a government-initiated public health response.
- The application is made in accordance with an active state-administered apiary registry program where beekeepers are notified no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.
- The application is made due to an imminent threat of significant crop loss, and a documented determination consistent with an IPM plan or predetermined economic threshold is met. Every effort should be made to notify beekeepers no less than 48- hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.

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
- Chemical-resistant gloves, Category G, such as barrier laminate or Viton® ≥ 14 mils
- Shoes plus socks

You may obtain additional labeling from www.pesticidelabels.com. If using the additional labeling to apply the product, you must possess a copy of this additional labeling at the time of application. It is a violation of federal law to use this product in a manner inconsistent with its attached label or any additional labeling, including any web-distributed labeling. In instances where the additional web-distributed labeling conflicts with the container label, the user may choose a single, valid version of the labeling to follow. However, for areas of overlap or conflict, the user must use only one set of labeling instructions, either the attached container label or the web-distributed labeling. Do not mix and match labeling directions.

The released for shipment date is in DDMMYYYY format and can be found on the neck of the container. The unique identifier format is AAAAA-11111 and it can be found on the neck of the container below the released for shipment date.

Product Information

Initial and residual control are 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 gals. per acre by air or 10 gals. per 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, Bugtox may be applied before, during, or after planting. For soil-incorporated applications, use higher listed rates for improved control.

RESISTANCE MANAGEMENT

Bugtox is a Group 7 Insecticide (contains the active ingredient toxicol). 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

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).

Buffer Zone for Ground Application (groundboom, overhead chemigation, or airblast)
Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes; reservoirs; rivers; permanent 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; permanent 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; permanent 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 the wind velocity exceeds 15 mph.

Temperature Inversion

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 coarser 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 Applications

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 Applications

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 the wing span or 80% rotor diameter.

Flight speed and nozzle orientation must be considered in determining drop 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 a greater height is required for aircraft safety.

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

TANK MIX APPLICATION

When tank mixing with any other agricultural products, **always add Bugtox last**. Fill the tank with $^{1}/_{2}$ - $^{2}/_{3}$ volume of the mixing diluent. Make sure all other products are fully dispersed in the mixing diluent before adding the specified rate of Bugtox to the tank. Add the remainder of the mixing diluent volume. It is recommended that mixing and spray equipment have continuous agitation for best results. Follow the precautions and limitations of the most restricted product in the tank mixture.

While Bugtox has good flexibility for tank mixing with other agricultural products, a jar test for physical compatibility is recommended for untried mixtures, using proper ratios and mixing sequences of all ingredients to be included in the mixture.

Bugtox is an aqueous based formulation. It is recommended that no type of non-emulsifiable oils be used in combination with Bugtox. If adjuvants are used, use only:

- Nonionic Surfactant (NIS) containing at least 75% surface agent, or
- Nonphytotoxic Crop Oil Concentrate (COC), including once-refined Vegetable Oil Concentrate (VOC), or,
- Methylated Sunflower Oils (MSO) containing a minimum of 17% emulsifier.

Adjuvants other than NIS or COC may be used providing the product meets the following criteria:

1. Contains only EPA exempt ingredients.
2. Is nonphytotoxic to the target crop.
3. Is compatible in mixture. (May be established through a jar test.)
4. Is supported locally for use with Bugtox on the target crop through proven field trials and through university and extension recommendations.

In addition, the following may be used as diluents:

- Crop Oil Concentrate
- Methylated Sunflower Oils
- Urea-Ammonium Nitrate

It is recommended that the following not be used in combination with Bugtox as diluents or adjuvants:

- Nonemulsifiable oils,
- Diesel Fuel
- Straight Mineral Oil

CHEMIGATION

Sprinkler Irrigation Application

Apply Bugtox 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, (see **TANK MIX APPLICATION**) rates and mixing instructions. These recommendations should be proven, through university and extension field trials, to be effective with Bugtox 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 specified rate of Bugtox 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 Bugtox 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 Bugtox 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

- 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.

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

- If you have any questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers, or other experts.

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

- A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

- The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back-flow.

- The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection 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 are capable of being fitted with a system interlock.

- Any alternatives to the above required safety devices must conform to the list of EPA-approved alternative devices.

- Do not apply when wind speed favors drift beyond the area intended for treatment or non-uniform distribution of treated water.

- 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 Three cornered Alfalfa Hopper Velvetbean Caterpillar Webworm species	0.0375 – 0.0625	0.96 – 1.60
	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	0.05 – 0.075	1.28 – 1.92
	Beet Armyworm[1,3] Blotch Leafminer[3] Spider Mites[2]	0.075	1.92

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

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 to obtain full coverage of foliage. Apply in a minimum of 2 gals. per acre by air or 10 gals. per acre by ground. When foliage is dense and/or pest populations are high 5–10 gals. per acre by air or 20 gals. per acre by ground and higher listed use rates are recommended. Use higher listed rates for increased residual control.

Restrictions

- **Do not** apply more than 0.075 lb. a.i. (1.92 fl. oz. or 0.12 pts. of product) per acre per cutting.
- **Do not** apply more than 0.30 lb. a.i. (7.68 fl. oz. or 0.48 pts. of product) per acre per season.
- **Do not** apply within 1 day of harvest for forage or within 7 days of harvest for hay.

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	0.0375 - 0.075	0.96 – 1.92
	Cabbage Aphid	0.075	1.92

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 per acre.

Restrictions

- **Do not** apply within 7 days of harvest.
- **Do not** apply more than 0.225 lb. a.i. (5.76 fl. oz. or 0.36 pts. of product) per acre per year.

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]	0.0375 - 0.0625	0.96 – 1.60
	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 Yellow striped Armyworm[2]	0.05 – 0.075	1.28 – 1.92
	Beet Armyworm[4] Chinch Bug Greenbug[3,4] Mexican Rice Borer[1] Rice Stalk Borer[1] Southern Corn Leaf Beetle[3] Sugarcane Borer[1]	0.075	1.92

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

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 per acre.

- 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. Bugtox 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 0.075lb. a.i. (1.92 fl. oz. of product) per acre.

Restrictions

- **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 0.30 lb. a.i. (7.68 fl. oz. or 0.48 pts. of product) per acre per crop from at plant and foliar applications.
- **Do not** apply more than 0.150 lb. a.i. (3.84 fl. oz. or 0.24 pts. of product) per acre after silk initiation. **Do not** apply more than 0.075 lb. a.i. (1.92 fl. oz. or 0.12 pts. of product) per acre after corn has reached the milk stage (yellow kernels with milky fluid).

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
CEREAL GRAINS			
Sweet Corn (Foliar)	Aphid species[2,3] Armyworm[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 Yellow striped Armyworm[1]	0.05 – 0.075	1.28 – 1.92
	Corn Silkfly (Adult)[2]	0.075	1.92

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

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 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 0.0625 lb. a.i. (1.60 fl. oz. of product) per acre.

Restrictions

- **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 1.20 lb. a.i. (30.72 fl. oz. or 1.92 pts. of product) per acre per crop from at plant and foliar applications.

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 Leafhopper species Rice Stink Bug Rice Water Weevil (adult) Riceworm Sharpshooter species True Armyworm Yellow Sugarcane Aphid Yellow striped Armyworm	0.0625 – 0.10	1.6 - 2.56
	European Corn Borer[1] Mexican Rice Borer[1] Rice Seed Midge[1] Rice Stalk Borer[1] Sugarcane Borer[1]	0.075 – 0.10	1.92 – 2.56

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

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.
- Bugtox 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, Bugtoxmay 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. Bugtox may only provide suppression. If satisfactory control is not achieved with the first application of Karate Insecticide with Zeon Technology, 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.

Restrictions

- Mixers/loaders supporting aerial applications to wild rice at a rate of 0.04 lb. ai. per acre, 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 0.30 lb. a.i. (7.68 fl. oz. or 0.48 pt. of product) per acre per season.
- **Do not** apply more than 0.10 lb. a.i. (2.56 fl. oz. or 0.16 pt. of product) per acre 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.

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
CEREAL GRAINS			
Sorghum (Grain)	Cutworm species Sorghum Midge	0.0375 – 0.05	0.96 – 1.28
	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 Yellow striped Armyworm[1]	0.05 – 0.075	1.28 – 1.92
	Chinch Bug Mexican Rice Borer[2] Rice Stalk Borer[2] Sugarcane Borer[2]	0.075	1.92

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

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. Bugtox may only suppress heavy infestations and/or subsequent migrations.

Restrictions

- **Do not** apply more than 0.2 lb. a.i. (5.12 fl. oz. or 0.32 pt. of product) per acre per season.
- **Do not** apply more than 0.15 lb. a.i. (3.84 fl. oz. or 0.24 pt. of product) per acre per season after crop emergence.
- **Do not** apply more than 0.05 lb. a.i. (1.28 fl. oz. or 0.08 pt. of product) per acre per season once crop is in soft-dough stage.
- **Do not** apply within 30 days of harvest.

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	0.0375 – 0.0625	0.96 – 1.60
	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 Yellow striped Armyworm	0.05 – 0.075	1.28 – 1.92
	Grass Sawfly	0.0625 – 0.075	1.60 – 1.92
	Chinch Bug Corn Leaf Aphid[2] Greenbug[1,3] Mite species[2]	0.075	1.92

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

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. Bugtox may only suppress heavy infestations and/or migrations.
- Greenbug is known to have many biotypes. Bugtox may provide suppression only. In this situation, a second application using an alternative chemistry may be needed.

Restrictions

- **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 0.15 lb. a.i. (3.84 fl. oz. or 0.24 pts. of product) per acre per season.

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
COLE CROPS(HEAD AND STEM *BRASSICA*)			
Broccoli Brussels Sprouts Cabbage Cavalo Broccolo Cauliflower 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	0.0375 – 0.0625	0.96 – 1.60
	Aphid species[2,3] Armyworm Beet Armyworm[1,3] Corn Earworm Diamondback Moth[3] Fall Armyworm[1] Flea Beetle species Grasshopper species Japanese Beetle (Adult) Leafhopper species Meadow Spittlebug Plant Bug species including Lygus species[3] Spider Mite species[2] Stink Bug species Thrips species[2] Vegetable Weevil (Adult) Whitefly species[2,3] Yellow striped Armyworm	0.05 – 0.075	1.28 – 1.92

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

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.

Restrictions

- **Do not** apply within 1 day of harvest.
- **Do not** apply more than 0.6 lb. a.i. (15.36 fl. oz. or 0.96 pts. of product) per acre per season.

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
COTTON			
	Cutworm species Soybean Thrips Tobacco Thrips	0.0375 – 0.05	0.96 – 1.28
	Cabbage Looper Cotton Fleahopper Cotton Leafperforator Cotton Leafworm Lygus Bug species[3] Pink Bollworm Saltmarsh Caterpillar	0.05 – 0.075	1.28 – 1.92
	Banded wing Whitefly[2,3] Beet Armyworm[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] Two spotted Spider Mite[2]	0.0625 – 0.1	1.60 – 2.56

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

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. Bugtox 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. (1.28 fl. oz. of product) per acre 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, Bugtox also provides ovicidal control of unhatched *Heliothine* species eggs.

Restrictions

- **Do not** apply within 21 days of harvest.
- **Do not** graze livestock in treated areas.
- **Do not** apply more than 0.5 lb. a.i. (12.8 fl. oz. or 0.8 pt. of product) per acre 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.

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 melo*) – 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 (*Cucurbita 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 Leafhopper 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	0.05 – 0.075	1.28-1.92
	Aphid species[1] Leafminer species[1, 3] Whitefly species[1, 3] Spider Mite species[3]	0.075	1.92

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

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 listed rates for longer residual.
- Insects that bore or tunnel into leaves, vines, stems or fruit must be controlled before penetration.

Restrictions

- **Do not** apply more than 0.45 lb. a.i. (11.5 fl. oz. or 0.72 pts. of product) per acre per season.
- **Do not** apply within 1 day of harvest.

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	0.0375 – 0.0625	0.96 – 1.60
	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) Leafhopper species Leafminer 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] Yellow striped Armyworm[1]	0.05 – 0.075	1.28 – 1.92

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

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.

Restrictions

- **Do not** apply within 5 days of harvest.
- **Do not** apply more than 0.9 lb. a.i. (23.04 fl. oz. or 1.44 pts. of product) per acre per season.

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	Cutworm species Green Cloverworm Imported Cabbageworm Mexican Bean Beetle Saltmarsh Caterpillar Velvetleaf Caterpillar	0.0375 – 0.0625	0.96 – 1.60
Glycine max -soybean (immature seed) **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	Alfalfa Caterpillar Aphid species[4] Armyworm[2] Bean Leaf Beetle Bean Leaf skeletonizer 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) Leafhopper species Leaftier species Looper Species Meadow Spittlebug Painted Lady Butterfly (Larva) Plant Bug species including Lygus species[4] Stalk Borer[1] Stink Bug species Three cornered Alfalfa Hopper Thrips species[4,5] Tobacco Budworm[4] Webworm species Western Bean Cutworm Western Yellow striped Armyworm[2] Yellow striped Armyworm[2]	0.05 – 0.075	1.28 – 1.92

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
LEGUME VEGETABLES (BEANS AND PEAS)			
(continued) **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	Beet Armyworm[3,4] Leafminer species[3,4] Lesser Cornstalk Borer[3] Soybean Looper[3,4] Spider Mite species[3] Whitefly species[3,4]	0.075	1.92

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

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.

Restrictions

- 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 0.3 lb .a.i. (7.68 fl. oz. or 0.48 pts. of product) per acre per season.
- For succulent and dried shelled peas and beans, **do not** graze livestock in treated areas or harvest vines for forage or hay.

Crop	Target Pests	Rate	
LEGUME VEGETABLES (SOYBEANS)		**lb. a.i./A**	**fl. oz./A**
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] Three cornered Alfalfa Hopper Thrips species[5] Velvetbean Caterpillar Woollybear Caterpillar	0.0375 – 0.0625	0.96 – 1.60
	Armyworm[1] Blister Beetle species European Corn Borer Fall Armyworm[1] Grasshopper species Japanese Beetle (Adult) Plant Bug species Silver spotted Skipper Stink Bug species Tobacco Budworm[3] Webworm species Yellow striped Armyworm[1]	0.0625 – 0.075	1.60 – 1.92
	Beet Armyworm[2,3] Lesser Cornstalk Borer[2] Soybean Looper[2,3] Spider Mite species[2]	0.075	1.92

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

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 0.05 lb. a.i. (1.28 fl. oz. of product) per acre.

Restrictions

- **Do not** apply within 30 days of harvest.
- **Do not** apply more than 0.15 lb. a.i. (3.84 fl. oz. or 0.24 pt. of product) per acre per season.

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	0.0375 – 0.0625	0.96 – 1.60
	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) Leafhopper 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]	0.05 – 0.075	1.28 – 1.92

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

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.

Restrictions

- **Do not** apply within 1 day of harvest.
- **Do not** apply more than 0.75 lb. a.i. (19.2 fl. oz. or 1.2 pts. of product) per acre per season.

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)	0.0375 – 0.0625	0.96 – 1.60
	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]	0.05 – 0.075	1.28 – 1.92

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

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.
- For thrips control by aerial application, the addition of 1% COC v/v, 1/4% NIS v/v or a silicone adjuvant (follow manufacturers use directions) may enhance the deposition of the spray and increase plant coverage.

Restrictions

- **Do not** apply within 14 days of harvest.
- **Do not** apply more than 0.6 lb. a.i. (15.36 fl. oz. or 0.96 pts. of product) per acre per season.

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 Leafhopper species Leafroller species Lesser Appleworm Omnivorous Leafroller Orange Tortrix Oriental Fruit Moth Pear Psylla[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	0.05 – 0.1	1.28 – 2.56

[1]Suppression only

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.

Restrictions

- **Do not** apply within 21 days of harvest.
- **Do not** apply more than 0.5 lb. a.i. (12.8 fl. oz. or 0.80 pts. of product) per acre per year. **Do not** apply more than 0.4 lb. a.i. (10.24 fl. oz. or 0.64 pts. of product) per acre per year post bloom.
-  Do not apply pre-bloom, during bloom, or when bees are foraging.

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 Leafhopper 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	0.05 – 0.1	1.28 – 2.56

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.

Restrictions

- **Do not** apply within 14 days of harvest.
- **Do not** apply more than 0.5 lb. a.i. (12.8 fl. oz. or 0.80 pts. of product) per acre per year. **Do not** apply more than 0.4 lb. a.i. (10.24 fl. oz. or 0.64 pts. of product) per acre per year post bloom.
-  Do not apply pre-bloom, during bloom, or when bees are foraging.

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 Orange worm Peach Twig Borer Plant Bug species Stink Bug species Walnut Aphid Walnut Husk Fly species (Adult)	0.05 – 0.1	1.28 – 2.56
Pecan	Hickory Shuck worm Pecan Aphid species Pecan Casebearer species Pecan Phylloxera species Pecan Spittlebug Pecan Weevil Stink Bug species	0.05 – 0.1	1.28 – 2.56

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.

Restrictions

- **Do not** apply within 14 days of harvest.
  Do not apply more than 0.4 lb. a.i. (10.24 fl. oz. or 0.64 pts. of product) per acre per year. **Do not** apply more than 0.3 lb. a.i. (7.68 fl. oz. or 0.48 pts. of product) per acre per year post bloom.
-  Do not apply pre-bloom, during bloom, or when bees are foraging.

STORAGE AND DISPOSAL

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

Pesticide 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. DO NOT ALLOW PRODUCT TO FREEZE.

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 Handling [less than 5 gallons]
Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. 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 and 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, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Container Handling [Bulk/Mini-Bulk]
Refillable container. Refill this container with pesticide only. Do not reuse the 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 person refilling. To clean 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

WARRANTY

Seller warrants that this product conforms to the chemical description on its label and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use. To the extent consistent with applicable law, neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product in a manner contrary to its label.

Pesticide Registration, Inc.
24 Sunshine Way
Springfield, CA

(non-detachable container label – 5 gal.)

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.

Group	7	Insecticide

Bugtox

For control of listed insects on certain field, tree, and vegetable crops.

Active Ingredient:	
Toxicol	50.0%
Other Ingredients:	50.0%
Total:	100.0%

Bugtox contains 5.0 lbs. of active ingredient per gal.

Contains petroleum distillate.

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 additional precautionary statements and directions for use in booklet.

EPA Reg. No. 999-9999

EPA Est. No.XXXX

Net Contents XXXX

This labeling is legally valid only for use in {state} and only with container of product Bugtox {unique identifier} that bears a “released for shipment” date on or before {date of website access}. For pesticide applications following this labeling, you must possess a copy of this labeling at the time of application. If this labeling conflicts with labeling found on the pesticide product, use only one set of the labeling instructions in its entirety. Do not mix and match labeling directions.

This labeling is legally valid only for use in {state} and only with the container of Bugtox {unique identifier} that bears a "released for shipment date on or before {date of website access}. See page 1 of this document for additional legal requirements on the use of this labeling.

Currently the user is responsible for complying with the requirements of product labeling obtained when the user took possession of the product's container. The user must comply with all instructions and requirements in the labeling and must keep the labeling as long as the user has the container. Similarly, the user who relies upon WDL may meet this requirement by maintaining a printed or electronic copy of the labeling to meet federal and state recordkeeping requirements. In the situations described above where the WDL labeling conflicts with labeling on the pesticide container, the user must be able to identify which labeling was used and followed at the time of the pesticide's application.

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 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 clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
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 **1-866-555-1234**	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

WARNING/AVISO

This labeling is legally valid only for use in {state} and only with the container of Bugtox {unique identifier} that bears a "released for shipment date on or before {date of website access}. See page 1 of this document for additional legal requirements on the use of this labeling.

May be fatal if swallowed. Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin or clothing. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. 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 G on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, Category G, such as barrier laminate or Viton® ≥ 14 mils
- Shoes plus socks
- 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, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls

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 extremely toxic to fish and aquatic organisms and toxic to wildlife.

For terrestrial uses: do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic

This labeling is legally valid only for use in {state} and only with the container of Bugtox {unique identifier} that bears a "released for shipment date on or before {date of website access}. See page 1 of this document for additional legal requirements on the use of this labeling.

organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater.

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 foraging the treatment area.

PROTECTION OF POLLINATORS

APPLICATION RESTRICTIONS EXIST FOR THIS PRODUCT BECAUSE OF RISK TO BEES AND OTHER INSECT POLLINATORS. FOLLOW APPLICATION RESTRICTIONS FOUND IN THE DIRECTIONS FOR USE TO PROTECT POLLINATORS.

Look for the bee hazard icon  in the Directions for Use for each application site for specific use restrictions and instructions to protect bees and other insect pollinators.

This product can kill bees and other insect pollinators.

Bees and other insect pollinators will forage on plants when they flower, shed pollen, or produce nectar. Bees and other insect pollinators can be exposed to this pesticide from:

- Direct contact during foliar applications, or contact with residues on plant surfaces after foliar applications
- Ingestion of residues in nectar and pollen when the pesticide is applied as well as foliar applications. When Using This Product Take Steps To:
- Minimize exposure of this product to bees and other insect pollinators when they are foraging on pollinator attractive plants around the application site.
- Minimize drift of this product on to beehives or to off-site pollinator attractive habitat. Drift of this product onto beehives or off-site to pollinator attractive habitat can result in bee kills.

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at: http://pesticidestewardship.org/PollinatorProtection/Pages/default.aspx.

Pesticide incidents (for example, bee kills) should immediately be reported to the state/tribal lead agency. For contact infor- mation for your state, go to: www.aapco.org/officials.html. Pesticide incidents should also be reported to the National Pesticide Information Center at: www.npic.orst.edu or directly to EPA at: beekill@epa.gov

DIRECTIONS FOR USE

RESTRICTED USE PESTICIDE

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

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

This labeling is legally valid only for use in {state} and only with the container of Bugtox {unique identifier} that bears a "released for shipment date on or before {date of website access}. See page 1 of this document for additional legal requirements on the use of this labeling.

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
- Chemical-resistant gloves, Category G, such as barrier laminate or Viton® ≥ 14 mils
- Shoes plus socks

You may obtain additional labeling from www.pesticidelabels.com. If using the additional labeling to apply the product, you must possess a copy of this additional labeling at the time of application. It is a violation of federal law to use this product in a manner inconsistent with its attached label or any additional labeling, including any web-distributed labeling. In instances where the additional web-distributed labeling conflicts with the container label, the user may choose a single, valid version of the labeling to follow. However, for areas of overlap or conflict, the user must use only one set of labeling instructions, either the attached container label or the web-distributed labeling. Do not mix and match labeling directions.

The released for shipment date is in DDMMYYYY format and can be found on the neck of the container. The unique identifier format is AAAAA-11111 and it can be found on the neck of the container below the released for shipment date.

STORAGE AND DISPOSAL

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

Pesticide 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. DO NOT ALLOW PRODUCT TO FREEZE.

This labeling is legally valid only for use in {state} and only with the container of Bugtox {unique identifier} that bears a "released for shipment date on or before {date of website access}. See page 1 of this document for additional legal requirements on the use of this labeling.

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 Handling [less than 5 gallons]

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. 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 and 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, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Container Handling [Bulk/Mini-Bulk]

Refillable container. Refill this container with pesticide only. Do not reuse the 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 person refilling. To clean 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

WARRANTY

Seller warrants that this product conforms to the chemical description on its label and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use. To the extent consistent with applicable law, neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product in a manner contrary to its label.

Pesticide Registration, Inc.
24 Sunshine Way
Springfield, CA