89168-20

2013



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

> OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

August 14, 2013

Mr. Scott Baker Liberty Crop Protection, LLC 1966 W 15<sup>th</sup> Street, Suite 6 Loveland, CO 80538

Subject:

Amendment: Adding Sensitive Site Buffer Zones & At Plant Application Under Field and Sweet Corn Liberty Chlorpyrifos Bifenthrin EPA Reg. No. 89168-20 Your Submission Dated May 7, 2013

Dear Mr. Baker:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable. A stamped copy of the label is enclosed for your records.

If you have any questions regarding this action, please contact BeWanda Alexander at Alexander.bewanda@epa.gov or (703) 305-7460.

Sincerely,

anda Uleyander for

Richard Gebken Product Manager Team 10 Insecticide Branch Registration Division (7505P)

Enclosure

RESTRICTED USE PESTICIDE

For retail sale to and use only by certified applicators, or persons under their direct supervision and only for the uses covered by the certified applicator's certification.

# LIBERTY CHLORPYRIFOS BIFENTHRIN

# **GROUP 1B INSECTICIDE**

121912-050713

#### **Active Ingredients:**

Chlorpyrifos: O,O-diethyl-O-(3,5,6-trichloro-2-pyrinyl) phosphorothioate	
Bifenthrin*: (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-	
trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate	
Other Ingredients**	
TOTAL	
This product contains 2.41 pounds chlorpyrifos per gallon and 0.76 pounds bifenthrin p	per gallon. *Cis
isomers 97% minimum, trans isomers 3% maximum.	-
**Contains notroloum distillator	

\*\*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.89168-20

EPA Est. No.

Net Contents \_\_\_\_Gals. (\_\_\_\_Liters)

Manufactured for: Liberty Crop Protection LLC 1966 W 15<sup>th</sup> Street, Suite 6 Loveland, CO 80538

A	C	C	E	P	T	E	D
	A	UG	1	4	201	3	
Fur as a Reg	ngici amer Lister	de, a nded red u	nd   , for inde	Rod the	nsec entic pes	ide ) ticid	le. Act. le

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	FIRST AID
IF SWALLOWED:	<ul> <li>Immediately call a poison control center or doctor.</li> </ul>
	Do not induce vomiting unless told to do so by a poison control center or doctor.
	Do not give any liquid to the person.
	Do not give anything by mouth to an unconscious person.
IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15-20 minutes.
	Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
	Call a poison control center or doctor for treatment advice.
IF ON SKIN OR	Take off contaminated clothing.
CLOTHING:	Rinse skin immediately with plenty of water for 15-20 minutes.
	Call a poison control center or doctor for treatment advice.
IF INHALED:	Move person to fresh air.
	If person is not breathing, call 911 or an ambulance, then give artificial
	respiration, preferably by mouth-to-mouth if possible.
	Call a poison control center or doctor for further treatment advice.
	AN: Contains petroleum distillates. Vomiting may cause aspiration pneumonia.
NOTE TO PHYSICI.	AN: This product contains bifenthrin, a pyrethroid. If large amounts have been
indested the stoma	ch and intestines should be evacuated. Digestible fats oils, or alcohol may increase

ingested, the stomach and intestines should be evacuated. Digestible fats, oils, or alcohol may increase absorption and should be avoided.

**NOTE TO PHYSICIAN:** Chlorpyrifos is a cholinesterase inhibitor. Treatment is symptomatic and supportive. If exposed, plasma and red blood cell cholinesterase tests may indicate significance of exposure (baseline data are useful). Atropine, only by injection, is the preferable antidote. Oximes, such as 2-PAM/protopam, may be therapeutic if used early; however, use only in conjunction with atropine. In case of severe acute poisoning, use antidote immediately after establishing an open airway and respiration.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency medical assistance call 1-800-424-9300.

# PRECAUTIONARY STATEMENTS

# Hazards to Humans and Domestic Animals

WARNING. May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing.

**Personal Protective Equipment (PPE):** Some materials that are chemical-resistant to this product are barrier laminate and viton  $\ge 14$  mils. If you want more options, follow the instructions for category G on an EPA chemical resistance category selection chart.

Mixers and loaders using a mechanical transfer loading system and applicators using aerial application equipment must wear: Long-sleeved shirt and long pants, Shoes plus socks .

In addition to the above, mixers and loaders using a mechanical transfer loading system must wear: Chemical-resistant gloves, Chemical-resistant apron, A NIOSH-approved dust mist filtering respirator with MSHA/NIOSH approval number prefix TC-21C or a NIOSH-approved respirator with any R, P, or HE filter.

#### See engineering Controls for additional requirements.

All other mixers, loaders, applicators and handlers must wear: Coveralls over long-sleeved shirt and long pants, Chemical-resistant gloves, Chemical-resistant apron when mixing or loading or exposed to the concentrate, Chemical-resistant footwear plus socks, Chemical-resistant headgear for overhead exposure, A NIOSH-approved dust mist filtering respirator with MSHA/NIOSH approval number prefix TC-21C or a NIOSH-approved respirator with any R, P, or HE filter and Protective eyewear. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **Engineering Controls**

Mixers and loaders supporting aerial applications must use a mechanical transfer system that meets the

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requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4)) for dermal protection, and must:

Wear the personal protective equipment required above for mixers/loaders. Wear protective eyewear if the system operates under pressure, and be provided and have immediately available for use in an emergency, such as broken package, spill, or equipment breakdown: coveralls, chemical-resistant footwear and chemical-resistant headgear if overhead exposure.

Pilots must use an enclosed cockpit in a manner that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(6). Use of human flaggers is prohibited. Mechanical flagging equipment must be used.

When handlers use closed cab motorized ground application equipment in a manner that meets the requirements listed in the 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/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

 Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **Environmental Hazards**

This pesticide is extremely toxic to fish, aquatic invertebrates, small mammals and birds. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not make any applications when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

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.

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

# **Physical/Chemical Hazards**

Combustible. Do not use or store near heat or open flame.

#### DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### **RESISTANCE MANAGEMENT**

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 in your area.

# 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 restricted-entry interval (REI). The REI for each crop is listed in the directions for use associated with each crop.

Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

Certified crop advisors or persons entering under their direct supervision under certain

circumstances may be exempt from the early reentry requirements pursuant to 40 CFR Part 170. 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 (barrier laminate or nitrile rubber or neoprene rubber or viton), Chemical-resistant footwear plus socks, Chemical-resistant headgear for overhead exposure. Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

# STORAGE AND DISPOSAL

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

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

In case of spill, avoid contact, isolate area, and keep out animals and unprotected persons. Confine spills.

**To confine spill**: If liquid, dike surrounding area or absorb with sand, cat litter, or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

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

# **Container Handling and Disposal**

# DISPOSAL STATEMENTS:

Nonrefillable container: Do not reuse or refill this container. Triple rinse as specified below.

Then, offer for recycling if available. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at www.acrecycle.org.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

**For packages up to 5 gallons. 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. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

# STORAGE AND DISPOSAL CONTINUED

For packages greater than 5 gallons and less than 56 gallons: 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. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**For packages greater than 56 gallons:** 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.

**For refillable containers:** 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.

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.

#### **Chemigation Use Directions**

LIBERTY CHLORPYRIFOS BIFENTHRIN may be applied to corn (field and sweet, including corn grown for seed), cotton, and soybeans. Unless otherwise indicated in specific use directions, the application rates for chemigation are the same as those specified for broadcast application.

The following use directions must be followed when LIBERTY CHLORPYRIFOS BIFENTHRIN is applied through sprinkler irrigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues, and dispose of the residues according to state and federal laws. Flush the injector with soap and water. Determine the amount of LIBERTY CHLORPYRIFOS BIFENTHRIN needed to cover the desired acreage. Mix according to instructions in the Mixing Directions section and bring mixture to desired volume. Do not add crop oil when LIBERTY CHLORPYRIFOS BIFENTHRIN is applied by chemigation. Maintain continuous agitation during mixing and throughout the application. Set the sprinkler system to deliver the desired inches of water per acre. Start the water pump and sprinkler, and let the system achieve the desired pressure and speed before starting the injector. Start the injector and calibrate the injector system according to calibration instructions in the following Use Precautions section. The mixture containing LIBERTY CHLORPYRIFOS BIFENTHRIN must be injected continuously and uniformly into the irrigation water line as the sprinkler is moving to ensure uniform application at the correct rate. When the application is finished, flush and clean the entire irrigation and injector system prior to shutting down the system.

### **Use Precautions for Sprinkler Irrigation:**

The following use directions will result in a safe and successful application of mixtures containing LIBERTY CHLORPYRIFOS BIFENTHRIN:

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

For LEPA irrigation, a minimum of 0.75 inch of water per acre is recommended.

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

3. Contact your State Agricultural Extension Service specialists, equipment manufacturers or other experts for consultation on the suitability of the equipment set up to obtain effective control of the target

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insect pests.

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

5. A person knowledgeable of the chemigation system and responsible for its operations, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. Failure to cease application during a mechanical stoppage may result in undesirable residues to adjacent areas.

6. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. Refer to the American Society of Agricultural Engineer's Engineering Practice 409 for more information.

7. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

8. 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.

9. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

10. 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.

11. Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. The metering pump must provide a greater pressure than that of the irrigation system at the point of injection. The pump must meet Section 675 for "Electrically Driven or Controlled Irrigation Machines" NEC 70 and must contain Viton or Teflon seals.

12. To ensure uniform mixing of the insecticide into the waterline, inject the mixture through a nozzle placed in the fertilizer injection port or just ahead of an elbow or tee in the irrigation line so that the turbulence will assist in mixing. It is suggested that the injection point be higher than the insecticide tank to prevent siphoning.

13. The tank holding the insecticide mixture should be large enough to allow the system to complete the application with I filling. It must be free of rust, fertilizer, sediment, and foreign material, and equipped with an in-line strainer situated between the tank and the injector pump.

14. Calibration: In order to calibrate the irrigation system and injector to apply the mixture of LIBERTY CHLORPYRIFOS BIFENTHRIN, determine the following: 1) Calculate the number of acres irrigated by the system;

2) Set the irrigation rate and determine the number of minutes for the system to cover the intended treatment area; 3) Calculate the total gallons of insecticide mixture needed to cover the desired acreage. Divide the total gallons of insecticide mixture needed by the number of minutes to cover the treatment area. This value equals the gallons per minute output that the injector must deliver. Convert the gallons per minute to milliliters or ounces per minute. Calibrate the injector pump with the system in operation at the desired irrigation rate. It is suggested that the timed output of the injector pump be checked at least twice before operation, and the system monitored during operation.

15. Do not apply when wind speed favors drift beyond the area intended for treatment. End guns must be turned off during the application if they irrigate non-target areas.

16. Do not allow irrigation water to collect or run off and pose a hazard to livestock, wells, or adjoining crops.

17. Reentry: Follow requirements in the Agricultural Use Requirements section or crop-specific sections of this label.

18. Do not apply through sprinkler systems that deliver a low coefficient of uniformity such as certain water drive units.

LIBERTY CHLORPYRIFOS BIFENTHRIN insecticide should be diluted in sufficient volume to ensure accurate application over the area to be treated. When using chemigation (except LEPA), a minimum of 0.5 inch per acre of irrigation water is recommended. A diluent test should be conducted to ensure that phase separation will not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable control.

# BUFFER ZONES FOR AQUATIC HABITATS Vegetative Buffer Strip

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

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

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

Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. USDA, NRCS. 2000 Fort Worth, Texas. 21 pp. <u>www.in.nrcs.usda.gov/technical/agronomy/newconbuf.pdf</u>

# Buffer Zone for Ground Application (groundboom, overhead chemigation)

Do not apply within 25 feet (100 feet in New York) 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 Ground Application (orchard airblast)** 

Do not apply within 50 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 150 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds). **Buffer Zone for New York and Non-ULV Aerial Application** – In New York state this product may not be applied within 300 feet of coastal marshes or streams that drain into coastal marshes.

# **BUFFER ZONES FOR SENSITIVE SITES**

The buffer distances specified in the below table are the distances in feet that must exist to separate sensitive sites from the targeted application site. Buffers are measured from the edge of the sensitive site to the edge of the application site.

Sensitive sites are areas frequented by non-occupational bystanders (especially children). These include residential lawns, pedestrian sidewalks, outdoor recreational areas such as school grounds, athletic fields, parks and all property associated with buildings occupied by humans for residential or commercial purposes. Sensitive sites include homes, farmworker housing, or other residential buildings, schools, daycare centers, nursing homes, and hospitals. Non-residential agricultural buildings, including barns, livestock facilities, sheds, and outhouses are not included in this prohibition.

Application Rate (lbs. ai/A	Nozzle Droplet Type	Required Setba	ck (Buffer Zone	e) in feet
Chlorpyrifos		Aerial	Airblast	Ground
>0.5 - 1	Coarse or very coarse	10	10	10
>0.5 - 1	Medium	25	10	10
>1-2	Coarse or very coarse	50	10	10
>1 - 2	Medium	80	10	10
>2 - 3	Coarse or very coarse	80 <sup>1</sup>	10	10
>2 – 3	Medium	100 <sup>1</sup>	10	10
>3-4	Medium or coarse	Not Allowed	25	10
>4	Medium or coarse	Not Allowed	50	10

<sup>1</sup>Aerial application of > 2 lbs. ai/A is only permitted for Asian Citrus Psylla control, up to 2.3 lb ai/A.

Only pesticide handlers are permitted in the setback area during application of this product. Do not apply this product if anyone other than a mixer, loader, or applicator is in the setback area. Exception: Vehicles and persons riding bicycles that are passing through the setback area on public or private roadways are permitted.

# Spray Drift Management

Do not allow spray to drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreation areas, non-target crops, aquatic and wetland sites, woodlands, pastures, rangelands, or animals.

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

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or 90% of the rotor blade.

2. Nozzles must always point backward parallel with the air stream and never be pointed downward more than 45 degrees.

3. Nozzles must produce a medium or coarser droplet size (255 to 340 microns volume median diameter) per ASABE Standard 572 under application conditions. Airspeed, pressure, and nozzle angle can all effect droplet size. See manufacturer's catalog or USDA/NAAA Applicator's Guide for spray size quality ratings.

4. Applications must not be made at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

5. Use upwind swath displacement and apply only when wind speed is 3 to 10 mph as measured by an anemometer. Do not apply product when wind speed exceeds 10 mph.

6. If application includes a no-spray zone, do not release spray at a height greater than 10 feet above the ground or crop canopy.

Where states have more stringent regulations, they must be observed.

The applicator should be familiar with and take into account the information covered in the "Aerial Drift Reduction Advisory Information."

Aerial Drift Reduction Advisory Information: This section is advisory in nature and does not supersede the mandatory label requirements.

# Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

#### **Controlling Droplet Size**

• Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

• **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

• Number of Nozzles - Use the minimum number of nozzles that provide uniform coverage.

• **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.

• **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

#### **Boom Length**

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

#### **Application Height**

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

#### Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the

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up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

#### Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift. **Temperature and Humidity** 

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry. **Temperature Inversions** 

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator.

Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### Sensitive Areas

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitats for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

# **Ground Boom Application**

The following mandatory spray drift best management practices are required to reduce the likelihood of off-target drift movement from ground applications.

1. Choose only nozzles and pressures that produce a medium or coarse droplet size (255 to 400 microns volume median diameter), per ASABE Standard 572. See manufacturer's catalog or USDA/NAA Applicator's Guide for spray size quality ratings.

2. Apply with nozzle height no more than 4 feet above the ground or crop canopy.

3. Do not apply product when wind speed exceeds 10mph as measured by an anemometer.

### **Orchard Airblast Application**

The following mandatory spray drift best management practices are required to reduce the likelihood of off-target drift movement from airblast applications.

1. Nozzles must be directed so spray is not projected above the canopies.

2. Apply only when wind speed is 3 to 10 mph at the application site as measured by an anemometer outside of the orchard on the upwind side.

3. Outward pointing nozzles must be shut off when turning corners at row ends.

The applicator should take into account the following best management practices to reduce off-site spray drift. This section is advisory and does not supersede mandatory label requirements.

1. Number of nozzles, nozzle orientation and spray volume, air speed and wind direction are key factors in adjusting airblast spray delivery to match the height and density of the crop canopy. Airblast equipment should be adjusted to provide uniform coverage while minimizing the amount of spray movement overthe-top or completely through the crop canopy.

• High air volumes deliver spray more efficiently than air at high speed. Reducing forward travel speed decreases the air speed necessary to deliver the spray to the top of the drop canopy.

• Use air guides along with the number and orientation of spray nozzles to achieve the desired spray coverage and directional control.

2. The following steps should be taken to minimize drift and the amount of non-target spray:

 Orient nozzles and adjust air speed/volume/direction to force the spray through the crop canopy but not allow drift past the canopy.

• Shut off spray delivery when passing gaps in crop canopy within rows.

· Spray the outside rows or orchards from outside in, directing the spray into the orchard and shutting off

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nozzles on the side of the spraver away from the orchard.

• When treating smaller trees, vines or bushes, shut off top nozzles to minimize over-the-top spray movement.

#### Application Instructions

Rate of application is variable according to pest pressure, timing of sprays, and field scouting. Use lower rates within the specified rate range, under light to moderate infestations; use higher rates within the specified rate range, under heavy insect pressure and for mite control. Arid climates generally require higher rates.

#### **Broadcast Foliar Application**

Apply with conventional power-operated spray equipment using nozzles and spray pressures recommended for insecticides. Apply LIBERTY CHLORPYRIFOS BIFENTHRIN in a spray volume of not less than 2 gallons per acre (gpa) for aerial application equipment (fixed wing or helicopter) or not less than 10 gpa for ground equipment, unless otherwise specified. Increase spray volume to ensure adequate coverage with increased density and height of crop canopy. See Spray Drift Precautions section for recommendations on droplet size.

#### **Ground Application**

Orient the boom and nozzles so that uniform coverage is obtained. The swath width should not be wider than the boom. Follow nozzle manufacturer's recommendations for insecticide nozzles with respect to nozzle type, pressure, and spacing.

# **Broadcast Soil Application**

Apply with conventional power-operated spray equipment that will apply the product uniformly to the soil surface. Use nozzles that produce medium or coarse droplets (235 to 400 microns).

Unless otherwise indicated, a spray volume of 10 gpa or more is recommended. For band application, use proportionally less spray volume.

#### Aerial Application

Use a minimum spray volume of 2 gpa and follow recommendations for best management practices for aerial application, above. Marking of swaths by flagging, permanent markets or use of GPS equipment is recommended.

#### **Rotational Crops**

Crops for which bifenthrin tolerances exist, may be rotated at any time. All other crops may be rotated 30 days following the final application of bifenthrin.

#### Mixing Directions

To prepare the spray, add a portion of the required amount of water to the spray tank and with the spray tank agitator operating add LIBERTY CHLORPYRIFOS BIFENTHRIN. Complete filling the tank with the balance of water needed. Maintain sufficient agitation during both mixing and application to ensure uniformity of the spray mixture.

#### **Tank Mixtures**

LIBERTY CHLORPYRIFOS BIFENTHRIN may be applied in tank mixtures with other products approved for use on registered crops. Observe all restrictions and precautions which appear on the labels of these products.

Test for compatibility of products before mixing.

When LIBERTY CHLORPYRIFOS BIFENTHRIN is applied with a fertilizer solution, it is strongly recommended that a fertilizer pesticide compatibility agent be used. Maintain constant agitation during both mixing and application to ensure uniformity of the spray mixture. Do not allow spray mixtures to stand overnight.

### **CITRUS ORCHARD FLOORS (28 Day PHI) INOT FOR USE IN MISSISSIPPI**

Worker Restricted Entry Interval: Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 10 days unless PPE required for early entry is worn.

Apply LIBERTY CHLORPYRIFOS BIFENTHRIN by ground equipment to bare soil beneath citrus trees. Remove weed growth or other obstructions that might prevent the spray from reaching the soil surface. LIBERTY CHLORPYRIFOS BIFENTHRIN must be uniformly applied from the trunk to the drip line of tree.

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Apply the dosage specified in the table below in a minimum of 40 gallons of dilute spray per acre, using equipment that will apply the spray uniformly to the soil surface. Greater spray volume should insure greater uniformity of coverage. A pre- and post-application irrigation may aid in the uniformity of coverage as well.

Refer to table below for rates of application.

Pest	RATE FL. OZ/A	REMARKS
Diaprepes Root Weevil (Diaprepes abbreviatus), Southern Blue Green Root Weevil (Pachnaeus litus), Blue Green Citrus Root Weevil (Pachnaeus opalus) Brown leaf Notcher (Epicarus mexicanus), Little Leaf Notcher (Artipus floridanus)	42.1 - 53.3	LIBERTY CHLORPYRIFOS BIFENTHRIN protects citrus tree roots from Diaprepes and other citrus root weevil feeding by forming a barrier which provides contact activity on newly hatched larvae (neonates). As citrus root weevil eggs hatch in new foliage, neonates fall to the soil surface beneath the tree and come in contact with LIBERTY CHLORPYRIFOS BIFENTHRIN as they attempt to burrow into the root zone. Disturbance of the soil beneath trees should be minimized. Timing of LIBERTY CHLORPYRIFOS BIFENTHRIN applications is critical. Current information suggests that peak emergence of adult Diaprepes Weevil varies by citrus growing region and these emergence peaks can be dramatically affected by environmental factors, such as soil moisture. Typically, two peaks are observed for Diaprepes, first in spring then late summer or early fall. Southern Blue-Green and Blue- Green Citrus Weevils and Fuller Rose Beetle and Little Leaf Notches typically exhibit a single emergence peak in the spring. Brown and Little Leaf Notches typically exhibit three emergence peaks, spring, summer, and fall. Since emergence varies seasonally and by location, timing of LIBERTY CHLORPYRIFOS BIFENTHRIN application can be accurately forecast by observing adults. Adults are most active early morning and late afternoon; numbers can be estimated by trapping throughout spring and summer (emergence periods). Egg laying will occur for 8 to 10 weeks following adult emergence. It is critical to have the LIBERTY CHLORPYRIFOS BIFENTHRIN soil barrier in place prior to drop of the neonates. LIBERTY CHLORPYRIFOS BIFENTHRIN is one of several effective tools in an integrated pest management program for Citrus Root Weevils. Apply LIBERTY CHLORPYRIFOS BIFENTHRIN in conjunction with good cultural practices, biological control of larvae and foliar control of adults. Consult local university extension personnel for current information to protect citrus trees from Citrus Root Weevil and other pests. Apply to individual citrus resets, when not in solid planted rows, using

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#### **Use Restrictions:**

Do not apply in tank mixture with Evik herbicide.

Do not apply through irrigation systems.

Do not allow any application of LIBERTY CHLORPYRIFOS BIFENTHRIN to contact fruit or foliage. Do not allow meat or dairy animals to graze in treated areas.

Maximum single application rate, based upon maximum single application limit of 1 lb. a.i, chlorpyrifos per acre, is 53.3 fl. oz. of LIBERTY CHLORPYRIFOS BIFENTHRIN.

Do not apply more than a total of 84.2 fluid ounces of LIBERTY CHLORPYRIFOS BIFENTHRIN per acre per year, based upon a maximum limit of 0.5 lb a.i. bifenthrin per acre per year.

Do not make more than 3 applications of LIBERTY CHLORPYRIFOS BIFENTHRIN or other products containing chlorpyrifos per year (does not include foliar applications to citrus trees).

Do not make a second application of LIBERTY CHLORPYRIFOS BIFENTHRIN or other product containing chlorpyrifos within 10 days of the first application.

Foliar applications of other products containing chlorpyrifos may be made in addition to the orchard floor treatments but must comply with the 10 day re-treatment interval.

Ground application only. Do not apply by air.

# FIELD CORN (30 Day PHI) and SWEET CORN (21 Day PHI) Grain, Silage and Corn Grown for Seed

Worker Restricted Entry Interval: Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for early entry is worn.

# PRE-EMERGENCE INCLUDING CONSERVATION TILLAGE

Apply as a broadcast spray to surface trash and exposed soil using power-operated ground spray equipment. Use a total spray volume of 20 gpa or more.

PEST	RATE FL. OZ/A	REMARKS
Armyworm Spp. Cutworm	6.7	Can be tank mixed and applied with preemergence Herbicides such as paraquat or glyphosate and/or liquid fertilizer solutions.

# **Use Restrictions:**

**For field corn** - Do not apply more than 0.3 pounds bifenthrin active ingredient equivalent (1.5 quarts LIBERTY CHLORPYRIFOS BIFENTHRIN) per acre total per season, including preemergence, preplant incorporated, at-plant and foliar applications of other bifenthrin products. **For sweet corn**- Do not apply more than 0.2 pounds bifenthrin active ingredient equivalent (1 quart LIBERTY CHLORPYRIFOS BIFENTHRIN) per acre total per season, including preemergence, preplant incorporated, at-plant and foliar applications of other bifenthrin products.

# AT PLANT T-BAND APPLICATION

Apply as directed in the following table at rates indicated. To calculate the amount of Liberty Chlorpyrifos Bifenthrin to use per acre based on row spacing, refer to the conversion chart below.

Row Spacing (inches)	40	38	· 36	30
LIBERTY CHLORPYRIFOS				
BIFENTHRIN (lbs. ai /A	0.196/0.06	0.207/0.65	0.218/0.069	0.262/0.08
Chlorpyrifos / Bifenthrin				
LIBERTY CHLORPYRIFOS	10.4	11.0	11.6	13.9
BIFENTHRIN (FI. Oz./A)				

PEST	RATE	REMARKS
Corn rootworm larvae	0.8 fl. oz. per	Apply as a 5 to 7 inch T-band treatment over an open
(northern, southern,	1,000 linear feet	seed furrow or in-furrow with the seed. Position the
western)	of row	spray nozzle behind the planter shoe in front of the
army cutworm,	0.4 to 0.8 fluid	press wheel centered over the row. Use the table above
other cutworm species,	ounces per 1,000	to determine the Liberty Chlorpyrifos Bifenthrin needs
grubs,	linear feet	per acre. Apply in a minimum of 3 gallons of finished

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seed corn beetle,	of row	spray per acre. (3 gallons per acre is approximately 0.2
seed corn maggot,		gallons per 1000 linear feet of row at 36 inch spacing).
true armyworm,		Incorporate into the top 1 inch of soil using press wheel,
other armyworm species,		tines, chains or other suitable equipment.
wireworm		Mix Liberty Chlorpyrifos Bifenthrin with water or fertilizer in the following manner. Fill the spray tank
		approximately one-half full with water or liquid fertilizer,
		add the proper amount of Liberty Chlorpyrifos Bifenthrin,
		then add the rest of the water or fertilizer. Provide
		sufficient agitation during mixing and application to
		maintain a uniform spray mixture.
		Applications of Liberty Chlorpyrifos Bifenthrin alone or in
		recommended tank mixtures, in conjunction with in-
		furrow pop-up fertilizers may be used. A jar compatibility
		test should be performed with appropriate ratio of Liberty
		Chlorpyrifos Bifenthrin and fertilizer to ensure mixture
		will stay in solution. Constant agitation should be
		maintained during mixing and application.

### **Use Restrictions:**

Do not apply to soil where there is greater than 30% cover of crop residue remaining. Do not apply in tank mixes with Steadfast or Lightning herbicides.

Do not apply within 30 days of harvest of grain or ears.

Do not graze livestock in treated area or cut treated crops for feed within 35 days of treatment. Do not apply more than 0.1 lb. ai bifenthrin (16.84 fl. oz. Liberty Chlorpyrifos Bifenthrin) per acre per season as an at plant application.

### POSTEMERGENCE

Apply as a postemergence broadcast spray using sufficient spray volume to ensure thorough coverage of treated plants, but no less than 15 GPA for ground spray equipment or 2 to 5 GPA for aircraft equipment. Control may be reduced at low spray volumes under high temperature and wind conditions.

To improve control by aircraft, use 5 gallons of finished spray per acre particularly when initial populations are heavier than normal. Thorough coverage is essential to achieve control.

Chemigation: This product may be applied through sprinkler irrigation systems at specified broadcast application rates to control listed foliar pests. See Chemigation section for application instructions.

This product may be tank mixed with glyphosate products when application is to be made to glyphosate-tolerant corn.

Refer to table below for rates of application and for spray volume recommendations for control of specific pests.

NOTE: Do not aerially apply in Mississippi.

PEST	RATE FL. OZ/A	REMARKS
aphids, army cutworm, beet armyworm, billbugs (1), cereal leaf beetle, chinch bug, common stalk borer (6), corn earworm, cutworm species (2),	5.6 — 16.8	<b>Pest-Specific Use Directions:</b> (1) For best billbug control, ground apply in a minimum spray volume of 20 to 40 CPA at 40 psi. If corn is less than 6 inches tall, apply in a 9- to 12-inch wide band over the row. For corn greater than 6 inches tall, apply using drop nozzles directed to the base of the plant. Do not reduce the
European corn borer (4), fall armyworm, flea beetle, grasshoppers, greenbug, Japanese beetle adult, Lesser corn stalk borer, sap beetle,		<ul> <li>application rate for banded corn rootworm adults or directed applications. Concentrate the full labeled cucumber beetle adults, dosage rate in the treated zone.</li> <li>(2) For cutworms, it is preferable to apply this product when soil is moist and worms are active on or near the soil surface. If ground is dry, cloddy, or crusted at time of</li> </ul>
southern armyworm, southern corn leaf beetle, southwestern corn borer (5), stinkbugs, tarnished		treatment, worms may be protected from the spray and effectiveness will be reduced. Shallow incorporation using a rotary hoe or other suitable equipment immediately before or soon after treatment

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plant hug true armyworm	may improve control A second application may be
plant bug, true armyworm	may improve control. A second application may be
or armyworm <i>spp</i> ,	required if damage or density levels exceed economic
webworms (3), western	thresholds established for your area.
bean cutworm,	(3) For webworm control, shallow incorporation using a
yellowstriped armyworm	rotary hoe or other suitable equipment immediately
	before or soon after treatment is necessary.
i i	(4) University research indicates that achieving greater
	than 50% control of first-generation European borer with
	a single liquid insecticide treatment is highly dependent
	upon timing, insecticide placement and weather
	conditions. Make application for corn borer control with
	initial application at or shortly before egg hatch.
	(5) For southwestern corn borer, make application for
	corn borer control with initial application at or shortly
	before egg hatch. A second application may be applied
	21 days later if needed due to reinfestation.
,	(6) Do not use this product in combination with a
	burndown herbicide for control of common stalk borer.
	For common stalk borer control, treat approximately 11
	days after application of glyphosate or after burndown
	with paraquat herbicide is complete (3 to 5 days).
	For control of other ear-attacking pests: Apply this
	product just before silking and repeat as necessary to
	maintain control.
	For control of other insect pests: Apply when pests
	first appear and repeat as necessary.
9	- 16.8 Pest-Specific Use Directions:
carmine mite (2), two-	(1) Apply for Banks grass mite control when colonies
spotted spider mite (2)	first form prior to leaf damage or discoloration and
	before dispersal above the bottom third of the plant.
	(2) For two-spotted spider mite and carmine mite
	control: Apply when colonies first form prior to leaf
	damage or discoloration and before wide-spread mite
	dispersal throughout the canopy.
	Higher rates within the listed rate range will be
	necessary for heavier initial populations and corn under
	heat or drought stress. Field experience with dimethoate
	at 0.5 lb. a.i. per acre in tank mixture has demonstrated
	good control under these conditions.
	For mite control in Texas, New Mexico, Oklahoma, and
	Arizona, apply in a minimum of 5 gallons of finished
	spray per acre by aircraft or in a minimum of 10 gallons
Numbers in parentheses (-) refer to P	per acre with ground equipment.

Numbers in parentheses (-) refer to Pest-Specific Use Directions.

# **Use Restrictions:**

• Do not apply more than 50.5 fl. oz. of LIBERTY CHLORPYRIFOS BIFENTHRIN per acre per season, based upon a maximum application limit of 0.2 lb. a.i. bifenthrin per acre per season.

• Do not make more than 3 applications of any product containing chlorpyrifos per season, including the maximum allowed of 2 granular applications, at the 1 lb a.i. chlorpyrifos rate.

• Do not make a second application of LIBERTY CHLORPYRIFOS BIFENTHRIN or other product containing chlorpyrifos within 10 days of the first application.

• Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application.

• Use of ultra low volume (ULV) application on corn is prohibited.

• Do not make aerial or ground applications to corn if heavy rainfall is imminent.

• Use of this product on corn is prohibited in all coastal counties.

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· Do not apply in tank mixes with Steadfast or Lightning herbicides.

# COTTON (14 Day PHI) [NOT FOR USE IN MISSISSIPPI]

Worker Restricted Entry Interval: Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for early entry is worn.

Apply as a broadcast foliar spray using aircraft or ground spray equipment. Use a higher rate in the rate range when there is increased pest pressure. Use sufficient spray volume to ensure thorough coverage of treated plants, but no less than 10 CPA for ground spray equipment or 2 CPA for aircraft equipment. Increase spray volume when foliage is dense and/or pest population is high and/or under high temperature and wind conditions. Treat when field counts indicate damaging insect populations are developing or present.

Chemigation: This product may be applied through sprinkler irrigation systems at specified broadcast application rates to control listed foliar pests. See Chemigation section for application instructions. Proper application methods are necessary to ensure thorough spray coverage and correct rate, and minimize off-target drift. Follow Application Directions for ground and aerial application and Spray Drift Management recommendations in Product Information section of this label.

Refer to table below for rates of application.

PEST	RATE FL. OZ/A	REMARKS
European corn borer, soybean (banded) thrips, tobacco thrips	3.5 - 16.8	Pest Specific Use Directions: To Control Boll Weevil: Apply this
boll weevil, cabbage looper, cotton aphid cotton fleahopper, cotton leaf perforator, cutworms, fall armyworm, grasshoppers, leafhopper, plant bugs, saltmarsh caterpillar, southern garden leafhopper, stink bugs, tobacco budworm, whitefly, yellow striped armyworm	6.9 -16.8	product at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels. <b>To Control Mites and Aphids:</b> Apply when pests first appear. Repeat as necessary to maintain control. Higher rates within the listed rate range will be required once a damaging threshold is established.
Beet armyworm, carmine spider mite, cotton bollworm, lygus Spp., pink bollworm, two-spotted spider mite	10.0 -16.8	

#### **Use Restrictions:**

• Do not make more than 3 applications of LIBERTY CHLORPYRIFOS BIFENTHRIN or other products containing chlorpyrifos per crop season.

• Do not apply more than 84.2 fl oz of this product per acre per season, based upon the maximum limit of 0.5 lb. a.i. bifenthrin per acre per season.

• Do not make a second application of this product or other product containing chlorpyrifos within 10 days of the first application.

· Do not allow meat or dairy animals to graze in treated areas.

• Do not feed gin trash or treated forage to meat or dairy animals.

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

# SOYBEAN (28 Day PHI) INOT FOR USE IN MISSISSIPPI

Worker Restricted Entry Interval: Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for early entry is worn.

Apply as a postemergence broadcast spray using sufficient spray volume to ensure thorough coverage of treated plants, but no less than 10 GPA at a rate of up to 16.8 fl. oz. of LIBERTY CHLORPYRIFOS BIFENTHRIN for ground spray equipment or 2 to 5 GPA for aircraft equipment.

Apply when field counts indicate damaging pest populations are developing or present and then at a minimum of 30-day intervals.

This product may be tank mixed with glyphosate products when application is to be made to glyphosatetolerant soybeans. Use a higher rate in the rate range when there is increased pest pressure. Chemigation: This product may be applied through sprinkler irrigation systems at specified broadcast application rates to control listed foliar pests. See Chemigation section for application instructions.

Refer to table below for rates of application.

PEST	RATE FL. OZ/A	REMARKS
Alfalfa Caterpillar, Aphids, Aster Leafhopper, Bean Leaf Beetle, Beet Armyworm, Cloverworm, Corn Earworm, Corn Rootworm Adult, Cucumber Beetles, Cutworms, European Corn Borer, Fall Armyworm, Flea Beetle, Grasshoppers, Imported cabbageworm,	5.6 -16.8	On determinate soybeans, do not make more than 1 application after pod set.
Japanese beetle Adult, Leafhoppers, Leafminer, Loopers, Mexican Bean Beetle Adult Pea Leaf Weevil, Pea Weevil, Plant Bug, Saltmarsh caterpillar, Sap Beetle, Southern Armyworm, Stink Bugs, Tarnished Plant Bug, Thrips, Tobacco budworm, Webworms, Western Bean Cutworm, Whitefly, Yellowstriped Armyworm		
Lygus <i>Spp.,</i> Whitefly, Two Spotted Spider Mite, Velvetbean caterpillar	13.5— 16.8	

# **Use Restrictions:**

• Do not make more than 3 applications per year of this product or other product containing chlorpyrifos.

• Do not apply more than 50.53 fl. oz of this product per acre per season, based upon a maximum limit of 0.3 lb. a.i. bifenthrin per acre per season.

• Maximum single application rate is 50.53 fl. oz of LIBERTY CHLORPYRIFOS BIFENTHRIN.

• Do not make a second application of this product or other product containing chlorpyrifos within 14 days of the first application.

• Do not allow meat or dairy animals to graze in treated areas or otherwise feed treated soybean forage, hay, and straw to meat or dairy animals.

# TOBACCO (Pre-plant soil application)

Worker Restricted Entry Interval: Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for early entry is worn.

Apply as a preplant broadcast spray to reduce the feeding damage caused by listed pests. Apply 24 to 48 hours before bedding and transplanting using a spray volume of 10 GPA or more.

Incorporate immediately after application to a depth of 4 inches using suitable incorporation equipment.

Refer to table below for application rates.

PEST	RATE FL. OZ/A	REMARKS
Armyworms, Cutworms, Tobacco flea beetle (larvae), Mole crickets, Stalk borers, Wirewoms, White grubs	10.6 - 16.8	Before broadcast application of this product onto existing beds, knock down beds to final shape for transplanting. Use of PTO-driven implements that will incorporate this product to a depth of 4 inches is recommended.
Aphids, Armyworm, Flea beetle (adults), Chinch bugs, Stink bugs, Japanese beetles, Grasshoppers Cutworms, Tarnished plant bugs, Green bugs, Thrips, Whiteflies	6.8 - 16.8	
Spider mites, Lygus <i>spp.</i>	16.8	

### **Use Restriction:**

• Do not make more than 1 application of this product or other product containing chlorpyrifos per season.

# CONDITION 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 for 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 LIBERTY CROP PROTECTION, 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 LIBERTY CROP PROTECTION, LLC and Seller harmless for any claims relating to such factors.

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