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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

August 26, 2008

Rebecca A. Clemmer
United Phosphorus, Inc.
630 Freedom Business Center, Suite 402
King of Prussia, PA 19406

Subject: Amendment – Adding [Root Crops(except Sugarbeets), Garden Beet, Peanut, Soybean, Fruiting Vegetables, Tomato, Tomatillo, and Mayhaw] Uses/ Include Supplemental Label. Updating Spray Drift Language per Agency's February 21, 2008 letter.
Bifenture EC Insecticide
EPA Reg. No. 70506-57
Your submission dated May 9, 2008

Dear Ms. Clemmer:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable subject to the comments listed below. Two (2) copies of the finished labeling must be submitted prior to releasing the product for shipment. A stamped copy of the label is enclosed for your records.

1. On page 5, under Buffer Zones quality replace "ponds" with "natural ponds".


Update the container disposal statements in accordance with PR Notice 2007-4. Remember to retain the "... puncture and dispose of in sanitary ... etc" for non-refillable non-reuseable containers.

Incorporate the supplemental labeling for (Root Crops(except Sugarbeets), Garden Beet, Peanut, Soybean, Fruiting Vegetables, Tomato, Tomatillo, and Mayhaw) into the master label at the next printing or within 18 months from the date of this notice, whichever is earlier.

If you have any questions regarding this action, please contact BeWanda Alexander of my team at (703) 305-7460.

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Sincerely,

A handwritten signature in cursive script that reads "BeWanda Alexander for".

George T. LaRocca
Product Manager 13
Insecticide Branch
Registration Division (7505C)

Enclosure

RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms.

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

BIFENTURE™ EC AGRICULTURAL INSECTICIDE**BIFENTURE EC AGRICULTURAL INSECTICIDE IS NOT FOR SALE OR USE IN CALIFORNIA.**

Active Ingredient:	By Wt.
Bifenthrin* (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate.....	25.1%
Inert Ingredients**:	74.9%
TOTAL	10'

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

**Contain xylene range aromatic solvents

This product contains 2 pounds active ingredient per gallon.

ACCEPTED
with COMMENTS
In EPA Letter Dated
AUG 25 2008
 Under the Federal Insecticide,
 Fungicide, and Rodenticide Act,
 as amended, for the pesticide
 registered under EPA Reg. No.
70506-57

KEEP OUT OF REACH OF CHILDREN
WARNING AVISO

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

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

FIRST AID	
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
NOTE TO PHYSICIAN	
This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided. Contains petroleum distillates. 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.	
FOR EMERGENCY MEDICAL ASSISTANCE, CALL THE ROCKY MOUNTAIN POISON CONTROL CENTER 1-866-673-6671.	

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



Manufactured for:
 United Phosphorus, Inc.
 630 Freedom Business Center, Suite 402
 King of Prussia, PA, 19406 1-800-438-6071 • www.upi-usa.com

EPA Reg. No. 70506-57
 EPA Est. No.
 Net Contents:

PRECAUTIONARY STATEMENTS
Hazards to Humans and Domestic Animals
Warning

WARNING. May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Harmful if absorbed through skin or inhaled. Avoid breathing spray mist. Avoid contact with skin. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

Personal Protective Equipment (PPE):

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

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

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, Nitrile rubber, neoprene rubber or Viton
- Shoes plus socks

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

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, Nitrile rubber, neoprene rubber, or Viton
- Shoes plus socks
- 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.

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.

Environmental Hazards

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

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

The use of 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

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:

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BIFENTURE is an insecticide. Any insect/mite population may contain individual insects that may develop resistance to a specific pesticide product used in consecutive generations to control these pests. Prediction of resistance development is uncertain. Appropriate resistance management strategies should be followed. Contact your local extension specialist or certified crop advisors for any additional pesticide resistance management and/or Integrated Pest Management recommendations for the specific site and pest problems 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) of 12 hours.

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

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

STORAGE AND DISPOSAL

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

Pesticide Storage: Store above 40°F.

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 Disposal: Metal or Plastic Container: Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Do not cut or weld metal containers.

Returnable, Refillable Containers: Refillable/re-usable containers should be returned to the point of purchase for cleaning and refilling because the container must be thoroughly cleaned before refilling.

Need to update

Chemigation Use Directions

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

Use a minimum of 0.75 inch of water per acre for LEPA irrigation. Use 1 to 2 pints per acre of non-emulsified oils when used as the diluent.

The set up and calibration of chemigation equipment are important to achieve control of target insect pests. Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. Contact your State Agricultural Extension Service specialists, equipment manufacturers or other experts for advice on the suitability of the equipment set up for optimum control of the target insect pests.

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.

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.

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

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

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

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Apply Bifenture EC Agricultural Insecticide continuously for the duration of the water application. Dilute Bifenture EC Agricultural Insecticide in sufficient volume to ensure accurate application over the area to be treated. Use a minimum of 0.5 inch per acre of irrigation water for application by chemigation. No agitation is required if a suitable diluent is used. Conduct a diluent test to check that phase separation will not occur during dilution and application. If uniform dilution is not achieved during the entire period of application, undesirable residues or less than desirable control may occur.

Rotation Crop Restrictions

Crops for which bifenthrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days after the last application.

Tank-Mixes

Apply Bifenture EC Agricultural Insecticide with other products registered for the same crops. Observe all applicable directions, restrictions, and precautions on the EPA-registered labels for other tank mix partners.

Spray Drift Requirements

Maintain and calibrate all aerial and ground application equipment using appropriate carriers.
Do not use ultra low volume (ULV) applications to corn and hops.

Select the appropriate nozzle sizes to form the largest spray droplets that provide sufficient coverage and control. Minimize the formation of very small droplets by pointing the nozzles away from the air stream, and by avoiding excessive spray boom pressure.

Do not apply the spray at heights greater than 10 feet above the crop canopy, but at the lowest height to ensure pest control and flight safety.

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 Inversions

Do not make aerial or ground applications into temperature inversions.



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

Droplet Size

Use only medium or 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. Do not make aerial or ground application to corn if heavy rainfall is imminent.

Buffer Zones

Vegetative Buffer Strip

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

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

For guidance, refer to the following publication for information on constructing and maintaining effective buffers: *Conservation Buffers to Reduce Pesticide Losses*. Natural Resources Conservation Services. USDA, NRCS. 2000. Fort Worth, Texas. 21 pp. <http://www.in.csusda/v/technical/agronom/newconbuf.pdf>.

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, streams, marshes, ponds, estuaries, and commercial fish ponds).

Buffer Zone for ULV Aerial Application

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

Buffer Zone for Non-ULV Aerial Application

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

Additional Requirements for Ground Applications

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

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 droplet size.

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

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

Instructions for Application

The following Directions for Use tables provide, in some cases, rate ranges. Use the lower application rates when insect pressure is light to moderate. Use the higher application rates when insect populations are high, when treating mites and when climate is arid.

Cultivation within 10 feet of a water body is prohibited to allow for the growth of a vegetated filter strip.

In New York State this product may not be applied within 100 feet (using ground equipment) to 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

INDEX TO CROPS LISTED ON THIS LABEL

Artichokes

Beets, Garden

Brassicas

Caneberries
Canola, Crambe, Rapeseed
Cilantro, Coriander
Citrus
Cotton
Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (At Plant Use)
Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (PRE & PPI)
Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (Foliar Use)
Sweet Corn (Grain and Silage), Sweet Corn Grown for Seed (At Plant Use)
Sweet Corn (Grain and Silage), Sweet Corn Grown for Seed (Foliar Use)
Cucurbits
Fruiting Vegetables
Grapes
Hops
Leafy Brassica Greens (Crop Subgroup 5-B)
Lettuce, Head
Mayhaw
Okra
Peanut
Pears
Root Crops (except Sugarbeets) (Crop Subgroup 1-B)
Soybean
Spinach
Succulent Peas and Beans
Tomatoes, Tomatillos
Tuberous and Corm Vegetables (Crop Subgroup 1-C)

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ARTICHOKES

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Artichoke Plume Moth Cribrate Weevil	0.10 lb. ai (6.4 fl. oz. product)	Begin applications when pest population reaches damaging levels and repeat as necessary to maintain control. Apply in water in a minimum of 75 gallons of spray/A by ground or in a minimum of 10 gallons/A by air. Do not make applications less than 15 days apart. Do not apply more than 0.5 lb. a.i. /A (one quart product) per season.	5

GARDEN BEET

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Aphids Fire Ants Flea Beetles Lepidopterous larvae Spider Mites Whitefly	0.08 – 0.10 lb. ai (5.12 – 6.4 fl. oz. product)	Apply in at least 25 gallons per acre. Do not apply more than once every 7 days. Do not apply more than 0.4 lb. ai/A per season.	1

BRASSICAS

CROP	PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Head and Stem Brassica Vegetables including: Broccoli Brussels Sprouts Cabbage Cauliflower Cavalo Broccoli Chinese Broccoli (gai lon, white flowering broccoli) Chinese Cabbage (napa) Chinese Mustard Cabbage (gai choy) Kohlrabi	Aphids Armyworms Corn Earworm Crickets Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Ground Beetles Imported Cabbageworm Leafhoppers Loopers Saltmarsh Caterpillar Stink Bugs Thrips Tobacco Budworm Whitefly Wireworm (Adults)	0.033-0.10 lb. ai (2.1-6.4 fl. oz. product)	Apply in water in a minimum of 10 gallons spray/A by ground or in a minimum of 2 gallons/A by air. Substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired when applying by air. For best control thorough coverage is necessary. Do not apply more than 0.5 lb a.i. (1 quart product) per acre per season. Do not make more than 5 applications after bloom. Do not make applications less than 7 days apart.	7

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	Banks Grass Mite Carmine Mite Lygus spp. Pacific Spider Mite Twospotted Spider Mite	0.08-0.10 lb. ai (5.12-6.4 fl. oz. product)	
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CANE BERRIES

Including Bingleberries, Blackberries, Dewberries, Loganberries, Lowberries, Marionberries, Olallieberries, Raspberries, Youngberries

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Leafrollers Orange Tortrix Root Weevils	0.05-0.10 lb. ai (3.2-6.4 fl. oz. product)	Apply in water in a minimum of 50 gallons/A by ground or in a minimum of 10 gallons/A by air. For best control thorough coverage of foliage is necessary. Make one prebloom application and if necessary one postbloom application. Do not apply more than 0.2 lb. a.i. /A per season.	3
Spider Mites	0.10 lb. ai (6.4 fl. oz. product)		

CANOLA, CRAMBE, RAPESEED

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Aphids Armyworms Cutworms Diamondback Moth Flea Beetle Flea Hopper Grasshopper Loopers Other Lepidopterous Larvae Plant Bug Seedpod Weevil Stink Bugs Thrips Whitefly	0.033-0.04 lb. ai (2.1-2.6 fl. oz. product)	Apply in water in a minimum of 10 gallons/A by ground or in a minimum of 2 gallons/A by air. Substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired when applying by air. For best control thorough coverage is necessary. Do not apply more than 0.08 lb. a.i. (5.12 fl. oz. product) per acre per season. Do not make applications less than 14 days apart.	35

CILANTRO, CORIANDER

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Aphids Beet Armyworm Cabbage Looper Cutworms Flea Beetles Grasshoppers Leafminers Saltmarsh Caterpillar Spotted Cucumber Beetle Thrips Whitefly	0.033 - 0.10 lb. ai (2.1 - 6.4 fl. oz. product)	For best control, thorough coverage is necessary. Apply as needed. Apply in water in a minimum of 10 gallons of spray/A by ground or in a minimum of 2 gallons/A by air. Do not make applications less than 7 days apart. Do not apply more than 0.50 lb. a.i. /A per season.	3
Two Spotted Spider Mite	0.08 - 0.10 lb. ai (5.12 - 6.4 fl. oz. product)		

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CITRUS

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Blue Green citrus Root Weevil Brown Leaf Notcher Citrus Root Weevil <i>Diaprepes</i> Root Weevil (<i>Diaprepes abbreviatus</i>) Little Leaf Notcher	0.25-0.50 lb. ai (16-32 fl. oz. product)	Use a hand-gun or shielded sprayer to apply to individual citrus resets, when not in solid planted rows. Diaprepes Root Weevil: If peak emergence is expected in the spring, use 32 fl. oz. formulated product to obtain the longest residual control. If more than one peak of emergence is anticipated, apply 16 fl. oz. formulated product in the spring and 16 fl. oz. formulated product in the fall. Do not apply using any type of chemigation. Do not allow application to contact fruit or foliage. Direct the spray to the base of tree to prevent contact with fruit or foliage. Do not apply more than a total of 0.5 lb ai (32 fl. oz. product) per acre per year. Apply by ground only in a minimum of 40 gallons/acre of finished spray. Do not apply by air.	1
Asian Cockroach Fire Ants	0.1-0.25 lb. ai (6.4-16 fl. oz. product)		

COTTON

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
European Corn Borer Soybean (Banded) Thrips Tobacco Thrips	0.02-0.10 lb. ai (1.3-6.4 fl. oz. product)	Apply Bifenture EC in water or refined soybean/cottonseed oil. Apply in water in a minimum of 5 gallons/A by ground or a minimum of 1 gallon/A by air. Substitute 1 quart of emulsified oil for 1 quart water if desired when applying by air.	14
Boll Weevil Bollworm Cabbage Looper Cotton Aphid Cotton Fleahopper Cotton Leafperforator Cutworms Fall Armyworm Plant Bugs Saltmarsh Caterpillar Southern Garden Leafhopper Stink Bugs Tobacco Budworm Whitefly Yellow Striped Armyworm	0.04-0.10 lb. ai (2.6-6.4 fl. oz. product)	ULV Application: Apply in refined vegetable oil in a minimum of 1 quart/A with aircraft calibrated to give adequate coverage. Boll Weevil: Apply Bifenture EC every 3 to 4 days until control is acceptable. Mites and Aphids: Apply when pests first appear. Repeat as necessary to maintain control. Use the higher rates once a damaging threshold is established. Apply no more than 0.5 lb. a.i. per acre per season. No more than 10 synthetic pyrethroid applications (of one product or combination of products, including Ambush®, Ammo®, Asana® XL, Baythroid®, Capture®, Danitol®, Karate®, Mustang®, and Scout X-TRA®) may be made to a cotton crop in one growing season.	
Beet Armyworm Carmine Spider Mite Lygus spp. Pink Bollworm Twospotted Spider Mite	0.06-0.10 lb. ai (3.8-6.4 fl. oz. product)	Do not graze livestock in treated areas or cut treated crops for feed.	

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**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(AT PLANT USE)**

PESTS CONTROLLED	RATE BIFENTURE EC	APPLICATION INSTRUCTIONS	PHI (days)
Corn Rootworm, Larvae Northern Southern Western	0.0046 lb ai (0.30 fl. oz. product) per 1,000 linear feet of row	Apply as a 5 to 7 inch T-band at planting over the open seed furrow. The table below describes the amount of Bifenture EC needed per acre. Apply in water in a minimum of 3 gallons/A. When using Bifenture EC with fertilizers, check to be sure all components are compatible. For mixture with water or fertilizer, use the following procedure. Fill the spray tank approximately one-half full with water or liquid fertilizer; add the proper amount of Bifenture EC; then add the rest of the water or fertilizer. Sufficient agitation during mixing and application is required to ensure a uniform mixture.	30
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023 – 0.0046 lb ai (0.15 - 0.30 fl. oz. product) per 1,000 linear feet of row	Only apply to soil when there is less than 30% cover of crop residue remaining. Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment. Do not apply more than 0.1 lb. active per acre per season at planting.	

Row spacings	40 in.	38 in.	36 in.	30 in.
Bifenture EC (lb. a.i. per acre)	0.060	0.064	0.069	0.080
Bifenture EC (formulated product, ounces per acre)	3.9	4.1	4.4	5.12

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
Pre-Plant Incorporated (PPI) and Pre-Emergence (PRE)**

PESTS CONTROLLED	RATE BIFENTURE EC	APPLICATION INSTRUCTIONS
Armyworm spp. Black Cutworm Seedcorn Maggot Stalkborer White Grub Wireworm	0.047 to 0.062 lb. a.i./A (3-4 fl. oz./A product) Pre-Plant Incorporated (PPI)	Incorporate Bifenture EC close to the expected depth of the seed, but no deeper than 3 inches. PPI: Use the 3-4 oz./A rate only. Apply alone or with PPI herbicides as a tank mix. PRE: Use the 2.56 oz./A rate when tankmixing and applying with PRE herbicides.
Armyworm spp. Black Cutworm Stalkborer	0.040 lb. a.i./A (2.56 fl. oz./A product) Pre-emergence (PRE)	

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

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10 lb ai (2.1-6.4 fl. oz. product)	<p>Apply in water in a minimum of 10 gallons/A by ground or in a minimum of 2-5 gallons/A by air. For heavy infestations, use 5 gallons of finished spray per acre by aircraft. Substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired. For best control thorough coverage is necessary.</p> <p>Ear-Attacking Pests: Apply Bifenture EC just before silking.</p> <p>Southwestern Corn Borer, European Corn Borer: Apply at or shortly before egg hatch.</p> <p>Other Insect Pests: Apply when insects first appear. Repeat as needed.</p> <p>Banks Grass Mites: Apply when colonies first form before leaf damage or discoloration and prior to movement above the bottom third of the plant.</p> <p>Twospotted Spider Mite and Carmine Mite: Apply when colonies first form before leaf damage or discoloration and before wide-spread mite movement throughout the canopy. Use the higher rates if heavier insect pressure is noted and corn is under heat or drought stress. Tank mixtures with dimethoate at 0.5 lb. a.i. per acre are effective under these conditions.</p> <p>Mite Control in Texas, New Mexico, Oklahoma, and Arizona: Apply in water in a minimum of 10 gallons/A ground or in a minimum of 5 gallons/A by air.</p>	30
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10 lb. ai (5.12-6.4 fl. oz. product)	<p>Repeat applications as necessary to maintain control, but do not apply more than 0.3 lb. active ingredient per acre per season including PRE & PPI, at plant plus foliar applications.</p> <p>Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application.</p> <p>Do not apply by ultra low volume (ULV) application on corn.</p> <p>If heavy rainfall is imminent, do not make aerial or ground applications to corn.</p> <p>Use of Bifenture EC Agricultural Insecticide on corn is prohibited in all coastal counties.</p>	

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**SWEET CORN (GRAIN AND SILAGE)
SWEET CORN GROWN FOR SEED
(AT PLANT USE)**

PESTS CONTROLLED	RATE BIFENTURE EC	APPLICATION INSTRUCTIONS	PHI (days)
Corn Rootworm, Larvae Northern Southern Western	0.0046 lb. ai (0.30 fl.oz. product) per 1,000 linear feet of row	Apply at planting over the open seed furrow. The table below describes the amount of Bifenture EC needed per acre. Apply in a minimum of 3 gallons of finished spray per acre. When using Bifenthrin EC with fertilizers, check to be sure all components are compatible. For mixture with water or fertilizer, use the following procedure. Fill the spray tank approximately one-half full with water or liquid fertilizer; add the proper amount of Bifenture EC; then add the rest of the water or fertilizer. Sufficient agitation during mixing and application is required to ensure a uniform mixture.	30
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023 – 0.0046 lb. ai (0.15 - 0.30 fl.oz. product) per 1,000 linear feet of row	Only apply to soil where there is less than 30% cover of crop residue remaining. Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment. Do not apply more than 0.1 lb. active per acre per season at planting.	

Row Spacings	40 in.	38 in.	36 in.	30 in.
Bifenture EC (lb. a.i. per acre)	0.060	0.064	0.069	0.080
Bifenture EC (formulated product, ounces per acre)	3.9	4.1	4.4	5.12

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SWEET CORN (GRAIN AND SILAGE)
SWEET CORN GROWN FOR SEED
(FOLIAR USE)

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10 lb. ai (2.1-6.4 fl. oz. product)	<p>Apply in water in a minimum of 10 gallons/A by ground or in a minimum of 2-5 gallons/A by air. For heavy infestations by aircraft, use 5 gallons of finished spray per acre. Substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired. For best control, thorough coverage is necessary.</p> <p>Ear-Attacking Pests: Apply Bifenture EC just before silking.</p> <p>Southwestern Corn Borer, European Corn Borer: Apply twice, with the first application at or shortly before egg hatch.</p> <p>Other Insect Pests: Apply when insects first appear. Repeat as needed.</p> <p>Banks Grass Mite: Apply when colonies first form before leaf damage or discoloration and prior to movement above the bottom third of the plant.</p> <p>Twospotted Spider Mite and Carmine Mite: Apply when colonies first form before leaf damage or discoloration and prior to widespread mite movement throughout the canopy.</p> <p>Use the higher rates if heavier insect pressure is noted and corn is under heat or drought stress.</p> <p>Repeat applications as necessary, but do not apply more than 0.2 lb. a.i. (12.8 fl. oz. product) per acre per season.</p>	1
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10 lb. ai (5.12-6.4 fl. oz. product)	<p>Do not graze livestock in treated areas or cut treated crops for feed within 1 day of the last application.</p> <p>Do not apply by ultra low volume (ULV) on corn.</p> <p>If heavy rainfall is imminent, do not make aerial or ground applications to corn.</p> <p>Use of Bifenture EC on corn is prohibited in all coastal counties.</p>	

CUCURBITS

CROP	PESTS CONTROLLED	RATE BIFENTHUR E EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Chayote (fruit)	Aphids	0.04-0.10 lb.	Apply in water in a minimum of 20 gallons/A	3
Chinese waxgourd	Armyworms	ai	by ground or in a minimum of 5 gallons/A by	
(Chinese preserving melon)	Cabbage Looper	(2.6-6.4 fl. oz. product)	air. Substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired.	
Citron melon	Corn Earworm		For best control thorough coverage is necessary.	
Cucumber	Cucumber Beetles			
Gherkin	Cutworm			
Gourd, edible	Grasshopper			
(includes hyloan, cucuzza), (<i>Luffa</i> spp.) (includes hechima, Chinese okra), (<i>Momordica</i> spp.) (includes balsam apple, balsam pear, bitter melon, Chinese cucumber)	Leafhoppers		Do not apply more than 0.3 lb. a.i. (19.2 fl. oz. product) per acre per season.	
Muskmelon (hybrids and/or cultivars of <i>Cucumis melo</i>) (includes true cantaloupe, Cantaloupe, casaba, crenshaw melon, golden, pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon)	Melonworm		Do not apply more than twice after bloom.	
Pumpkin (<i>Cucurbita</i> spp.)	Pickleworm		Do not make applications less than 7 days apart.	
Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini)	Plant Bug			
Squash, winter (includes butternut squash, calabaza, hubbard squash (<i>C. mixta</i> ; <i>C. pepo</i>), includes acorn squash, spaghetti squash)	Rindworm			
Watermelon (includes hybrids and or varieties of <i>Citrullis</i> spp.)	Squash Bugs			
	Squash Vine Borer			
	Stink Bugs			
	Tobacco Budworm			
	Carmine Mite	0.08-0.10 lb.		
	Banks Grass Mite	ai		
	Lygus spp	(5.12-6.4 fl. oz. product)		
	Twospotted Spider Mite			
	Whitefly			

FRUITING VEGETABLES

Eggplant, bell and non-bell pepper, pepino, groundcherry

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Armyworms (including: Beet Armyworm, Fall Armyworm, Southern Yellowstriped Armyworm) Cabbage Looper Colorado Potato Beetle Corn Earworm Cucumber Beetle Cutworms European Corn Borer Flea Beetle Leafminers Loopers Pepper Weevil Plant Bug Stink Bug Thrips Tomato Pinworm Tomato Hornworm Vegetable Leafminer Whitefly	0.033-0.10 lb. ai (2.1-6.4 fl. oz. product)	Apply in at least 2 gallons finished spray per acre by air or at least 10 gallons per acre by ground. When application is made by air, 1-2 qts. Emulsified oil may replace 1-2 qts of water in the finished spray. For best control thorough coverage is necessary. Do not make applications less than 7 days apart. Do not apply more than 0.2 lb. a.i. (12.8 fl. oz. product) per acre per season.	7
Banks Grass Mite Broad Mite Carmine Mite Lygus spp. Pacific Spider Mite Twospotted Spider Mite	0.08-0.10 lb. ai (5.12-6.4 fl. oz. product)		

GRAPES

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Cutworms Eastern Grape Leafhopper Grape Berry Moth Japanese Beetle (adult) Variegated Leafhopper Western Grape Leafhopper	0.05-0.10 lb. ai (3.2 to 6.4 fl. oz. product)	Apply in a minimum of 25 gallons/A by ground or in a minimum of 10 gallons/A by air. Substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired. For best control thorough coverage is necessary. Use the higher rate when insect pressure is moderate to severe. Do not apply more than 0.10 lb. a.i. per acre per season.	30
Black Vine Weevil Glassywinged Sharpshooter Twospotted Spider Mite	0.10 lb. ai (6.4 fl. oz. product)		

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HOPS

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Aphids Armyworms Cutworms Leafrollers Loopers	0.06-0.1 lb. ai (3.8-6.4 fl. oz. product)	Do not apply more than 0.1 lb. a.i. per acre per application . Do not apply more than 0.3 lb. a.i. per acre per season . Do not make applications less than 21 days apart. By ground: Full coverage is necessary for best results. For early season, use 100-150 gallons of spray per acre. For late season, use 200-250 gallons of spray per acre.	14
Root Weevils	0.05-0.1 lb. ai (3.2-6.4 fl. oz. product)	Root Weevil: direct the spray to the base of the plant. Spray 3 feet up the vine and the soil surface 1.5 to 2 feet around the plant.	
Twospotted spider mite	0.1 lb. ai (6.4 fl. oz. product)	Twospotted spider mites, for late season control: Apply at least 6.4 fl. oz. (0.1 lb. a.i.) per application in a minimum of 10 gallons per acre by air. Do not apply by ultra low volume (ULV) application to hops.	

LEAFY BRASSICAS Crop Subgroup 5-B

CROP	PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Broccoli raab Chinese cabbage (bok choy) Collards Kale Mizuna Mustard Greens Mustard Spinach Rape Greens	Aphids Armyworms Corn Earworm Crickets Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Grasshoppers Ground Beetles Imported Cabbageworm Japanese Beetles (adults) Leafhoppers Loopers Saltmarsh Caterpillar Stink Bugs Thrips Tobacco Budworm Whitefly Wireworm (adults)	0.033-0.10 lb. ai (2.1-6.4 fl. oz. product)	Apply in water in a minimum of 10 gallons/A by ground or in a minimum of 2 gallons/A by air. For best control thorough coverage of foliage is necessary. When applied by air, 1 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray. Do not make applications less than 7 days apart. Do not apply more than 0.4 lb. a.i. /A per season.	7

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	Banks Grass Mite Carmine Mite Lygus spp. Pacific Spider Mite Twospotted Spider Mite	0.08 - 0.10 lb. ai (5.12 - 6.4 fl. oz. product)	
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LETTUCE, HEAD

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Aphids Armyworms Corn Earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Imported Cabbageworm Leafhoppers Loopers Salt Marsh Caterpillar Stink Bug spp. Tobacco Budworm Whitefly	0.033-0.10 lb. ai (2.1-6.4 fl. oz. product)	Apply in water in a minimum of 15 gallons/A by ground equipment or in 5 gallons/A by air. For air application, substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired. For best control thorough coverage is necessary. Do not make applications less than 7 days apart. Do not apply more than 0.5 lb. a.i. per acre per season.	7
Carmine Mite Lygus, spp. Twospotted Spider Mite	0.08-0.10 lb. ai (5.12-6.4 fl. oz. product)		

MAYHAW

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Plum curculio	0.08 - 0.10 lb. ai (5.12 - 6.4 fl. oz. product)	Apply in at least 28 gallons per acre. Do not apply more than once every 7 days. Do not apply more than 0.2 lb. ai/A per season.	30

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OKRA

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Aphids Armyworms Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Japanese Beetles (adult) Leafminers Loopers Stink Bugs Thrips Whitefly	0.033 - 0.10 lb. ai (2.1 - 6.4 fl. oz. product)	For best control, thorough coverage is necessary. Apply as needed. Apply in water in a minimum of 10 gallons of spray/A by ground or in a minimum of 2 gallons/A by air. Do not make applications less than 7 days apart. Do not apply more than 0.20 lb. a.i. /A per season.	7
Broad Mite Carmine Mite Lygus spp. Two Spotted Spider Mite	0.08 - 0.10 lb. ai (5.12 - 6.4 fl. oz. product)		

PEANUT

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Beet Armyworm Corn Earworm Cutworm spp. Fall Armyworm Grasshoppers Green Cloverworm Leafhoppers Lesser Cornstalk Borer Loopers Rednecked Peanut Worm Southern Armyworm Southern corn Rootworm Stink Bugs Threecornered Alfalfa Hopper Velvetbean Caterpillar Yellowstriped Armyworm	0.033 - 0.10 lb. ai (2.1 - 6.4 fl. oz. product)	Apply in at least 10 gallons of water. Do not apply more than once every 14 days. Do not feed green immature plants and peanut hay to livestock. Do not apply more than 0.5 lb. ai/A per season.	14
Aphids Spider Mites Thrips Whitefly	0.08 - 0.10 lb. ai (5.12 - 6.4 fl. oz. product)		

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PEARS

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Aphids Codling Moth Cutworms Green Fruitworm Leafhoppers Leafminers Leafrollers Lygus spp. Plant Bugs Plum Curculio San Jose Scale (Crawlers) Stink Bugs Tarnished Plant Bugs	0.04-0.2 lb. ai (2.6 to 12.8 fl. oz. product)	By ground: Apply as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre) spray. For best control thorough coverage is necessary. By air: Apply in a minimum of 10 gallons per acre. Do not apply more than 0.5 lb. active per acre per season with no more than 0.45 lb. active per acre applied after petal fall. Apply as necessary to maintain control and repeat applications at 30 day intervals Do not graze livestock in treated orchards or cut treated cover crops for feed.	14
Twospotted Spider Mite	0.06-0.2 lb. ai (3.8 to 12.8 fl. oz. product)		
Yellow Mite			
European Red Mite	0.08-0.2 lb. ai (5.12 to 12.8 fl. oz. product)		

SOYBEAN

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Soybean Aphid	0.033 - 0.10 lb. ai (2.1 - 6.4 fl. oz. product)	Make foliar applications in at least 10 gallons per acre. Do not apply more than once every 30 days.	18
Two-spotted spider Mite	0.08 - 0.10 lb. ai (5.12 - 6.4 fl. oz. product)	Do not apply more than 0.3 lb. ai/A per acre per season.	

SPINACH

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Armyworms Colorado Potato Beetle Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Tomato Pinworm Tomato Hornworm Thrips Whitefly	0.033 to 0.10 lb. ai (2.1-6.4 fl. oz. product)	Whiteflies: make up to 4 foliar treatments of Bifenture EC by ground or air at rates of up to 0.4 pt. (0.1 lb. active) per acre. Repeat applications at 7 day intervals. Fire ants: make up to 4 applications of Bifenture EC to the soil at planting or as a foliar treatment by ground or air at rates of up to 0.4 pt. (0.1 lb. active) per acre. Repeat application at 7 day intervals. Apply in water at 10-50 gallons/A by ground or 5-50 gallons /A by air. Do not make applications less than 7 days apart.	40
Broad Mite Banks Grass Mite	0.08-0.10 lb. ai (5.12 to 6.4 fl. oz. product)	Do not apply more than 0.4 lb. a.i. per acre per season.	

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Carmine Mite Fire Ants Lygus spp. Twospotted Spider Mite Pacific Spider Mite	product)	
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SUCCULENT PEAS AND BEANS

CROP	PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Pea (Pisum spp.)	Flea Beetle	0.025-0.10 lb. ai	Apply in a minimum of 10 gallons/A by ground	3
Dwarf pea	Grasshoppers Aster	(1.6-6.4 fl. oz.	or in a minimum of 2 gallons/A by air. When	
Edible-pod pea	Leafhopper	product)	applying by air, substitute 1-2 quarts of	
English pea	Leafhoppers		emulsified oil for 1-2 quarts water if desired.	
Garden pea			For best control thorough coverage is necessary.	
Green pea	Alfalfa	0.033-0.10 lb. ai	Do not apply more than 0.2 lb. a.i. (12.8 fl. oz.	
Snow pea	Caterpillar	(2.1-6.4 fl. oz.	product) per acre per season.	
Sugar snap pea	Aphids	product)		
Pigeon pea	Bean Leaf			
Bean (Phaseolus spp.):	Beetle			
Broadbean	Beet Armyworm			
(succulent)	Cloverworm			
Lima bean	Corn Earworm			
(green)	Corn Rootworm			
Runner bean	(Adult)			
Snap bean	Cucumber			
Wax bean	Beetles			
Bean (Vigna spp.):	Cutworms			
Asparagus bean	European Corn			
Blackeyed pea	Borer			
Chinese longbean	Fall Armyworm			
Cowpeas	Japanese Beetle			
Moth bean	(Adult)			
Southern pea	Loopers			
Yardlong bean	Pea Leaf Weevil			
Jackbean	Pea Weevil			
Soybean	Plant Bug			
(immature seed)	Sap Beetle			
Sword bean	Southern			
	Armyworm			
	Stink Bugs			
	Tarnished Plant			
	Bug			
	Thrips			
	Webworms			
	Western Bean			
	Cutworm			
	Yellowstriped			
	Armyworm			
	Whitefly			

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	Banks Grass Mite Carmin Mite Lygus spp. Twospotted Spider Mite	0.08-0.10 lb. ai (5.12-6.4 fl. oz. product)	
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TOMATOES, TOMATILLOS

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Aphids Armyworms – Including: Beat Armyworm, Fall Armyworm, Southern Yellowstriped Armyworm Bean Leaf Beetle Cabbageworm Carmin Mite Cloverworm Corn Earworm Corn Rootworm Cucumber Beetles Cutworms Diamondback Moth European Corn Borer Flea Beetles Flea Hopper Grasshopper Japanese Beetle (Adult) Leafhoppers Loopers Lygus spp. Melonworm Pea Weevil Pea Leaf Weevil Pickleworm Plant Bug Rindworm Salt Marsh Caterpillar Sap Beetle Seedpod Weevil Squash Bugs Stink Bug spp. Tobacco Budworm Tarnished Plant Bug Thrips Whitefly	0.033-0.08 lb. ai (2.1-5.2 fl. oz. product)	Apply in water using a minimum of 15 gallons/A by ground. For best control, thorough coverage is necessary. Repeat applications at 10 day intervals. Apply as needed but do not make more than 4 applications per season.	1
Two Spotted Spider Mite	0.08-0.10 lb. ai (5.12-6.4 fl. oz. product)		

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TUBEROUS AND CORM VEGETABLES Crop Subgroup 1C

CROP	PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Potato Sweet Potato Arracacha Arrowroot Artichoke (Chinese and Jerusalem) Edible Canna Cassava (bitter and sweet) Chayote (root) Chufa Dasheen Ginger Leren Tanier Turmeric Yam Bean True Yam	Banded Cucumber Beetle Black Flea Beetle Corn Wireworm Cucumber Beetle Japanese Beetle Grubs June Beetle Rootworms Southern Potato Wireworm Sugarcane Beetle Sweetpotato Flea Beetle Sweetpotato Weevil Tobacco Wireworm Whitefringed Beetle White Grub	At-Plant 0.30 lb. ai (19.2 fl. oz. product) Lay-By 0.05 – 0.15 lb. ai (3.2 – 9.6 fl. oz. product) Foliar 0.033 – 0.10 lb. ai (2.1 – 6.4 fl. oz. product)	Bifenture EC may be applied as an in-furrow planting time treatment for the control of wireworms, rootworms and white grubs. Apply at the rate of 0.3 lb a.i./A as an in-furrow spray or T-band spray at planting. Bifenture EC may be applied as a lay-by treatment for the control of wireworms, rootworms, and white grubs. Apply to the drill area and cover with soil utilizing cultivation equipment set to throw soil to the drill area. Apply as a banded spray over the row at a rate of 0.05 to 0.15 lb a.i./A (3.2 to 9.5 fluid ounces product) in 10 gallons of spray per acre. Bifenture EC may be applied as a foliar spray for the control of the adult life stages of flea beetles, click beetles (wireworms), cucumber beetles (rootworms), white fringed beetles, and May/June beetles (white grubs). Apply at a rate of 0.033 to 0.1 lb a.i./A (2.1 to 6.4 fluid ounces product) in 10 gallons of spray by ground or 3 gallons of spray by air. Do not make more than 2 foliar applications per season. Do not make applications less than 21 days apart. Do not apply more than 0.5 lb. a.i. /A per season, including soil application.	21

ROOT CROPS (except Sugarbeets)

Including edible burdock, carrot, celeriac, chervil, chicory, ginseng, horseradish, parsley, parsnip, radish, Oriental radish, rutabaga, salsify, black salsify, Spanish salsify, skirret, and turnip

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Aphids Beet Armyworm Celery Leaf Tier Corn Earworm Cross-striped Cabbageworm Cutworms Diamondback Moth European Corn Borer Fall Armyworm Fire Ants Flea Beetles Green Cloverworm Hornworms Imported Cabbageworm Loopers Southern Armyworm Spider Mites Tobacco Budworm Velvetbean Caterpillar Whitefly Yellowstriped Armyworm	0.08 – 0.10 lb. ai (5.12 – 6.4 fl. oz. product)	Apply in at least 25 gallons per acre. Do not apply more than once every 7 days. Do not apply more than 0.5 lb. ai/A per season.	21

**IMPORTANT INFORMATION
READ BEFORE USING PRODUCT**

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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

The Directions for Use of this product reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of United Phosphorus, Inc. and Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus, Inc. and Seller harmless for any claims relating to such factors.

To the extent consistent with applicable law, United Phosphorus, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or United Phosphorus, Inc., and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, UNITED PHOSPHORUS, INC. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, United Phosphorus, Inc. or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product and **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF UNITED PHOSPHORUS, INC. AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF UNITED PHOSPHORUS, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

United Phosphorus, Inc. and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by the duly authorized representative of United Phosphorus, Inc.

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Danitol – trademark of Sumitomo Chemical Company, Ltd.
Scout Xtra – trademark of Hoechst Schering Agrevo S.A.

Rev. 5/8/08



Supplemental Label

BIFENTURE[®] EC Insecticide EPA Reg. No. 70506-57

SUPPLEMENTAL LABEL FOR USE ON ADDITIONAL CROPS

BIFENTURE EC AGRICULTURAL INSECTICIDE IS NOT FOR SALE OR USE IN CALIFORNIA.

Active Ingredient:

Bifenthrin* (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate.....

Inert Ingredients:**

TOTAL.....

By Wt.

25.1%

74.9%

100.0%

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

**Contain xylene range aromatic solvents

This product contains 2 pounds active ingredient per gallon.

ACCEPTED
with COMMENTS
in EPA Letter Dated
AUG 25 2008

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

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

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
Follow all applicable directions, restrictions and precautions on the federally-registered label.

This supplemental label must be in the possession of the user at the time of application. The use of BIFENTURE EC INSECTICIDE according to this label is subject to the use precautions and limitations found on the EPA-registered label affixed to BIFENTURE EC INSECTICIDE container.

Read the entire Precautionary Statements, Directions for Use and Conditions of Sale and Limitation of Warranty and Liability found on the container label 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. Always read and follow the label directions and any precautions or restrictions when applying any pesticide alone or in combination with tank mix partners.

ROOT CROPS (except Sugarbeets)

Including edible burdock, carrot, celeriac, chervil, chicory, ginseng, horseradish, parsley, parsnip, radish, Oriental radish, rutabaga, salsify, black salsify, Spanish salsify, skirret, and turnip

PESTS CONTROLLED	RATE BIFENTURE EC	APPLICATION INSTRUCTIONS	PHI (days)
Aphids Beet Armyworm Celery Leaf Tier Corn Earworm Cross-striped Cabbageworm Cutworms Diamondback Moth European Corn Borer Fall Armyworm	0.08 – 0.10 lb. ai (5.12 – 6.4 fl. oz. product)	Apply in at least 25 gallons per acre. Do not apply more than once every 7 days. Do not apply more than 0.5 lb. ai/A per season.	21

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Fire Ants Flea Beetles Green Cloverworm Hornworms Imported Cabbageworm Loopers Southern Armyworm Spider Mites Tobacco Budworm Velvetbean Caterpillar Whitefly Yellowstriped Armyworm			
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GARDEN BEET

PESTS CONTROLLED	RATE BIFENTURE EC	APPLICATION INSTRUCTIONS	PHI (days)
Aphids Fire Ants Flea Beetles Lepidopterous larvae Spider Mites Whitefly	0.08 – 0.10 lb. ai (5.12 – 6.4 fl. oz. product)	Apply in at least 25 gallons per acre. Do not apply more than once every 7 days. Do not apply more than 0.4 lb. ai/A per season.	1

PEANUT

PESTS CONTROLLED	RATE BIFENTURE EC	APPLICATION INSTRUCTIONS	PHI (days)
Beet Armyworm Corn Earworm Cutworm spp. Fall Armyworm Grasshoppers Green Cloverworm Leafhoppers Lesser Cornstalk Borer Loopers Rednecked Peanut Worm Southern Armyworm Southern corn Rootworm Stink Bugs Threecornered Alfalfa Hopper Velvetbean	0.033 - 0.10 lb. ai (2.1 – 6.4 fl. oz. product)	Apply in at least 10 gallons of water. Do not apply more than once every 14 days. Do not feed green immature plants and peanut hay to livestock. Do not apply more than 0.5 lb. ai/A per season.	14

Caterpillar Yellowstriped Armyworm			
Aphids Spider Mites Thrips Whitefly	0.08 – 0.10 lb. ai (5.12 – 6.4 fl. oz. product)		

SOYBEAN

PESTS CONTROLLED	RATE BIFENTURE EC	APPLICATION INSTRUCTIONS	PHI (days)
Soybean Aphid	0.033 - 0.10 lb. ai (2.1 – 6.4 fl. oz. product)	Make foliar applications in at least 10 gallons per acre. Do not apply more than once every 30 days.	18
Spider Mites	0.08 – 0.10 lb. ai (5.12 – 6.4 fl. oz. product)	Do not apply more than 0.3 lb. ai/A per acre per season.	

FRUITING VEGETABLES

Eggplant, bell and non-bell pepper, pepino, groundcherry

PESTS CONTROLLED	RATE BIFENTURE EC	APPLICATION INSTRUCTIONS	PHI (days)
Armyworms (including: Beet Armyworm, Fall Armyworm, Southern Yellowstriped Armyworm) Cabbage Looper Colorado Potato Beetle Corn Earworm Cucumber Beetle Cutworms European Corn Borer Flea Beetle Leafminers Loopers Pepper Weevil Plant Bug Stink Bug Thrips	0.033 - 0.10 lb. ai (2.1 – 6.4 fl. oz. product)	Apply in at least 2 gallons finished spray per acre by air or at least 10 gallons per acre by ground. When application is made by air, 1-2 qts. Emulsified oil may replace 1-2 qts of water in the finished spray. For best control thorough coverage is necessary. Do not make applications less than 7 days apart. Do not apply more than 0.2 lb. ai (12.8 fl. oz. product per acre per season.	7

Plant Bug Rindworm Salt Marsh Caterpillar Sap Beetle Seedpod Weevil Squash Bugs Stink Bug spp. Tobacco budworm Tarnished Plant Bug Thrips Whitefly			
Two Spotted Spider Mite	0.08 – 0.10 lb. ai (5.12 – 6.4 fl. oz. product)		

MAYHAW

PESTS CONTROLLED	RATE BIFENTURE EC	APPLICATION INSTRUCTIONS	PHI (days)
Plum curculio	0.08 – 0.10 lb. ai (5.12 – 6.4 fl. oz. product)	Apply in at least 28 gallons per acre. Do not apply more than once every 7 days. Do not apply more than 0.2 lb. ai/A per season.	30

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United Phosphorus, Inc.
630 Freedom Business Center, Suite 402
King of Prussia, PA 19406
1-800-438-6071 • www.upi-usa.com