

34704-858

6/28/2004

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U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (H7505C)  
401 "M" St., S.W.  
Washington, D.C. 20460

EPA Reg. Number:

34704-858

Date of Issuance:

JUN 28 2004

NOTICE OF PESTICIDE:

Registration  
 Reregistration

(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

LPI 004 Bifenthrin

Name and Address of Registrant (include ZIP Code):

Loveland Products, Inc.  
P.O. Box 1286  
Greeley, CO 80632-1286

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product when the Agency requires all registrants of similar products to submit data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.

2. Make the labeling changes listed below before you release the product for shipment:

- a. Add the phrase "EPA Registration No. 34704-858".
- b. Correct the application rate or control of Two-spotted Spider Mite and Yellow Mite on Pears. The dosage in FL Oz/A should be "3.8 TO 12.8" not "8.8 TO 12.8"
- c. Add Hops to the ULV restriction under "Spray Drift Precautions" last sentence of the third paragraph, so that it reads "Use of ultra low volume (ULV) application on corn and hops is prohibited.". Also, in the directions for use on hops, add the statement "Use of ultra low volume (ULV) application on hops is prohibited.".

Signature of Approving Official:

Date:

JUN 28 2004

- d. Revise the first sentence of the last paragraph of the Warranty Disclaimer and Notice to read "To the extent allowed by law, Loveland Products, Inc., the manufacturer or seller shall not be liable...". As currently written ("In no event shall...") the statement negates or detracts from labeling requirements as set forth by the Agency in 40 CFR Part 156, and is, therefore, considered misbranding.

3. Submit two (2) copies of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

# 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.



# LPI 004 BIFENTHRIN

## Insecticide/Miticide

<b>ACTIVE INGREDIENT:</b>	<b>BY WT.</b>
Bifenthrin: (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2 chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethyl-cyclopropanecarboxylate*	25.1%
<b>INERT INGREDIENTS:**</b>	74.9%
<b>TOTAL</b>	<b>100.0%</b>

\*\*Cis isomers 97% minimum, trans isomers 3% maximum.  
 \*\*Contains xylene range aromatic solvents.  
 This product contains 2 pounds active ingredient per gallon.  
 U.S. Patent No. 4,238,505

## 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 this label, find someone to explain it to you in detail.)

EPA REG. NO. 34704-

EPA EST. NO. \_\_\_\_\_

NET CONTENTS \_\_\_\_\_ GALS. ( \_\_\_\_\_ L)

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## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS WARNING

May be fatal if swallowed. Harmful if inhaled or absorbed through skin. Causes moderate eye irritation. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes, or clothing.

### 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 or Nitrile Rubber or 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 or Nitrile Rubber or Neoprene Rubber or Viton, shoes plus socks, 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, 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.

## FIRST AID

<b>If Swallowed:</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give any liquid to the person.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If Inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>If in Eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on Skin or Clothing:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-301-7976.**

**NOTE TO PHYSICIAN:** This product is a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided. Contains petroleum distillate - vomiting may cause aspiration pneumonia.

## ENVIRONMENTAL HAZARDS

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

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

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

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

ACCEPTED  
with COMMENTS  
in EPA Letter Dated

JUN 28 2004

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

34704-858

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## LPI 004 BIFENTHRIN

### EPA REG. NO. 34704-

#### AGRICULTURAL USE REQUIREMENTS

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

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

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: Coveralls, Chemical-resistant gloves, such as Barrier Laminate or Nitrile Rubber or Neoprene Rubber or Viton, and Shoes plus socks.

#### STORAGE AND DISPOSAL

**PESTICIDE STORAGE:** Do not freeze. Do not store below 40°F. If crystals are observed, warm material to above 60°F by placing container in warm location. Shake or roll container periodically to re-dissolve solids.

Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. 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 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.

**U-TURN® CONTAINER:** Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

#### 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 green house systems) used for pesticide application to a public water system.

For LEPA irrigation a minimum of 0.75 inch of water per acre is recommended. Where non-emulsified oils are used as the diluent, 1 to 2 pints per acre is recommended.

Results from utilizing chemigation have been variable and depend upon the set up and calibration of equipment. 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 specialist, equipment manufacturers or other experts for consultation on the suitability of the equipment set up to obtain effective control of the target insect pests.

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

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.

LPI 004 insecticide/miticide should be applied continuously for the duration of the water application. This product should be diluted in sufficient volume to ensure accurate application over the area to be treated. When using chemigation, a minimum of 0.5 inch per acre of irrigation water is recommended. Agitation generally is not required when a suitable diluent is used. 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.

#### 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.

#### Tank-Mixture

This product 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.

#### Application Instructions

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

Cultivation within 10 feet of 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.

#### Spray Drift Precautions

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

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

Do not apply by ground equipment within 25 feet, or by air within 150 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm pond. Increase the buffer zone to 450 feet when ultra low volume (ULV) application is made in cotton. Use of ultra low volume (ULV) application on corn is prohibited.

For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of wingspan or rotor diameter.

Use the largest droplet size consistent with good pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.

Spray should be released at the lowest height consistent with pest control and flight safety. Application more than 10 feet above the crop canopy should be avoided.

Make aerial or ground applications when the wind velocity favors on target product deposition (approximately 3 to 10 mph.). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.

Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Do not cultivate within 10 feet of the aquatic area so as to allow growth of a vegetative filter strip.

Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.

Do not make aerial or ground applications during temperature inversions. Do not make aerial or ground applications to corn if heavy rainfall is imminent. 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.

**LPI 004 BIFENTHRIN**  
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**COTTON**

PEST	DOSAGE	
	LB A/A	FL OZ/A
European Corn Borer Soybean (Banded) Thrips Tobacco Thrips	0.02-0.10	1.3-6.4
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	2.6-6.4
Beet Armyworm Carmine Spider Mite Lygus Spp. Pink Bollworm Twospotted Spider Mite	0.06-0.10	3.8-6.4

**Restrictions - Cotton**

Do not apply more than 0.5 pound active per acre per season.

Do not apply within 14 days of harvest.

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

Do not make more than 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season. Synthetic pyrethroid products include Ambush<sup>®</sup>, Amm<sup>®</sup>, Asana<sup>®</sup> XL, Baythroid<sup>®</sup>, LPI 004, Danitol<sup>®</sup>, Karate<sup>®</sup>, Mustang<sup>®</sup>, and Scout X-TRA<sup>®</sup>.

**Remarks - Cotton**

This product may be applied in water or refined vegetable oil (soybean/cottonseed).

**Application In Water:** Apply in a minimum of 5 gallons per acre with ground equipment or 1 gallon per acre by aircraft. When applying by air, one quart of emulsified oil may be substituted for one quart of water in the finished spray.

**ULV Application:** Apply the recommended rate of this product in refined vegetable oil in a minimum of 1 quart of finished spray per acre with aircraft calibrated to give adequate coverage.

**To Control Boll Weevil:** Apply this product at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels.

**To Control Mites and Aphids:** Apply when pests first appear. Repeat as necessary to maintain control. Higher rates will be required once a damaging threshold is established.

This product is not for sale or use in the State of California.

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

PEST	DOSAGE		REMARKS
	LB A/A	FL OZ/A	
Corn Rootworm Larvae Northern Southern Western	.0046 lb. active per 1,000 linear ft. of row	0.30 fl. oz. per 1,000 linear ft. of row	Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to determine this product's needs per acre. Apply in a minimum of 3 gals. of finished spray per acre.  Mix this product 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 this product then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.  Applications of this product 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 this product and fertilizer to
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	.0023 to .0046 lb. active per 1,000 linear ft. of row	0.15 to 0.30 fl. oz. per 1,000 linear ft. of row	

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

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PEST	DOSAGE				REMARKS
	40	38	36	30	
Row Spacings (inches)	40	38	36	30	ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application. Do not apply to soil where there is greater than 30% cover of crop residue remaining. Do not apply within 30 days of harvest. 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 as an at plant application.
LPI 004 (lb. a.i. per acre)	0.060	0.064	0.069	0.080	
LPI 004 (formulated oz. per acre)	3.9	4.1	4.4	5.12	

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

PEST	DOSAGE		REMARKS
	0.047 to 0.062 lb. A/A Pre-Plant Incorporated (PPI)	3 to 4 fl. oz./A Pre-Plant incorporated (PPI)	
Black Cutworm White Grub Wireworm Seedcorn Maggot Armyworm spp. Stalkborer	0.047 to 0.062 lb. A/A Pre-Plant Incorporated (PPI)	3 to 4 fl. oz./A Pre-Plant incorporated (PPI)	The 3-4 oz/A rate must be applied as PPI and can be tankmixed and applied with PPI herbicides. Incorporation of this product should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.
Black Cutworm Army Worm spp. Stalkborer	0.040 lb. A/A Pre-Emergence (PRE)	2.56 fl. oz./A Pre-Emergence (PRE)	The 2.56 oz/A rate may be applied PRE and can be tankmixed and applied with PRE herbicides.

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

PEST	DOSAGE	
	LB A/A	FL OZ/A
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 Stinkbug Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2.1-6.4
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4

**Restrictions - Corn**

Do not apply more than 0.3 lb. active per acre per season including pre & ppi, at plant, plus foliar applications.

Do not apply within 30 days of harvest.

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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**Remarks - Corn**

**General:** Apply in a minimum of 2-5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment. To improve control by aircraft, use 5 gallons of finished spray per acre particularly when initial populations are heavier than normal. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.

**To control ear-attacking pests:** Apply this product just before silking and repeat as necessary to maintain control.

**Southwestern Corn Borer, European Corn Borer:** Make application for corn borer control with initial application at or shortly before egg hatch.

**For control of other insect pests:** Apply when pests first appear and repeat as necessary.

**For Control of Mite:**

Apply for Banks Grass Mite control when colonies first form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.

**For Twospotted Spider Mite and Carmine Mite control,** apply when colonies first form prior to leaf damage or discoloration and before widespread mite dispersal throughout the canopy.

Higher rates will be necessary for heavier initial populations and corn under heat or drought stress. Field experience with dimethoate at 0.5 lb. active per acre in tank mixture has demonstrated good control under these conditions.

**For mite control in Texas, New Mexico, Oklahoma, Arizona:** Apply in a minimum of 5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment.

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

PEST	DOSAGE		REMARKS
Corn Rootworm Larvae Northern Southern Western	.0046 lb. active per 1,000 linear ft. of row	0.30 fl.oz. per 1,000 linear ft. of row	Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to determine the LPI 004 needs per acre. Apply in a minimum of 3 gals. of finished spray per acre. Mix this product 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 LPI 004 then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture. Applications of this product 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 this product and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application. Do not apply to soil where there is greater than 30% cover of crop residue remaining. Do not apply within 30 days of harvest. Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment. Do not apply more than .01 lb. active per acre per season as an at plant application.
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	.0023 to .0046 lb. active per 1,000 linear ft. of row	0.15 to 0.30 fl. oz. per 1,000 linear ft. of row	

Row Spacing (inches)	40	38	36	30
LPI 004 (lb.s ai per acre)	0.060	0.064	0.069	0.080
LPI 004 (formulated oz. Per acre)	3.9	4.1	4.4	5.12

**Sweet Corn (Grain And Silage)**  
**Sweet Corn Grown For Seed (Foliar Use)**

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PEST	DOSAGE	
	LB AWA	FL OZ/A
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	2.1-6.4
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4

**Restrictions - Sweet Corn**

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

Do not apply within one day of harvest.

Do not graze livestock in treated areas or cut treated crops for feed within 1 day of the last application.

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

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

Use of this product is prohibited in all coastal counties.

**Remarks - Sweet Corn**

**General:** Apply in a minimum of 2 gallons of finished spray per acre by air in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.

**To control ear-attacking pests:** Apply this product when silking begins and repeat as necessary to maintain control.

**Southwestern Corn Borer, European Corn Borer:** Make 2 applications for corn borer control with initial application at or shortly before egg hatch.

**For control of other insect pests:** Apply when pests first appear and repeat as necessary.

**For Control of Mites:**

Apply for Banks Grass Mite control when colonies first form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.

**For Twospotted Spider Mite and Carmine Mite control,** apply when colonies first form prior to leaf damage or discoloration and before widespread mite dispersal throughout the canopy.

Higher rates will be necessary for heavier initial populations and corn under heat or drought stress.



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**EGGPLANT**

CROP	PEST	DOSAGE		REMARKS
		LB A/A	FL OZ/A	
Eggplant	Colorado Potato Beetle	0.033-0.10	2.1-6.4	Apply in a minimum of 2 gals. of finished spray per acre by air or in a minimum of 10 gals. per acre with ground equipment. When applying by air, 1-2 qts. of emulsified oil may be substituted for 1-2 qts. of water in the finished spray. Thorough coverage is essential to achieve control. Do not make applications less than 7 days apart. Do not apply more than 0.2 lb. active ingredient (12.8 oz. formulated) per acre per season. Do not apply within 7 days of harvest.
	Corn Earworm European Corn Borer Flea Beetle Cucumber Beetle Cabbage Looper Tomato Pinworm Tomato Hornworm Vegetable Leafminer Whitefly Armyworms Plant Bug Stink Bugs Thrips			
	Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus Spp.	0.08-0.10	5.12-6.4	

**LETTUCE, HEAD**

PEST	DOSAGE		REMARKS
	LB A/A	FL OZ/A	
Aphids Armyworms Corn Earworm Cucumber beetles Cutworms Diamondback Moth Flea Beetles Imported Cabbageworm Leafhoppers Loopers Salt Marsh Caterpillar Stink Bug Spp. Tobacco Budworm Whitefly Lygus Spp. Carmine Mite Twospotted Spider Mite	0.033-0.10	2.1-6.4	Apply in water as necessary for insect control using a minimum of 15 gals. of finished spray per acre with ground equipment and 5 gals. per acre by air. When applying by air, 1-2 qts. of emulsified oil may be substituted for 1-2 qts. of water in the finished spray. Thorough coverage is essential to achieve control. Do not make applications less than 7 days apart. A maximum of 0.5 lb. active ingredient may be applied per acre per season. Do not apply within 7 days of harvest.
			0.08-0.10

**CANEBERRIES**

CROP	PEST	DOSAGE		REMARKS
		LB A/A	FL OZ/A	
Caneberries including: Blackberries Bingberries Dewberries Lowberries Marionberries Ollieberries Youngberries Loganberries Raspberries	Leafrollers	0.05-0.10	3.2-6.4	Apply by air or ground equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gals. per acre by air and 50 gals. per acre by ground). One application may be made pre-bloom and a second application may be made post bloom. Do not apply within 3 days of harvest. Do not exceed 0.2 lb. active ingredient per acre per season.
	Orange Tortrix			
	Spider Mites	0.10	6.4	

**ARTICHOKE**

PEST	DOSAGE		REMARKS
	LB A/A	FL OZ/A	
Cribrate Weevil Artichoke Plume Moth	0.10	6.4	Apply when pest population reaches damaging threshold and repeat as necessary to maintain control, but not more often than 15-day intervals. <b>Application by ground:</b> Apply a full cover spray in a minimum of 75 gals. of finished spray per acre. <b>Application by air:</b> Apply

**ARTICHOKE cont'd.:**

PEST	DOSAGE		REMARKS
	LB A/A	FL OZ/A	
			specified dosage in a minimum of 10 gals. per acre. Do not exceed 0.5 lb active ingredient per acre per season. A 5-day pre-harvest interval must be observed.

**PEPPERS, BELL AND NON-BELL**

PEST	DOSAGE		REMARKS
	LB A/A	FL OZ/A	
Army Worms Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Whitefly	0.033-0.1	2.1-6.4	Apply using sufficient water to obtain uniform coverage. Apply as needed. Apply with ground equipment using a minimum of 10 gals. of finished spray per acre or a minimum of 2 gals. per acre by aircraft. Do not make applications less than 7 days apart. Do not apply more than 0.20 lb. active ingredient per acre per season.
Lygus Spp. Broad Mite Carmine Mite Two Spotted Spider Mite			0.06-0.10

**HOPS**

PEST	DOSAGE		REMARKS
	LB A/A	FL OZ/A	
Aphids Armyworms Cutworms Leafrollers Loopers Root Weevils	0.06-0.1	3.8-6.4	Do not exceed 0.1 lb. ai per acre per application. Do not exceed 0.3 lb. ai per acre per season. A spray interval of 21 days between applications must be maintained. A 14-day pre-harvest interval must be observed. <b>Application by ground:</b> For best results, full coverage is essential. Early season recommend 100-150 gals. of spray per acre. Late season recommend 200-250 gals. of spray per acre. For Root Weevil control, make a directed spray to the base of the plant. Spray up the vine 3 ft. and the soil surface 1.5 to 2 ft. on either side of plant. <b>Application by air for late season control of twospotted spider mites:</b> Apply no less than 6.4 oz. (0.1 lb. ai) per application in a minimum of 10 gals. per acre.
Twospotted Spider Mite			0.05-0.1
	0.1	6.4	

**PEAR**

PEST	DOSAGE		REMARKS
	LB A/A	FL OZ/A	
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	2.6-12.8	<b>Application by ground:</b> Apply as a dilute (minimum of 200 gals. of finished spray per acre) or concentrate (minimum of 50 gals. of finished spray per acre) spray in sufficient water to provide thorough coverage. <b>Application by air:</b> Apply the specified dosage in a minimum of 10 gals. per acre by air. 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.
Twospotted Spider Mite Yellow Mite			0.06-0.2
European Red Mite	0.08-0.2	5.12-12.8	



**LPI 004 BIFENTHRIN**  
**EPA REG. NO. 34704-**

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**CITRUS (1 day phi)**

INSECTS CONTROLLED	RATE OF APPLICATION	METHOD OF APPLICATION
<b>Diaprepes Root Weevil</b> <i>(Diaprepes abbreviatus)</i> Fire ants Asian cockroach	16-32 oz. (0.25-0.50 lb. active) per acre	Apply to individual citrus resets, when not in solid planted rows, using hand-gun or shielded sprayer. Peak emergence of Diaprepes root weevil generally occurs in the spring. Depending on weather conditions, a minor emergence of Diaprepes root weevil may also occur in the fall. If the citrus grove to be treated is in an area where weather conditions are conducive to primary emergence occurring in the spring, 32 fl. oz. formulated product should be used to obtain the longest residual management of Diaprepes root weevil. If the citrus grove to be treated is in an area where weather conditions will promote more than one peak of pest emergence, 16 fl. oz. formulated product can be applied early season and 16 fl. oz. formulated product can be applied later in the season. If emergence extends beyond the residual protection of this product, grower is advised to use additional management strategies (i.e. foliar adult control or soil larvae control such as nematodes). Contact your state agricultural Extension Specialist as to the recommendation suited for local conditions.

Do not apply through irrigation systems.  
 Do not allow any application of this product to contact fruit or foliage.  
 Do not apply more than a total of 32 fl. oz. of formulated product (0.5 lb. a.i.) per acre year.  
 Apply the specified dosage in a minimum of 30 gals. of finished spray per acre.  
 Ground application only. Do not apply by air.  
**IN FLORIDA:** Use on citrus only as directed in Florida-specific supplemental labeling.  
 See your Loveland Products Inc. representative for availability.

**TOMATOES (1 day phi)**

INSECTS CONTROLLED	RATE OF APPLICATION	METHOD OF APPLICATION
Aphids Armyworms Including: Beet Armyworm, Fall Armyworm, Southern Yellowstriped Armyworm Bean Leaf Beetle Cabbageworm Carmine 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 March Caterpillar Sap Beetle Seedpod Weevil Squash Bugs Stink Bug Spp. Tobacco Budworm Tarnished Plant Bug Thrips Twospotted Spider Mite Whitefly	2.1-5.2 fl. oz. (0.033-0.08 lb. active) per acre	Apply in water as necessary for insect control using a minimum of 15 gals. of finished spray per acre with ground equipment. Thorough coverage is essential to achieve control.

Do not make applications less than 10 days apart.  
 A maximum of 4 applications may be applied per season.

**SPINACH (40 day phi)**

INSECTS CONTROLLED	RATE OF APPLICATION	METHOD OF APPLICATION
Colorado Potato Beetle Tomato Pinworm Tomato Hornworm Armyworms Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Whitefly Broad Mite Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus Spp. Fire Ants	2.1-6.4 oz. (0.033-0.10 lb. active) per acre	For control of whiteflies apply foliar treatments this product by ground or air at rates of up to 0.4 pt. (0.1 lb. active) per acre at minimum 7-day intervals up to a maximum of 4 applications. Do not apply within 40 days of harvest. For control of fire ants, apply this product 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 at minimum 7-day intervals up to a maximum of 4 applications. Do not apply within 40 days of harvest. Apply the specified dosage in 5-50 gals. of finished spray per acre by air or 10-50 gals. finished spray per acre by ground.

Do not make applications less than 7 days apart.  
 Do not apply more than 0.4 lbs active ingredient per acre per season.

Dealers Should Sell In Original Packages Only.

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