

279-3315

6-26-2007

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

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

JUN 26 2007

Nancy J. Hilton
Product Registrations Manager
FMC Corporation
APG Specialty Products Business
1735 Market Street
Philadelphia, PA 19103

SUBJECT: Application for Pesticide Notification (PRN 98-10) – Add New York State Restriction
Hero™ Insecticide
EPA Reg. No. 279-3315
Application Dated May 23, 2007

Dear Ms. Hilton:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the actions requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please call me directly at 703-305-6249 or Terri Stowe of my staff at 703-305-6117.

Sincerely,

A handwritten signature in black ink, appearing to read "Linda Arrington".

Linda Arrington
Notifications & Minor Formulations Team Leader
Registration Division (7505P)
Office of Pesticide Programs



United States
Environmental Protection Agency
 Washington, DC 20460

Registration
 Amendment
 Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 279-3315	2. EPA Product Manager George LaRocca	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) HERO Insecticide	PM# 13	
5. Name and Address of Applicant (Include ZIP Code) FMC Corporation 1735 Market Street Philadelphia, PA 19103 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

Amendment - Explain below. Final printed labels in response to Agency letter dated _____
 Resubmission in response to Agency letter dated _____ "Me Too" Application.
 Notification - Explain below. Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)
 Notification: 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.

NOTIFICATION

JUN 26 2007

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> Text <input type="checkbox"/> No		<input type="checkbox"/> Metal	<input type="checkbox"/> Plastic
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt.	No. per container
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled				<input type="checkbox"/> Other _____	

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)

Name Nancy Hilton	Title Product Registrations Manager	Telephone No. (include Area Code) 215-299-6753
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Certification
 I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature 	3. Title Product Registrations Manager	b. Date Application Received (Stamped)
4. Typed Name Nancy Hilton	5. Date May 23, 2007	

FMC Corporation

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FMC Corporation
1735 Market Street
Philadelphia PA 19103

215.299.6000 phone
215.299.6947 fax
www.fmc.com

May 23, 2007

HAND DELIVERED

Document Processing Desk (NOTIF) (E-SUB)
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
One Potomac Yard - Room S-4900
2777 South Crystal Drive
Arlington, VA 22202-4501

Mr. George LaRocca
Product Manager 13
Registration Division (7504P)

NOTIFICATION

JUN 26 2007

Dear Mr. LaRocca:

Subject: Chemical Number/Name: 129064/zeta-cypermethrin
Chemical Number/Name: 128825/bifenthrin

HERO™ Insecticide (EPA Reg. No. 279-3315)
Label Notifications
Non-PRIA Action

FMC Corporation is submitting a label notification for the subject product. The label notification is as follows:

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.

Enclosed please find the following documents for the subject product:

1. EPA form – 8570-1
2. Certification with Respect to Label Integrity form
3. Five copies of draft labeling (one copy with all changes in red)

Please let me know if there are any questions or if you need any further information.

Sincerely yours,



Nancy J. Hilton
Product Registrations Manager
(215) 299-6753

FMC

JUN 26 2007

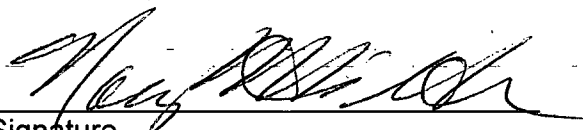
Certification with Respect to Label Integrity

version: 9/11/02

I certify that the information (including, but not limited to, text, tables, and graphics) contained in the electronic file identified below by file name and submitted with this certification is the same information as that on the paper copies of these documents included with this submission.

PROPOSED LABEL		
EPA Registration #	Date Submitted to EPA	Electronic file name
279-3315	May 23, 2007	000279-3315.20070523.pdf

I certify that the statements that I have made on this form are true, accurate, and complete. I acknowledge that any knowingly false or misleading statements may be punishable by fine or imprisonment or both under applicable law.


 Signature

05/23/2007

Date

Nancy Hilton

Name (typed)

Product Registrations Manager

Title

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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 those uses covered by the certified applicator's certificate.

NOTIFICATION

JUN 26 2007



EPA Reg. No. 279-3315

EPA Est. 279-

Active Ingredients:	By Wt.
Zeta-Cypermethrin*	3.75%
Bifenthrin**	11.25%
Other Ingredients***:	85.00%
	100.0%

HERO™ contains 1.24 pounds active ingredients per gallon.
 * *Cis/trans* isomer ratio: Max 75% (±) *cis* and Min. 25% (±) *trans*
 ** *Cis* isomers 97% minimum; *trans* isomers 3% maximum.
 *** Contains Petroleum Distillates

U.S. Patent No. Pending

KEEP OUT OF REACH OF CHILDREN

CAUTION

See other panels for additional precautionary information.

FIRST AID

IF SWALLOWED	Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
IF IN EYES	Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center for treatment advice.
IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth if possible. Call a poison control center or doctor for further treatment advice.

NOTE TO PHYSICIAN

Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-(800)-331-3148 for Emergency Assistance.

PRECAUTIONARY STATEMENTS

Hazards to Humans (and Domestic Animals)

Caution

Harmful if swallowed, inhaled or absorbed through the skin. Causes moderate eye irritation. Avoid breathing vapor or spray mist. Do not get on skin, in eyes or on clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment:

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

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 Butyl, Nitrile, or Neoprene Rubber ≥ 14 mls; or Viton ≥ 14 mls, and 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 Butyl, Nitrile, or Neoprene Rubber ≥ 14 mls; or Viton ≥ 14 mls, and shoes plus socks and protective eyewear.



FMC Corporation
Agricultural Products Group
Philadelphia PA 19103

User Safety Requirements

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.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

User Safety Recommendations

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

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. 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 apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

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

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 if bees are visiting the treatment area.

Physical or Chemical Hazards

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

DIRECTIONS FOR USE

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

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.

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.

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 Viton, and shoes plus socks.

Engineering Control Statements

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (540CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

STORAGE AND DISPOSAL

Pesticide Storage

Do not freeze. 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. Call FMC: (800) 331-3148.

To confine spill: Dike surrounding area or absorb with sand, cat litter, or commercial clay. Place damaged package in a holding container. Identify contents.

Pesticide Disposal

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal

Metal Containers: 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.

Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Returnable/Refillable Sealed Containers: Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

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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 any irrigation system (including greenhouse systems) used for pesticide application to a public water system.

Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

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

The pesticide injection pipeline must also 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 that 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

HERO Insecticide should be applied continuously for the duration of the water application. HERO Insecticide should be diluted in sufficient volume to insure accurate application over the area to be treated.

Use the appropriate amount of water to carry the product to the target pest. Agitation is not required when a suitable diluent is used.

GENERAL INSTRUCTIONS

Use low rate under light to moderate infestation. Higher rates should be used under heavy insect pressure. The rate of application is variable according to insect pressure, timing of spray and field scouting.

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.

Rotational Crops

Crops for which bifenthrin and zeta-cypermethrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days following the final application of HERO Insecticide.

Tank-Mixture

HERO Insecticide may be applied in tank mixtures with other products approved for use on, Cotton, Corn, Eggplant, Peppers, Tomatoes, Head Lettuce, Head & Stem Brassica, Succulent Peas & Beans, and Pecans. Observe all restrictions and precautions that appear on the labels of these products. Test for compatibility of products before mixing.

Spray Drift Precautions

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 (but are not limited to) Ambush®, Ammo®, Asana®XL, Baythroid®, Capture®, Danitol®, Fury®, Karate®, Mustang®, and Scout®X-TRA.

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 ponds. Increase the buffer zone to 450 feet when ultra low volume (ULV) application is made. 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. Applications 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' of the aquatic area so as to allow growth of a vegetative filter strip.

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

Do not make aerial or ground applications during temperature inversions. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

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HERO Insecticide contains the pyrethroids zeta-cypermethrin and bifenthrin.

Maximum Usage When Applying Zeta-Cypermethrin and Cypermethrin Products to the Same Crop Within the Same Season.

Do not apply more than the maximum seasonal total for either zeta-cypermethrin or cypermethrin products when used alone; do not apply more than the combined maximum seasonal total for both products as outlined in the table below.

Crop	Maximum Seasonal Total (lbs ai/acre)			Cypermethrin**	Maximum Seasonal Total (lbs ai/acre) When Applying Cypermethrin and Zeta-cypermethrin Products to the Same Crop	Maximum Seasonal Total (lbs ai/acre) When Applying Zeta-cypermethrin Products to the Same Crop
	Zeta-cypermethrin *				Zeta-cypermethrin* plus Cypermethrin **	Zeta-cypermethrin*
	Mustang	Mustang Max	HERO			
Cotton	0.3	0.15	0.1125	0.6	0.6	0.3
Field Corn	0.2	0.10	0.10	NA	NA	0.2
Sweet Corn	0.3	0.15	0.0675	NA	NA	0.3
Eggplant	0.3	0.15	0.0675	NA	NA	0.3
Pepper (Bell & Non-Bell)	0.3	0.15	0.0675	NA	NA	0.3
Tomato	0.3	0.15	0.105	NA	NA	0.3
Head Lettuce	0.3	0.15	0.1125	0.6	0.6	0.3
Head and Stem Brassica	0.3	0.15	0.1125	0.6	0.6	0.3
Succulent Peas and Beans	0.3	0.15	0.0675	NA	NA	0.3
Pecans	0.3	0.15	0.1125	0.6	0.6	0.3

* Mustang or Fury (1.5 EW or 1.5 EC); Mustang Max (0.8 EC or 0.8 EW); HERO; or any zeta-cypermethrin product approved for crop use.
 ** Any cypermethrin product approved for crop use.
 NA = Not Applicable.

Maximum Usage When Applying Bifenthrin Products to the Same Crop Within the Same Season.

Crop	Maximum Seasonal Total (lbs ai/acre)		When Applying Bifenthrin * Products Plus HERO to the Same Crop
	Bifenthrin		
	HERO	Bifenthrin *	
Cotton	0.3375	0.50	.50
Field Corn	0.30	0.30	.30
Sweet Corn	0.20	0.20	.20
Eggplant	0.20	0.20	.20
Pepper (Bell & Non-Bell)	0.20	0.20	.20
Tomato	0.315	0.32	0.32
Head Lettuce	0.3375	0.50	0.50
Head and Stem Brassica	0.3375	0.50	0.50
Succulent Peas and Beans	0.20	0.20	0.20
Pecans	0.3375	0.50	0.50

* Any bifenthrin product approved for crop use.

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FIELD CROPS

Cotton (14 day PHI)

Pests	Rate of Application
European Corn Borer Grasshoppers Soybean (Banded) Thrips Tobacco Thrips	3.6 – 10.3 ounces (0.035 – 0.10 lbs ai) per acre
Armyworm, Fall Armyworm, Yellowstriped Boll Weevil Bollworm Cabbage Looper Cotton Aphid Cotton Fleahopper Cotton Leafperforator Cutworms Saltmarsh Caterpillar Southern Garden Leafhopper Stink Bugs Tobacco Budworm	5.2 – 10.3 ounces (0.05 – 0.10 lbs ai) per acre
Armyworm, Beet Carmine Spider Mite Lygus Species Pink Bollworm Twospotted Spider Mite Whitefly	10.3 ounces (0.10 lbs ai) per acre

RESTRICTIONS – Cotton

Do not apply more than 0.45 pounds active ingredient per acre per season.

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

REMARKS - Cotton

HERO Insecticide 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, 1 quart of emulsified oil may be substituted for one quart of water in the finished spray.

ULV Application: Apply the recommended rate of HERO Insecticide 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 HERO Insecticide 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.

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**Field Corn (Grain and Silage), Popcorn,
Field Corn Grown for Seed.
Foliar Use Only.**

Pests	Rate of Application
Army Cutworm Bean Leaf Beetle Common Stalk Borer Cutworm Species Flea Beetle Grasshoppers Green Cloverworm Hop Vine Borer Western Bean Cutworm	2.6 – 6.1 ounces (0.025 – 0.06 lbs ai) per acre
Aphid Species Armyworm, Beet Armyworm, Fall Armyworm, Southern Armyworm, True Armyworm Species Armyworm, Yellowstriped Cereal Leaf Beetle Chinch Bug Corn Earworm Corn Rootworm Adult Cucumber Beetle Adult European Corn Borer Greenbug Hornworms Japanese Beetle Adult Meadow Spittlebug Sap Beetle Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tobacco Budworm Webworms	4.0 – 10.3 ounces (0.04 – 0.10 lbs ai) per acre
Banks Grass Mite Carmine Mite Lygus Species Twospotted Spider Mite	10.3 ounces (0.10 lbs ai) per acre

RESTRICTIONS – Field Corn

HERO Insecticide is for use in **foliar applications only**. Soil applications of this product are prohibited.

Do not apply more than 0.4 pound active per acre per season for foliar applications.

Do not apply within 30 days of harvest for grain and stover and 60 days for forage.

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 HERO Insecticide on corn is prohibited in all coastal counties.

REMARKS – Field 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 HERO Insecticide 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 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. 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, and 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.

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**Sweet Corn (Grain and Silage),
Sweet Corn Grown For Seed. (3 day PHI)
Foliar Use Only.**

Pests	Rate of Application
Army Cutworm Armyworm, Beet Armyworm, Fall Armyworm, Southern Armyworm Species Armyworm, True Armyworm, Yellowstriped Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adult Corn Silk Fly Cucumber Beetle Adult Cutworm Species European Corn Borer Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Leafhoppers Sap Beetle Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Webworms Western Bean Cutworm	4.0 – 10.3 ounces (0.04 – 0.10 lbs ai) per acre
Banks Grass Mite Carmine Mite Lygus Species Twospotted Spider Mite	10.3 ounces (0.10 lbs ai) per acre

RESTRICTIONS – Sweet Corn

Do not apply more than 0.266 pounds active per acre per season.

Do not graze livestock in treated areas or cut treated crops for feed within 3 days of the last application.

Apply at a minimum 3 to 5 day intervals or as needed for control.

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 HERO Insecticide is prohibited in all coastal counties.

REMARKS – Sweet Corn

General: Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 20 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 HERO Insecticide when silking begins and repeat as necessary to maintain control.

Southwestern Corn Borer, European Corn Borer: Make 2 applications for corn borer control with the 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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VEGETABLES

Eggplant (7 day PHI)

Peppers, bell and non-bell (7 day PHI)

(including, but not limited to: bell pepper, chili pepper, cooking pepper, pimento, and sweet pepper).

Pests	Rate of Application
Armyworm, Beet Armyworm, Fall Armyworm, Southern Armyworm, Yellowstriped Cabbage Looper Celery Leaf Tier Colorado Potato Beetle Corn Earworm Cucumber Beetle Cutworm Species European Corn Borer Flea Beetle Garden Webworm Grasshoppers Hornworms Leafhopper Species Meadow Spittlebug Pepper Maggot Adult Pepper Weevil Southwestern Corn Borer Stink Bug Tobacco Budworm Tomato Fruitworm Tomato Hornworm Tomato Pinworm Vegetable Leafminer	4.0 – 10.3 ounces (0.04 – 0.10 lbs ai) per acre
Banks Grass Mite Carmine Mite Lygus Species Pacific Spider Mite Thrips Species Tomato Psyllid Twospotted Spider Mite Whitefly	10.3 ounces (0.10 lbs ai) per acre
RESTRICTIONS – Eggplant Do not apply more than 0.266 pounds active per acre per season. Do not make applications less than 7 days apart. REMARKS – Eggplant Apply in a minimum of 2 gallons of finished spray per acre by air or 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.	

Pests	Rate of Application
Armyworm, Beet Armyworm, Fall Armyworm, Southern Armyworm, Yellowstriped Cabbage Looper Celery Leaf Tier Colorado Potato Beetle Corn Earworm Cucumber Beetle Cutworm Species European Corn Borer Flea Beetle Garden Webworm Grasshoppers Hornworms Leafhopper Species Meadow Spittlebug Pepper Maggot Adult Pepper Weevil Southwestern Corn Borer Stink Bug Tobacco Budworm Tomato Fruitworm Tomato Hornworm Tomato Pinworm Vegetable Leafminer	4.0 – 10.3 ounces (0.04 – 0.10 lbs ai) per acre
Banks Grass Mite Carmine Mite Lygus Species Pacific Spider Mite Thrips Species Tomato Psyllid Twospotted Spider Mite Whitefly	10.3 ounces (0.10 lbs ai) per acre
RESTRICTIONS – Peppers Do not apply more than 0.266 pounds active per acre per season. Do not make applications less than 7 days apart. REMARKS – Peppers Apply in a minimum of 2 gallons of finished spray per acre by air or 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.	

13/1/16

Tomato (1 day PHI)

(including, but not limited to: groundcherry and tomatillo).

Head Lettuce (7 day PHI)

Pests	Rate of Application
Armyworm, Beet Armyworm, Fall Armyworm, Southern Armyworm, Yellowstriped Cabbage Looper Celery Leaf Tier Colorado Potato Beetle Corn Earworm Cucumber Beetle Cutworm Species European Corn Borer Flea Beetle Garden Webworm Grasshoppers Hornworms Leafhopper Species Meadow Spittlebug Pepper Maggot Adult Pepper Weevil Southwestern Corn Borer Stink Bug Tobacco Budworm Tomato Fruitworm Tomato Hornworm Tomato Pinworm Vegetable Leafminer	4.0 – 10.3 ounces (0.04 – 0.10 lbs ai) per acre
Banks Grass Mite Carmine Mite Lygus Species Pacific Spider Mite Thrips Species Tomato Psyllid Twospotted Spider Mite Whitefly	10.3 ounces (0.10 lbs ai) per acre
<p>RESTRICTIONS – Tomato</p> <p>Do not apply more than 0.42 pounds active per acre per season.</p> <p>Do not make more than four applications per season.</p> <p>Do not make applications less than 10 days apart.</p> <p>REMARKS – Tomato</p> <p>Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment and 2 gallons per acre by air.</p> <p>Thorough coverage is essential to achieve control.</p>	

Pests	Rate of Application
Aphid Species Armyworms Corn Earworm Crickets Cucumber Beetle Cutworm Species Diamondback Moth Flea Beetle Imported Cabbageworm Leafhopper Species Loopers Saltmarsh Caterpillar Stink Bug Tobacco Budworm	4.0 – 10.3 ounces (0.04 – 0.10 lbs ai) per acre
Carmine Mite Lygus Species Onion Thrips Twospotted Spider Mite Whitefly	10.3 ounces (0.10 lbs ai) per acre
<p>RESTRICTIONS – Head Lettuce</p> <p>Do not apply more than 0.45 pounds active per acre per season.</p> <p>Do not make applications less than 7 days apart.</p> <p>REMARKS – Head Lettuce</p> <p>Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment and 5 gallons per acre by air. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray.</p> <p>Thorough coverage is essential to achieve control.</p>	

14/16

Head & Stem Brassica (7 day PHI)

(including, but not limited to: Broccoli; Chinese Broccoli (gai lan, white flowering broccoli); Brussels Sprouts; Cauliflower; Cavalo broccolo; Kohlrabi; Cabbage; Chinese Cabbage (napa)).

Pests	Rate of Application
Aphid Species Armyworms Click Beetle Corn Earworm Crickets Cucumber Beetle Cutworm Species Diamondback Moth Flea Beetle Grasshoppers Imported Cabbageworm Leafhopper Species Leafminer Species Loopers Saltmarsh Caterpillar Southern Cabbageworm Stink Bug Tobacco Budworm Wireworm Adults	4.0 – 10.3 ounces (0.04 – 0.10 lbs ai) per acre
Banks Grass Mite Cabbage Webworm Carmine Mite Lygus Species Pacific Spider Mite Thrips Species Twospotted Spider Mite Whitefly	10.3 ounces (0.10 lbs ai) per acre
<p>RESTRICTIONS – Head & Stem Brassica</p> <p>Do not apply more than 0.45 lb. active ingredient per acre per season.</p> <p>Do not make more than 5 applications after bloom.</p> <p>Do not make applications less than 7 days apart.</p> <p>Do not apply within 7 days of harvest.</p> <p>REMARKS – Head & Stem Brassica</p> <p>Apply in a minimum of 5 gallons of finished spray per acre by air or in a minimum of 15 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.</p> <p>Thorough coverage is essential to achieve control.</p>	

15/16

Succulent Peas and Beans (3 day PHI)

(including, but not limited to: Pea (*Pisum* spp.): Dwarf pea; Edible-pod pea; English pea; Garden pea; Green pea; Snow pea; Sugar snap pea; Pigeon pea; Bean (*Phaseolus* spp.): Broadbean (succulent); Lima bean (green); Runner bean; Snap bean; Wax bean; Bean (*Vigna* spp.): Asparagus bean; Blackeyed pea; Chinese longbean; Cowpea; Moth bean; Southern pea; Grain lupin; Sweet lupin; White lupin; White sweet lupin; Field bean; Kidney bean; Navy bean; Pinto bean; Tepary bean; Adzuki bean; Catjang; Crowder pea; Mung bean; Rice bean; Urd bean; Chickpea; Guar; Lablab bean, Yardlong bean, Jackbean, Soybean (immature seed), Sword bean).

RESTRICTIONS – Succulent Peas & Beans

Do not apply more than 0.266 pounds active per acre per season.

Do not make applications less than 5 days apart.

REMARKS – Succulent Peas & Beans

Apply in a minimum of 2 gallons of finished spray per acre by air or 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.

Pests	Rate of Application
Alfalfa Caterpillar	
Aphid Species	
Armyworm, Beet	
Armyworm, Fall	
Armyworm, Southern	
Armyworm, True	
Armyworm, Yellowstriped	
Bean Leaf Beetle	
Blister Beetle Species	
Corn Earworm	
Corn Rootworm Adult	
Cowpea Curculio	
Cucumber Beetles	
Cutworms	
European Corn Borer	
Flea Beetle	
Grasshoppers	
Green Cloverworm	
Ground Beetles	
Imported Cabbageworm	
Japanese beetle Adult	
Leaf Skeletonizer	4.0 – 10.3 ounces
Leafhopper Species	(0.04 – 0.10 lbs ai)
Leafminers	per acre
Lesser Cornstalk Borer	
Loopers	
Mexican Bean Beetle	
Painted Lady (Thistle) Caterpillar	
Pea Leaf Weevil	
Pea Weevil	
Saltmarsh Caterpillar	
Sap Beetle	
Seedcorn Beetle	
Seedcorn Maggot	
Silverspotted Skipper	
Southwest Corn Borer	
Spittlebug	
Stink Bugs	
Threecornered alfalfa hopper	
Tobacco Budworm	
Velvetbean Caterpillar	
Webworm Species	
Western Bean Cutworm	
Woolly Bear Caterpillar	
Banks Grass Mite	
Carmine Mite	
Lygus Species	10.3 ounces
Thrips Species	(0.10 lbs ai) per acre
Twospotted Spider Mite	
Whitefly	

16/16

TREE NUTS

Pecans (21 day PHI)

Pests	Rate of Application
Black Pecan Aphid Hickory Shuckworm Pecan Nut Casebearer Pecan Weevil Yellow Pecan Aphid	10.3 ounces (0.10 lbs ai) per acre
<p>RESTRICTIONS – Pecans</p> <p>Do not apply more than 0.45 lb. active ingredient per acre per season.</p> <p>Do not make applications less than 15 days apart.</p> <p>Do not graze livestock in treated orchards or cut treated cover crops for feed.</p> <p>REMARKS – Pecans</p> <p>Application 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 in sufficient water to provide thorough coverage.</p> <p>Application by air: Apply the specified dosage in a minimum of 10 gallons of finished spray per acre.</p>	

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