



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

SEP 3 1999

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Dr. Callista O. Chukwunenyne, Ph.D.
Manager, Product Registrations
FMC Corporation
Agricultural Products Group
1735 Market Street
Philadelphia, PA 19103

Dear Dr. Chukwunenyne:

SUBJECT: Final Printed Labeling
Capture 2EC Insecticide/Miticicide for Sale and Use Only in California
EPA Registration Number 279-3114
Submission Dated August 11, 1999

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable provided you make the labeling changes indicated below prior to release for shipment of product bearing the amended labeling:

- 1. Revise the table listing REIs in the Agricultural Use Requirements Box to read as follows:

<u>Crop</u>	<u>Activity</u>	<u>REI</u>
Field Corn Grown for Seed	Detasseling	18 days
	Roguing	18 days
	Other Activities	24 hours
Cotton	Scouting	7 days
	Other Activities	24 hours

- 2. Delete the statement on page 3 of the label at the end of the cotton section and above the Field Corn section: "Restricted-entry Interval 12 hours".

Submit two copies of your final printed labeling before you release the product for shipment. A stamped copy of the labeling is enclosed for your records. If you have any questions regarding this letter, please contact John Leahy of my team at (703) 305-6703.

Sincerely yours,

George T. LaRocca
Product Manager 13
Insecticide Branch
Registration Division

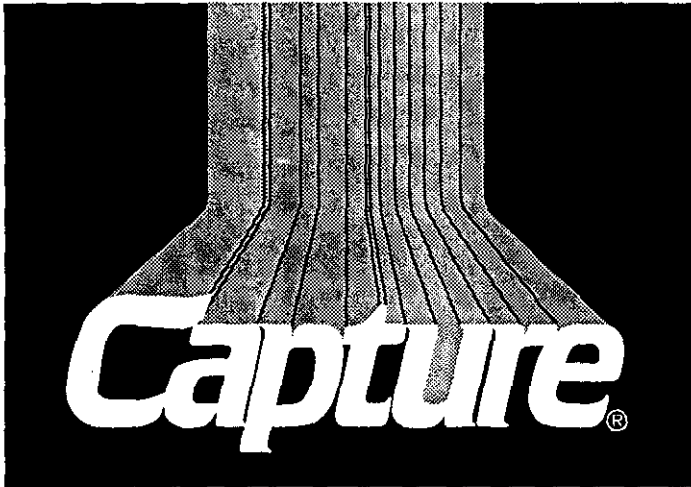
Enclosure

Code 1370

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.

3 of 7
Net Contents



2 EC-CAL
Insecticide/Miticide
For Sale and Use Only in California

EPA Reg. No. 279-3114

EPA Est. 279-

Active Ingredient:	By Wt.
Bifenthrin: (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethyl-cyclopropanecarboxylate*	25.1%
Inert Ingredients:**	74.9%
	100.0%

*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 the label, find someone to explain it to you in detail.)

See other panels for additional precautionary information.

ACCEPTED
with COMMENTS
in EPA Letter Dated

SEP 3 1999

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

279-3114



FMC Corporation
Agricultural Chemical Group
Philadelphia PA 19103

7/99 draft-k

STATEMENT OF PRACTICAL TREATMENT

If swallowed: Get medical attention. Call a Poison Control Center or physician promptly for advice. Describe Precautionary Statements and Note to Physician on the label. Do not induce vomiting unless advised by a physician or qualified medical advisor. Do not give anything by mouth to an unconscious person.

If inhaled: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

If on Skin: Wash with plenty of soap and water. Get medical attention.

If in Eyes: Flush with plenty of water. Call a physician if irritation persists.

Note to Physician:

Pesticide Hotline (800) 858-7378. 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.

For Emergency Assistance Call (800) 331-3148.

PRECAUTIONARY STATEMENTS
Hazards to Humans (and 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:

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 Laminated or Nitrile Rubber or Neoprene Rubber or Viton, 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 Laminated 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.

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. 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 if bees are visiting the treatment area.

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.

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. For applications to sites with restricted entry intervals (REIs) of 7 days or more, notify workers of applications by warning them orally and by posting warning signs at entrances of treated areas.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) listed in the chart below:

Crop	Activity	REI
Eggplant	All	9 days
Beans (for processing only)	All	24 hours
Beans (for fresh market)	All	9 days
Peas (for processing only)	All	24 hours
Peas (for fresh market)	All	9 days
Head, Stem Brassica	All	5 days
Sweet Corn (for processing only)	All	24 hours
Sweet Corn (for fresh market)	All	18 days
Field Corn (Grown for seed)	Detasseling	18 days
Other Crops	All	24 hours

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: Coveralls, Chemical-resistant gloves, 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 redissolve 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. Call FMC: 1-(800)-351-3148.

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.

Special Equipment

The registration of Capture 2 EC-CAL in California requires that the product be used in closed systems that meet the criteria for closed systems as established by the California Department of Food and Agriculture. The criteria and a list of the closed systems meeting the criteria are available through the California Department of Food and Agriculture.

Rotational Crops

Rotational crops may be planted no sooner than 30 days after last application. Straw may not be used for food or feed.

Tank-Mixture

Capture 2 EC-CAL insecticide/miticide may be applied in tank-mixtures with other products approved for use on cotton. Observe all restrictions and precautions which appear on the labels of these products.

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.

CROP	PEST	DOSAGE		REMARKS
		LB A/A	FL OZ/A	
Cotton	European Corn Borer Soybean (Banded) Thrips Tobacco Thrips	0.02-0.1	1.3-6.4	Capture 2 EC-CAL 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.
	Boll Weevil Bollworm Cabbage Looper Cotton Aphid Cotton Fleahopper Cotton Leafperforator Cutworms Fall Armyworm Lygus Spp. Plant Bugs Saltmarsh Caterpillar Southern Garden Leafhopper Stink Bugs Tobacco Budworm Whitefly Yellow Striped Armyworm	0.04-0.1	2.6-6.4	To Control Boll Weevil: Apply Capture 2 EC-CAL 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.
	Beet Armyworm Carmine Spider Mite Pink Bollworm Twospotted Spider Mite	0.06-0.1	3.8-6.4	

Do not apply more than 0.3 pound active per acre per season.
Do not make more than 3 applications 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®, Ammo®, Asana® XL, Baythroid®, Capture®, Danitol®, Karate®, Mustang, Pounce® 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 wing span 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.

For Capture 2 EC-CAL, do not make more than 3 applications per growing season.

Restricted-entry interval 12 hours
Cotton Scouts -- Restricted-entry interval 7 days.

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

PEST	DOSAGE	
	LB A/A	FL OZ/A
Corn Earworm Corn Rootworm Adults European Corn Borer Southwestern Corn Borer Western Bean Cutworm	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 0.2 pound active per acre per season.
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 Capture 2EC-CAL on corn is prohibited in all coastal counties.

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 Capture 2 EC-CAL 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 wide-spread 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.

CANOLA, CRAMBE, RAPESEED

CROP	PEST	DOSAGE		REMARKS
		LB/A/A	FLOZ/A	
Canola Crambe Rapeseed	Aphids Cutworms Diamondback Moth Loopers Other Lepidopterous Larvae Flea Beetle Flea Hopper Grasshopper Plant Bug Stink Bugs Seedpod Weevil Thrips Whitefly Armyworms	0.033 - 0.04	2.1 - 2.6	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. Do not apply more than 0.08 lb active ingredient (5.12 ounces) per acre per season. Do not make applications less than 14 days apart. Do not apply within 35 days of harvest.

EGGPLANT

CROP	PEST	DOSAGE		REMARKS
		LB/A/A	FLOZ/A	
Eggplant	Colorado Potato Beetle Corn Earworm European Corn Borer Flea Beetle Cucumber Beetle Cabbage Looper Tomato Pinworm Tomato Hornworm Vegetable Leafminer Whitefly Armyworms Plant Bug Stink Bug Thrips	0.033 - 0.10	2.1 - 6.4	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. Do not make applications less than 7 days apart. Do not apply more than 0.2 lb active ingredient (12.8 ounces formulated) per acre per season. Do not apply within 14 days of harvest.
	Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus Spp.			0.08 - 0.10

CUCURBITS:

CROP	PEST	DOSAGE		REMARKS
		LB/A/A	FLOZ/A	
Chayote (fruit) Chinese wax-gourd (Chinese preserving melon) Citron melon Cucumber Gherkin Gourd, edible (includes hyotan, cucuzza) (Luffa spp.) (includes hechima, Chinese okra) (Mormonica spp.) (includes balsam apple, balsam pear, bitter melon, Chinese cucumber) Muskmelon (hybrids and/or cultivars of Cucumis melo) (includes true cantaloupe, cantaloupe, casaba, cranshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon) Pumpkin (Cucurbita spp.) Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini) Squash, winter (includes butternut squash, calabaza, Hubbard squash (C. mixta; C. pepo) includes acorn squash, spaghetti squash) Watermelon (includes hybrids and/or varieties of Citrullus spp.)	Aphids Cutworms Cabbage Looper Leafhoppers Cucumber Beetles Squash Bugs Melonworm Pickleworm Plant Bug Stink Bugs Rindworm Squash Vine Borer Armyworms Corn Earworm Tobacco Budworm Grasshopper Whitefly Banks Grass Mite Twospotted Spider Mite Carmine Mite Lygus Spp.	0.04 - 0.10	2.6 - 5.4	Apply in a minimum of 5 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. Do not apply more than 0.3 lb active ingredient (19.2 ounces formulated) per acre per season. Do not make more than two applications after bloom. Do not make applications less than 7 days apart. Do not apply within 3 days of harvest.
		0.08 - 0.10	5.12 - 6.4	

Dealers Should Sell in Original Packages Only.

Terms of Sale or Use: On purchase of this product buyer and user agree to the following conditions:

Warranty: FMC makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Except as so warranted, the product is sold as is. Buyer and user assume all risk of use and/or handling and/or storage of this material when such use and/or handling and/or storage is contrary to label instructions.

Directions and Recommendations: Follow directions carefully. Timing and method of application, weather and crop conditions, mixture with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the seller and are assumed by the buyer at his own risk.

Use of Product: FMC's recommendations for the use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice.

Damages: Buyer's or user's exclusive remedy for damages for breach of warranty or negligence shall be limited to direct damages not exceeding the purchase price paid and shall not include incidental or consequential damages.

Ambush, Cymbush and Karate—Trademarks of ICI Americas Inc.
Asana—Trademark of E.I. duPont de Nemours and Co., Inc.
Baythroid—Trademark of Bayer AG
Scout—Trademark of Hoechst Roussel Agri-Vet Company
U-Turn, Capture, Ammo, Mustang, and **FMC**—Trademarks of FMC Corporation

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