

279-3114

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1/14



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

SEP 23 2008

Christopher Davis
FMC Corp. Agricultural Products Group
1735 Market Street
Philadelphia, PA 19103

Subject: Updated Spray Drift Language for Pyrethroid
Agricultural Use Product as per EPA letter dated February 21,
2008

Dear Mr. Davis:

The Agency is in receipt of your Applications for Pesticide Notification dated July 22, 2008 for the following products:

Capture 2 EC Insecticide/Miticide (EPA Reg. No. 279-3069)
Brigade WSB Insecticide/Miticide (EPA Reg. No. 279-3108)
Capture 2EC-CAL Insecticide/Miticide (EPA Reg. No. 279-3114)
Double Threat CP Insecticide (EPA Reg. No. 279-3257)
Double Threat Insecticide (EPA Reg. No. 279-3271)
Brigade 2EC Insecticide/Miticide (EPA Reg. No. 279-3313)

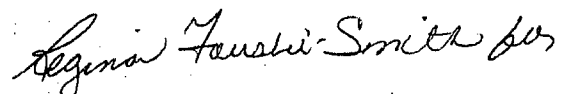
Registration Division (RD) has conducted a review of this request for it applicability under PRN 98-10 and finds that the action(s) requested fall within the scope of PRN 98-10. The labels submitted with the applications has been stamped "Notification" and will be placed in our records.

Note under Buffer Zones "streams" should read "permanent streams" and "ponds" should read "natural ponds". Also, correct spelling of "greated" to "greater" under aerial applications.

2/14

If you have any questions, please call me at (703) 305-6100.

Sincerely,



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

Enclosure

3/14



United States
Environmental Protection Agency
 Washington, DC 20460

Registration
 Amendment
 Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 279-3114	2. EPA Product Manager LaRocca	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Capture 2EC-CAL Insecticide/Miticide	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 NOTIFICATION to: EPA Reg. No. <u>SEP 23 2008</u> 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.)

-Add spray drift language per Agency letter of February 21, 2008

Certification Statement:

I certify that the only changes made on the label are those necessary to comply with EPA's letter of February 21, 2008

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Type of Container <input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* 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
 Label Container

4. Size(s) Retail Container

5. Location of Label Directions

6. Manner in Which Label is Affixed to Product
 Lithograph Paper glued Stenciled Other _____

Section - IV

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

Name Christopher Davis	Title Registration Manager	Telephone No. (Include Area Code) 215-299-6334
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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 Registration Manager	6. Date Application Received (Stamped)
4. Typed Name Christopher Davis	5. Date 8/27/08	

4/14

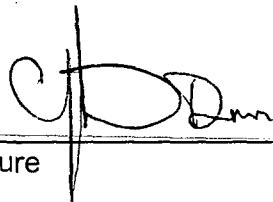
Certification with Respect to Label Integrity

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
279-3114	8/27/08	000279-03114.20080827.SprayDriftNotif.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

8/27/08

Date

Christopher Davis

Name (typed)

Registration Manager

Title

RECEIVED
 U.S. ENVIRONMENTAL PROTECTION AGENCY
 OFFICE OF PESTICIDE REGISTRATION
 WASHINGTON, D.C. 20460
 8/27/08

5/14

FMC Corporation

Agricultural Products Group
1735 Market Street
Philadelphia Pennsylvania 19103
215 299 6000



August 27, 2008

Mr. George LaRocca, PM-13
United States Environmental Protection Agency
Document Processing Desk (AMEND)(E-SUB)
Office of Pesticide Programs (H7504P)
Room S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202

Dear Mr. LaRocca:

**Subject: Capture[®] 2EC-CAL Insecticide/Miticide, EPA Reg. No. 279-3114
Amendment to Label- Updated Spray Drift Language**

FMC is amending the label for the subject product as required under the Agency's letter of February 21, 2008: Updated Spray Drift Language for Pyrethroid Agricultural Use Products.

To support this submission and to process this request, enclosed please find the following:

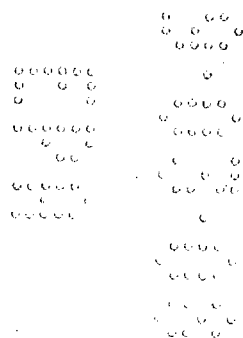
- Completed Application for Pesticide (EPA Form 8570-1) form
- Two copies of the draft labeling, including one with the change hi-lited
- Completed Certification with Respect to Label Integrity form
- A Compact Disk containing the label as amended

Since this amendment is Agency initiated, it is not covered under the EPA's Fee for Service categories for label amendments, and there is no fee required.

FMC trusts that this information is sufficient for the Agency to process this submission. If the Agency has any questions concerning this matter, please feel free to contact me at (215) 299-6334.

Sincerely,

Christopher Davis
Registration Manager, FMC Corporation



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.

NOTIFICATION 6/14

SEP 23 2008



Insecticide/Miticide For Sale and Use Only in California

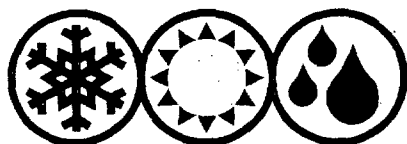
EPA Reg. No. 279-3114

EPA Est. 279-
By Wt.

Active Ingredient:

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



ALL-WEATHER FORMULA

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.

FMC

FMC Corporation
Agricultural Chemical Group
Philadelphia PA 19103

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 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.

If in Eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If on Skin or 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.

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 medical treatment information.

Note to Physician:

This product is a pyrethroid. Contains petroleum distillate - vomiting may cause aspiration pneumonia. 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 Lamine 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 Lamine 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.

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 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)-331-3148.

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

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

Capture 2-EG Insecticide/Miticide 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.

Chemigation Use Directions

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

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 specialists, 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.

Capture[®] 2 EC insecticide/miticide should be applied continuously for the duration of the water application. Capture 2 EC 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.

BUFFER ZONES

Vegetative Buffer Zones

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

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

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

Buffer Zone for Ground Application (groundboom, overhead chemigation, or airblast) – Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

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

Buffer Zone for Non-ULV Aerial Application – Do not apply within 150 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

Spray Drift Requirements

Wind Direction and Speed

Only apply this product if the wind direction favors on-target deposition. Do not apply when the wind velocity exceeds 15 mph.

Temperature Inversion

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

Droplet Size

Use only Medium or coarser spray nozzles (for ground and non-ULV aerial application) according to ASAE (S572) definition for standard nozzles. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size.

Additional Requirements for Ground Applications

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

For ground boom applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy.

For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

Additional Requirements for Aerial Applications

The spray boom should be mounted on the aircraft as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of the wing span or 80% rotor diameter.

Flight speed and nozzle orientation must be considered in determining droplet size.

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

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

BRASSICAS

CROP	PEST	DOSAGE		REMARKS
		LB/A/A	FL OZ. A	
Head and Stem Brassica Vegetables including: Broccoli Chinese Broccoli (gai lon, white flowering broccoli) Brussels Sprouts Cauliflower Cavalo broccolo Kohlrabi Cabbage Chinese Cabbage (napa) Chinese Mustard Cabbage (gai choy)	Cutworms Corn Earworm Saltmarsh Caterpillar Flea Beetles Imported Cabbageworm Whitefly Armyworms Loopers Crickets Diamondback Moth	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.
	Lygus Spp.	0.08 - 0.10	5.12 - 6.4	Do not apply more than 0.5 lb. active ingredient (1 quart) per acre per season. Do not make more than 5 applications after bloom. Do not make applications less than 7 days apart. Do not apply within 7 days of harvest

CANE BERRIES

CROP	PEST	DOSAGE		REMARKS
		LB/A/A	FL OZ. A	
Caneberries including: Blackberries Bingleberries Dewberries Lowberries Marionberries Olallieberries Youngberries Loganberries Raspberries	Leafrollers Orange Tortrix Root Weevils	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 gallons per acre by air and 50 gallons 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.
	Spider Mites	0.10	6.4	

CANOLA, CRAMBE, RAPESEED

CROP	PEST	DOSAGE		REMARKS
		LB/A/A	FL OZ. A	

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Canola Crambe Rapeseed	Cutworms 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.
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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 Mexican Northern Southern Western	.0046 pound active per 1,000 linear feet of row	0.30 fluid ounces per 1,000 linear feet 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 Capture 2EC needs per acre. Apply in a minimum of 3 gallons of finished spray per acre. Mix Capture 2EC 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 Capture 2EC, then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture. Applications of Capture 2EC 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 Capture 2EC 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 0.1 pound 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 pound active per 1,000 linear feet of row	0.15 to 0.30 fluid ounces per 1,000 linear feet of row	
Row Spacings (inches)			40 38 36 30
Capture 2EC (pounds ai per acre)			0.060 0.064 0.069 0.080
Capture 2EC (formulated ounces per acre)			3.9 4.1 4.4 5.12

COTTON

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. 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.
	Boll Weevil Bollworm Cabbage Looper Cotton Aphid Cotton	0.04-0.1	2.6-6.4	
Cotton	Fleahopper Cotton Leafperforator Cutworms Fall Armyworm Lygus Spp. Plant Bugs Saltmarsh Caterpillar Southern Garden Leafhopper Stink Bugs Tobacco Budworm Whitefly Yellow Striped Armyworm			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®, Danito®, Karate®, Mustang, Pounce® and Scout® X-TRA.

10/14

Field Corn (Grain and Silage), Popcorn, Field Corn Grown For Seed (FOLIAR USE)

PEST	DOSAGE	
	LB/AI/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 Leafhopper Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug Thrip 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 0.2 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 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 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.

**SWEET CORN
SWEET CORN GROWN FOR SEED (AT PLANT USE)**

PEST	DOSAGE		REMARKS	
	LB/AI/A	FL OZ.A		
Corn Rootworm Larvae Mexican Northern Southern Western	.0046 pound active per 1,000 linear feet of row	0.30 fluid ounces per 1,000 linear feet 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 Capture 2EC needs per acre. Apply in a minimum of 3 gallons of finished spray per acre. Mix Capture 2EC 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 Capture 2EC, then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture. Applications of Capture 2EC 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 Capture 2EC 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 0.1 pound 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 pound active per 1,000 linear feet of row	0.15 to 0.30 fluid ounces per 1,000 linear feet of row		
Row Spacings (inches)	40	38	36	30
Capture 2EC (pounds ai per acre)	0.060	0.064	0.069	0.080
Capture 2EC (formulated ounces per acre)	3.9	4.1	4.4	5.12

**SWEET CORN
SWEET CORN GROWN FOR SEED**

PEST	DOSAGE	
	LB/AI/A	FL OZ.A
Aphids Army Cutworm Aster leafhopper Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Corn Silkfly Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Leafhopper Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug Thrip True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2.1-6.4
Banks Grass Mite Carmine Mite Pacific Spider Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4

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RESTRICTIONS—Sweet Corn

Do not apply more than 0.2 pounds 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 Capture 2EC on corn 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 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 Capture 2EC-CAL 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.

CUCURBITS:

CROP	PEST	DOSAGE		REMARKS
		LB/A/A	FL OZ./A	
Chayote (fruit)	Aphids	0.04 - 0.10	2.6 - 6.4	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.
Cutworms	Cabbage			
Chinese waxgourd (Chinese preserving melon)	Looper	0.08 - 0.10	5.12 - 6.4	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.
Citron melon	Leafhoppers			
Cucumber	Beetles			
Gherkin	Squash Bugs			
Gourd, edible (includes hyotan, cucuzza) (Luffa spp.) (includes hecchima, Chinese akra) (Momordica spp.) (includes balsam apple, balsam pear, bitter melon, Chinese cucumber)	Armyworms			
Muskmelon (hybrids and/or cultivars of Cucumis melo) (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon)	Melonworm			
Pumpkin (Cucurbita spp.)	Pickleworm			
Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini)	Plant bug			
Squash, winter (includes butternut squash, calabaza, hubbard squash (C. mixta; C. pepo) includes acorn squash, spaghetti squash)	Stink Bugs			
Watermelon (includes hybrids and/or varieties of Citrullus spp.)	Rindworm			
	Squash Vine Borer			
	Com			
	Earworm			
	Tobacco			
	Budworm			
	Grasshopper			
	Whitely			
	Twospotted Spider Mite			
	Carmine			
	Mite			
	Banks Grass Mite			
	Lygus spp.			

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. Application by ground: Apply a full cover spray in a minimum of 75 gallons of finished spray per acre. Application by air: Apply specified dosage in a minimum of 10 gallons per acre. A 5-day preharvest interval must be observed.

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LETTUCE, HEAD

PEST	DOSAGE		REMARKS
	LB/AI/A	FL OZ.A	
Aphids Armyworms Cabbage Maggot Corn earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Grasshopper Imported Cabbageworm Leafhoppers Loopers Salt Marsh Caterpillar Stink bug Spp. Thrips Tobacco Budworm Whitefly	0.033 to 0.10	2.1 to 6.4	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. Thorough coverage is essential to achieve control. Do not make applications less than 7 days apart.
Lygus Spp. Carmine Mite Two Spotted SpiderMite	0.08 to 0.10	5.12 to 6.4	A maximum of 0.5 lb. active ingredient may be applied per acre per season. Do not apply within 7 days of harvest.

PEPPERS, BELL AND NON-BELL

PEST	DOSAGE		REMARKS
	LB/AI/A	FL OZ.A	
Aphids Armyworms Corn earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafhoppers Leafminers Loopers Pepper Weevil Stink bug spp Tobacco budworm Thrips Whitefly	0.033 to 0.1	2.1 to 6.4	Apply using sufficient water to obtain uniform coverage. Apply as needed. Apply with ground equipment using a minimum of 10 gallons of finished spray per acre or a minimum of 2 gallons per acre by aircraft. Do not make applications less than 7 days apart.
Lygus Spp. Broad Mite Carmine Mite Two Spotted Spider Mite	0.08 to 0.10	5.12 to 6.4	Do not apply more than 0.20 pound active ingredient per acre per season. Do not apply within 7 days of harvest.

SUCCULENT PEAS AND BEANS

CROP	PEST	DOSAGE		REMARKS
		LB/AI/A	FL OZ.A	
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 Yardlong bean Jackbean Soybean (immature seed) Sword bean	Flea Beetle Grasshoppers Aster Leafhopper Leafhoppers Aphids Beet Armyworm Fall Armyworm Southern Armyworm Yellowstriped Armyworm Bean Leaf Beetle Cucumber Beetles Japanese beetle Adult Sap Beetle Plant Bug Stink Bugs Tarnished Plant Bug Alfalfa Caterpillar Cloverworm European Corn Borer Cutworms Western Bean Cutworm Corn Earworm Loopers Corn Rootworm Adult Thrips Webworms Pea Weevil Pea Leaf Weevil Whitefly	0.025 - 0.10 0.033 - 0.10 0.08 - 0.10	1.6 - 6.4 2.1 - 6.4 5.12 - 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 apply more than 0.2 lb. active ingredient (12.8 ounces formulated) per acre per season. Do not apply within 3 days of harvest.
	Banks Grass Mite Twospotted Spider Mite Carmine Mite Lygus Sp	0.08 - 0.10	5.12 - 6.4	

EGGPLANT

CROP	PEST	DOSAGE		REMARKS
		LB/AI/A	FL OZ.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 9 days of harvest.
	Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus Spp.	0.08 - 0.10	5.12 - 6.4	

HOPS

PEST	DOSAGE		REMARKS
	LB/AI/A	FL OZ.A	
Aphids Armyworms Cutworms Leafrollers Loopers	0.06 to 0.1	3.8 to 6.4	Do not exceed 0.1 lb ai per acre per application. Do not exceed 0.3 lb ai per acre per season.
Root Weevils	0.05 to 0.1	3.2 to 6.4	A spray interval of 21 days between applications must be maintained.
Twospotted spider mite	0.1	6.4	A 14 day pre-harvest interval must be observed. Application by ground: For best results, full coverage is essential. Early season recommend 100-150 gallons of spray per acre. Late season recommend 200-250 gallons of spray per acre. For Root Weevil control, make a directed spray to the base of the plant. Spray up the vine 3 feet and the soil surface 1.5 to 2 feet on either side of the plant. Application by air for late season control of twospotted spider mites: Apply no less than 6.4 oz. (0.1 lb ai) per application in a minimum of 10 gallons per acre. Use of ultra low volume (ULV) application on hops is prohibited.

PEARS

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 to 0.2	2.6 to 12.8	<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 per acre by air.</p> <p>Do not apply more than 0.5 pound active per acre per season with no more than 0.45 pound active per acre applied after petal fall. Apply as necessary to maintain control using a minimum of 30 day spray interval. Apply up to 14 days prior to harvest. Do not graze livestock in treated orchards or cut treated cover crops for feed.</p>
Twospotted Spider Mite Yellow Mite	0.06 to 0.2	8.8 to 12.8	
European Red Mite	0.08 to 0.2	5.12 to 12.8	

CITRUS (1 day phi)

Insects Controlled	Rate of Application	Method of Application
<p><i>Diaprepes Root Weevil</i> (<i>Diaprepes abbreviatus</i>) Fire ants Asian cockroach</p>	16 - 32 ounces (0.25 - 0.50 pound active) per acre	<p>Apply to individual citrus resets, when not in solid planted rows, using hand-gun or shielded sprayer.</p> <p>Peak emergence of <i>Diaprepes root weevil</i> generally occurs in the spring. Depending on weather conditions, a minor emergence of <i>Diaprepes root weevil</i> may also occur in the fall.</p> <p>If the citrus grove to be treated is in an area where weather conditions are conducive to primary emergence occurring in the spring, 32 fluid ounces formulated product should be used to obtain the longest residual management of <i>Diaprepes root weevil</i>.</p> <p>If the citrus grove to be treated is in an area where weather conditions will promote more than one peak of pest emergence, 16 fluid ounces formulated product can be applied early season and 16 fluid ounces formulated product can be applied later in the season.</p> <p>If emergence extends beyond the residual protection of Capture 2EC, 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.</p>

Do not apply through irrigation systems.
Do not allow any application of Capture 2EC to contact fruit or foliage.
Do not apply more than a total of 32 fluid ounces of formulated product (0.5 lb. a.i.) per acre per year.
Apply the specified doseage in a minimum of 30 gallons of finished spray per acre.
Ground application only. Do not apply by air.

TOMATOES (1 day phi)

Insects Controlled	Rate of Application	Method of Application
<p>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 Marsh Caterpillar Sap Beetle Seedpod Weevil Squash Bugs Stink bug Spp. Tobacco Budworm Tarnished Plant Bug Thrips Two Spotted Spider Mite Whitefly</p>	2.1 - 5.2 fluid ounces (0.033 - 0.08 pound active) per acre.	<p>Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment.</p> <p>Thorough coverage is essential to achieve control.</p>
<p>Do not make applications less than 10 days apart. A maximum of 4 applications may be applied per season.</p>		

SPINACH (40 day phi)

Insects Controlled	Rate of Application	Method of Application
<p>Colorado Potato Beetle Tomato Pinworm Tomato Hornworm Armyworms Corn earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Whitefly</p>	2.1 to 6.4 ounces (0.033 to 0.10 pound active) per acre	<p>For control of whiteflies apply foliar treatments of Capture® insecticide 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.</p> <p>For control of fire ants apply Capture® insecticide 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.</p> <p>Apply the specified dosage in 5-50 gallons of finished spray per acre by air or 10-50 gallons finished spray per acre by ground.</p>
<p>Broad Mite Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus Spp. Fire Ants</p>	5.12 to 6.4 ounces (0.08 to 0.10 pound active) per acre	
<p>Do not make applications less than 7 days apart. Do not apply more than 0.4 pounds active ingredient per acre per season.</p>		

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