



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

SEP 2 3 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.

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

Please read instructions on reverse before completing form

United States

Registration
Amendmen

Form Approved. OMB No. 2070-0060. Approval expires 2-28-95

OPP Identifier Number

<b>\$EPA</b>	Environmental Protection Agency  Washington, DC 20460  ✓			Amenda Other	ment			
		Application	on for Pesticid	e - Sectio	n I			
1. Company/Product Numbe 279-3069			2. EPA-Po LaRocc	roduct Manager a	<b>.</b>	3. Pr	oposed Classification	
4. Company/Product (Name) Capture 2EC Insecticid	ompany/Product (Name) pture 2EC Insecticide/Miticide  PM#  13							
5. Name and Address of Applicant (Include ZIP Code)  FMC Corporation 1735 Market Street Philadelphia, PA 19103  Check if this is a new address  6. Expedited Reveiw. I (b)(i), my product is similate: EPA Reg. No.  Product Name				milar or iden	tical in co			
		<del></del>	Section - II					
Notification - Explain	onse to Agency letter below.			Final printed lab Agency letter d "Me Too" Appli Other - Explain	ated cation.		CATION 2 3 2008	
Explanation: Use addition -Add spray drift language per Certification Statement: I certify that the only changes	Agency letter of Februa	ary 21, 2008	ry to comply with EPA		ary 21, 2008	, s. s. s. <del>s</del>		
			Section - III					
1. Material This Product Will Child-Resistant Packaging Yes No * Certification must be submitted	Unit Packaging Yes No If "Yes" Unit Packaging wgt.	No. per conteiner	Water Soluble Pace Yes No If "Yes" Package wgt	ckaging No. per container	2. Type of	Container  Metal Plastic Glass Paper Other (S	pecify)	
	ontainer	4. Size(s) Ret			ocation of Lat	pel Directio	ns	
6. Manner in Which Label is	Affixed to Product	Lithog Peper Stenci	glued led	Other				
	<del></del>		Section - IV			**********	***************************************	
1. Contact Point (Complete	items directly below fo	or identificatio	n of individual to be	contacted, if ne	cessary, to pr	ocess this	application.)	
Name Title Christopher Davis Regi			Title Registration Mana	stration Manager			Telephone No. (Include Area Code) 215-299-6334	
	ments I have made on y knowlinglly false or r lew.		all attachments there				6. Date Application Received (Stamped)	
2. Signature	Du		3. Title  Registration Manage	er		( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (		
4. Typed Name Christopher Davis  5. Date  \$\langle \langle \la								

### **FMC Corporation**

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

August 27, 2008

**5**MC

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<sup>®</sup> 2EC Insecticide/Miticide, EPA Reg. No. 279-3069 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 those uses covered by the certified applicator's certification.

# **CAPTURE 2EC**

# Insecticide/Miticide

NOTIFICATION

SEP 2 3 2008

CAPTURE 2EC IS NOT FOR SALE OR USE IN CALIFORNIA.

EPA Reg. No. 279-3069

EPA Est. No. 279-

Active Ingredient:	By Wt.	(
Bifenthrin: (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-	6166 6 6 6 6	t
2.2-dimethyl-cyclopropanecarboxylate*	25.1%	((((
Other Ingredients:**	<u>74.9%</u> 100.0%	£ {
**Cis isomers 97% minimum, trans isomers 3% maximum.	100.078 - ( t e - ( t e	်ငင်နှင့်
**Contains xylene range aromatic solvents.  This product contains 2 pounds active ingredient per gallon.  U.S. Patent No. 4,238,505		, ccce

#### **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.

#### **FIRST AID**

**If Swallowed:** Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person.

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

For Emergency Assistance Call (800) 331-3148.

FMC Corporation Agricultural Products Group Philadelphia, PA 19103 **Net Contents:** 

6/18

#### 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 Laminate 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 Laminate or Nitrile Rubber or Neoprene Rubber or Viton, shoes plus socks, and protective eyewear. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### **User Safety Recommendations**

Users should:

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

# **Environmental Hazards**

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

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

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

# Physical/Chemical Hazards

Do not use or store near heat or open flame.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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

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

# 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.

## **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.

# **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 EC 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.

Cultivation within 10 feet of a water body is prohibited to allow for the growth of a vegetated filter strip. In New York State this product may not be applied within 100 feet (using ground equipment) to 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

#### **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. <a href="http://www.in.nrcs.usda.gov/technical/agronomy/newconbuf.pdf">http://www.in.nrcs.usda.gov/technical/agronomy/newconbuf.pdf</a>.

**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 (\$572) 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 greated 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.

#### COTTON

	T .	DOS	SAGE
CROP	PEST	LB AI/A	FL OZ/A
Cotton	European Corn Borer Soybean (Banded) Thrips Tobacco Thrips	0.02-0. 10	1.3-6.4
	Boll Weevil Bollworm Cabbage Looper Cotton Aphid Cotton Fleahopper Cotton Leafperforator Cutworms Fall Armyworm Plant Bugs Saltmarsh Caterpillar Southern Garden Leafhopper Stink Bugs Tobacco Budworm Whitefly Yellow Striped Armyworm	0.04-0.10	2.6-6.4
	Beet Armyworm Carmine Spider Mite Lygus Species Pink Bollworm	0.06-0.10	3.8-6.4
	Twospotted Spider Mite	<u> </u>	

#### RESTRICTIONS—Cotton

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

Do not apply within 14 days of harvest.

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

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

REMARKS—Cotton Capture 2 EC 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 Capture 2 EC 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 Capture 2 EC at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels.

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

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

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

		DOS	AGE	
		LB AI/1000	FL OZ	1
		- · linear row	⁻/1000 linear	
CROP	PEST	feet	row feet	REMARKS
Field Corn (Grain and Silage) Popcorn Field Corn Grown For Seed	Northern Corn Rootworm Larvae Southern Corn Rootworm Larvae Western Com Rootworm Larvae	0.0046	0.30	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
	Army Cutworm Armyworm Species Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm Wireworm	0.0023 - 0.0046	0.15-0.30	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 before tank mixing with appropriate ratio of Capture 2EC and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained in the spray tank 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.

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

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

		DO	SAGE	
CROP .	PEST	LB AI/A	FL OZ/A	REMARKS
Field Corn (Grain and Silage) Popcorn Field Corn Grown For Seed	Armyworm Species Black Cutworm Seedcorn Maggot Stalkborer White Grub Wireworm	0.047-0.062 Pre-Plant Incorporated (PPI)	3-4 Pre-Plant Incorporated (PPI)	The 3- 4oz/A rate must be applied as PPI and can be tank mixed and applied with PPI herbicides. Incorporation of Capture should not be any deeper than the intended planting depth and no deeper than 3 inches total. Incorporation depth should be designed to place Capture close to the seed planting depth.
	Armyworm Species Black Cutworm Stalkborer	0.040 Pre- Emergence (PRE)	2.56 Pre- Emergence (PRE)	The 2.56 oz/A rate may be applied PRE and can be tank mixed and applied with PRE herbicides.

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

		DC	SAGE
CROP	PEST	LB Al/A	FL OZ/A
 Field Corn (Grain and Silage) Popcorn Field Corn Grown For Seed	Aphids Army Cutworm Armyworm Species Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adults Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2-1-6:4
	Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4

#### RESTRICTIONS—Corn

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

Do not apply within 30 days of harvest.

Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application. Use of ultra low volume (ULV) application on corn is prohibited.

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

Use of 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 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, Arizona: Apply in a minimum of 5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment. SWEET CORN (GRAIN AND SILAGE) SWEET CORN GROWN FOR SEED (AT PLANT USE)

		DOS	SAGE	
CROP	PEST	LB Al/1000 linear row feet	FL OZ /1000 linear.row	REMARKS
Sweet Corn Sweet Corn grown for seed	Northern Corn Rootworm Larvae Southern Corn Rootworm Larvae Western Corn Rootworm Larvae	0.0046	0.30	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.
	Army Cutworm Armyworm Species Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm Wireworm	0.0023 - 0.0046	0.15-0.30	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.

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

		DC	SAGE
CROP	PEST	LB AI/A	FL OZ/A
Sweet Corn Sweet Corn grown for seed	Aphida— Army Cutworm Armyworm Species Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2.1-6.4
	Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4

#### **RESTRICTIONS—Sweet Corn**

Do not apply more than 0.2 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 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 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.

# SUCCULENT PEAS AND BEANS

		DOS	AGE	
CROP	PEST	LB/AI/A	FL OZ/A	REMARKS
Pea (Pisum Species):	Aster	0.025-0.10	1.6-6.4	Apply in a minimum of 2 gallons
Dwarf pea,	Flea Beetle			of finished spray per acre by air
Edible-pod pea,	Grasshoppers	1	}	or in a minimum of 10 gallons
English pea,	Leafhopper			per acre with ground
Garden pea,	Leafhoppers			equipment. When applying by
Green pea,				air, 1-2 quarts of emulsified oil
Snow <sup>t</sup> pea,	Adult Sap Beetle	0.033-0.10	2.1-6.4	may be substituted for 1-2
Sugar snap pea	Alfalfa Caterpillar			quarts of water in the finished
Pigeon pea	Aphids			spray. Thorough coverage is
Bean (Phaseolus Species):	Bean Leaf Beetle			essential to achieve control.
Broadbean (succulent)	Beet Armyworm			
Lima Bean (green)	Cloverworm			Do not apply more than 0.2 lb.
Runner bean,	Corn Earworm			active ingredient (12.8 ounces
Snap bean,	Corn Rootworm Adult			formulated) per acre per
Wax Bean	Cucumber Beetles			season.
Bean (Vigna Species):	Cutworms	· .		
Asparagus bean,	European Corn Borer			Do not apply within 3 days of
Blackeyed pea	Fall Armyworm	1	)	harvest.
Chinese longbean,	Japanese beetle			
Cowpea,	Loopers			
Moth bean,	Pea Leaf Weevil	i		
Southern pea	Pea Weevil			
Yardiong bean	Plant Bug		·	
Jackbean	Southern Armyworm			
Soybean (immature seed)	Stink Bugs			
Sword bean	Tarnished Plant Bug			
	Thrips Webworms			•
	Western Bean Cutworm			
	Whitefly			
	Yellowstriped Armyworm			
	renowstriped Annyworth			1
	Banks Grass Mite	0.08-0.10	5.12-6.4	
	Carmine Mite	0.00 0.70	0.12.0.4	
	Lygus Species			
	Twospotted Spider Mite			}
		1	<u> </u>	1

# **BRASSICAS**

		DOS	AGE	
CROP _	PEST	LB/AI/A	FL OZ/A	REMARKS
Head and Stem Brassica Vegetables including: Broccoli Chinese Broccoli (gailon, white flowering broccoli) Brussels Sprouts Cauliflower Cavalo broccolo Kohlrabi Cabbage Chinese Cabbage (napa) Chinese Mustard Cabbage (gai choy)	Aphids Armyworm Species Budworm Corn Earworm Crickets Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Ground Beetles Imported Cabbageworm Leafhoppers Loopers Saltmarsh Caterpillar Stink Bugs Thrips Tobacco Whitefly Wireworm (adults)	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 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.
	Banks Grass Mite Carmine Mite Lygus Species Pacific Spider Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	Do not apply within 7 days of harvest.

CANOLA, CRAMBE, RAPESEED

	DOSA	AGE	
PEST	LB/AI/A	FL OZ/A	REMARKS
Aphids	0.033-0.04	2.1-2.6	Apply in a minimum of 2 gallon
Armyworm Species	ŀ		of finished spray per acre by ai
Cutworms			or in a minimum of 10 gallons
Diamondback Moth	•		per acre with ground
Flea Beetle	1		equipment. When applying by
Flea Hopper	•		air, 1-2 quarts of emulsified oil
	•		may be substituted for 1-2
			quarts of water in the finished
Lepidopterous	'		spray. Thorough coverage is
1 ' '			essential to achieve control.
	• 1		
	•		Do not apply more than 0.08 I
			active ingredient (5.12 ounces
• • •			per acre per season.
· · · · · · · · · · · · · · · · · · ·	•		por doro por obdoorn
		•	Do not make applications less
, ,	•		than 14 days apart.
			man 14 days apart.
varintena	1		Do not apply within 35 days of
	1		harvest.
	Aphids Armyworm Species Cutworms Diamondback Moth	PEST  LB/Al/A  Aphids Armyworm Species Cutworms Diamondback Moth Flea Beetle Flea Hopper Grasshopper Larvae Lepidopterous Loopers Moth Other Plant Bug Seedpod Stink Bugs Thrips Weevil	Aphids Armyworm Species Cutworms Diamondback Moth Flea Beetle Flea Hopper Grasshopper Larvae Lepidopterous Loopers Moth Other Plant Bug Seedpod Stink Bugs Thrips Weevil

# **CUCURBITS**

		DOS	AGE	•
CROP	PEST	LB/AI/A	FL OZ/A	REMARKS
Chayote (fruit) Chinese waxgourd (Chinese preserving melon) Citron melon Cucumber Gherkin Gourd, edible (includes hyotan, cucuzza) (Luffa Species) (includes hechima, Chinese okra) (Momordica Species) (includes balsam apple, balsam pear, bitter melon, Chinese cucumber) 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	Aphids Armyworms Beetles Budworm Cabbage Looper Corn Earworm Cucumber Cutworms Grasshopper Leafhoppers Melonworm Pickleworm Plant Bug Rindworm Squash Bugs Squash Vine Borer Stink Bugs Tobacco	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.  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.
Claus melon, and snake melon) Pumpkin (Cucurbita Species) 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 Species).	Banks Grass Mite Carmine Mite Lygus Species Twospotted Spider Mite Whitefly	0.08-0.10	5.12-6.4	Do not make applications less than 7 days apart.  Do not apply within 3 days of harvest.

LETTUCE, HEAD

	•	DOS	AGE	
CROP	PEST	LB/AI/A	FL OZ/A	REMARKS
Lettuce, Head	Aphids Armyworms Corn earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Imported Cabbageworm Leafhoppers Loopers Salt Marsh Caterpillar Stink bug Species Tobacco Budworm Whitefly Carmine Mite Lygus Species Twospotted Spider Mite	0.033-0.10	5.12-6.4	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.  A maximum of 0.5 lb. active ingredient may be applied per acre per season.  Do not apply within 7 days of harvest.

# **CANEBERRIES**

		DOS	AGE	
CROP	PEST	LB/AI/A	FL OZ/A	REMARKS
Caneberries Including: Blackberries Bingleberries	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
Dewberries Lowberries Marionberries Olallieberries Youngberries Loganberries Raspberries	Raspberry Crown Borer Spider Mites	0.10	6.4	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.
				For Crown Borer, apply 0.1 lb ai/a post harvest (fall) or pre-bloom (spring), as a drench application directed at the crown of plants in a minimum of 200 gallons water/ acre. Greater efficacy is observed at higher water gallonages (up to 400 gallons/a) or in an application prior to a significant rainfall event. Do not make both pre-bloom foliar and pre-bloom drench applications.
				Do not apply within 3 days of harvest.
				Do not exceed 0.2 lb ai per acre per season.

# **ARTICHOKE**

		DOS	AGE	
CROP	PEST	LB/AI/A	FL OZ/A	REMARKS
Artichoke	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.  Do not exceed 0.5 lb ai per acre per season. A 5-day preharvest interval must be observed.

# HOPS'

•		DOS	AGE	
CROP	PEST	LB/AI/A	FL OZ/A	REMARKS
Hops	Aphids Armyworms Cutworms Leafrollers	0.06-0.10	3.8-6.4	Do not exceed 0.1 lb ai per acre per application:  Do not exceed 0.3 lb ai per acre per season.
	Loopers			A spray interval of 21 days between applications must be maintained.
	Root Weevils	0.05-0.10	3.2-6.4	A 14-day pre-harvest interval must be observed.
÷	Twospotted spider mite	0.10	6.4	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**

		DOS	AGE	
CROP	PEST	LB/AI/A	FL OZ/A	REMARKS
Pears	Aphids Codling Moth Cutworms Green Fruitworm Leafnoppers Leafminers Leafrollers Lygus Species Plant Bugs Plant Bugs Plum Curculio San Jose Scale (Crawlers) Stink Bugs Tarnished	0.04-0.20	2.6-12.8	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.  Application by air: Apply the specified dosage in a minimum of 10 gallons per acre by air.  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.
	Yellow Spider Mite	0.06-0.20	3.8-12.8	Apply up to 14 days prior to harvest.
	Twospotted Spider Mite European Red Mite	0.08-0.20	5.12-12.8	Do not graze livestock in treated orchards or cut treated cover crops for feed.

# CITRUS

CROP	PEST	DOS	AGE FL OZ/A	REMARKS
Citrus	Blue Green Citrus Root	LB/AI/A 0.25-0.50	16-32	Apply Capture 2EC by ground equipment to bare soil beneath citrus
- 8 -	Weevil Brown Leaf Notcher Diaprepes Root Weevil Citrus Root Weevil			trees. Capture 2EC must be uniformly applied from the trunk to the drip line of tree; apply in a minimum of 40 gallons of dilute spray per acre.  Greater spray volume should insure greater uniformity of coverage.
6	Little Leaf Notcher			A pre- and post-application irrigation may aid in the uniformity of coverage as well.
•	Asian cockroach	0.40.0.05	0.4.16	Capture 2EC protects citrus tree roots from Diaprepes and other citrus root weevil feeding by forming a barrier which provides contact activity on newly hatched larvae (neonates). As citrus root weevil eggs hatch in new foliage, neonates fall to the soil surface beneath the tree and come in contact with Capture 2EC as they attempt to burrow into the root zone. Disturbance of the soil beneath trees should be minimized.
	Fire ants	0.10-0.25	6.4-16	Timing of Capture 2EC applications is critical. Current information suggests that peak emergence of adult Diaprepes Weevil varies by citrus growing region and these emergence peaks can be dramatically affected by environmental factors, such as soil moisture. Typically, two peaks are observed for Diaprepes, first in spring then late summer or early fall. Citrus Root Weevils and Fuller Rose Beetle typically exhibit a single emergence peak in the spring. Brown and Little Leaf Notchers typically exhibit three emergence peaks, spring, summer and fall. Since emergence varies seasonally and by location, timing of Capture 2EC application can be accurately forecast by observing adults. Adults are most active early morning and late afternoon; numbers can be estimated by trapping throughout spring and summer (emergence periods). Egg laying will occur for 8 to 10 weeks following adult emergence from the soil; larval invasion of the soil will begin 2-3 weeks following adult emergence. It is critical to have the Capture 2EC soil barrier in place prior to drop of the neonates.
				Capture 2EC is one of several effective tools in an integrated pest management program for Citrus Root Weevils. Application of Capture 2EC should be used in conjunction with good cultural practices, biological control of larvae and foliar control of adults. Consult local university extension personnel for current information to protect citrus trees from Citrus Root Weevils and other pests.
	·			Additional Instructions: Apply to individual citrus resets, when not in solid planted rows, using hand-gun or shielded sprayer.
				Do not apply within 1 day of harvest.
				Peak emergence of Diaprepes root weevil generally occurs in the spring. Depending on weather conditions, a minor emergence of Diaprepes root weevil may also occur in the fall.
				If the citrus grove to be treated is in an area where weather conditions are conducive to primary emergence occurring in the spring, 32 fluid ounces formulated product should be used to obtain the longest residual management of Diaprepes root weevil. If the citrus grove to be treated is in an area where weather conditions will promote more than one peak of pest emergence, 16 fluid ounces formulated product can be applied early season and 16 fluid ounces formulated product can be applied later in the season.
				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 dosage in a minimum of 40 gallons of finished spray per acre.
				Ground application only. Do not apply by air.

Spinach	S	ia	na	ac	h
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Эріпасп		DOSA	\GE	
CROP	PEST	LB/AI/A	FL OZ/A	REMARKS
Spinach	Colorado Potato Beetle Tomato Pinworm Tomato Hornworm Armyworms Corn earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Whitefly	0.033-0.10	2.1-6.4	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.  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.
	Broad Mite Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus species Fire Ants	0.08-0.10	5.12-6.4	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.

## **GRAPES**

		DOS	AGE	
CROP	PEST	LB/Al/A	FL OZ/A	REMARKS
Grapes	Cutworms Eastern grape leafhopper Grape berry moth Japanese beetles adults Variegated leafhopper Western grape leafhopper	0.05-0.10	3.2-6.4	Apply in a minimum of 10 gallons of finished spray by air or in a minimum of 25 gallons of finished spray with ground equipment.  When applying by air, 1 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray.
	Black vine weevil Glassywinged sharpshooter Twospotted spider mite	0.10	6.4	Thorough coverage is essential to achieve control.  When pest pressure is moderate to severe, use higher rate.  Do not apply more than 0.10 lb ai per acre per season.  Do not apply within 30 days of harvest.

# **OKRA**

CROP		DOS		
	PEST	LBS AI/A	FL OZ/A	REMARKS
Okra	Aphids Armyworms Corn earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Japanese Beetle (Adult), Stink bugs Leafminers Loopers Thrips Whitefly	0.033-0.10	2.1-6.4	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.

Broad Mite Carmine Mite Lygus Species Twospotted Spider Mite	0.08-0.10	5.12-6.4	Do not apply more than 0.20 pound active ingredient per acre per season.
			Do not apply within 7 days of harvest.

CILANTRO, CORIANDER

	L	DOS	AGE '	
CROP	PEST	LBS AI/A	FL OZ/A	REMARKS
Cilantro Coriander	Aphids Beet Armyworm Cabbage Looper Cutworm Flea beetle Grasshoppers Leafminer Saltmarsh caterpillar Spotted Cucumber Beetle Thrips Whitefly	0.033-0.10	2.1-6.4	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.  Do not apply more than 0.50 pound active
	Twospotted Spider Mite	0.08-0.10	5.12-6.4	ingredient per acre per season.  Do not apply within 3 day of harvest.

**DRIED BEANS AND PEAS** 

		DC	SAGE	
CROP	PEST	LBS AI/A	FL OZ/A	REMARKS
Dried cultivars of: Bean (Lupinus) Bean (Phaseolus) Field bean Kidney bean Lima bean (dry)	Aster Flea Beetle Grasshoppers Leafhopper Leafhoppers	0.025-0.10	1.6-6.4	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
Navy bean Pinto bean Tepary bean Bean (Vigna) Adzuki bean Blackeyed pea Catjang Cowpea Crowder pea Moth bean Mung bean Rice bean Southern pea Urd bean Broad bean (dry) Chickpea Guar Lablab bean Lentil Pea (Piscum) Field pea Pigeon pea	Alfalfa Caterpillar Aphids Bean Leaf Beetle Beet Armyworm Cloverworm Corn Earworm Corn Rootworm Adult Cucumber Beetles Cutworms European Corn Borer Fall Armyworm Imported cabbageworm Japanese Beetle Adult Leafminer Loopers Pea Leaf Weevil Pea Weevil Plant Bug Saltmarsh caterpillar Sap Beetle Southern Armyworm Stink Bugs Tarnished Plant Bug Thrips Tobacco budworm Webworms Western Bean Cutworm Whitefly Yellowstriped Armyworm	0.033-0.10	2.1-6.4	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) to peas, or 0.3 lb. active ingredient (19.2 ounces formulated) to beans per acre per season.  Do not apply within 14 days of harvest.

Banks Grass Mite Carmine Mite Lygus Species Twospotted Spider Mite	0.08-0.10	5.12-6.4	
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•		DOS	AGE	
, ` CROP	PEST	LBS AI/A	FL OZ/A	REMARKS
Brogoli Raab Bok Choy Collards Kale Mizuna Mustard Greens Mustard Spinach Rape Greens	Aphids Armyworm Species Beetles Budworm Cabbageworm Caterpillar Corn Earworm Crickets Cucumber Cutworms Diamondback Flea Beetles Grasshoppers Ground Beetles Imported Japanese Beetle (adult) Leafhoppers Loopers Moth Saltmarsh Stink Bugs Thrips Tobacco Whitefly Wireworm (adults)	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. Wher 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 0.4 lb. active ingredier per acre per season.  Do not make applications less than 7 days apart.  Do not apply within 7 days of harvest
	Banks Grass Mite Carmine Mite Lygus Species Pacific Spider Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	

**TUBEROUS AND CORM VEGETABLES** 

Γ	CROP	PEST	DOSAGE		REMARKS
			LBS AI/A	FL OZ/A	

Potato	Corn wireworm	0.30	19.2		Capture may be applied as an in-furrow
Sweet potato Arracacha	Tobacco wireworm	(at-plant)	(at-plant)	l	planting time treatment for the control of wireworms, rootworms and white grubs. Apply
Arrowroot			ļ		Capture at the rate of 0.3 pounds active per
Chinese artichoke	Southern potato	0.05 to 0.15	3.2 to 9.6	- 1	acre as an in-furrow spray or T-band spray at
Jerusalem artichoke	wireworm Japanese beetle grubs	- (lay-by)	(lay-by)	3	planting time.
Edible canna Cassava (bitter and	June beetle				Capture may be applied as a lay-by treatment
sweet)	Sweetpotato flea beetle	0.033 to	2.1 to 6.4	i	for the control of wireworms, rootworms and
Chayote (root)	Cucumber beetle	0.10	(foliar)		white grubs. Apply Capture to the drill area and
Chufa	Sweetpotato weevil Banded Cucumber	(foliar)			cover with soil utilizing cultivation equipment set
Dasheen (taro) Ginger	beetle			'	to throw soil to the drill area. Apply Capture as a banded spray over the row at a rate of 0.05-
Leren	Black flea beetle	ļ		•	0.15 pounds active per acre (3.2 to 9.6 ounces
Tanier	Whitefringed beetle				formulated) in 10 gallons per acre of spray.
Turmer	White grub Sugarcane beetle		1		Control was to an item on a fallow and the
Yam bean True yam	Rootworms			•	Capture may be applied as a foliar spray for the control of the adult life stages of flea beetles,
True yam				•	click beetles (wireworms), cucumber beetles
				•	(rootworms), white fringed beetles and
				l	May/June beetles (white grubs).
	•	1	1	1	Apply Capture at the rate of 0.1 lbs active per acre (6.4 ounces formulated) in 10 gallons of
				-	spray by ground and 3 gallons of spray by air.
				1	
					Do not make more than 2 foliar applications per
				ļ	season no sooner than 21 days apart.
		Ì	1		Do not apply more than 0.5 lb. active ingredient
			1	-	per acre per season, including soil application
					Do not apply within 21 days of harvest
					To the apply manner adjoor narroot

# SOYBEAN

		DOS	AGE	
CROP	PEST	LBS AI/A	FL OZ/A	REMARKS
Soybean	Soybean Aphid	0.033-0.10	2.1-6.4	Apply foliar treatments in at least 10 gallons per acre at the rate of 6.4 fl. oz/ (0.1 lb active) per acre at a minimum of 30 days intervals.
	Spider mites	0.08-0.10	5.12-6.4	Do not apply more than 0.3 lb ai per acre per season.
				Do not apply within 18 days of harvest

# FRUITING VEGETABLES

		DOS	AGE	
CROP	PEST	LBS AI/A	FL OZ/A	REMARKS
Eggplant Pepper (Bell & Non-Bell) Groundcherry Pepino	Armyworms Including: Beet Armyworm, Fall Armyworm, Southern Yellowstriped Armyworm Cabbage Looper Colorado Potato Beetle Corn Earworm Cucumber Beetle Cutworms European Corn Borer Flea Beetle Leafminers Loopers Pepper weevil Plant Bug Stink Bug Thrips Tomato Hornworm Tomato Pinworm Vegetable Leafminer Whitefly	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 7 days of harvest
	Banks Grass Mite Broad Mite Carmine Mite Lygus Species Pacific Spider Mite Two Spotted Spider Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	
Tomato Tomatillo	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 Loppers Lygus Species Melonworm Pea Weevil Pea Leaf Weevil Pickleworm Plant Bug Rindworm Salt Marsh Caterpillar Sap Beetle Seedpod Weevil Squash Bugs Stink bug Species Tobacco Budworm Tarnished Plant Bug	0.033-0.08	2.1-5.2	Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment.  Thorough coverage is essential to achieve control.  Do not make applications less than 10 days apart.  A maximum of 4 applications may be applied per season.  Do not apply within 1 day of harvest.

# **PEANUT**

		DOS	AGE	
CROP	PEST	LBS AI/A	FL OZ/A	REMARKS
Peanut	Beet armyworm Corn earworm Cutworm Species Fall armyworm Grasshoppers Green cloverworm Leafhoppers Lesser cornstalk borer Loopers Rednecked peanut worm Southern armyworm Southern corn rootworm Stink bugs Threecornered alfalfa hopper Velvetbean caterpillar	0.033-0.1	2.1-6.4	Apply foliar treatments in at least 10 gallons per acre at the rate of 6.4 fl. oz/ (0.1 lb active) per acre at a minimum of 14 days intervals.  Do not apply more than 0.5 lb ai per acre per season.  Do not apply within 14 days of harvest
	Yellowstriped armyworm Aphids Spider mites Thrips Whitefly	0.08-0.1	5.12-6.4	

# **ROOT CROPS**

		DOS	AGE	
CROP	PEST	LBS AI/A	FL OZ/A	REMARKS
Burdock, edible Carrot Celeriac Chervil, turnip rooted Chicory Ginseng Horseradish Parsley, turnip rooted Parsnip Radish Radish, oriental Rutabaga Salsify Salsify, Spanish Skirret Turnip	Aphids Beet armyworm Celery leaf tier Corn earworm Cross-striped cabbageworm Cutworms Diamondback moth European corn borer Fall armyworm Fire Ants Flea Beetles Green cloverworm Hornworms Imported cabbageworm Loopers Southern armyworm Spider mites Tobacco budworm Velvetbean caterpillar Whitefly Yellowstriped armyworm	0.08-0.10	5.12-6.4	Apply foliar treatments in at least 25 gallons per acre.  Apply no more than once every 7 days.  Do not apply more than 0.5 lb ai per acre per season.  Do not apply within 21 days of harvest
Garden Beet	Aphids Fire Ants Flea Beetles Lepidopterous larvae Spider mites Whitefly	0.08-0.10	5.12-6.4	Apply foliar treatments in at least 25 gallons per acre.  Apply no more than once every 7 days.  Do not apply more than 0.4 lb ai per acre per season.  Do not apply within 1 day of harvest

#### **MAYHAW**

CROP	PEST	DOSAGE		
		LB/AI/A	FLOZ/A	REMARKS
Mayhaw	Plum Curculio	0.08-0.1	5.12-6.4	Apply foliar treatments in at least 28 gallons per acre.
				Apply no more than once every 7 days.
				Do not apply more than 0.2 lb ai per acre per season.
				Do not apply within 30 days of harvest

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