



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

AUG 30 1995

5485833 321
17

Mr. James Barron
Associate Registration Manager
Rhone-Poulenc AG Company
2 T. W. Alexander Drive
P.O. Box 12014
Research Triangle Park, NC 27709

Dear Mr. Barron:

Subject: Additional Ornamental Use Pattern and Revisions For
Certain Agricultural Crops
Mocap EC Nematicide-Insecticide
EPA Registration No. 264-458
Your Application Dated April 13, 1995

The amendment referred to above, submitted in connection with registration under FIFRA, is acceptable, provided that you:

Submit one copy of your final printed labeling incorporating the following corrections before you release the product for shipment.

1. In the directions for use on potatoes under the broadcast column, delete "of active ingredient" in the phrase "gallons of active ingredient per acre". The application rates are given in terms of the amount of product per acre, not the amount of active ingredient per acre.

2. The prohibitive statements cited below appear to be advisory in nature. Refer to PR Notice 95-2, II.A.4. for a description of such statements. Examples of advisory statements are those which are related to use precautions, efficacy, crop damage, and product incompatibility and are not EPA-mandated. Statements which are advisory must be identified on the label as such by replacing prohibitive language such as "do not", "must not" and "it is required" with advisory language such as "should not", or "it is not recommended".

Please verify the basis for these statements and revise them, as needed.

"In the Columbia River Basin, it is required that Mocap EC be applied following fall or spring application of a registered fumigant nematicide."

2914

"Do not use MOCAP on tobacco in Florida."

3. Correct the worker protection labeling statements as described below.

a. Delete the heading "GENERAL WORKER PROTECTION AND REENTRY STATEMENTS" and the three sentences immediately below this heading. Replace the three deleted sentences with the following sentences as they appeared on the label submitted in response to the Worker Protection Standard (WPS) and accepted by the Agency on January 31, 1995.

"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."

b. Delete the several redundant WPS statements appearing under the "Hazard to Humans and Domestic Animals" heading. Refer to the WPS labeling accepted on January 31, 1995 and revise your label accordingly.

c. Add the statement, "Ethoprop is an organophosphate." as it appeared on the WPS label accepted January 31, 1995.

4. Many of the statements appearing under the headings "Statement of Practical Treatment" and "First Aid" are redundant. These two sections should be consolidated and the redundant statements deleted.

If this condition is not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of this condition.

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

Sincerely yours,

Robert A. Forrest
Product Manager (14)
Insecticide-Rodenticide Branch
Registration Division (7504C)

BEST COPY AVAILABLE

3 9 14

RESTRICTED USE PESTICIDE

ACUTE DERMAL TOXICITY

For retail sale to and use only by Certified Applicators or persons under the direct supervision of a Certified Applicator, and only for those uses covered by the Certified Applicator's certification.

MOCAP[®] EC Nematicide-Insecticide

ACTIVE INGREDIENTS: Ethoprop: (O-Ethyl S, S-Dipropyl Phosphorodithioate) 69.6%
INERT INGREDIENTS: 30.4%

(Contains 6 pounds active ingredient per gallon)

EPA Reg. No. 264-458

EPA Est. No.



KEEP OUT OF REACH OF CHILDREN
DANGER POISON
PELIGRO



PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que le etiqueta haya sido explicado ampliamente.

TRANSLATION TO THE USER: If you cannot read English, do not use this product until the label has been fully explained to you.

For MEDICAL And TRANSPORTATION Emergencies ONLY call 24 Hours A Day 1-800-334-7577
For PRODUCT USE Information Call 1-800-334-9745

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Call a physician or Poison Control Center. Drink 1 to 2 glasses of water and induce vomiting by touching back of throat with finger. Contains petroleum distillates. Avoid aspiration to lungs.

IF INHALED: Remove to fresh air and apply artificial respiration if needed.

IF ON SKIN: Remove all contaminated clothing and wash skin with soap and water. Wash clothing before reuse. Discard contaminated shoes. Get medical attention.

IF IN EYES: Flush with plenty of water for at least 15 minutes. Call a physician immediately.

PRECAUTIONARY STATEMENTS

DANGER

HAZARD TO HUMANS AND DOMESTIC ANIMALS

Poisonous if swallowed, inhaled or absorbed through skin. Rapidly absorbed through skin. Wear waterproof protective clothing, rubber gloves and goggles. In case of contact, wash immediately with soap and water. Do not get into eyes, on skin, or on clothing.

Do not breathe fumes or spray mist. Wear an AO R-6058 respirator with an R-58 cartridge, or equivalent, for protection during field handling and field exposure. After use, wash hands, arms and face thoroughly with soap and warm water before eating or smoking. Wash all clothing with soap and hot water before reuse. Discard contaminated shoes. Do not contaminate feed or food.

Do not store in or around the home.

SYMPTOMS OF POISONING: Nausea, vomiting, abdominal cramps, diarrhea, excessive salivation, headache, dizziness, weakness, blurring or dimness of vision, excessive tearing, loss of muscular coordination, slurring of speech, twitching of muscles (especially of tongue and eyelids), mental confusion, disorientation, drowsiness, difficulty in breathing (chest tightness), runny nose.

FIRST AID

IF SWALLOWED: Give 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person. Call a physician, Poison Control Center, or hospital emergency room.

If not breathing, give mouth to mouth artificial respiration.

IF INHALED: Remove to fresh air and apply artificial respiration if needed.

IN CASE OF SKIN CONTACT: Immediately remove all contaminated clothing, and wash skin with soap and water. Wash clothing before reuse. Discard contaminated shoes.

FOR EYES: Flush with plenty of water for at least 15 minutes. Call a physician immediately in a case of suspected poisoning. Persons providing first aid should prevent contamination of themselves.

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 264-458

APR 30 1995

ACCEPTED FOR COMMENTS by EPA Letter Dated

BEST COPY AVAILABLE

4 of 14

NOTE TO PHYSICIAN

This product is a cholinesterase inhibitor. Severe symptoms and signs include diarrhea, pinpoint and non-reactive pupils, respiratory difficulty, pulmonary edema, cyanosis, loss of sphincter control, convulsions, and coma.

Support respiration as needed. Measures should include removal of secretions, maintenance of a patent airway, and if necessary, artificial ventilation.

If cyanosis is absent, give ATROPINE 2-4 mg intravenously (0.05 mg/kg for children). Repeat atropine at 5-10 minute intervals until atropinization occurs (dry, flushed skin, tachycardia, pupillary dilatation), and maintain for 48 hours.

If cyanotic, give initial atropine intramuscularly and start measures to improve ventilation.

Start 2-PAM (PROTOPAM, Ayerst) at the same time. Give 1-2 grams PROTOPAM (20-40 mg/kg for children) in 100cc saline over 15-30 minutes. If pulmonary edema is present, give intravenously slowly as a 5% solution in water over a period of at least 5 minutes.

A second dose may given after one hour if muscle weakness persists. Additional doses may be given cautiously for persistent muscle weakness. May be given by intramuscular or subcutaneous routes if intravenous administration is not feasible.

In case of skin contact, wash patient with soap and water followed by wash with 95% ethyl alcohol. Keep patient under constant observation for 24-36 hours. Symptoms may persist for one month.

The use of theophylline, morphine, barbiturates, phenothiazines, reserpine, and succinyl choline is contraindicated.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

Applicators and other handlers must wear coveralls over long-sleeved shirt and long pants, chemical-resistant gloves such as barrier laminate, butyl rubber (> 14 mils), nitrile rubber (> 14 mils) or viton (> 14 mils), chemical-resistant footwear plus socks, protective eyewear, chemical-resistant headgear for overhead exposure, and chemical-resistant apron when cleaning equipment, mixing, or loading, and a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).

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.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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 body thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic organisms (fish and invertebrates) and extremely toxic to birds. Cover or disc spill areas. Birds in treated areas may be killed. 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 may be dangerous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning of equipment wash waters.

Do not apply within 140 feet of inland freshwater habitats.

Along the Atlantic seaboard, do not apply with 800 feet of brackish water habitats.

Do not apply when weather conditions favor drift from areas treated. Apply this product only as specified on this label.

5 8 14

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
Read entire label before using this product.

GENERAL WORKER PROTECTION AND REENTRY STATEMENTS

Do not apply this product in such a manner as to directly expose workers or other persons. The area being treated must be vacated by unprotected persons.

Unprotected persons may enter treated field or area after chemical has been mixed into the soil.

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), notification to workers, and restricted-entry intervals. 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 48 hours.

The 48 hour REI is increased to 72 hours in outdoor areas where average rainfall is less than 25 inches a year.

EXCEPTION: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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 over long-sleeved shirt and long pants, chemical-resistant gloves, such as barrier laminate, butyl rubber (> 14 mils), nitrile rubber (> 14 mils), or viton (> 14 mils), chemical-resistant footwear plus socks, protective eyewear and chemical-resistant headgear for overhead exposure.

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

STORAGE AND DISPOSAL

STORAGE

Do not contaminate water, food, or feed by storage or disposal. Do not store in or around the home.

PESTICIDE DISPOSAL

Pesticide wastes are acutely hazardous. 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 at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL

Triple rinse or equivalent. Then dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

RETURNABLE - REFILLABLE CONTAINERS

After use, return the container to the point of purchase or designated locations. This container must only be refilled with MOCAP® EC Nematicide-Insecticide. **DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE.** Prior to refilling, inspect thoroughly for damage such as cracks, punctures, abrasions and damaged or worn out threads on closure devices. Do not refill or transport damaged or leaking containers. Check for leaks after refilling and before transportation. For information on the disposal of unused, unwanted product, contact Rhône-Poulenc at 1-800-334-9745. For information on cleanup of spills, contact Rhône-Poulenc at 1-800-334-7577. If the container is not being refilled, return it to the point of purchase.

GENERAL CAUTIONS AND RESTRICTIONS

Use MOCAP® EC Brand Nematicide-Insecticide only in accordance with label directions, warnings, and cautions. Control often lasts more than six weeks varying with growing conditions, rate of use and pests. Do not use on any crop not listed on this label or supplemental labeling, as any residues remaining may be illegal or harmful. Do not store or use in or around the home or home garden.

PLANT RESPONSE PRECAUTIONS

- To avoid possible injury to beans (snap and lima), cabbage, corn (field and sweet), cucumber and peanut, do not use as a seed furrow treatment or allow spray to contact the seed.
- Beans (snap and lima) grown in treated soil may remain green longer and may mature 1 to 2 weeks later than other beans.

APPLICATION STATEMENTS

- Calibrate and adjust application equipment to insure proper rate and accurate placement. Clean application equipment thoroughly after use. For any leftover material, see instruction for "Storage and Disposal" on this label.
- Do not apply when weather conditions favor drift from areas treated. Apply this product only as specified on this label.

STATE RESTRICTIONS

- Do not apply in Long Island, New York.

BEST COPY AVAILABLE

6 of 14

MIXING, LOADING, AND HANDLING INSTRUCTIONS

- MOCAP® EC spray mixture may affect some plastic materials after prolonged use. Spray tubing hoses and gaskets should be inspected frequently, particularly black-colored materials. Replace any material which is softened or swollen. Polyethylene, polypropylene, nylon, and teflon materials are recommended. Polyvinyl chloride (PVC) materials are not recommended.
- Add the recommended amount of MOCAP® EC to the water in the spray tank and mix well. Agitate frequently during use.
- If MOCAP® EC is to be tank mixed with liquid fertilizers, physical compatibility should be tested prior to mixing. To test for compatibility, use a small container and mix a small amount (0.5 to 1 qt) of spray, combining all ingredients in the same ratio as the anticipated use. If any indications of physical incompatibility develop, do not use this mixture for spraying. Indications of incompatibility usually will appear within 5-15 minutes after mixing.

INCORPORATION STATEMENT

MOCAP® EC can be incorporated with a rotary tiller, rotary hoe, spring-tooth harrow, by double-discing or with other equipment for mixing the chemical with the soil to the recommended depth. Follow any specific incorporating instructions given under the crop headings.

GROUND APPLICATION

Use enough water in the sprayer to thoroughly and evenly cover the area to be treated.

CONVERSION TABLE FOR BANDED APPLICATIONS

ROW SPACING (INCHES)	FLUID OUNCES PER 1000 ROW FEET													
	1.4	1.7	2.0	2.4	2.9	3.3	3.9	4.4	5.0	5.1	5.3	5.9	6.8	6.9
	USE RATES AS QUARTS PER ACRE													
20	1.1	1.4	1.6	2.0	2.4	2.7	3.2	3.6	4.1	4.2	4.3	4.8	5.6	5.6
24	1.0	1.2	1.4	1.6	2.0	2.2	2.6	3.0	3.4	3.5	3.6	4.0	4.6	4.7
28	0.8	1.0	1.2	1.4	1.7	1.9	2.3	2.6	2.9	3.0	3.1	3.4	4.0	4.0
32	0.7	0.9	1.0	1.2	1.5	1.7	1.9	2.2	2.6	2.6	2.7	3.0	3.5	3.5
36	0.6	0.8	0.9	1.1	1.3	1.5	1.8	2.0	2.3	2.3	2.4	2.7	3.1	3.1
40	0.6	0.7	0.8	1.0	1.2	1.3	1.6	1.8	2.0	2.1	2.2	2.4	2.8	2.8
44	0.5	0.6	0.7	0.9	1.1	1.2	1.4	1.6	1.9	1.9	2.0	2.2	2.5	2.6
48	0.5	0.6	0.7	0.8	1.0	1.1	1.3	1.5	1.7	1.7	1.8	2.0	2.3	2.3

REFER TO APPLICATION DIRECTIONS FOR SPECIFIC USE RATES FOR EACH CROP

CONVERSION TABLE FOR BANDED APPLICATIONS

HIGHER RATES AND WIDER ROW SPACINGS

ROW SPACING (INCHES)	FLUID OUNCES PER 1000 ROW FEET						
	5.0	6.8	10.3	11.8	13.7	17.2	20.6
	USE RATES AS QUARTS PER ACRE						
36	2.3	3.1	4.7	5.3	6.2	7.8	
48	1.7	2.3	3.5	4.0	4.7	5.9	7.0
60	1.4	1.9	2.8	3.2	3.7	4.7	5.6
72	1.1	1.5	2.3	2.7	3.1	3.9	4.7
84	1.0	1.3	2.0	2.3	2.7	3.3	4.0

REFER TO APPLICATION DIRECTIONS FOR SPECIFIC USE RATES FOR EACH CROP

REQUIREMENTS FOR IRRIGATION SYSTEMS

Apply this product only through sprinkler systems including: center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move; or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place.

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.

Wear rubber gloves and boots when making adjustments or repairs on the chemigation system when MOCAP® EC is in the irrigation water.

POSTING OF AREAS TO BE CHEMIGATED IS REQUIRED WHEN:

1. Any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes or any public areas such as schools, parks, playgrounds, or other public facilities.
2. When the chemigated area is open to the public such as golf courses or retail greenhouses. Posting must conform to the following requirements: Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area toward the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

EQUIPMENT AND OPERATIONS REQUIREMENTS:

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.

The chemical injection tank should be cleaned before application to remove all fertilizer, pesticide and other foreign matter. The MOCAP® EC water mixture in the injection tank should be under constant agitation. Carefully calibrate the system before and during application. The drip irrigation system should provide uniform water flow and should have no leaks.

For sprinkler irrigation systems, MOCAP® EC or the MOCAP® EC water mixture should be injected continuously during water application in 7,000 to 28,000 gallons of water per acre.

SPECIFIC USE DIRECTIONS

Where a range of rates is recommended, use the higher rate if pest infestations are expected to be severe. To determine your infestation level, consult local or state recommendations for sampling methods and economic thresholds. Where both banded and broadcast applications are allowed, refer to the specific crop directions for the proper use of each application method. Use adequate amounts of water for thorough and uniform application. Refer to specific crop section for additional volume requirements.

AGRICULTURAL CROPS

Where a range of rates is recommended, use the higher rate if pest infestations are expected to be severe. To determine your infestation level, consult local or state recommendations for sampling methods and economic thresholds. Where both banded and broadcast applications are allowed, refer to the specific crop directions for the proper use of each application method. For per acre use rates when banding, refer to the use rate chart in the ground application section above.

8 of 14

BANANA and PLAINTAIN

APPLICATION TIMING	PESTS CONTROLLED	RATE OF MOCAP® EC		APPLICATION DIRECTIONS
		BANDED FLOZ/1000 ROW FEET	BROADCAST GALLONS PER ACRE	
	nematodes banana root borer ¹	N/A	N/A	Apply 8 ml of MOCAP® EC in a radius of 3/4 meter around each producing stem. Before application, remove ground litter from area to be treated. For best results, make application just before irrigation or a rainy period. If application is made during a dry period and irrigation is not available, mix MOCAP® EC into the top 2 cm of soil with a rake. Repeat application in 6 months. ¹ <i>Cosmopolites sordidus</i>

**BEANS
(snap and lima)**

APPLICATION TIMING	PESTS CONTROLLED	RATE OF MOCAP® EC		APPLICATION DIRECTIONS
		BANDED FLOZ/1000 ROW FEET	BROADCAST GALLONS PER ACRE	
at planting or up to 3 days before planting	nematodes garden symphylans	2 to 3.9	1 to 1 1/3	Band: Apply in 12 to 15 inch band on the row (36-inch row spacing). Do not use as a seed furrow treatment or allow spray to contact the seed or phytotoxicity may occur.
	garden symphylans	2 to 3.9	1/3 to 1/2 (or 1 1/3 to 2 quarts)	Broadcast: Apply using the indicated broadcast rate per acre and mix with the top 2 to 4 inches of soil immediately after.
Note: Beans grown in treated soil may remain green longer than other beans and mature 1 to 2 weeks later. Make only one application per crop.				

CABBAGE

APPLICATION TIMING	PESTS CONTROLLED	RATE OF MOCAP® EC		APPLICATION DIRECTIONS
		BANDED FLOZ/1000 ROW FEET	BROADCAST GALLONS PER ACRE	
at planting or up to 1 week before planting	nematodes garden symphylans	2.4	5/6 (or 3 1/3 quarts)	Band: Apply in 12 to 15 inch band on the row (36-inch row spacing). Do not use as a seed furrow treatment or allow spray to contact the seed or phytotoxicity may occur. Broadcast: Apply the indicated rate per acre and mix with the top 2 to 4 inches of soil immediately after.
Note: For at-planting application to seeded crops, shallow incorporation (1/4 to 1/2 inch) into the soil with mechanical equipment followed by sprinkler irrigation may be used. Make only one application per crop.				

9 8 14

CORN (field and sweet)

APPLICATION TIMING	PESTS CONTROLLED	RATE OF MOCAP® EC		APPLICATION DIRECTIONS
		BANDED FLOZ/1000 ROW FEET	BROADCAST GALLONS PER ACRE	
at-planting	corn rootworms wireworms cutworms garden symphylans suppression of white grubs	1.4	N/A	Band: Apply in a 6 to 7 inch band on the row over a closed seed furrow. Mix with the top 1/2 inch of soil using drag chains, spring-tooth incorporators, or similar equipment.
at-planting	nematodes corn rootworms wireworms cutworms garden symphylans suppression of white grubs	2.4 to 2.9	N/A	Band: Apply in a band 12 to 15 inches wide on the row. Mix treatment with the top 2 to 4 inches of soil right after application.

Note: Do not apply in seed furrow or allow spray to come into contact with seed or phytotoxicity may occur. Make only one application per crop.

CUCUMBERS

APPLICATION TIMING	PESTS CONTROLLED	RATE OF MOCAP® EC		APPLICATION DIRECTIONS
		BANDED FLOZ/1000 ROW FEET	BROADCAST GALLONS PER ACRE	
at or just before planting	nematodes	5.3	N/A	Band: Apply in a band 12 to 15 inches wide on the row (7-foot row spacing). Mix with the top 2 to 4 inches of soil right after application. Where beds are used, prepare bed and knock off top to provide a level area for treatment. Do not use as a seed furrow treatment or allow spray to contact the seed or phytotoxicity may occur.

Note: Make only one application per crop.

PEANUTS

APPLICATION TIMING	PESTS CONTROLLED	RATE OF MOCAP® EC		APPLICATION DIRECTIONS
		BANDED FLOZ/1000 ROW FEET	BROADCAST GALLONS PER ACRE	
at-planting or up to 1 week before planting	nematodes	2.9 to 5.9	3/4 to 1 (or 3 to 4 quarts)	Band: Apply in a 12-inch band on the row (36-inch row spacing) at planting. Do not use as a seed furrow treatment or phytotoxicity may occur. Broadcast: Make application from one week before planting to at-planting time.

Note: Use the higher rate for control of peanut root knot nematode (*M. arenaria*) and in fields where infestations of other nematodes have been especially severe. To determine your infestation level, consult local or state recommendations for sampling methods and economic thresholds. Mix with the top 2 to 4 inches of soil immediately after application. Make only one application per crop.

**PINEAPPLE
(Hawaii only)**

		RATE OF MOCAP® EC		
APPLICATION TIMING	PESTS CONTROLLED	BANDED FL.OZ/ 1000 ROW FEET	BROADCAST GALLONS PER ACRE	APPLICATION DIRECTIONS
plant crop	nematodes	N/A	1/2 - 1	Apply through drip irrigation system in 0.25 to 0.5 inches of water. Make first application at planting or within 2 months after planting. Apply additional treatments about every two months. Preplant application of a registered fumigant may be needed for adequate crop protection.
ratoon crop	nematodes	N/A	1/2 - 1	Apply through drip irrigation system in 0.25 to 0.5 inches of water. The first application may begin immediately after prior crop harvest. Apply additional treatments about every two months.

SPECIFIC REQUIREMENTS FOR DRIP IRRIGATION SYSTEMS: SEE REQUIREMENTS FOR IRRIGATION SYSTEMS IN EARLIER PORTION OF LABEL FOR GENERAL USE AND POSTING REQUIREMENTS. All lines should be placed under plastic sheeting or at least 4 inches below the soil surface so that there is no surface pooling of treated water.

Note: Do not treat within 120 days of harvest of either plant crop or ratoon crop. Do not make more than 8 applications or apply more than 8 gallons of MOCAP® EC per acre per plant crop. Do not make more than 5 applications or apply more than 5 gallons of MOCAP® EC per acre per ratoon crop.

11 7 14

POTATOES

APPLICATION TIMING	PESTS CONTROLLED	RATE OF MOCAP® EC		APPLICATION DIRECTIONS
		BANDED FL.OZ. MOCAP® EC/ 1000 ROW FEET	BROADCAST GALLONS OF ACTIVE INGREDIENT PER ACRE	
prior to planting or at planting or prior to crop emergence	symphyllans wireworms	4.4	2/3 to 1	Band: Uniformly distribute spray in a 12 inch band over the row, either behind the planter shoe next to the closing disk or immediately in front of the planter shoe. Mix with the top 2 to 4 inches of soil.
	nematodes (excluding Northern root knot, Columbia root knot, and stubby root nematodes in the Pacific Northwest; suppression of stubby root nematode in areas outside the Pacific Northwest)	4.4	1 to 2	CAUTION: Certain early-season environmental conditions and agronomic practices may impose stresses on the potato seed piece resulting in delayed emergence. Under these conditions, the application of MOCAP® EC as a concentrated band directly in the furrow may increase the potential for delayed emergence. To minimize the contribution of MOCAP® EC to this effect, apply so as to distribute the product in the soil surrounding the seed piece and avoid application directly into the seed furrow. For moderate* to heavy* infestations of wireworms or nematodes use the broadcast application instead of band or sidedress. Wireworm infestations will be especially heavy* in potatoes planted following wireworm host crops such as (but not limited to) sod, grass for seed, pasture, cereal, corn, hay, alfalfa, beans, onions, potatoes, new ground, fallow ground (weedy or cultivated), or ground not farmed for a year or more. Broadcast: Apply uniformly and immediately incorporate 2 to 4 inches deep using suitable tillage equipment. Apply within 2 weeks before planting until prior to crop emergence.
	Northern root knot nematode in the Pacific Northwest	N/A	1 to 2 (1 1/2 to 2 in the Columbia River Basin)	Broadcast Only: Apply uniformly and immediately incorporate 2 to 4 inches (4 to 8 inches in the Columbia River Basin) deep using suitable tillage equipment. Apply within 2 weeks before planting until prior to crop emergence. Under severe* infestation or long growing season conditions, MOCAP® EC may not adequately protect tuber quality.

12 7 14

POTATOES
(continued)

APPLICATION TIMING	PESTS CONTROLLED	RATE OF MOCAP® EC		APPLICATION DIRECTIONS
		BANDED FL.OZ. MOCAP® EC/ 1000 ROW FEET	BROADCAST GALLONS OF ACTIVE INGREDIENT PER ACRE	
prior to planting or at planting or prior to crop emergence	Suppression of Columbia root knot and stubby root nematodes in the Pacific Northwest	N/A	2	<p>Broadcast Only: Apply uniformly and immediately incorporate 4 to 8 inches deep using suitable tillage equipment. Best results are obtained with deep (6-8 inches), even incorporation. Apply within 2 weeks before planting. It is recommended that MOCAP® EC be applied following fall or spring application of a registered fumigant nematicide. In the Columbia River Basin, it is required that MOCAP® EC be applied following fall or spring application of a registered fumigant nematicide.</p> <p>Under severe* infestation or long growing season conditions, MOCAP® EC may not adequately protect tuber quality.</p>

Note: Use the broadcast application instead of band for control of moderate* to heavy* infestations of wireworms or nematodes. Do not make more than 1 application per crop. Do not make aerial applications. Do not exceed 12 pounds of active ingredient per acre per crop. Do not apply MOCAP® EC once plants have begun to emerge. The Pacific Northwest potato growing region is considered to include the states of Washington, Oregon, and Idaho. The Columbia River Basin is considered to include Umatilla and Morrow Counties of Oregon and Grant, Adams, Franklin, Benton, Yakima, and Walla Walla Counties of Washington).

*To determine your infestation level, consult local or state recommendations for sampling methods and economic thresholds.

SUGARCANE

APPLICATION TIMING	PESTS CONTROLLED	RATE OF MOCAP® EC		APPLICATION DIRECTIONS
		BANDED FL.OZ./ 1000 ROW FEET	BROADCAST GALLONS PER ACRE	
at-planting	nematodes wireworms	5 to 11.8	N/A	<p>Band: Apply evenly in a band 12 to 15 inches wide centered over the seed pieces in the opened furrow immediately before closing. Mix with the soil using a disc hiller or other suitable equipment as the cane is covered. Use the higher rates in fields where nematode and/or wireworm infestation are severe. To determine your infestation level, consult local or state recommendations for sampling methods and economic thresholds.</p>

NOTE: Make only one application per crop.

SWEET POTATOES

APPLICATION TIMING	PESTS CONTROLLED	RATE OF MOCAP® EC		APPLICATION DIRECTIONS
		BANDED FL.OZ./1000 ROW FEET	BROADCAST GALLONS PER ACRE	
2 to 3 weeks before planting	nematodes wireworms white grubs banded cucumber beetle flea beetle larvae (palestriped and sweet potato flea beetles)	5.1 to 6.9	1 to 1 1/3	Band: Apply in a band 12 to 15 inches wide on the row (minimum 42-inch row spacing). Good results have been obtained by opening the row, applying in a 12 to 15 inch band on the row, bedding over and dragging. Broadcast: Apply the indicated rate per acre and mix with the top 2 to 4 inches of soil immediately after.

Note: Make only one application per crop.

TOBACCO

APPLICATION TIMING	PESTS CONTROLLED	RATE OF MOCAP® EC		APPLICATION DIRECTIONS
		BANDED FL.OZ./1000 ROW FEET	BROADCAST GALLONS PER ACRE	
from one week before transplanting to transplanting time	southern root-knot nematode wireworms cutworms flea beetle larvae mole crickets	10.3 to 20.6	1 to 2	Band: Apply in a band 18 to 24 inches wide on the row (42-inch row spacing) after the fertilizer has been listed or bedded. Broadcast: Use a double gang disc harrow or other cultivating equipment that will do a good job of mixing MOCAP® EC with the soil. After mixing, apply fertilizer and, for best results, shape a wide bed with a tractor equipped with 4 disc hillers and wide sweeps for running out the middles. Be sure that only the treated soil (top 2 to 4 inches) is used to make beds.
	flea beetles	10.3 to 20.6	1 to 2	Add 1/2 gallon (4 pints) per acre of Di-Syston® 8 Liquid Systemic Insecticide to the spray tank containing MOCAP® EC mixture for nematode and wireworm control (see above). Do not make more than one field application per crop per season regardless of the formulation of Di-Syston used.
from two weeks before transplanting to transplanting time	cutworms flea beetle larvae wireworms	N/A	1/3	Broadcast: Broadcast material uniformly on top of the soil and incorporate to a depth of 2 to 4 inches. Use a disc harrow or other cultivation equipment that will do a good job of mixing MOCAP® EC with the soil.

Note: Use the higher rates in fields where nematode infestations have been especially severe or where soil is sandy. To determine your infestation level, consult local or state recommendations for sampling methods and economic thresholds. Mix with the top 2 to 4 inches of soil immediately after application. Make only one application per crop.

Do not use MOCAP® on tobacco in Florida.

CITRUS SEEDLINGS

PEST	TREATMENT TYPE	APPLICATION DIRECTIONS
Nematodes	bare root and tuber dip	Mix 0.5 pint (1 cup) of MOCAP [®] EC with 50 gallons of water (or 2 teaspoons per 2 gallons). (The concentration of MOCAP [®] EC in this mixture is 900 parts per million). Dip the washed roots of citrus seedlings in the mixture so that only the roots are covered. Allow the roots to soak for 30 minutes, then remove for planting. TREATED PLANTS SHOULD BE TAGGED: "WARNING. Wear rubber gloves when handling treated plants."
	pot drench	Mix 0.5 pint (1 cup) of MOCAP [®] EC with 50 gallons of water (or 2 teaspoons per 2 gallons). Pour enough of the mixture into each pot to completely drench the soil (about 0.5 pint for a 6-inch pot; 1 pint for an 8-inch pot).

ORNAMENTALS

For use on ornamental plants such as Azalea, Boxwood, Caladium, Camellia, Cape Jasmine, Gardenia, Holly, and Yew.

NOTE: If plants other than those mentioned on this label require treatment, only a few should be treated until effects can be determined. Some plants or varieties may show temporary growth retardation after treatment. Do not allow MOCAP[®] EC to contact the foliage of any plants, as severe injury may result.

PEST	TREATMENT TYPE	APPLICATION DIRECTIONS
Nematodes Symphylans	field nursery stock only	PREPLANT BROADCAST ONLY: Apply 2 to 4 quarts of MOCAP [®] EC per acre as a uniform broadcast on top of the soil and incorporate to a depth of 2-4 inches. Nursery stock may be transplanted into the treated area after 72 hours. Use the higher rate where nematode infestations have been severe or where soil is sandy. To determine your infestation level, consult local or state recommendations for sampling methods and economic thresholds. Workers involved in transplant operation must wear protective clothing including high top boots and gloves.

BEST COPY AVAILABLE