

5481-9040

02-22-2012

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



OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

FEB 22 2012

Joy Paff  
AMVAC  
4695 MacArthur Court, Suite 1250  
Newport Beach, CA 92660

Dear Ms. Paff:

Subject: Amendment of label to revise company information, add sugarcane restriction per PRD mitigation, add alternate brand name "*Mocap Nematicide-Insecticide Mocap 15% Granular Lock 'n Load Closed Loading System*" (for lock 'n load marketed labels only, and other updates  
MOCAP 15% Granular Nematicide-Insecticide  
EPA Registration No. 5481-9040  
Your Submission Dated: October 26, 2011

The labeling referred to above submitted in connection with the Federal Insecticide, Fungicide and Rodenticide Act, is amended as acceptable.

A stamped copy of the labeling is enclosed for your records. Please submit one final printed copy of the labeling before releasing the product for shipment. If you have any questions regarding this label, please contact Autumn Metzger at (703) 305-5314 or metzger.autumn@epa.gov.

Sincerely,

A handwritten signature in black ink that reads "Venus Eagle".

Venus Eagle  
Product Manager 01  
Insecticide-Rodenticide Branch  
Registration Division (7505P)



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# RESTRICTED USE PESTICIDE

DUE TO ACUTE DERMAL, PRIMARY DERMAL, AND PRIMARY EYE 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 15% Granular Nematicide-Insecticide

[Alternate Brand Name (for Lock'n Load packaging only): Mocap Nematicide-Insecticide Mocap 15% Granular Lock'n Load Closed Loading System]

### ACTIVE INGREDIENTS:

Ethoprop: (O-Ethyl S, S-Dipropyl Phosphorodithioate) ..... 15%

INERT INGREDIENTS ..... 85%

TOTAL ..... 100%

EPA Reg. No. 5481-9040

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.

### FIRST AID

Ethoprop is an organophosphate.

ACCEPTED  
FEB 22 2012  
Under the Federal Insecticide, Fungicide,  
and Rodenticide Act, as amended, for the  
pesticide registered under:

EPA Reg. No: 5481-9040

IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice</li> </ul>
IF IN EYES:	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
IF SWALLOWED:	<ul style="list-style-type: none"> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
IF INHALED:	<ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>

### EMERGENCY INFORMATION

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.  
**FOR THE FOLLOWING EMERGENCIES, PHONE 24 HOURS A DAY:**

Transportation: CHEMTREC..... 1-800-424-9300  
Other: AMVAC..... 1-323-264-3910



**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 be 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.

## PRECAUTIONARY STATEMENTS

### HAZARD TO HUMANS AND DOMESTIC ANIMALS

#### DANGER

Fatal if absorbed through skin. Causes irreversible eye damage. May be fatal if swallowed. Harmful if inhaled. Avoid breathing dust. Do not get in eyes, on skin or on clothing. Prolonged or frequent repeated skin contact may cause allergic reactions in some individuals.

**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.

**(Note to Reviewer: This part of the label will not be included on labels in Lock'nLoad only packaging)**

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminant, butyl rubber (>14 mils), nitrile rubber (>14 mils) or viton (>14 mils). If you want more options, follow the instructions for category F on an EPA chemical-resistant category selection chart.

Applicators using motorized equipment must wear:

- long-sleeve shirt and long pants and
- shoes plus socks.

See engineering controls for additional requirements.

Loaders and all other handlers (including banana and plantain applicators not using motorized equipment) must wear:

- coveralls over long-sleeve shirt and long pants
- chemical-resistant footwear plus socks
- chemical-resistant gloves and
- a non-powered air-purifying respirator equipped with an N, R or P-series filter.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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

**(Note to Reviewer: This part of the label will be included on labels in Lock'nLoad only packaging)**

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminant, butyl rubber (>14 mils), nitrile rubber (>14 mils) or viton (>14 mils). If you want more options, follow the instructions for category F on an EPA chemical-resistant category selection chart.

Loaders, applicators, and other handlers using engineering controls must wear:

- long-sleeve shirt and long pants, and
- shoes plus socks.

In addition, loaders must wear chemical-resistant gloves.

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See engineering controls for additional requirements.

Handlers engaged in those activities for which use of an engineering control is not possible, such as cleaning up a spill or cleaning or repairing contaminated equipment, must be provided with and have immediately available and must use in an emergency:

- coveralls over long-sleeve shirt and long pants
- chemical-resistant gloves,
- chemical-resistant footwear plus socks,
- chemical-resistant headgear for overhead exposure, and
- a non-powered air-purifying respirator equipped with an N, R, or P-series filter.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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

**(Note to Reviewer: This part of the label will not be included on labels in Lock'nLoad only packaging)**

**ENGINEERING CONTROLS**

Applicators using motorized ground equipment must use an enclosed cab that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(5)] for dermal protection. In addition, applicators must:

- wear the personal protective equipment required above for applicators
- *either* wear the type of respirator specified in the PPE section of this labeling *or* use an enclosed cab that is declared in writing by the manufacturer or by a government agency to provide at least as much respiratory protection as the type of respirator specified in the PPE section of this labeling,
- be provided with, and have immediately available and must use in an emergency when they must exit the cab, the PPE specified in the PPE section of this labeling for handlers engaged in those activities for which use of an engineering control is not possible,
- take off any PPE that was worn in the treated area before reentering the cab, and
- store all such PPE in a chemical-resistant container, such as a plastic bag, to prevent contamination of the inside of the cab.

**(Note to Reviewer: This part of the label will be included on labels in Lock'nLoad only packaging)**

**ENGINEERING CONTROLS**

This product is formulated into a Lock 'n Load system that meets the definition of a closed loading system in the Worker Protection Standard for Agricultural Pesticides [40 CFR 170.240(d)(4)]. In addition, loaders must:

- wear PPE specified in the PPE section of this labeling,
- be provided with, must have immediately available and must use in an emergency, such as a broken package, spill, or equipment breakdown, the PPE specified in the PPE section of this labeling for handlers engaged in those activities for which use of an engineering control is not possible.

Applicators using motorized ground equipment must use an enclosed cab that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(5)] for dermal protection. In addition, applicators must:

- wear the personal protective equipment required above for applicators,
- *either* wear the type of respirator specified in the PPE section of this labeling *or* use an enclosed cab that is declared in writing by the manufacturer or by a government agency to provide at least as much respiratory protection as the type of respirator specified in the PPE section of this labeling,
- be provided and have immediately available for use in case of an emergency when they must exit the cab, the PPE specified in the PPE section of this labeling for handlers engaged in those activities for which use of an engineering control is not possible,
- take off any PPE that was worn in the treated area before reentering the cab, and
- store all such PPE in a chemical-resistant container, such as a plastic bag, to prevent contamination of the inside of the cab.

**User Safety Recommendations**

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

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Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic organisms (fish and invertebrates), and wildlife and extremely toxic to birds. Birds feeding in treated areas may be killed. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Cover, incorporate or clean up granules that are spilled during loading or are visible on the soil surface in turn areas. Do not contaminate water when disposing of equipment wash water.

This product is toxic to bees exposed to direct treatment. Do not apply this product while bees are actively visiting the treatment area.

## 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.

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.

Do not allow this product to drift.

When treating agricultural crops, granules lying on the soil surface in turn areas at row ends **must** be incorporated to remove possible hazard to birds and other wildlife.

## 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.

Only protected handlers may be in the area during application.

Do not enter or allow workers to enter 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 re-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 made of any waterproof material
- chemical-resistant footwear plus socks, and
- protective eyewear.

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

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

### PESTICIDE STORAGE

Do not store in or around home or residence.

### PESTICIDE DISPOSAL

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide granules, spray mixture, or rinsate is a violation of 9040-20120216.S&D. minor edits.sugarcane



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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**

(Note to reviewer: This part of the label will not be included on labels in Lock'n Load only packaging)

Non-refillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**CONTAINER DISPOSAL**

(Note to reviewer: This part of the label will be included on Lock'n Load packaging)

DO NOT DISCARD THE CONTAINER. Do not attempt to open or tamper with the container. Completely empty container into application equipment. Return empty container to point of purchase or call 1-888-GO-AMVAC for instructions. Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

**RESTRICTIONS**

- Not for Household Consumer use. Do not store or use in or around home or residence.
- Do not apply in Long Island, New York.

**ROTATIONAL CROP RESTRICTIONS**

- Do not plant leafy vegetables within 30 days of last application.
- Do not plant small grains within 8 months of last application.
- Except for potatoes and sweet potatoes, do not rotate to any root or tuber crops within 12 months of last application.

**APPLICATION RESTRICTIONS**

- For application only by tractor-drawn spreader, or by backpack granular spreader for only bananas and plantains.
- Aerial application is not permitted.
- Do not apply by direct hand-held equipment, including measuring containers or spoons.
- For Sugarcane workers doing hand planting or other direct field contact activities cannot be present within 100 feet of equipment making applications of ethoprop.



NEMATODES CONTROLLED/SUPPRESSED

	Banana & Plantain	Cabbage	Field Corn & Sweet Corn	Cucumbers	White (Irish) Potato	Sweet Potato	Snap Beans & Lima Beans	Sugarcane	Tobacco
<b>BURROWING NEMATODES</b> ( <i>Radopholus similis</i> )	C								
<b>DAGGER NEMATODES</b> ( <i>Xiphinema spp.</i> )			C						
<b>CYST NEMATODES</b> ( <i>Heterodera glycines</i> ) ( <i>Heterodera cruciferae</i> ) ( <i>Heterodera schachtii</i> )		C C							
<b>LESION NEMATODES</b> ( <i>Pratylenchus spp.</i> )	C	C	C	C	C		C	C	C
<b>ROOT-KNOT NEMATODES</b> ( <i>Meloidogyne spp.</i> ) ( <i>Meloidogyne hapla</i> ) ( <i>Meloidogyne incognita</i> ) ( <i>Meloidogyne arenaria</i> ) ( <i>Meloidogyne javanica</i> ) ( <i>Meloidogyne chitwoodi</i> )	C	C C	C C	C C	C C	C C	C C	C	C C
<b>LANCE NEMATODES</b> ( <i>Hoplolaimus spp.</i> ) ( <i>Hoplolaimus tylenchiformis</i> )		S	C	S C			S		
<b>SPIRAL NEMATODES</b> ( <i>Helicotylenchus spp.</i> ) ( <i>Rotylenchus spp.</i> )	C		C C	C	C	C	C		
<b>STING NEMATODES</b> ( <i>Belonolaimus spp.</i> ) ( <i>Belonolaimus longicaudatus</i> )		C	C	C	C		C		
<b>RING NEMATODES</b> ( <i>Criconemella spp.</i> ) ( <i>Criconemella ornata</i> )			C	C	C		C		
<b>RENIFORM NEMATODES</b> ( <i>Rotylenchulus reniformis</i> )						C			
<b>STUNT NEMATODES</b> ( <i>Tylenchorhynchus spp.</i> ) ( <i>Tylenchorhynchus claytoni</i> ) ( <i>Tylenchorhynchus martini</i> )			C	C	C	C	C		C
<b>STUBBY-ROOT NEMATODES</b> ( <i>Paratrichodorus spp.</i> ) ( <i>Trichodorus christiei</i> )		C	C	C	C	C		C	

C-----Control

S-----Suppression



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INSECTS CONTROLLED/SUPPRESSED

	Bananas & Plantain	Field Corn & Sweet Corn	White (Irish) Potato	Sweet Potato	Sugarcane	Tobacco
<b>CORN ROOT WORM</b>						
<i>(Diabrotica virgifera virgifera)</i>		C				
<i>(Diabrotica longicornis barberi)</i>		C				
<i>(Diabrotica undecimpunctata)</i>		C				
<b>WIREWORMS</b>						
<i>(Conoderus spp.)</i>						C
<i>(Conoderus vespertinus)</i>		C		C		
<i>(Conoderus falli)</i>		C				
<i>(Melanotus spp.)</i>		C		C		
<i>(Malanotus communis)</i>			C		C	
<i>(Limonius dubitan)</i>		C				
<i>(Limonius canus)</i>			C			
<i>(Limonius californicus)</i>			C			
<i>(Aeolus mellius)</i>		C				
<i>(Ctenicera spp.)</i>		C				
<i>(Ctenicera pruinina)</i>		C	C			
<i>(Eleodes spp.)</i>			C			
<b>BLACK CUTWORM</b>						
<i>(Agrotis ipsilon)</i>		C*				
<b>SANDHILL CUTWORM</b>						
<i>(Euxoa detersa)</i>		C*				
<b>WHITE GRUBS</b>						
<i>(Phyllophaga crinita)</i>		S				
<i>(Phyllophaga ephilida)</i>		S		C		
<b>BANDED CUCUMBER BEETLE</b>						
<i>(Diabrotica balteata)</i>				C		
<b>FLEA BEETLE LARVAE</b>						
<i>(Chaetocnema confinis)</i>				C		
<i>(Systema blanda)</i>				C		
<b>LESSER CORNSTALK BORER</b>						
<i>(Elasmopalpus lignosellus)</i>						
<b>BANANA ROOT BORER</b>						
<i>(Cosmopolites sordidus)</i>	C					

C-----Control  
S-----Suppression

\*NOTE: Under heavy infestations of cutworms, enough cutworms may survive to cause some crop damage. If this occurs, it may be necessary to apply a rescue treatment with another registered pesticide to control the surviving worm.



**AGRICULTURAL CROPS**

**BANANA AND PLANTAIN**

POUNDS OF MOCAP® 15% GRANULAR			
APPLICATION TIMING	PESTS CONTROLLED	BANDED PER 1000 ROW FEET	APPLICATION DIRECTIONS
N/A	Nematode Banana Root Borer ( <i>Cosmopolites sordidus</i> )	N/A	Apply 40 grams of product in a radius of 3/4 meter around each producing stem or 1.3 ounces of product in a radius of 30 inches around each producing stem.  Before application, remove ground litter from area to be treated, and apply granules evenly.  Incorporate into the soil immediately following application by hand-raking to a depth of at least 1 inch. For best results, apply just before irrigation or a rainy period.  Repeat application in 6 months.

**RESTRICTIONS FOR BANANA and PLANTAIN**

- Do not make more than two applications per year.

**BEANS  
(Snap and Lima only)**

POUNDS OF MOCAP® 15% GRANULAR				
APPLICATION TIMING	PESTS CONTROLLED	BANDED PER 1000 ROW FEET	BROADCAST PER ACRE	APPLICATION DIRECTIONS
At planting or Up to 3 days before planting	Nematode Garden Symphylan ( <i>Scutigerella immaculata</i> )	0.9 – 1.4	40 – 54	<b>BAND:</b> Apply 13 to 20 pounds per acre (36 inch row spacing) or 0.9 to 1.4 pounds per 1,000 linear feet of row in a band 12 to 15 inches wide on the row at planting. Mix with the top 2 to 4 inches of soil with mechanical equipment during or immediately following application. Use the higher rates in fields where nematode infestations have been especially severe.  <b>DO NOT</b> use as a seed furrow treatment or allow granules to contact the seed.  Beans grown in treated soil may remain green longer than other beans and mature 1 to 2 weeks later.  <b>BROADCAST:</b> Apply from 3 days before planting to at-planting time. Mix with the top 2 to 4 inches of soil with mechanical equipment right after application. Use the higher rates in fields where nematode infestations have been especially severe.

**RESTRICTIONS FOR BEANS**

- Make only 1 application of this product per growing season.



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### CABBAGE

POUNDS OF MOCAP® 15% GRANULAR				
APPLICATION TIMING	PESTS CONTROLLED	BANDED PER 1000 ROW FEET	BROADCAST PER ACRE	APPLICATION DIRECTIONS
At planting or Up to 1 week before planting	Nematode Garden Symphylan ( <i>Scutigerella immaculata</i> )	0.9	34	<b>BAND:</b> Apply 13 pounds per acre (36 inch row spacing) or 0.9 pounds per 1,000 linear feet of row in a band 15 inches wide on the row at planting. Mix with the top 2 to 4 inches of soil with mechanical equipment during or immediately following application. <b>DO NOT</b> use as a seed furrow treatment or allow granules to contact the seed. <b>BROADCAST:</b> Apply from 1 week before planting to at-planting time. Mix with the top 2 to 4 inches of soil with mechanical equipment right after application.

#### RESTRICTIONS FOR CABBAGE

- Make only 1 application of this product per growing season.

### CORN (Field and Sweet only)

POUNDS OF MOCAP® 15% GRANULAR				
APPLICATION TIMING	PESTS CONTROLLED	Lbs. Per Acre	Row Spacing in Inches	APPLICATION DIRECTIONS
At-planting	Corn Rootworms	6.6	40	<b>BAND:</b> Use 8 ounces of MOCAP® 15% Granular per 1,000 feet of row. Apply the granules in a 6 to 7 inch band on the row over a closed seed furrow at-planting. Mix the granules with the top 1/2 inch of soil with mechanical equipment during or immediately following application.
	Wireworms	7	38	
	Garden Symphylan ( <i>Scutigerella immaculata</i> )	7.3	36	
		8.8	30	
	White Grubs (Suppression)	13.3	20	
3 days before planting to at-planting	Cutworms	20		<b>BROADCAST:</b> Apply 20 pounds of MOCAP® 15% Granular per acre. Apply 3 days before planting to at-planting time. Mix with the top 2 inches of soil with mechanical equipment right after application.
3 days before planting to at-planting	Nematodes	10 – 13.3	40	<b>BAND:</b> Add 3/4 to 1 pound of MOCAP® 15% Granular per 1,000 feet of row in a band 12 to 15 inches wide on the row. Mix with the top 2 to 4 inches of soil with mechanical equipment right after application.
		10.3 – 14	38	
		10.8 – 14.8	36	
		13 – 17.7	30	
		20 – 26.6	20	
		40		

#### RESTRICTIONS FOR FIELD AND SWEET CORN ONLY

- Make only 1 application of this product per growing season.



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**FOR COMMONLY USED APPLICATORS, SEE CALIBRATIONS CHART BELOW**

Suggested gauge settings for 8 ounces per 1,000 feet of row. (Do not change with row width). Be sure to calibrate your applicator under your operating conditions.

**FOR APPLICATION RATE OF 8 OUNCES/1000 FEET OF ROW  
SPEED IN MILES PER HOUR**

Brand Of Applicator	2	3	4	5	6	7	8	9	10
Allis Chalmers	Gauge 7								Gauge 7
Gandy snap-on bottom	15.3	18.5	21.0	23.1	25.1	26.0	28.6	30.4	31.9
International Harvester (old)	1/5.3	1/7.7	1/9.7	2/3.0	2/6.3	2/9.5	3/2.7	3/6.0	3/9.2
International Harvester (new)	1/7.2	1/9.4	2/2.4	2/5.7	2/9.9	3/2.3	3/5.4	3/9.7	4/2.2
John Deere (metal boxes)	1/22	1/24	1/26	1/29	2/4	2/8	2/13	2/17	2/22
John Deere (new) (1)	21	22.5	24	25	27	28	29	31	32
John Deere (newest) (2)	8	11	13	15	17	18	20	21	23
Noble (3)	7	11	14	18	21	24	27	29	31
Noble (new) (4)	5	7	9	12	14	17	19	21	23

- (1) Gauge Reads 10-20-30-40
- (2) Gauge Reads 5-15-25-35-45
- (3) Round hole in bottom of hopper
- (4) Rectangular hole in bottom of hopper

**CUCUMBER**

POUNDS OF MOCAP® 15% GRANULAR			
APPLICATION TIMING	PESTS CONTROLLED	BANDED PER 1000 ROW FEET	APPLICATION DIRECTIONS
At planting	Nematodes	2.1	<b>BAND:</b> Apply 13 pounds per acre (7-foot row spacing) or 2.1 pounds per 1,000 linear feet of row in a band 12 to 15 inches wide on the row at planting. Prepare bed and knock off top to provide a level area for treatment. Mix with the top 2 to 4 inches of soil with mechanical equipment right after application. <b>DO NOT</b> use as a seed furrow treatment or allow granules to contact the seed.

**RESTRICTIONS FOR CUCUMBERS**

- Make only 1 application of this product per growing season.

**MINT**

POUNDS OF MOCAP® 15% GRANULAR			
APPLICATION TIMING	PEST CONTROLLED	BROADCAST PER ACRE	APPLICATION DIRECTIONS
<b>New Mint:</b> Apply preplant	Symphyllans	20	Broadcast over the field and incorporate into the soil to a depth of at least 2 to 4 inches, during or immediately following application by mechanical means, including by rotary tiller, rotary hoe, springtooth harrow, or by double discing, or by immediate application of 1 to 2 inches of overhead irrigation. Repeat irrigation before soil dries.
	Nematodes	40	
<b>Mint</b> Apply after last harvest of the growing season	Symphyllans Mint Root Borer	20	
	Nematodes	40	

**RESTRICTIONS FOR MINT**

- Make only 1 MOCAP® 15G application per growing season (either preplant, or after last harvest of the growing season).



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- Do not harvest within 225 days of application



**POTATOES**  
**(West of the Mississippi River)**

POUNDS OF MOCAP® 15% GRANULAR				
APPLICATION TIMING	PESTS CONTROLLED	BANDED PER 1000 ROW FEET	BROADCAST PER ACRE	APPLICATION DIRECTIONS
<b>West of the Mississippi River:</b> Prior to planting or At planting or Prior to crop emergence	Symphylans Wireworms	1.4	27 – 40	<b>BAND:</b> Uniformly distribute granules in a 12 inch band over the row (36-inch row spacing), 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 with mechanical equipment during or immediately following application.
	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)	1.4	40 – 80	<b>IMPORTANT:</b> 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® 15% Granular as a concentrated band directly in the furrow may increase the potential for delayed emergence.  To minimize the contribution of MOCAP® 15% Granular 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.  <b>BROADCAST:</b> Apply uniformly and immediately incorporate 2 to 4 inches deep using mechanical equipment. Apply within 2 weeks before planting until prior to crop emergence.
	Northern root knot nematode in the Pacific Northwest	N/A	40 – 80 (60 – 80 in the Columbia River Basin)	<b>BROADCAST ONLY:</b> Apply uniformly and immediately incorporate 2 to 4 inches (4 to 8 inches in the Columbia River Basin) deep using mechanical equipment. Apply within 2 weeks before planting until prior to crop emergence.  Under severe* infestation or long growing season conditions, MOCAP® 15% Granular may not adequately protect tuber quality.



**POTATOES**  
(West of the Mississippi River - Continued)

POUNDS OF MOCAP® 15% GRANULAR				
APPLICATION TIMING	PESTS CONTROLLED	BANDED PER 1000 ROW FEET	BROADCAST PER ACRE	APPLICATION DIRECTIONS
<b>West of the Mississippi River:</b> 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	80	<b>BROADCAST ONLY:</b> Apply uniformly and immediately incorporate 4 to 8 inches deep using mechanical equipment. Best results are obtained with deep (6-8 inches), even incorporation. Apply within 2 weeks before planting. Generally, MOCAP® 15% Granular should be applied following fall or spring application of a registered fumigant nematicide. In the Columbia River Basin it is strongly recommended that MOCAP® 15% Granular be applied following fall or spring application of a registered fumigant nematicide.  Under severe* infestation or long growing season conditions, MOCAP® 15% Granular may not adequately protect tuber quality.

**RESTRICTIONS FOR POTATOES (West of the Mississippi River)**

- Use the broadcast application instead of band for control of moderate\* to heavy\* infestations of wireworms or nematodes.
- Make only 1 application of this product per growing season.
- Do not make aerial applications.
- Do not exceed 12 pounds of active ingredient per acre per crop for use on nematodes. Do not exceed 6 pounds of active ingredient per acre for use on pests other than nematodes.
- Do not exceed 6 lbs a.i./A for use on wireworms.
- Do not apply MOCAP 15% Granular 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.



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**POTATOES**  
**(East of the Mississippi River)**

POUNDS OF MOCAP® 15% GRANULAR				
APPLICATION TIMING	PESTS CONTROLLED	BANDED PER 1000 ROW FEET	BROADCAST PER ACRE	APPLICATION DIRECTIONS
<b>East of the Mississippi River:</b> Prior to planting or At planting or Prior to crop emergence	Symphylans Wireworms	1.4	27 – 40	<b>BAND:</b> Uniformly distribute granules in a 12 inch band over the row (36-inch row spacing), 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 with mechanical equipment during or immediately following application.  <b>IMPORTANT:</b> 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® 15% Granular as a concentrated band directly in the furrow may increase the potential for delayed emergence.  To minimize the contribution of MOCAP® 15% Granular 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.  <b>BROADCAST:</b> Apply uniformly and immediately incorporate 2 to 4 inches deep using mechanical equipment. Apply within 2 weeks before planting until prior to crop emergence.
	Nematodes (suppression of stubby root nematodes)	1.4	40 – 60	

**RESTRICTIONS FOR POTATOES (East of the Mississippi River)**

- Use the broadcast application instead of band for control of moderate\* to heavy\* infestations of wireworms or nematodes.
- Make only 1 application of this product per growing season.
- Do not make aerial applications.
- Do not exceed 9 pounds of active ingredient per acre per crop for use on nematodes. Do not exceed 6 pounds of active ingredient per acre for use on pests other than nematodes.
- Do not exceed 6 lbs a.i./A for use on wireworms.
- Do not apply MOCAP 15% Granular once plants have begun to emerge.

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



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### SUGARCANE

POUNDS OF MOCAP® 15% GRANULAR				
APPLICATION TIMING	PESTS CONTROLLED	BANDED PER 1000 ROW FEET	BROADCAST PER ACRE	APPLICATION DIRECTIONS
At planting	nematodes wireworms	1.8 – 3.6	N/A	<b>BAND:</b> Apply evenly in a band 12 to 15 inches wide to the seed pieces in open furrows or beds and immediately cover with soil. 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 infestations are severe. Minimum 6-foot row spacing.

#### RESTRICTIONS FOR SUGARCANE

- Make only 1 application of this product per growing season.
- Workers doing hand planting or other direct field contact activities cannot be present within 100 feet of equipment making applications of ethoprop.

### SWEET POTATO

POUNDS OF MOCAP® 15% GRANULAR			
APPLICATION TIMING	PESTS CONTROLLED	BANDED PER 1000 ROW FEET	APPLICATION DIRECTIONS
2 to 3 weeks before planting	nematodes wireworms white grubs banded cucumber beetle flea beetle larvae (palestriped and sweet potato flea beetles)	1.6 – 2.1	<b>BAND:</b> Apply 20 to 26 pounds per acre or 1.6 to 2.1 pounds per 1,000 linear feet of row in a band 12 to 15 inches wide on the row (minimum 42-inch row spacing). Mix with the top 2 to 4 inches of soil with mechanical equipment right after application. Good results have been obtained by opening the row, applying product in a 12 to 15 inch band on the row, bedding over and dragging.

#### RESTRICTIONS FOR SWEET POTATO

- Make only 1 application of this product per growing season.



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**TOBACCO**

POUNDS OF MOCAP® 15% GRANULAR				
APPLICATION TIMING	PESTS CONTROLLED	BANDED PER 1000 ROW FEET	BROADCAST PER ACRE	APPLICATION DIRECTIONS
From one week before planting to at-planting time	nematodes wireworms	3.2	40	<p><b>BAND:</b> Apply in a band 18 to 24 inches wide on the row (42-inch row spacing) after the fertilizer has been listed or bedded. Mix with the top 2 to 4 inches of soil with mechanical equipment right after application.</p> <p><b>BROADCAST:</b> Mix with the top 2 to 4 inches of soil with mechanical equipment right after application. Use a double gang disc harrow or other equipment that will do a good job of mixing the MOCAP® 15% Granular with the soil. After mixing, apply fertilizer and, for best results, shape a wide bed with a tractor equipped with 4 disc tillers 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.</p>
From two weeks before planting to at-planting time	cutworms flea beetle larvae wireworms	N/A	13	<p><b>BROADCAST:</b> Mix with the top 2 to 4 inches of soil with mechanical equipment right after application. Use a disc harrow or other cultivating equipment that will do a good job of mixing the MOCAP® 15% Granular with the soil.</p>

**RESTRICTIONS FOR TOBACCO**

- Make only 1 application of this product per growing season.

**PRECAUTIONS FOR TOBACCO**

- AMVAC does not recommend the use of MOCAP® on tobacco in Florida.

**LIMITED WARRANTY AND DISCLAIMER**

The manufacturer warrants (a) that this product conforms to the chemical description on the label; (b) that this product is reasonably fit for the purposes set forth in the directions for use, subject to the inherent risks referred to herein, when it is used in accordance with such directions; and (c) that the directions, warnings, and other statements on this label are based upon responsible experts' evaluations of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants and residues on food crops, and upon reports of field experience. Tests have not been made on all varieties of food crops and plants, or in all states or under all conditions.

**THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE SET FORTH HEREIN. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE MANUFACTURER NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE, TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IT EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OF QUALITY OR PERFORMANCE. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS, WARNINGS OR CAUTIONS.**

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