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U.S. LABEL

Base Reg. (6741)

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EPA Reg. No. 3125-111

**RESTRICTED USE PESTICIDE**  
Due to Reproductive Effects

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. Direct supervision for this product is defined as the certified applicator being physically present during mixing, loading, equipment repair, and equipment cleaning. Certified applicators must ensure that all persons involved in these activities under their direct supervision are informed of the precautionary statements.

**ACCEPTED****METASYSTOX-R**  
SPRAY CONCENTRATE  
SYSTEMIC INSECTICIDE

OCT 11 1989

**FOR EFFECTIVE SYSTEMIC CROP PROTECTION**

Contains 2 lbs. S-[2-(Ethylsulfinyl)ethyl] 0,0-dimethyl phosphorothioate per U.S. gallon.

**ACTIVE INGREDIENTS:**

S-[2-(Ethylsulfinyl)ethyl] 0,0-dimethyl phosphorothioate .... 25%

**KEEP OUT OF REACH OF CHILDREN**

INERT INGREDIENTS: ..... 75%  
100%

**WARNING**

(See Rear Panel for Statements of Practical Treatment and Additional Precautionary Statements)

(This product contains aromatic petroleum distillates.)

EPA Reg. No. 3125-111

**FLAMMABLE! KEEP AWAY FROM HEAT AND OPEN FLAME****AVISO**

**PRECAUCION AL USUARIO:** Si usted no puede leer o entender inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

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

**STOP - READ THE LABEL BEFORE USE**  
**NET CONTENTS** \_\_\_\_\_ **U.S. GALLONS**

**MOBAY CORPORATION**  
**A Bayer USA INC. COMPANY**  
**AGRICULTURAL CHEMICALS DIVISION**  
**Box 4913, Kansas City, Mo. 64120**

Note: Underlined letters in chemical nomenclature should be italicized when printed, not underlined.

**DIRECTIONS FOR USE**

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

**IMPORTANT:** Read these entire Directions and Conditions of Sale before using METASYSTOX-R Spray Concentrate systemic insecticide.

**CONDITIONS OF SALE:** THE DIRECTIONS ON THIS LABEL WERE DETERMINED THROUGH RESEARCH TO BE THE DIRECTIONS FOR CORRECT USE OF THIS PRODUCT. THIS PRODUCT HAS BEEN TESTED FOR A RANGE OF WEATHER CONDITIONS SIMILAR TO THOSE WEATHER CONDITIONS THAT ARE ORDINARY AND CUSTOMARY IN THE GEOGRAPHIC AREA WHERE THE PRODUCT IS USED. INSUFFICIENT CONTROL OF PESTS AND/OR INJURY TO THE CROP TO WHICH THE PRODUCT IS APPLIED MAY RESULT FROM THE OCCURRENCE OF EXTRAORDINARY OR UNUSUAL WEATHER, OR FROM FAILURE TO FOLLOW LABEL DIRECTIONS. IN ADDITION, FAILURE TO FOLLOW LABEL DIRECTIONS MAY CAUSE INJURY TO OTHER CROPS, ANIMALS, MAN, OR THE ENVIRONMENT. MOBAY OFFERS, AND THE BUYER ACCEPTS AND USES, THIS PRODUCT SUBJECT TO THE CONDITIONS THAT EXTRAORDINARY OR UNUSUAL WEATHER, OR FAILURE TO FOLLOW LABEL DIRECTIONS ARE BEYOND THE CONTROL OF MOBAY AND ARE, THEREFORE, THE RESPONSIBILITY OF THE BUYER.

METASYSTOX-R systemic insecticide, penetrates by absorption and is translocated in the plant. The best time to apply METASYSTOX-R Spray Concentrate is early morning or evening, especially when crops such as alfalfa and cotton are in bloom. This practice will minimize the possibility of beneficial pollinating insects, including honeybees, coming into contact with the spray.

**MIXING:** METASYSTOX-R Spray Concentrate forms an emulsion when diluted with water and is suitable for use in all power-operated ground sprayers and aircraft sprayers. To mix with water, pour the required amount of METASYSTOX-R Spray Concentrate into full amount of water and then agitate.

Closed systems for mixing and/or loading this product must be capable of removing the pesticide from the shipping container, rinsing the container, and transferring the pesticide and rinsate into mixing tanks and/or application equipment. Protective clothing and equipment, specified in the pesticide labeling must also be used when mixing and/or loading this pesticide.

**DOSAGE:** Use specified dosage of METASYSTOX-R Spray Concentrate in the amount of water necessary to give complete coverage of foliage but in no case use less than one gallon of water per acre. The type equipment used will determine the concentration required.

**SPRAYING:** Work to windward. Protect sprayer operators from drift or mist. When low volumes of spray are applied, complete coverage and thorough application are essential for most effective results. Schedule applications in accordance with local conditions. Consult your State Agricultural Experiment Station or Extension Service for specific use information and for State regulations which may contain additional restrictions or requirements.

**USE IN CHEMIGATION SYSTEMS****Types of Irrigation Systems**

Apply METASYSTOX-R Spray Concentrate only through sprinkler, including center pivot, lateral move, side roll, overhead solid set or low pressure irrigation systems. Do not apply METASYSTOX-R Spray Concentrate through any other type of irrigation system.

## METASYSTOX-R Spray Concentrate Insecticide

### GENERAL DIRECTIONS FOR ALL RECOMMENDED TYPES OF IRRIGATION SYSTEMS

#### Uniform Water Distribution and System Calibration

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

The system must be calibrated to uniformly apply the rates specified for chemigation application for specific crops. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

#### Chemigation Monitoring

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.

#### Drift

Do not apply when wind speed favors drift beyond the area intended for treatment.

#### Required System Safety Devices

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.

#### Using Water from Public Water Systems

DO NOT APPLY METASYSTOX-R SPRAY CONCENTRATE THROUGH ANY IRRIGATION SYSTEM PHYSICALLY CONNECTED TO A PUBLIC WATER SYSTEM. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

## METASYSTOX-R Spray Concentrate Insecticide

### USE IN CHEMIGATION SYSTEMS (Continued)

#### Using Water from Public Water Systems (Continued)

METASYSTOX-R Spray Concentrate may be applied through any of the recommended types of irrigation systems which may be supplied by a public water system only if the water from the public water system is discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

Any irrigation system using water supplied from a public water system must also meet the following requirements.

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 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 or in cases where there is no water pump, 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) 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.

#### Agitation

For application of METASYSTOX-R Spray Concentrate alone, a chemical supply tank is not necessary for premixing since METASYSTOX-R Spray Concentrate mixes well with water in the irrigation line. If a chemical supply tank is used, for application of METASYSTOX-R Spray Concentrate alone or in combination with other chemicals, constant strong mechanical or hydraulic agitation must be maintained in the chemical supply tank during the entire period of application.

#### Chemical Supply Tank Dilution

If a chemical supply tank is used, you must determine the required amounts of METASYSTOX-R Spray Concentrate and water to mix in the tank.

The amount of METASYSTOX-R Spray Concentrate needed equals the number of pints of METASYSTOX-R Spray Concentrate to be applied per acre multiplied by the number of acres to be chemigated.

The amount of emulsion needed equals the gallons of emulsion delivered per hour by the injection pump multiplied by the number of hours chemigation will take place.

## METASYSTOX-R Spray Concentrate Insecticide

### USE IN CHEMIGATION SYSTEMS (Continued)

The amount of water needed equals the amount of emulsion needed minus the amount of METASYSTOX-R Spray Concentrate needed.

For example, if you want to apply 1 pint of METASYSTOX-R Spray Concentrate per acre to 130 acres in 20 hours and your injection pump delivers 15 gallons per hour, you need: 1 pint METASYSTOX-R Spray Concentrate per acre X 130 acres = 130 pints or 16.25 gallons of METASYSTOX-R Spray Concentrate. And, you need: 15 gallons per hour X 20 hours = 300 gallons of emulsion, minus 16.25 gallons of METASYSTOX-R Spray Concentrate = 283.75 gallons of water.

### Cleaning the Chemical Injection System

In order to accurately apply pesticides, the chemical injection system must be kept clean; free from chemical or fertilizer residues and sediments. Refer to your owners manual or ask your equipment supplier for the cleaning procedure for your injection system.

### Flushing the Irrigation System

At the end of the application period, allow time for all lines to flush the pesticide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of pesticides, a dye indicator may be injected into the lines to mark the end of the application period.

### SPRINKLER IRRIGATION SYSTEMS

All directions and requirements listed under the GENERAL DIRECTIONS AND REQUIREMENTS FOR ALL RECOMMENDED TYPES OF IRRIGATIONS SYSTEMS section of this label must be followed for sprinkler irrigation systems.

In addition, the following directions apply to sprinkler irrigation systems.

Do not apply when wind speed favors drift beyond the area intended for treatment.

It is recommended that nozzles in the immediate area of control panels, chemical supply tanks, pumps and system safety devices be plugged to prevent chemical contamination of these areas.

### Center-Pivot and Automatic-Move Linear Systems

Inject the specified dosage per acre continuously for one complete revolution or move of the system. DO NOT USE END GUNS. The system should be run at maximum speed.

### Solid Set and Manually Controlled Linear Systems

Injection should be during the last 30 to 60 minutes of a regular irrigation period or as a separate 30 to 60 minute application not associated with a regular irrigation. DO NOT USE END GUNS.

### Low Pressure Irrigation Systems (Mini-sprinkler systems only.)

All directions and requirements listed under the GENERAL DIRECTIONS AND REQUIREMENTS FOR ALL RECOMMENDED TYPES OF IRRIGATION SYSTEMS section of this label must be followed for low pressure Mini-sprinkler irrigation systems.

# **METASYSTOX-R Spray Concentrate Insecticide**

## **Low Pressure Irrigation Systems (Continued)**

In addition, the following directions apply to low pressure irrigation systems.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Injection should be during the last 30 to 60 minutes of a regular irrigation period or as a separate 30 to 60 minute application not associated with a regular irrigation.

For systems which do not wet the entire crop area, apply proportionately less than the specified broadcast rate per acre based on the area wetted. For example, if 50% of the crop area is wetted by the irrigation system, apply one half of the specified broadcast rate per acre.

## **RECOMMENDED APPLICATIONS**

CROP	INSECT	Pints METASYSTOX-R SC	REMARKS
<b><u>FIELD CROPS</u></b>			
Cotton (Except California)	Aphids Thrips Flea hoppers	1/2 to 1	Apply specified dosage per acre in sufficient water for complete coverage but not less than one gallon per acre. Do not apply more than 3 times per season nor within 14 days of picking. Do not graze or feed gin trash to dairy or meat animals.
	Mites	1-1/2 to 2	
Cotton (California Only)	Aphids Mites Lygus bugs	1-1/2 to 2	For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.
Corn Field, Sweet, Popcorn	Aphids Leafhoppers Mites Thrips Corn rootworm beetles	1-1/2 to 2	<p>Apply specified dosage per acre in sufficient water for complete coverage but not less than one gallon per acre. For control of corn rootworm beetles apply as needed in accordance with established economic thresholds in your locality.</p> <p>When using one application per season, do not apply within 7 days of harvest of corn, or within 7 days of foraging or harvest of corn fodder. When using two or three applications per season, do not make the last application within 21 days of harvest of corn, or within 21 days of foraging or harvest of corn fodder.</p> <p>Do not apply more than three times per season.</p> <p>For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.</p>

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# METASYSTOX-R Spray Concentrate insecticide

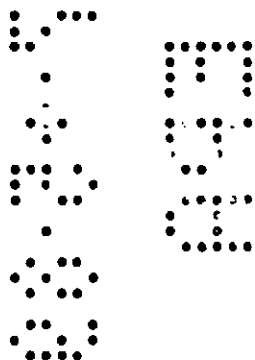
## RECOMMENDED APPLICATIONS

CROP	INSECT	Pints METASYSTOX-R SC	REMARKS
<b>FIELD CROPS</b>	<b>(Cont.)</b>		
Peppermint Spearmint	Aphids Mites	3	Apply specified dosage in at least 20 gallons of water per acre with ground equipment. For established infestations make 2 applications 10 to 14 days apart. Do not apply within 14 days of harvest.  For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.
Safflower	Aphids	2	Apply specified dosage per acre in sufficient water for complete coverage, but not less than ten gallons per acre. Do not apply more than 3 times per season nor within 7 days of harvest.
	Lygus bugs	4	For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.
Sorghum	Greenbugs Corn leaf aphids  Yellow Sugarcane aphid		Apply specified dosage per acre by air or ground equipment in sufficient water for complete coverage but not less than one gallon per acre. Use the higher dosage for control of mites. Do not apply more than 3 times per season nor within 45 days of harvest of grain or 21 days of grazing or cutting for forage. Do not use on sweet sorghum.
	Banks grass mites (Southwest only including Kansas, Oklahoma, Texas, Colorado, New Mexico, and Arizona)	1 to 2	CAUTION: Since certain sorghum varieties may be sensitive to organophosphate insecticides, METASYSTOX-R Spray Concentrate should be applied to a small area of the field and observed for a few days to determine if any crop injury will occur.  For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.  NOTE: Due to greenbug resistance in certain areas METASYSTOX-R insecticide used alone may not provide satisfactory control. Consult your local agricultural advisor or Extension Service for recommendations.

# METASYSTOX-R Spray Concentrate insecticide

## RECOMMENDED APPLICATIONS

CROP	INSECT	Pints METASYSTOX-R SC	REMARKS
<b>FIELD CROPS (Cont.)</b>			
Sugar Beets	Aphids Leafhoppers Mites	1-1/2 to 3	Apply specified dosage per acre in sufficient water for complete coverage but not less than one gallon per acre. Do not apply more than 6 times per season. Do not harvest beets or use beet tops for feed or forage within 30 days of last  For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.
<b>SEED FIELD CROPS</b>			
Alfalfa Clover	Aphids Leafhoppers Mites Thrips Lygus bugs (California Only)	1-1/2 to 2	Apply specified dosage per acre in sufficient water for complete coverage but not less than one gallon per acre. Repeat as necessary up to 21 days before seed harvest. Chaff from seed crop may used for feed or forage, but do not cut green crop for these purposes.  For application by sprinkler irrigation systems. Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.
<b>FRUITS</b>			
Grapefruit Lemons Oranges	Aphids Texas citrus mite	1 to 1-1/2	Apply specified dosage in 100 gallons of water as a full coverage spray*. Do not apply more than twice per season nor within 7 days of harvest.
Pears	Aphids Mites	1	Apply specified dosage in 100 gallons of water as a full coverage spray*. Do not apply more than once per season nor within 30 days of harvest.





## METASYSTOX-R Spray Concentrate insecticide

## RECOMMENDED APPLICATIONS

CROP	INSECT	Pints METASYSTOX-R SC	REMARKS
<b>NON-BEARING FRUITS</b>			
Apples Apricots Cherries Crab Apples Grapes Nectarines Peaches Plums Prunes Quinces	Aphids Mites	1 to 1-1/2	Apply specified dosage in 100 gallons of water as a full coverage spray* on non-bearing trees. Repeat as necessary. Do not apply to trees that will bear fruit within the next 12 months.  For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.
Citrus	Aphids Texas citrus mite		
<b>VEGETABLES</b>			
Beans (snap and lima)	Leafhoppers Mites	2	Apply specified dosage in at least 4 gallons of water per acre. Three applications may be made per picking season with the last application no later than 21 days before harvest. Do not graze or cut treated vines for feed or forage within 21 days of application.
	Lygus bugs (California Only)		For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.
Broccoli Brussels Sprouts Cauliflower	Aphids	1-1/2 to 2	Apply specified dosage per acre in sufficient water for complete coverage but not less than one gallon per acre. Do not apply more than 3 times per season nor within 10 days of harvest for brussels sprouts or 7 days of harvest for broccoli and cauliflower.  For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.
Cabbage (Includes tight heading varieties of Chinese cabbage)	Aphids	1-1/2 to 3	Apply specified dosage per acre in sufficient water for complete coverage but not less than one gallon per acre. Do not apply more than 3 times per season nor within 7 days of harvest.  For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.

# **METASYSTOX-R Spray Concentrate insecticide**

## **RECOMMENDED APPLICATIONS**

<b>CROP</b>	<b>INSECT</b>	<b>Pints METASYSTOX-R SC</b>	<b>Remarks</b>
<b>VEGETABLES (Continued)</b>			
<b>Cucumbers</b>	<b>Aphids Mites</b>	<b>1-1/2 to 2</b>	<p>Apply specified dosage per acre in sufficient water for complete coverage but not less than one gallon per acre. Do not apply more than twice per season.</p> <p>For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.</p>
<b>Eggplant</b>	<b>Aphids Mites</b>	<b>2</b>	<p>Apply specified dosage per acre in sufficient water for complete coverage but not less than one gallon per acre. Do not apply more than 3 times per season nor within 7 days of harvest.</p> <p>For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.</p>
<b>Head Lettuce</b>	<b>Aphids Mites</b>	<b>1-1/2 to 2</b>	<p>Apply specified dosage per acre in sufficient water for complete coverage with a minimum of one gallon per acre. A maximum of 3 applications may be made per season. The following preharvest intervals based on number of applications applies only to California's spring and summer crops:</p> <p>1 application ..... 14 days  2 applications ..... 21 days  3 applications ..... 28 days</p> <p>All crops in Arizona, and California's fall and winter crops require a 28 day PHI (regardless of the number of applications.) All other states require a 21 day PHI.</p> <p>For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.</p>

## METASYSTOX-R Spray Concentrate insecticide

## RECOMMENDED APPLICATIONS

CROP VEGETABLES (Continued)	INSECT	Pints METASYSTOX-R SC	REMARKS
Spanish Onions (bulb) (West of the Mississippi River only)	Thrips (Populations suppression only)	3	<p>Apply specified dosage per acre in sufficient water for complete coverage but not less than ten gallons per acre. For best results make 3 applications at 10 to 14 day intervals with the last application no later than 30 days before harvest.</p> <p>For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.</p>
Peppers	Aphids	2	<p>Apply specified dosage per acre in sufficient water for complete coverage but not less than one gallon per acre. Do not apply more than twice per season.</p> <p>For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.</p>
Pumpkin Squash (Winter and Summer)	Aphids	1-1/2 to 2	<p>Apply specified dosage per acre in sufficient water for complete coverage but not less than one gallon per acre. Do not apply more than once per season. Do not apply within 14 days of harvest of pumpkins or winter squash nor within 1 day of harvest of summer squash.</p> <p>For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.</p>
Turnips	Aphids Mites	1-1/2 to 2	<p>Apply specified dosage per acre in sufficient water for complete coverage but not less than one gallon per acre. Do not apply more than twice per season. Do not apply within 21 days of harvest if tops are to be used for food nor within 7 days of harvest if tops are not to be utilized.</p> <p>For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.</p>

# **METASYSTOX-R Spray Concentrate insecticide**

<p><b>MELONS</b></p> <p>Muskmelon (Cantaloupe) Other melons</p>	<p>Aphids Mites</p>	<p>1-1/2 to 2</p>	<p>Apply specified dosage per acre in sufficient water for complete coverage not less than one gallon per acre. Do not apply more than 3 times per season nor within 14 days of harvest.</p> <p>For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.</p>
<p>Watermelons</p>	<p>Aphids Mites</p>	<p>1-1/2 to 2</p>	<p>Apply specified dosage per acre in sufficient water for complete coverage but not less than one gallon per acre. Do not apply more than twice per season nor within 7 days of harvest.</p> <p>For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.</p>
<p><b>NUTS</b></p> <p>Filberts (Oregon and Washington only)</p>	<p>Aphids</p>	<p>1 pint per 10 trees (average 4-1/2 inches diameter)</p>	<p>Apply either undiluted or diluted with an equal volume of water. For undiluted application apply 1/3 fluid ounce (2 teaspoonsful) of product per inch of trunk diameter. For diluted application apply 2/3 fluid ounce of mixture per inch of trunk diameter. One pint of product is sufficient to treat 10 trees averaging 4-1/2 inches in diameter when applied diluted or undiluted. Apply specified dosage with a paint brush or low pressure sprayer in a band completely around the trunk. On trees with extremely short trunks it may be necessary to treat bases of scaffold limbs in order to apply the correct dosage. Width of the treated band will vary with trunk diameter. Do not apply more than once per season nor within 105 days of harvest. Do not use on heavily stressed trees or on young trees with trunk diameters less than 2 inches.</p>
<p>Walnuts</p>	<p>Aphids Mites</p>	<p>1-1/2</p>	<p>Apply specified dosage per 100 gallons of water as a full coverage spray.* Do not apply more than once per season nor within 30 days of harvest.</p>

## METASYSTOX-R Spray Concentrate insecticide

\*This dosage of METASYSTOX-R Spray Concentrate is calculated for conventional sprayers. When lower volumes of spray are applied per acre, as with low-pressure low-volume, airplane or mist-type equipment, increase the concentration of METASYSTOX-R Spray Concentrate in the spray mixture in order to apply amount of METASYSTOX-R Spray Concentrate per acre equivalent to a full coverage spray but in no case use less than one gallon of water per acre.

### RESTRICTIONS

Do not use on other crops used for food or forage. Use only according to label directions. Application at rates above those shown may result in illegal crop residues. Do not treat food crops grown in the greenhouse.

### RE-ENTRY STATEMENTS

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons. DO NOT ENTER TREATED AREAS FOR 48 HOURS AFTER APPLICATION UNLESS PROTECTIVE CLOTHING AND EQUIPMENT, AS PRESCRIBED IN THIS LABELING, ARE USED. Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

(The following may appear on supplemental labeling accompanying the product)  
Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. Oral warnings should include those statements found under the label heading "Precautionary Statements" and "Re-entry Statements" included on this label. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: WARNING, area treated with METASYSTOX-R Spray Concentrate on (date of application). DO NOT ENTER TREATED AREAS FOR 48 HOURS AFTER APPLICATION UNLESS PROTECTIVE CLOTHING AND EQUIPMENT, AS PRESCRIBED IN THIS LABELING, ARE USED. If on skin, remove contaminated clothing and wash skin immediately with soap and warm water. If eyes are contaminated, wash with flowing water for at least 15 minutes. If swallowed, vomiting should be induced. (See Precautionary Statements on label).

### PROTECTIVE CLOTHING, EQUIPMENT AND WORK SAFETY STATEMENTS FOR AGRICULTURAL USES

REPEATED EXPOSURES TO CHOLINESTERASE INHIBITORS SUCH AS ARE CONTAINED IN THIS PRODUCT MAY, WITHOUT WARNING, CAUSE PROLONGED SUSCEPTIBILITY TO VERY SMALL DOSES OF ANY CHOLINESTERASE INHIBITOR.

Keep all unprotected persons, children, livestock, and pets away from treated areas or where there is danger of drift.

Do not rub eyes or mouth with hands. If you feel sick in any way, STOP WORK and get help right away. See First Aid (Practical Treatment) section of label.

If handled indoors, provide mechanical exhaust ventilation.

**BEST AVAILABLE COPY**

## **METASYSTOX-R Spray Concentrate insecticide**

### **HANDLE THE CONCENTRATE ONLY WHEN WEARING THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT.**

Wear a protective suit of one or two pieces that covers all parts of the body except the head, hands, and feet. Wear chemical resistant gloves, chemical resistant apron, and chemical resistant shoes, shoe coverings, or boots. Wear goggles or a face shield. Wear a pesticide respirator approved by the National Institute for Occupational Safety and Health under the provisions of 30 CFR Part 11.

### **IF MIXING AND/OR LOADING IN A CLOSED SYSTEM WEAR THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT.**

Wear long sleeve shirt and long legged pants. Wear chemical resistant gloves, chemical resistant apron, and chemical resistant shoes, shoe coverings, or boots. Wear goggles or a face shield.

### **PROTECTIVE CLOTHING, EQUIPMENT AND WORK SAFETY STATEMENTS FOR AGRICULTURAL USES (CONT.)**

#### **WEAR THE FOLLOWING PROTECTIVE CLOTHING DURING APPLICATION, EQUIPMENT REPAIR, EQUIPMENT CLEANING, AND DURING EARLY REENTRY TO TREATED AREAS.**

Wear a protective suit of one or two pieces that covers all parts of the body except the head, hands, and feet. Wear chemical resistant gloves, and chemical resistant boots, shoes, or shoe coverings.

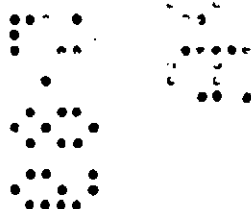
#### **DURING APPLICATION ONLY FROM A TRACTOR WITH A COMPLETELY ENCLOSED CAB OR AERIALY WITH AN ENCLOSED COCKPIT WEAR THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT.**

Wear long sleeve shirt and long legged pants, chemical resistant boots, shoes, or shoe coverings. Clean chemical resistant gloves must be available in the cab/cockpit and must be worn while exiting. This clothing is inadequate to protect you during equipment repair, cleaning or reentry.

**IMPORTANT!** Before removing gloves, wash them with soap and water. Always wash hands, face, and arms with soap and water before smoking, eating, drinking or toileting.

**AFTER WORK,** take off all clothing and shoes. Shower using soap and water. Wear only clean clothes. Do not wear contaminated clothing. Wash protective clothing and protective equipment with soap and water after each use. Respirators must be cleaned and filters replaced according to instructions included with the respirators. Personal and protective clothing worn during use must be laundered separately from household articles. Clothing and protective equipment heavily contaminated or drenched with oxydemeton-methyl must be destroyed according to state and local regulations. **HEAVILY CONTAMINATED OR DRENCHED CLOTHING CANNOT BE ADEQUATELY DECONTAMINATED.**

**FLAGGING:** Human flaggers are prohibited unless in totally enclosed vehicles.



# METASYSTOX-R Spray Concentrate insecticide

## ORNAMENTAL USE BY SOIL INJECTION

METASYSTOX-R insecticide is translocated upward in the plant. Due to this method of movement in the plant, non-target or beneficial insects will be unaffected by the use of METASYSTOX-R.

**MIXING:** The preparation of the solution to be used in all soil injection equipment must be done only at a central loading site having all appropriate protective equipment. The mixer/loader must wear boots, apron and gloves of rubber or similar impermeable material so that no exposures to METASYSTOX-R Spray Concentrate or the solution can occur. The use of a face shield is also required. Mix the recommended amount of METASYSTOX-R Spray Concentrate in the solution to be injected in the soil using adequate agitation to ensure a uniform mixing of the product.

Closed systems for mixing and/or loading this product must be capable of removing the pesticide from the shipping container, rinsing the container, and transferring the pesticide and the rinsate into mixing tanks and/or application equipment. Protective clothing and equipment, specified in the pesticide labeling must also be used when mixing and/or loading this pesticide.

**DOSAGE:** Use specified dosage of METASYSTOX-R Spray Concentrate in the amount of water necessary to give complete coverage in the area being injected.

**SOIL INJECTION:** When injecting the solution of METASYSTOX-R Spray Concentrate in the soil splash guards or similar devices should be used. Do not pressurize or turn on the injector unit prior to placing the injector probe in the soil. Inject only the amount of solution which can be absorbed into the soil.

Do not apply this product through any type of irrigation system.

## RECOMMENDED APPLICATIONS

CROP	INSECT	Pints METASYSTOX-R Spray Concentrate	REMARKS
<b>ORNAMENTALS SOIL INJECTION</b>			
Shade and Nursery Trees Shrubs	Aphids European elm scale Elm leaf beetle Mites Leaf miners	1 to 1.5 fl. oz. per inch of * trunk diameter	Mix product in equal or greater volumes of water as needed for equipment used. Apply using equipment capable of injecting material 6 inches or more below surface, and carefully metering volume used to reach recommended dose. Make two times as many probe insertions as inches of diameter at breast height measurement (DBH). (See Note)

**NOTE:** Applications to non-container trees, shrubs and other ornamentals should be made around the general area of the drip line. Watering of the treated area should follow application to activate and promote uptake of METASYSTOX-R insecticide. Watering should be sufficient to reach the roots (12 to 24 hours of slow soaking), but should not cause run-off from the treated area. Measurement to determine rate on shrubbery should be obtained by estimating total diameter of individual shrub stems at or near soil level.

\* See MIXING instructions.

BEST AVAILABLE COPY

**METASYSTOX-R Spray Concentrate insecticide**

**PROTECTIVE CLOTHING, EQUIPMENT AND WORK SAFETY STATEMENTS FOR ORNAMENTAL SOIL INJECTION**

REPEATED EXPOSURES TO CHOLINESTERASE INHIBITORS SUCH AS ARE CONTAINED IN THIS PRODUCT MAY WITHOUT WARNING, CAUSE PROLONGED SUSCEPTIBILITY TO VERY SMALL DOSES OF ANY CHOLINESTERASE INHIBITOR.

Keep all unprotected persons, children, livestock, and pets away from treated areas where pesticide can be contacted.

Do not rub eyes or mouth with hands. If you feel sick in any way, STOP WORK and get help right away. See First Aid (Practical Treatment) section of this label.

If handled indoors, provide mechanical exhaust ventilation.

HANDLE THE CONCENTRATE ONLY WHEN WEARING THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT.

Wear a protective suit of one or two pieces that covers all parts of the body except the head, hands, and feet. Wear chemical resistant gloves, chemical resistant apron, and chemical resistant shoes, shoe coverings, or boots. Wear goggles or a face shield. Wear a pesticide respirator approved by the National Institute for Occupational Safety and Health under the provisions of 30 CFR Part 11.

IF MIXING AND/OR LOADING IN A CLOSED SYSTEM WEAR THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT.

Wear long sleeve shirt and long legged pants. Wear chemical resistant gloves, chemical resistant apron, and chemical resistant shoes, shoe coverings, or boots. Wear goggles or a face shield.

WEAR THE FOLLOWING PROTECTIVE CLOTHING DURING APPLICATION, EQUIPMENT REPAIR, AND EQUIPMENT CLEANING.

Wear a protective suit of one or two pieces that covers all parts of the body except the head, hands, and feet. Wear chemical resistant gloves, and chemical resistant boots, shoes, or shoe coverings.

IMPORTANT! Before removing gloves, wash them with soap and water. Always wash hands, face, and arms with soap and water before smoking, eating, drinking or toileting.

AFTER WORK, take off all clothing and shoes. Shower using soap and water. Wear only clean clothes. Do not wear contaminated clothing. Wash protective clothing and protective equipment with soap and water after each use. Respirators must be cleaned and filters replaced according to instructions included with the respirators. Personal and protective clothing worn during use must be laundered separately from household articles. Clothing and protective equipment heavily contaminated or drenched with oxydemeton-methyl must be destroyed according to state and local regulations. HEAVILY CONTAMINATED OR DRENCHED CLOTHING CANNOT BE ADEQUATELY DECONTAMINATED.





# NETASYSTOX-R Spray Concentrate insecticide

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### WARNING

Causes eye irritation. May be fatal if swallowed, inhaled, or absorbed through the skin. Prolonged or frequently repeated skin contact causes allergic reactions in some individuals. Do not get in eyes, on skin, or on clothing. Do not breathe spray mist. Wash thoroughly with soap and warm water after handling. Wash clothing with soap and hot water before reuse.

Avoid contamination of feed or food. Keep out of reach of children.

#### STATEMENTS OF PRACTICAL TREATMENT

If splashed in eyes, immediately flush eyes with plenty of water for at least 15 minutes. For further treatment, call a physician.

If swallowed, vomiting should be induced. Administer water freely and induce vomiting by giving one dose (1/2 oz. or 15 ml.) of syrup of ipecac. If vomiting does not occur within 10 to 20 minutes, administer second dose. If syrup of ipecac is not available, induce vomiting by sticking finger down throat. Repeat until vomit fluid is clear. Never give anything by mouth to an unconscious person. Professional medical assistance should be secured immediately.

If poisoning occurs, obtain prompt medical aid.

Note to Physician: May cause cholinesterase depression. Atropine sulfate is antidotal. 2-PAM is also antidotal and may be administered in conjunction with atropine.

#### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and wildlife. Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). Do not contaminate water by cleaning of equipment or disposal of wastes. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites.

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

#### PHYSICAL OR CHEMICAL HAZARDS

Flammable. Keep away from heat and open flame.

#### STORAGE AND DISPOSAL

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

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 at the nearest EPA Regional Office for guidance.

## METASYSTOX-R Spray Concentrate Insecticide

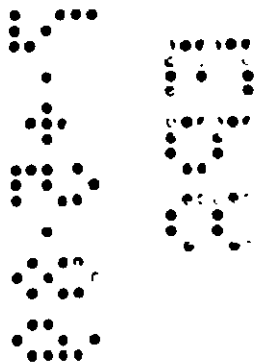
### STORAGE AND DISPOSAL (Continued)

**Container Disposal:** 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.

Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store away from heat and open flame. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If container is leaking invert to prevent leakage. If the container is leaking or material spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides above. In spill or leak incidents, keep unauthorized people away. You may contact the Mobay Emergency Response Team for decontamination procedures or any other assistance that may be necessary. The Mobay Kansas City Emergency Response Telephone No. is 816-242-2582, or contact Chemtrec at 800-424-9300.

METASYSTOX-R is a TM of Bayer AG, Germany.



## RESTRICTED USE PESTICIDE

### Due to Reproductive Effects

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. Direct supervision for this product is defined as the certified applicator being physically present during mixing, loading, equipment repair, and equipment cleaning. Certified applicators must ensure that all persons involved in these activities under their direct supervision are informed of the precautionary statements.

# Metasystox-R

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**Spray Concentrate systemic insecticide for effective systemic crop protection.**

#### ACTIVE INGREDIENTS:

S-[2-Ethylsulfinyl]ethyl] O,O-dimethyl phosphorothioate . . . . . 25%  
Aromatic Petroleum Distillate . . . . . 14%

INERT INGREDIENTS. . . . . 61%  
100%

EPA Reg. No. 3125-111

Contains 2 lbs. S-[2-Ethylsulfinyl]ethyl] O,O-dimethyl phosphorothioate per U.S. gallon.

**FLAMMABLE!** Keep away from heat and open flame.

**STOP** — Read the label before use.

**Keep out of reach of children.**

#### WARNING.

(See back side for Statements of Practical Treatment and Additional Precautionary Statements.)

#### AVISO.

**PRECAUCION AL USUARIO:** Si usted no puede leer o entender inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

## RECOMMENDED APPLICATIONS

CROP	INSECT	Pests METASYSTOX-R SC	
FIELD CROPS Cotton (Except California)	Aphids Thrips Fleashoppers	1/2 to 1	Apply specified dosage but not less than 3 times per season or feed on trash to
	Mites	1 1/2 to 2	For application by dosage per acre. For TION section of the
Cotton (California only)	Aphids Mites Lygus bugs	1 1/2 to 2	
Corn Field, Sweet, Popcorn	Aphids Leafhoppers Mites Thrips Corn rootworm beetles	1 1/2 to 2	Apply specified dosage but not less than economic threshold. When using one application of harvest of corn, fodder. When using make the last application 21 days of foraging. Do not apply more. For application by dosage per acre. For TION section of the
Peppermint Sagebrush	Aphids Mites	3	Apply specified dosage ground equipment tons 10 to 14 days. For application by dosage per acre. For TION section of the
Safflower	Aphids	2	Apply specified dosage but not less than 3 times per season. For application by dosage per acre. For TION section of the
	Lygus bugs	4	
Sorghum	Greenbugs Corn leaf aphids Yellow sugarcane Aphids	1 to 2	Apply specified dosage sufficient water for per acre. Use the h more than 3 times or 21 days of grain sorghum.
	Banks grass mites (Southwest only including Kansas, Oklahoma, Texas, Colorado, New Mexico, and Arizona)		<b>CAREFUL:</b> Since organophosphate should be applied in days to determine For application by dosage per acre. For TION section of the
Sugar Beets	Aphids Leafhoppers Mites	1 1/2 to 3	<b>NOTE:</b> Due to green insecticide used also your local agricultural stations

NOT REVIEWED

In accordance with IP Notice 82-2  
Based on Draft Label Dated 10-11-89

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

**Mobay Corporation**

A BAYER USA INC. COMPANY



Agricultural Chemicals Division  
Box 4913, Kansas City, Mo. 64120

## DIRECTIONS FOR USE.

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

**IMPORTANT:** Read these entire Directions and Conditions of Sale before using METASYSTOX-R Spray Concentrate systemic insecticide.

## CONDITIONS OF SALE:

The directions on this label were determined through research to be the directions for correct use of this product. This product has been tested for a range of weather conditions similar to those weather conditions that are ordinary and customary in the geographic area where the product is used. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather, or from failure to follow label directions. In addition, failure to follow label directions may cause injury to other crops, animals, man, or the environment. Mobay offers, and the buyer accepts and uses, this product subject to the conditions that extraordinary or unusual weather, or failure to follow label directions are beyond the control of Mobay and are, therefore, the responsibility of the buyer.

METASYSTOX-R systemic insecticide penetrates by absorption and is translocated in the plant. The best time to apply METASYSTOX-R Spray Concentrate is early morning or evening, especially when crops such as alfalfa and cotton are in bloom. This practice will minimize the possibility of beneficial pollinating insects, including honeybees, coming into contact with the spray.

Agricultural Experiment Station or Extension Service for specific use information and for State regulations which may contain additional restrictions or requirements.

## USE IN CHEMIGATION SYSTEMS:

**Types of Irrigation Systems:** Apply METASYSTOX-R Spray Concentrate only through sprinkler, including center pivot, lateral move, side roll, overhead solid set or low pressure irrigation systems. Do not apply METASYSTOX-R Spray Concentrate through any other type of irrigation system.

### GENERAL DIRECTIONS FOR ALL RECOMMENDED TYPES OF IRRIGATION SYSTEMS

**Uniform Water Distribution and System Calibration:** The irrigation system must provide uniform distribution of treated water. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.

The system must be calibrated to uniformly apply the rates specified for chemigation application for specific crops. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

**Chemigation Monitoring:** 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.

**Drift:** Do not apply when wind speed favors drift beyond the area intended for treatment.

**Required System Safety Devices:** The sys-

SEED FIELD CROPS		1½ to 2	Apply specified dosage per acre in sufficient water for complete coverage but not less than one gallon per acre. Repeat as necessary up to 21 days before seed harvest. Chaff from seed crop may be used for feed or forage, but do not cut green crop for these purposes.  For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.
Alfalfa Clover	Aphids Leafhoppers Meas Thrips  Lygus bugs (California only)		
FRUITS Grapefruit Lemons Oranges	Aphids Texas citrus mite	1 to 1½	Apply specified dosage in 100 gallons of water as a full coverage spray. Do not apply more than twice per season nor within 7 days of harvest.
Pears	Aphids Meas	1	Apply specified dosage in 100 gallons of water as a full coverage spray. Do not apply more than once per season nor within 30 days of harvest.
NON-BEARING FRUITS Apples Apricots Cherries Crab Apples Grapes Nectarines Peaches Plums Prunes Quinces	Aphids Meas	1 to 1½	Apply specified dosage in 100 gallons of water as a full coverage spray* on non-bearing trees. Repeat as necessary. Do not apply to trees that will bear fruit within the next 12 months.  For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.
Citrus	Aphids Texas citrus mite		

**Using Water from Public Water Systems:** DO NOT APPLY METASYSTOX-R SPRAY CONCENTRATE THROUGH ANY IRRIGATION SYSTEM PHYSICALLY CONNECTED TO A PUBLIC WATER SYSTEM. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

METASYSTOX-R Spray Concentrate may be applied through any of the recommended types of irrigation systems which may be supplied by a public water system only if the water from the public water system is discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

Any irrigation system using water supplied from a public water system must also meet the following requirements.

SYSTOX-R Spray Concentrate alone or in combination with other chemicals, constant strong mechanical or hydraulic agitation must be maintained in the chemical supply tank during the entire period of application.

**Chemical Supply Tank Dilution:** If a chemical supply tank is used, you must determine the required amounts of METASYSTOX-R Spray Concentrate and water to mix in the tank.

The amount of METASYSTOX-R Spray Concentrate needed equals the number of pints of METASYSTOX-R Spray Concentrate to be applied per acre multiplied by the number of acres to be chemigated.

The amount of emulsion needed equals the gallons of emulsion delivered per hour by the injection pump multiplied by the number of hours chemigation will take place.

The amount of water needed equals the amount of emulsion needed minus the amount of METASYSTOX-R Spray Concentrate needed.

For example, if you want to apply 1 pint of METASYSTOX-R Spray Concentrate per acre to 130 acres in 20 hours and your injection pump delivers 15 gallons per hour, you need: 1 pint METASYSTOX-R Spray Concentrate per



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## MIXING:

METASYSTOX-R Spray Concentrate forms an emulsion when diluted with water and is suitable for use in all power-operated ground sprayers and aircraft sprayers. To mix with water, pour the required amount of METASYSTOX-R Spray Concentrate into full amount of water and then agitate.

Closed systems for mixing and/or loading this product must be capable of removing the pesticide from the shipping container, rinsing the container, and transferring the pesticide and the rinse into mixing tanks and/or application equipment. Protective clothing and equipment, specified in the pesticide labeling must also be used when mixing and/or loading this pesticide.

## DOSAGE:

Use specified dosage of METASYSTOX-R Spray Concentrate in the amount of water necessary to give complete coverage of foliage but in no case use less than one gallon of water per acre. The type equipment used will determine the concentration required.

## SPRAYING:

Work to windward. Protect sprayer operators from drift or mist. When low volumes of spray are applied, complete coverage and thorough application are essential for most effective results. Schedule applications in accordance with local conditions. Consult your State

term 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.

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 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 or in cases where there is no water pump, 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) 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.

Agitation: For application of METASYSTOX-R Spray Concentrate alone, a chemical supply tank is not necessary for premixing since METASYSTOX-R Spray Concentrate mixes well with water in the irrigation line. If a chemical supply tank is used, for application of META-

acre X 130 acres = 130 pints or 16.25 gallons of METASYSTOX-R Spray Concentrate. And, you need: 15 gallons per hour X 20 hours = 300 gallons of emulsion, minus 16.25 gallons of METASYSTOX-R Spray Concentrate = 283.75 gallons of water.

**Cleaning the Chemical Injection System:** In order to accurately apply pesticides, the chemical injection system must be kept clean; free from chemical or fertilizer residues and sediments. Refer to your owners manual or ask your equipment supplier for the cleaning procedure for your injection system.

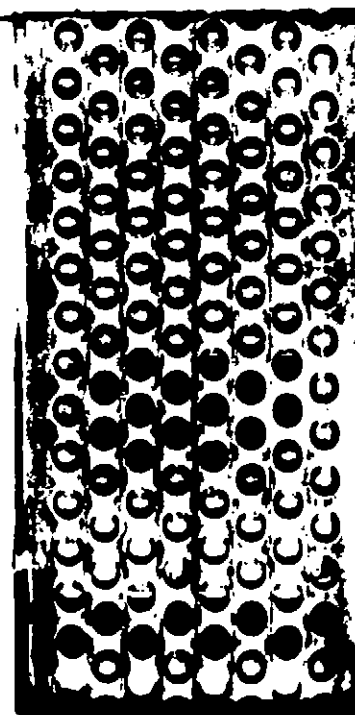
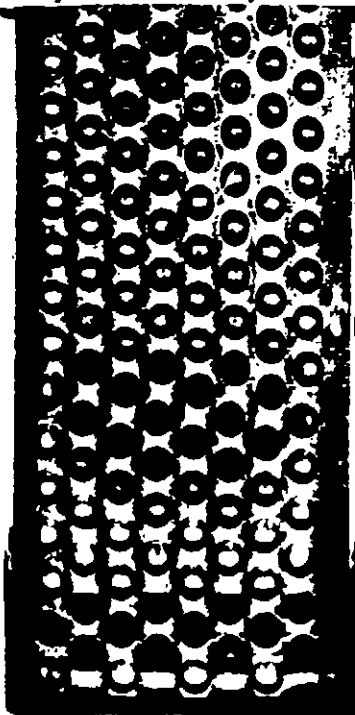
**Flushing the Irrigation System:** At the end of the application period, allow time for all lines to flush the pesticide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of pesticides, a dye indicator may be injected into the lines to mark the end of the application period.

## SPRINKLER IRRIGATION SYSTEMS

All directions and requirements listed under the GENERAL DIRECTIONS AND REQUIREMENTS FOR ALL RECOMMENDED TYPES OF IRRIGATION SYSTEMS section of this label must be followed for sprinkler irrigation systems.

In addition, the following directions apply to sprinkler irrigation systems.

Do not apply when wind speed favors drift beyond the area intended for treatment.



## RECOMMENDED APPLICATIONS

CROP	INSECT	Pests METASYSTOX-R SC	REMARKS
VEGETABLES Beans (snap and lima)	Leafhoppers Mites	2	Apply specified dosage in at least 4 gallons of water per acre. Three applications may be made per picking season with the last application no later than 21 days before harvest. Do not graze or cut treated vines for feed or forage within 21 days of application.
	Lygus bugs (California only)		For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.
Broccoli Brussels Sprouts Cauliflower	Aphids	1½ to 2	Apply specified dosage per acre in sufficient water for complete coverage but not less than one gallon per acre. Do not apply more than 3 times per season nor within 10 days of harvest for brussels sprouts or 7 days of harvest for broccoli and cauliflower. For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.
Cabbage (Includes light heading varieties of Chinese cabbage)	Aphids	1½ to 3	Apply specified dosage per acre in sufficient water for complete coverage but not less than one gallon per acre. Do not apply more than 3 times per season nor within 7 days of harvest. For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.
Cucumbers	Aphids Mites	1½ to 2	Apply specified dosage per acre in sufficient water for complete coverage but not less than one gallon per acre. Do not apply more than twice per season. For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.
Eggplant	Aphids Mites	2	Apply specified dosage per acre in sufficient water for complete coverage but not less than one gallon per acre. Do not apply more than 3 times per season nor within 7 days of harvest. For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.
Head Lettuce	Aphids Mites	1½ to 2	Apply specified dosage per acre in sufficient water for complete coverage with a minimum of one gallon per acre. A maximum of 3 applications may be made per season. The following preharvest intervals based on number of applications applies only to California's spring and summer crops: 1 application ..... 14 days 2 applications ..... 21 days 3 applications ..... 28 days All crops in Arizona, and California's fall and winter crops require a 28-day PHI (regardless of the number of applications). All other states require a 21 day PHI. For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.
Spanish Onions (bulb) (West of the Mississippi River only)	Thrips (Population suppression only)	3	Apply specified dosage per acre in sufficient water for complete coverage but not less than ten gallons per acre. For best results make 3 applications at 10 to 14 day intervals with the last application no later than 30 days before harvest. For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.
Peppers	Aphids	2	Apply specified dosage per acre in sufficient water for complete coverage but not less than one gallon per acre. Do not apply more than twice per season. For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.

with soap and warm water. If eyes are contaminated, wash with flowing water for at least 15 minutes. If swallowed, vomiting should be induced. (See Precautionary Statements on label.)

## PRECAUTIONARY STATEMENTS. HAZARDS TO HUMANS AND DOMESTIC ANIMALS.

## WARNING.

Causes eye irritation. May be fatal if swallowed, inhaled, or absorbed through the skin. Prolonged or frequently repeated skin contact causes allergic reactions in some individuals. Do not get in eyes, on skin, or on clothing. Do not breathe spray mist. Wash thoroughly with soap and warm water after handling. Wash clothing with soap and hot water before reuse.

Avoid contamination of feed or food. Keep out of reach of children.

## STATEMENTS OF PRACTICAL TREATMENT.

If splashed in eyes, immediately flush eyes with plenty of water for at least 15 minutes. For further treatment, call a physician.

If swallowed, vomiting should be induced. Administer water freely and induce vomiting by giving one dose (½ oz. or 15 ml.) of syrup of ipecac. If vomiting does not occur within 10 to 20 minutes, administer second dose. If syrup of ipecac is not available, induce vomiting by sticking finger down throat. Repeat until vomit fluid is clear. Never give anything by mouth to an unconscious person. Professional medical assistance should be secured immediately.

If poisoning occurs, obtain prompt medical aid.

Note to Physician: May cause cholinesterase depression. Atropine sulfate is antidotal. 2-PAM is also antidotal and may be administered in conjunction with atropine.

## ENVIRONMENTAL HAZARDS.

This pesticide is toxic to fish and wildlife. Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). Do not contaminate water by cleaning of equipment or disposal of wastes. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites.

This product is toxic to bees exposed to direct treatment. Do not apply this product

separately from household articles. Clothing and protective equipment heavily contaminated or drenched with oxydemeton-methyl must be destroyed according to state and local regulations. HEAVILY CONTAMINATED OR DRENCHED CLOTHING CANNOT BE ADEQUATELY DECONTAMINATED.

FLAGGING: Human flaggers are prohibited unless in totally enclosed vehicles.

## STORAGE AND DISPOSAL.

Pesticide Disposal: Do not contaminate water, food or feed by storage or 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 at the nearest EPA Regional Office for guidance.

Container Disposal: 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.

Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store away from heat and open flame. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If container is leaking invert to prevent leakage. If the container is leaking or material spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides above. In spill or leak incidents, keep unauthorized people away. You may contact the Mobay Emergency Response Team for decontamination procedures or any other assistance that may be necessary. The Mobay Kansas City Emergency Response Telephone No. is 816-242-2582, or contact Chemtrec at 800-424-9300.

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METASYSTOX-R is a TM of Bayer AG, Germany.

Watermelons	Aphids Meas.	1½ to 2	Apply specified dosage per acre in sufficient water for complete coverage but not less than one gallon per acre. Do not apply more than twice per season nor within 7 days of harvest. For application by sprinkler irrigation systems: Apply specified dosage per acre. Follow all directions given under the CHEMIGATION section of this label.
WITS Fibers (Oregon and Washington only)	Aphids	1 pint per 10 trees (average 4½ inches diameter)	Apply either undiluted or diluted with an equal volume of water. For undiluted application apply ½ fluid ounce (2 teaspoonsful) of product per inch of trunk diameter. For diluted application apply ½ fluid ounce of mixture per inch of trunk diameter. One pint of product is sufficient to treat 10 trees averaging 4½ inches in diameter when applied diluted or undiluted. Apply specified dosage with a paint brush or low pressure sprayer in a band completely around the trunk. On trees with extremely short trunks it may be necessary to treat bases of scaffold limbs in order to apply the correct dosage. Width of the treated band will vary with trunk diameter. Do not apply more than once per season nor within 105 days of harvest. Do not use on heavily-stressed trees or on young trees with trunk diameters less than 2 inches.
Walnuts	Aphids Meas.	1½	Apply specified dosage per 100 gallons of water as a full coverage spray. Do not apply more than once per season nor within 30 days of harvest.

\*This dosage of METASYSTOX-R Spray Concentrate is calculated for conventional sprayers. When lower volumes of spray are applied per acre, as with low-pressure low-volume, airplane or mist-type equipment, increase the concentration of METASYSTOX-R Spray Concentrate in the spray mixture in order to apply amount of METASYSTOX-R Spray Concentrate per acre equivalent to a full coverage spray but in no case use less than one gallon of water per acre.

It is recommended that nozzles in the immediate area of control panels, chemical supply tanks, pumps and system safety devices be plugged to prevent chemical contamination of these areas.

**Center-Pivot and Automatic-Move Linear Systems:** Inject the specified dosage per acre continuously for one complete revolution or move of the system. DO NOT USE END GUNS. The system should be run at maximum speed.

**Solid Set and Manually Controlled Linear Systems:** Injection should be during the last 30 to 60 minutes of a regular irrigation period or as a separate 30 to 60 minute application not associated with a regular irrigation. DO NOT USE END GUNS.

#### LOW PRESSURE IRRIGATION SYSTEMS (Mini-sprinkler systems only.)

All directions and requirements listed under the GENERAL DIRECTIONS AND REQUIREMENTS FOR ALL RECOMMENDED TYPES OF IRRIGATION SYSTEMS section of this label must be followed for low pressure mini-sprinkler irrigation systems.

In addition, the following directions apply to low pressure irrigation systems.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Injection should be during the last 30 to 60 minutes of a regular irrigation period or as a separate 30 to 60 minute application not associated with a regular irrigation.

For systems which do not wet the entire crop area, apply proportionately less than the specified broadcast rate per acre based on the area wetted. For example, if 50% of the crop area is wetted by the irrigation system, apply one half of the specified broadcast rate per acre.

## RESTRICTIONS.

Do not use on other crops used for food or forage. Use only according to label directions. Application at rates above those shown may result in illegal crop residues. Do not treat food crops grown in the greenhouse.

## RE-ENTRY STATEMENTS.

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons. DO NOT ENTER TREATED AREAS FOR 48 HOURS AFTER APPLICATION UNLESS PROTECTIVE CLOTHING AND EQUIPMENT, AS PRESCRIBED IN THIS LABELING, ARE USED. Because certain states may require more restrictive re-entry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. Oral warnings should include those statements found under the label heading "Precautionary Statements" and "Re-entry Statements" included on this label. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Written warnings must include the following information: WARNING, area treated with METASYSTOX-R Spray Concentrate on (date of application). DO NOT ENTER TREATED AREAS FOR 48 HOURS AFTER APPLICATION UNLESS PROTECTIVE CLOTHING AND EQUIPMENT, AS PRESCRIBED IN THIS LABELING, ARE USED. If on skin, remove contaminated clothing and wash skin immediately

stock, and pets away from treated areas or where there is danger of drift.

Do not rub eyes or mouth with hands. If you feel sick in any way, STOP WORK and get help right away. See First Aid (Practical Treatment) section of label.

If handled indoors, provide mechanical exhaust ventilation.

## HANDLE THE CONCENTRATE ONLY WHEN WEARING THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT.

Wear a protective suit of one or two pieces that covers all parts of the body except the head, hands, and feet. Wear chemical resistant gloves, chemical resistant apron, and chemical resistant shoes, shoe coverings, or boots. Wear goggles or a face shield. Wear a pesticide respirator approved by the National Institute for Occupational Safety and Health under the provisions of 30 CFR Part 11.

## IF MIXING AND/OR LOADING IN A CLOSED SYSTEM WEAR THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT.

Wear long sleeve shirt and long legged pants. Wear chemical resistant gloves, chemical resistant apron, and chemical resistant shoes, shoe coverings, or boots. Wear goggles or a face shield.

## WEAR THE FOLLOWING PROTECTIVE CLOTHING DURING APPLICATION, EQUIPMENT REPAIR, EQUIPMENT CLEANING, AND DURING EARLY REENTRY TO TREATED AREAS.

Wear a protective suit of one or two pieces that covers all parts of the body except the head, hands, and feet. Wear chemical resistant gloves and chemical resistant boots, shoes, or shoe coverings.

## DURING APPLICATION ONLY FROM A TRACTOR WITH A COMPLETELY ENCLOSED CAB OR AERIALY WITH AN ENCLOSED COCKPIT WEAR THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT.

Wear long sleeve shirt and long legged pants, chemical resistant boots, shoes, or shoe coverings. Clean chemical resistant gloves must be available in the cab/cockpit and must be worn while exiting. This clothing is inadequate to protect you during equipment repair, cleaning or reentry.

**IMPORTANT!** Before removing gloves, wash them with soap and water. Always wash hands, face, and arms with soap and water before smoking, eating, drinking or toileting.

AFTER WORK, take off all clothing and shoes. Shower using soap and water. Wear only clean clothes. Do not wear contaminated clothing. Wash protective clothing and protective equipment with soap and water after each use. Respirators must be cleaned and filters replaced according to instructions included with the respirators. Personal and protective clothing worn during use must be laundered

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