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Ms. Judy Oldham
Helena Chemical Company
6075 Poplar Avenue, Suite 500
Memphis, TN 38119

Dear Ms. Oldham:

Subject: Dimethoate 4 E.C.
EPA Registration No. 5905-493
Amendment dated May 12, 1994

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable provided that you:

1. Move the sentences "Do not store Dimethoate 4 E.C. below 32°F as it may tend to crystallize. Avoid storage above 90°F, as prolonged storage above 90°F may cause some loss in grade." to the Storage section of the label. The Storage section should read as follows:

"STORAGE: Store in a cool, dry area. Do not store Dimethoate 4 E.C. below 32°F as it may tend to crystallize. Avoid storage above 90°F, as prolonged storage above 90°F may cause some loss in grade."

2. In the Use Directions for Beans (Green, Lima, Snap, Dry), please correct the typographical error in the second sentence. It should read as follows: "This pesticide is highly toxic to bees,..."

3. In the Use Directions for Peppers, delete the following sentence: "Peppers may be harvested on day of application."

4. In the Use Directions for Potatoes, delete the sentence "Potatoes may be harvested on day of application."

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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- 5. On page 12 in the first sentence under the Ornamentals heading, change the word "attach" to "attack."
- 6. Submit one copy of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions.

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

Sincerely yours,

Robert A. Forrest
 Product Manager (14)
 Insecticide-Rodenticide Branch
 Registration Division (7505C)

Enclosure

CONCURRENCES

| CONCURRENCES | | | | | | | |
|--------------|--|--|--|--|--|--|--|
| SYMBOL | | | | | | | |
| SURNAME | | | | | | | |
| DATE | | | | | | | |

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OFFICE OF PESTICIDES
& PLANT QUARANTINE

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5905-493

DIMETHOATE 4.E.C. SYSTEMIC INSECTICIDE

ACTIVE INGREDIENT:

Dimethoate (O,O-dimethyl S-(N-methylcarbamoylmethyl)
(phosphorodithioate) 44.8%

INERT INGREDIENTS* 55.2%

TOTAL 100.0%

This product contains 4 lbs dimethoate per gallon

*This product contains petroleum distillate

KEEP OUT OF REACH OF CHILDREN WARNING - AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you)

SEE ADDITIONAL PRECAUTIONARY STATEMENTS INSIDE BOOKLET.

EPA REG NO 5905-493
EPA EST NO

NET CONTENTS

MANUFACTURED BY
HELENA CHEMICAL COMPANY
MEMPHIS, TN 38119

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**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

WARNING - AVISO

May be fatal if swallowed. Harmful if inhaled or absorbed through the skin. May cause eye injury. Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing.

**STATEMENT OF PRACTICAL TREATMENT
Organophosphate**

If Swallowed: Dilute by drinking 1 or 2 glasses of water. Do not induce vomiting. Get medical attention immediately.

If on Skin: Wash with plenty of soap and water. Get medical attention if irritation develops.

If in Eyes: Flush with plenty of water for 15 minutes holding eyelids apart. Get medical attention immediately.

If Contacted: Remove contaminated clothing and wash skin thoroughly. Obtain medical attention if irritation develops.

Note to Physician: This product may cause cholinesterase inhibition. Antidote is Atropine.

PERSONAL PROTECTIVE EQUIPMENT

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

Applicators and other handlers (other than mixers and loaders) must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, or viton
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure

Mixers and loaders must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, or viton
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- For exposures in enclosed areas, a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-230), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC 14G).
- For exposures outdoors, dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C)

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

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

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 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 highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area

This pesticide is toxic to wildlife and aquatic invertebrates. 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. Do not contaminate water by cleaning of equipment or disposal of wastes

PHYSICAL OR CHEMICAL HAZARDS

Flammable. Keep away from heat and open flame. Do not use, pour, spill or store near heat or flame.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is

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- Coveralls
- Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, or viton
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170) The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Keep unprotected persons out of treated areas until sprays have dried.

STORAGE AND DISPOSAL

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

STORAGE: Store in a cool, dry area

PESTICIDE DISPOSAL Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA regional Office for guidance.

CONTAINER DISPOSAL: Triple rinse. Then offer for recycling, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities

Do not store **DIMETHOATE 4 E.C.** below 32°F as it may tend to crystallize. Avoid storage above 90°F., as prolonged storage above 90°F. may cause some loss in grade

DIMETHOATE 4 E.C. is a clear liquid. When added to water, it will disperse readily and will remain physically stable with a minimum amount of agitation

Apply this product only as specified on this label

Application equipment. **DIMETHOATE 4 E.C.** can be applied by any pressure sprayer that will give uniform distribution of the spray such as ground sprayers, aerial sprayers or portable sprayers.

Aerial Application

Automatic flagging devices should be used whenever feasible

If human flaggers are employed, they must wear the protective clothing and respirator specified on this label

**APPLICATION THROUGH IRRIGATION SYSTEMS -
CHEMIGATION**

Apply this product only through sprinkler, including center pivot, lateral move, end tow, side (wheel)

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roll, traveler, big gun, solid set, or hard move, flood (basin), furrow, border, or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system.

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

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

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

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Mix in clean supply tank the recommended amount of this product for acreage to be covered, and needed quantity of water.

This product should not be tank-mixed with other pesticides, surfactants or fertilizers unless prior use has shown the combination noninjurious under your conditions of use and provided chemigation is permitted on the label of products to be tanked-mixed.

Follow precautionary statements and directions for all tank-mixed products.

On all crops, use sufficient gallonage of water to obtain thorough and uniform coverage, but not cause runoff or excessive leaching. This will vary depending on equipment, pest problem and stage of crop growth. Application of more or less than optimal quantity of water may result in decreased chemical performance, crop injury or illegal pesticide residues.

-) Meter this product into the irrigation water uniformly during the period of operation. Do not overlap application. Follow recommended label rates, application timing, and other directions and precautions for crop being treated.

Continuous mild agitation of pesticide mixture may be needed to assure a uniform application, particularly if the supply tank requires a number of hours to empty.

CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

Note: This company does not encourage connecting chemigation systems to public water supplies. The following information is provided for users who have diligently considered all other application and water supply options before electing to make such a connection.

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

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25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be 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.

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 pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

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

SPRINKLER CHEMIGATION (FOLIAR SPRAY USES)

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

2/2/17

pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock

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

FLOOD (BASIN), FURROW AND BORDER CHEMIGATION (SOIL DRENCH USES)

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity, such as a drop structure or weir box, to decrease potential for water source contamination from backflow if water flow stops.

Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

- a. 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.
- b. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.
- c. 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
- d. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops
- e. 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
- f. 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

DRIP (TRICKLE) CHEMIGATION (SOIL DRENCH USES)

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

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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 matically or manually shut down.

GENERAL INFORMATION

This product is intended for use by the commercial grower or commercial applicator in conventional hydraulic sprayers, concentrate application equipment, ground applicators or airplane sprayers. When applying by ground equipment, use the recommended amount in sufficient water for thorough coverage; by aircraft, in 1 to 10 gallons of water unless otherwise specified. The rates of **DIMETHOATE 4 EC** are recommended on a per 100 gallons of dilute spray, except where indicated. Application rates applied by concentrate methods should equal the total amount of dimethoate applied per acre on the per 100 gallon basis except where the actual concentrate rates are specified (if a dilute application is recommended at 1 pint per 100 gallons and it requires 400 gallons per acre for proper coverage, the concentrate rate would equal 4 pints per acre). The optimum spray gallonage is dependent on tree size, density and growth stage. Typical spray gallonages per acre range from, but are not limited to 100-600 gallons for dilute spray, 20-100 gallons for concentrate and 1-25 gallons for aerial. Do not apply when weather conditions favor drift of spray from areas treated. Repeat applications as necessary unless otherwise specified. Consult your state experiment station or state extension service for proper timing of applications.

DIMETHOATE 4 EC is compatible in spray tank mixes with most insecticides, miticides, and fungicides, provided they are not alkaline in reaction. **DIMETHOATE 4 EC** has systemic and contact activity against a broad spectrum of piercing, sucking and chewing insects.

For proper mixing, spray tank should be at least 3/4 filled with water before adding **DIMETHOATE 4 EC**. Mechanical agitation or recirculation through pump bypass to tank is usually sufficient for maintaining a good dispersion. Spray tank mixtures of **DIMETHOATE 4 EC** with fertilizers that are alkaline should be applied immediately.

All spray mixes should be made in accordance with the product that has the more restrictive label limitations and precautions.

Dimethoate may produce a distinctive odor during the spray operation, but under normal conditions this odor does not persist.

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FRUIT

APPLES: Apple Maggot*, Codling Moth** 1 pt. per 100 gallons of water. Do not apply when

11/2/17

trees or substantial numbers of weeds in the orchard (grove) are in bloom. Apply at petal-fall and every 10 to 14 days thereafter until control is achieved.

Do not apply within 28 days of harvest. Do not feed treated forage or graze livestock on treated orchards.

* Under heavy infestations, some sting injury may occur.

** Midwest and eastern states only.

APPLES PEARS: Aphids, Leafhoppers, Mites (except Rust Mites), Pear Psylla - 1/2 to 1 pt. per 100 gallons water. Do not apply when trees or substantial numbers of weeds in the orchard (grove) are in bloom. Do not apply within 28 days of harvest. Do not feed treated forage or graze livestock on treated orchards.

GRAPEFRUIT, LEMONS, ORANGES TANGERINES: Aphids - Ground Equipment. 1/2 to 1 pt. per 100 gallons of water. Apply as an outside coverage spray. Aircraft Equipment: 1 to 2 qts. per acre in 5 to 10 gallons water. Do not apply within 15 days of harvest. **Mites (except Rust Mites)** - Ground Equipment. 1/2 to 1 pt. per 100 gallons of water. Apply as a thorough distribution coverage spray. Do not apply within 15 days of harvest. **Scales (except Black or Snow)** - Ground Equipment. 1 to 1 1/2 pts. per 100 gallons of water. Apply as a thorough coverage spray. Do not apply within 45 days of harvest. **Thrips** - Ground Equipment. 1/2 to 1 pt. per 100 gallons of water. Apply as a mist spray. Aircraft Equipment: 1 to 2 qts. per acre in 5 to 10 gallons water. Do not apply within 15 days of harvest. **Whiteflies** - Ground Equipment. 1 pt. per 100 gallons of water. Apply as a thorough distribution coverage spray. Do not apply within 15 days of harvest.

Do not apply when trees or substantial numbers of weeds in the orchard (grove) are in bloom. Do not use on citrus seedlings. Make no more than 2 applications to mature fruit. Do not enter treated groves within 4 days of last application. Do not graze livestock or cover crops in treated orchards.

GRAPES (CALIF. RAISIN, WINE, TABLE AND CANNING GRAPES): Grape Leafhopper, Pacific Spider Mite - 1/2 to 1 pt. per 100 gallons water not to exceed 400 gallons per acre. Apply lower or higher rate depending upon vine growth density. Repeat as necessary. Do not apply within 28 days of harvest. Do not enter treated fields within 4 days of last application.

NUTS

PECANS: Aphids, Mites, Leafhoppers - Ground Equipment. 2/3 pt. per acre. **Aphids** - Aerial Equipment. 2/3 pt. per acre in a minimum of 5 gallons of finished spray. Do not graze livestock in treated groves. Do not apply within 21 days of harvest.

VEGETABLE CROPS

BEANS (GREEN, LIMA, SNAP, DRY): Aphids, Bean Leaf Beetle, Grasshoppers, Leafhoppers, Leaf Miners, Lygus Bugs, Mexican Bean Beetle, Mites - 1/2 to 1 pt. per acre. Beans may be harvested on day of application. Do not feed treated vines. This pesticide is highly toxic to bees, do not apply if bees are visiting the areas to be treated when crop or weeds are in bloom. *Do not apply within 7 days of harvest.*

BROCCOLI, CAULIFLOWER: Aphids - 1 to 1 pt. per acre. Do not apply within 7 days of harvest.

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CABBAGE: Aphids - 1/2 to 1 pt per acre Do not apply within 7 days of harvest

HEAD LETTUCE: Aphids, Leafhoppers, Leaf Miners - 1/2 pt per acre Do not apply within 7 days of harvest

CELERY (FLORIDA): Leaf Miners, Carmine Mite, Two-spotted Spider Mite - Ground Equipment. 1 pt. per acre Do not apply within 7 days of harvest

LUPINE: Aphids, Lygus Bugs - 1/2 to 1 pt per acre Apply when Aphids first appear. Make only 2 applications per season. Lupine may be harvested on day of application. Do not feed or graze, forage or hay. This pesticide is highly toxic to bees, do not apply if bees are visiting the areas to be treated when crop or weeds are in bloom.

LEAF LETTUCE, SPINACH, COLLARDS, KALE, TURNIP (GREENS AND ROOTS), MUSTARD GREENS, SWISS CHARD, ENDIVE (ESCAROLE): Aphids, Leafhoppers, Leaf Miners - 1/2 pt. per acre Do not apply within 14 days of harvest

LENTILS: Lygus Bugs - 1 pt per acre. Aphids - 1/2 to 1 pt per acre. Do not apply within 14 days of harvest. Do not feed or graze treated plants. Do not make more than two applications per growing season. This pesticide is highly toxic to bees, do not apply if bees are visiting the areas to be treated when crop or weeds are in bloom

MELONS (except Watermelons): Aphids, Leafhoppers, Leaf Miners, Thrips - 1 pt per acre. Do not apply within 3 days of harvest

PEAS: Aphids - 1/3 pt per acre Peas may be harvested on day of application Do not feed or graze hay within 21 days after last application when a stationary viner is used Do not feed or graze when a mobile viner is used This pesticide is highly toxic to bees, do not apply if bees are visiting the areas to be treated when crop or weeds are in bloom Do not make more than one application per season. *Do not apply within 7 days of harvest*

) **PEPPERS:** Aphids, Leaf Miners, Maggots - 1.2 to 2/3 pt per acre Peppers may be harvested on day of application *Do not apply within 7 days of harvest*

POTATOES: Aphids, Grasshoppers, Leaf Miners, Leafhoppers - 1/2 to 1 pt per acre Potatoes may be harvested on day of application *Do not apply within 7 days of harvest.*

TOMATOES: Aphids, Leaf Miners, Leafhoppers - 1/2 to 1 pt per acre Do not apply within 7 days of harvest

Where cabbage worms and cabbage loopers are a problem, the above rates are compatible with endosulfan, malathion or parathion Use in accordance with the manufacturer's directions for control of these insects

FIELD CROPS

ALFALFA: Aphids, Grasshoppers, Leafhoppers, Plant Bugs including Lygus bugs, Reduction of Alfalfa Weevil Larvae - 1/2 to 1 pt per acre This pesticide is highly toxic to bees, do not apply if bees are visiting the areas to be treated when crop or weeds are in bloom Do not apply within 10 days of harvest or pasturing Make only one application per cutting Effective only on cutting to



which applied.

FIELD CORN: Banks Grass Mites (excluding Trans-Pecos area of Texas), Aphids, Bean Beetle, Corn Rootworm Adult*, Two-spotted Spider Mite - 2/3 to 1 pt. per acre Aerial Application Spray over the foliage when mites appear. Apply above rates in 1 or more gallons of water per acre Grasshoppers - 1 pt. per acre Ground Application Apply above rate in 20 to 40 gallons of water per acre Aerial Application. Apply above rate in 1 or more gallons of water per acre. Apply as necessary. Make no more than three applications per year. Do not feed or graze within 14 days of last application. Do not apply within 14 days of harvest. Do not apply to corn during the pollen-shed period.

*NOTE - Corn Rootworm Adult not registered for use in California

COTTON (GROWN IN CALIFORNIA AND ARIZONA): Plant Bugs including Lygus Bugs, Leafhoppers, Black Fleahoppers - 1/2 to 1 pt. per acre Repeat applications should not be made at intervals closer than 14 days Make only 2 applications per season at the higher rate. Do not feed treated forage or graze livestock on treated fields Do not apply within 14 days of harvest.

COTTON: Aphids, Mites, Thrips, Fleahoppers - 1/4 to 1/2 pt. per acre. Plant Bugs including Lygus Bugs - 1/2 pt. per acre. Repeat applications should not be made at intervals closer than 14 days. Do not feed treated forage or graze livestock on treated fields. Do not apply within 14 days of harvest.

SAFFLOWER (GROWN IN CALIFORNIA AND ARIZONA): Aphids, Leafhoppers, Plant Bugs including Lygus and Thrips - 1/2 to 1 pt. per acre Repeat applications should not be made at intervals closer than 14 days Make only 2 applications per season at the higher rate Do not apply within 14 days of harvest

SORGHUM (MILO): Aphids - 1/2 to 1 pt. per acre Ground Application Apply above rates in 25 to 40 gallons of water per acre Aerial Application Apply above rates in 1 or more gallons of water per acre. Banks Grass Mites (excluding Trans-Pecos area of Texas). Spider Mites - 1 pt. per acre. Ground Application Apply above rate in 25 to 40 gallons of water per acre Aerial Application. Apply above rate in 1 or more gallons of water per acre Sorghum Midge - 1/4 to 1/2 pt. per acre Aerial Application Apply above rates in 1 or more gallons of water per acre Do not feed or graze within 28 days of last application Make no more than 3 applications as needed per season Do not apply after heading

SOYBEANS: Mexican Bean Beetle, Leafhopper, Spider Mites, Bean Leaf Beetle, Three Cornered Alfalfa Hopper* - 1 pt. per acre Aerial Application Apply recommended rate in a minimum of 2 gallons of water per acre Grasshoppers - 1 pt. per acre Ground Application: Apply rate in 25 to 40 gallons of water per acre Aerial Application Apply rate in 1 or more gallons of water per acre Do not feed or graze within 5 days of last application Do not apply within 21 days of harvest

*Note - Three Cornered Alfalfa Hopper not registered for use in California

WHEAT: Aphids (Greenbugs) - 1 to 1 1/2 pt. per acre Brown Wheat Mite - 1/3 to 1/2 pt. per acre

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Grasshoppers - ¼ pt. per acre Do not apply within 14 days of grazing immature plant Do not harvest grain within 35 days of last application Do not make more than 2 applications per season

SEED CROPS

ALFALFA: Aphids, Leafhoppers, Lygus Bugs, Grasshoppers, Reduction of Alfalfa Weevil Larvae - ½ to 1 pt. per acre This pesticide is highly toxic to bees, do not apply if bees are visiting the areas to be treated when crop or weeds are in bloom Do not feed or graze livestock in treated crops, hay, threshings or stubble within 10 days of application

ATTENTION: DO NOT USE ON SEED ONIONS, SEED CARROTS, OR SEED BERMUDA GRASS!

CITRUS TREES - NONBEARING AND NURSERY STOCK

Consult your state agricultural experimental station or state agricultural extension service for proper timing of applications

CITRUS (CALIFORNIA, ARIZONA) GRAPEFRUIT, LEMONS, ORANGES, TANGERINES:

Aphids, Thrips - Foliar Spray: 1 pint per acre Repeat applications as necessary. May be applied in the year grapefruit, lemon, orange and tangerine trees begin to bear fruit Do not enter treated groves within 4 days of last application **Soil Drench (Trees 1 to 3 years old)** 2 quarts per acre applied in the furrow or basin around the base of tree Apply when insect injury to new growth appears. Do not apply to trees that will bear fruit within one year Do not apply when trees or substantial numbers of weeds in the orchard (grove) are in bloom Do not feed treated forage or graze livestock on treated orchards.

MAGGOT SPRAYS: For the control of Housefly maggots, mix 4 oz. of DIMETHOATE 4 E.C. in 5 quarts of water and apply as a coarse spray or with a sprinkling can to fly breeding areas, such as poultry droppings in caged-layer houses, garbage dumps and manure piles Repeat application as additional manure or garbage is added

DO NOT CONTAMINATE FEED AND FOODSTUFFS, DRINKING FOUNTAINS, LITTER AND FEED TROUGHS DO NOT USE IN MILK PROCESSING ROOMS, INCLUDING MILK HOUSES AND MILK STORAGE ROOMS DO NOT USE IN HOMES

ORNAMENTALS

DIMETHOATE 4 EC is effective in controlling many sucking, piercing and chewing insects that attach valuable ornamental plantings Apply sprays uniformly and thoroughly to foliage, except as otherwise directed, when insects or their damage is first observed Repeat applications as needed Do not overdose or overspray Use only on the ornamental plants listed below

IMPORTANT - When making soil injections, use a low pressure soil injection device **DO NOT** inject into soil areas where children or pets may dig or exhume treated soil Do not make soil injections within 20 feet of edible crop gardens

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HACKBERRY: Hackberry Nipplegall Psyllid, Hackberry Budgall Psyllid - *Soil injection*. Use a 1:3 dilution (1 part DIMETHOATE 4 EC to 3 parts water) Apply using a low-pressure injector Inject 1 fl. oz. of dilution, 6 inches below ground, for each 1/2 inch of trunk diameter. Make insertions within dripline of tree Apply prior to bud break Do not apply to plants that have not been established for at least 3 years

HONEYSUCKLE: Honeysuckle Aphid - *Soil injection* Use a 1:3 dilution. Apply using a low-pressure injector. Inject 1 1/4 fl. ozs. of dilution, 6 inches beneath ground surface, for each 1/2 inch of trunk diameter Do not apply to plants that have not been established for at least 3 years.

PINYON PINE: Pinyon Needle Scale - 25 1/2 ozs. in 10 gals. water Apply spray to egg masses at the base of the trees and to all rough bark and crotches that can be reached from the ground. Make this bark application when crawlers start to emerge from the eggs. Use hydraulic or backpack sprayer. Do not spray leaves or needles since phytotoxicity may result **Pinyon "Pitch Mass" Borer, Pinyon Spindle Gall Midge, Tip Moth - Soil injection** Use a 1:3 dilution. Apply using a low-pressure injector Inject 1 1/2 fl. ozs. of dilution, 6 inches below ground surface, for each 1 inch of trunk diameter. Make insertions within dripline of tree For Spindle Gall Midge and Tip Moth, apply in mid to late spring. For Pinyon Borer make application in early summer

DOUGLAS FIR: Fir Cone Midge - 6 1/2 ozs. in 10 gals. water Make thorough coverage application when cones are closed and pendant Use hydraulic or back-pack sprayer

PINES: Loblolly Pine Sawfly, Nantucket Pine Tip Moth - 6 ozs. in 10 gals. water. Apply when most larvae are in the second and third instars **Zimmerman Pine Moth** - 3 1/2 ozs. in 10 gals. water Spray in mid-April and/or in early September for larvae control

ARBORVITAE: Aphids, Bagworm, Mites - 3 1/2 ozs. in 10 gals. water

AZALEAS: Lace Bug, Leafminers, Mites, Tea Scale, Whiteflies - 1 1/4 ozs. in 10 gals. water

BIRCH: Aphids, Leafminers - 1 1/4 ozs. in 10 gals. water For leafminers, apply when leaves are expanded, about mid-May, and repeat in early July

BOXWOOD: Leafminers, Mealy Bug, Mites - 1 1/4 ozs. in 10 gals. water For leafminers, apply in

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spring when leafminer flies first appear, or in early summer for control of larvae in the infested leaves

CARNATIONS: Aphids, Thrips, Mites - *Soil drench* 2 ozs per 500 sq ft of bed or bench. Apply in sufficient water for even distribution. Water in thoroughly following application

CAMELLIAS: Aphids, Camellia Scale, Mites, Tea Scale - *Foliar Spray* 1 1/4 ozs in 10 gals. water. Apply 2 sprays 6 weeks apart the first year, followed by annual applications soon after first growth begins in the spring. *Soil drench* 2 ozs in 1 gal water. For plants up to 6' tall, increase rate proportionately for larger plants. Apply as a soil drench around the base of plants in early spring.

CEDAR: Mites - 3 1/2 ozs. in 10 gals. water.

CYPRESS: Bactra Moth Larvae - 1 1/4 ozs. in 10 gals. water. Apply as a drenching spray.

DAYLILLIES: Aphids, Thrips - 3 1/4 ozs in 10 gals. water.

EUONYMUS: Aphids, Scale - 3 1/2 ozs in 10 gals. water

) **FICUS NITIDA:** Thrips - 1 1/4 ozs in 10 gals. water

GARDENIAS: Tea Scale, Whitefly - 1 1/4 ozs in 10 gals. water

GERBERAS: Thrips - 1 1/4 ozs. in 10 gals. water

GLADIOLUS: Aphids, Thrips - 1 1/2 ozs in 10 gals. water

HEMLOCK: Mites, Scale - 1 1/4 ozs in 10 gals. water

HOLLY (ENGLISH & AMERICAN) NOT BURFORD VARIETY: Leafminers, Mites, Soft Scale - 1 1/4 ozs. in 10 gals. water. For leafminers, apply in spring when leafminer flies first appear, or in early summer, for control of larvae in infested leaves

) **IRIS:** Aphids, Iris Borer, Thrips - 3 1/2 ozs in 10 gals. water. For borer control, spray when new leaves are 5 to 6 inches tall

JUNIPER: Aphids, Bagworms, Midges, Mites - 3 1/2 ozs in 10 gals. water

OAK: Golden Oak Scale - 3 1/2 ozs in 10 gals. water

POINSETTIA: Mites, Whitefly, Mealybug, Aphids - 1 1/4 ozs in 10 gals. water

ROSES: Aphids, Leafhoppers, Mites, Thrips - 1 1/4 ozs in 10 gals. water

TAXUS (upright or spreading yew): Fletcher Scale, Mealybug, Mites - 3 1/2 ozs in 10 gals. water

CONDITIONS OF SALE - LIMITED WARRANTY
AND LIMITATIONS OF LIABILITY AND REMEDIES

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