

SEP 07 1994

Tim Debus  
Registration Specialist  
Mycogen Corporation  
4980 Carroll Canyon Road  
San Diego, CA 92121

300 / 18 = 5-472666

Dear Mr. Debus:

Subject: M-Pede Insecticide/Fungicide  
EPA Registration No. 53219-6  
Amendment dated August 10, 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. Submit one copy of your final printed labeling before you release the product for shipment.

The Signal Word and Precautionary Statements associated with dermal effects are currently undergoing evaluation. If it is determined through this evaluation that the signal word should be different than "Warning", you will be required to submit revised labels and to relabel all stocks in your custody and control within 30 days of notice by EPA.

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. If you have any questions about this letter, please contact Beth Edwards at (703) 305-5400 or (703) 305-6600.

Sincerely yours,

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

Enclosure

BEdwards 9/8/94 A:53219/6.3

# M-PEDE®

## INSECTICIDE/FUNGICIDE

FOR COMMERCIAL USE

**ACTIVE INGREDIENT**

Potassium salts of fatty acids.....49% ✓

**INERT INGREDIENTS**.....

ACCEPTED  
with COMMENTS  
in EPA Letter Dated  
SEP 6 1994  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
53219-6

.....51% ✓

**TOTAL**.....100%

**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 the label, find someone to explain it to you in detail.) See side and back panels for additional precautionary statements

← WPS Verbrage

EPA Registration No. 53219-6

Net Contents: 2½ gallons

EPA Establishment No. 907-TN-01 4091-CA-01 4091-TN-03

M-Pede is a registered trademark of Mycogen Corporation.



Mycogen Corporation  
4980 Carroll Canyon Road  
San Diego, California 92121  
(800-745-7476)

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### 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 12 hours. 24??

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, waterproof gloves, and shoes plus socks.

#### 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.

#### GENERAL INFORMATION

M-Pede® is an effective contact insecticide, miticide and fungicide for control of soft bodied insects, mites and powdery mildew. The formulation is based on potassium salts of naturally derived fatty acids. This product may be used to control targeted pests on crops which include vegetables, grapes and other small fruits, tree fruits, tree nuts, cotton, tobacco, shrubs, shade and ornamental trees, turf, foliage and flowering plants growing outdoors, in greenhouses and in interiorscapes. This product can be applied up to harvest.



#### PRECAUTIONARY STATEMENTS

##### WARNING

**Hazards to Humans and Domestic Animals:** Causes skin irritation. Causes substantial but temporary eye injury. Do not get in eyes, on skin or on clothing.

**First Aid:** If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes.

If on skin: Wash with plenty of soap and water. Get medical attention.

If swallowed: Drink promptly a large quantity of milk, egg white, gelatin solution, or, if these are not available, large quantities of water. Avoid alcohol.

**Environmental Hazards:** This product may be hazardous to aquatic invertebrates. Do not apply directly to water, areas where surface water is present, or to intertidal areas below the mean high water mark.

Do not contaminate water by cleaning of equipment or disposal of water.

**Physical or Chemical Hazards:** Flammable. Keep away from heat or open flame.

**Personal Protective Equipment:** Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical resistance category selection chart.

Handlers who may be exposed to the diluted product through application or other tasks must wear: long-sleeved shirt and long pants, shoes plus socks.

Handlers who may be exposed to the concentrate through mixing, loading, application, or other tasks must wear: Coveralls or short-sleeved shirt and short pants, chemical resistant-gloves such as butyl rubber, nitrile rubber, neoprene rubber or PVC, chemical-resistant footwear plus socks, protective eyewear, chemical-resistant headgear for overhead exposure, and chemical-resistant apron when cleaning equipment, mixing or loading. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

##### User Safety Recommendations:

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

For emergency medical information, call toll free 1-800-228-5635.

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### PESTS CONTROLLED

New heading; combine from other sections

This product may be used as a foliar spray to control or suppress soft bodied pests which include: adelgid, aphid, caterpillars, earwig, lace bug, leafhopper, leafminer, mealybug, mole cricket, plant bug, psyllid, sawfly larva, scale, spider mite, tent caterpillar, thrips, whitefly, gypsy moth, and chinch bug. This product provides curative control of powdery mildew.

New insects

### MIXING AND APPLICATION

#### Rates

- Rate when used alone: Use a 2% v/v solution of this product.
- Rate when used in tank mixes: To achieve enhanced and residual pest control, use a 1 to 2 % v/v solution of this product in combination with a recommended product.
- Refer to individual sections of this label for specific use rates for control of pests on specific crops.
- Rates are often provided as a % volume/volume (v/v) solution. A 2% v/v solution is prepared by adding 2 gallons of M-Pede to 98 gallons of spray solution.

Remove reference to specific sections

refer to specific sections

#### Timing of Application

- Initiate applications as soon as pest is observed, or as needed to avoid economic injury. Repeat applications at one to two week intervals, or as needed, to control reinfesting or increasing pest populations.
- Do not make repeat applications at less than 7 day intervals, or make more than 3 sequential applications at 7 to 14 day intervals unless your prior experience has shown the use pattern to be non-injurious to the type and the developmental stage of plant(s) to be treated under local growing conditions.

#### Mixing

- Always determine the compatibility of water, pesticides and other tank additives with this product prior to addition to the spray tank. Determine compatibility by conducting a jar test using proportional quantities of each material.
- For best results, use freshly mixed spray made with soft water. If water has high mineral content (hardness > 300 ppm or 17.5 grains/gallon), check for compatibility as described above. If needed, add an approved compatibility agent to the tank prior to the addition of this product.
- A defoaming agent may be needed for use in sprayers equipped with an agitator.
- This product is compatible with many pesticides which include : Agri-mek®, Ambush®, Azatin®, Asana XL®, Avid®, Bayleton®, Baythroid® 2, Bidrin®, Bolstar® 6, Capture®, Cygon®, diazinon, Dursban®, Eagle®, Guthion®, Lannate®, Lorsban®, Margosan O®, malathion, Mavrik Aquaflow®, Monitor®, Orthene®, Pageant®, Pipron®, Pounce®, Pyrellin®, Pyrenone®, Rally®, Rubigan®, Sevin®, Thiodan®, Phaser®, Talstar®, Vendex® and Zephyr®.
- Use freshly prepared spray solutions.

When using this product in a tank mix, read and follow all product labels. The recommended order of mixing is:

- Compatibility agent (if needed)
- Wettable and soluble powders
- Flowable liquids
- Emulsifiable oils and concentrates
- M-Pede

Application of spray mixtures should conform to use precautions and directions for all products included in the tank mix. Combinations should be kept agitated and sprayed promptly after mixing.

#### Application

- This product may be applied with most types of ground or aerial spray equipment. Do not use with pulse or thermal fogger applicators. Do not apply through any type of irrigation system.
- This product must come into contact with the targeted soft bodied pests or powdery mildew to be effective. Complete coverage of pests is essential for maximum control. Direct sprays to contact the pests.
- Apply M-Pede solutions to wet (minimize run-off) to decrease the potential for injury on foliage, fruit and flowers of sensitive plants.
- Apply promptly after mixing with other pesticides to avoid or reduce alkaline hydrolysis of certain pesticides.
- Avoid applications when wind conditions impair thorough coverage.
- Unless otherwise noted, do not tank mix this product with adjuvants such as penetrators, spreader stickers or activators, gibberellic acid, calcium nitrate or diatomaceous earth, foliar nutrients, alkaline based chelating

New headings

Combined from other sections

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agents (such as EDTA), Aiette®, chlorothalonil and pesticides containing sulfur or metallic ions (such as manganese, magnesium, iron, zinc, etc.) as they may be physically incompatible and/or phytotoxic.

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- Avoid applications on new transplants and unrooted cuttings.

**Notes to User: Understanding Plant Sensitivity**

Sensitivity of plants to this product can be influenced by several factors which include: cultivar, plant vigor, environmental conditions (temperature, relative humidity, moisture availability, light intensity, etc.), spray concentration, spray additives, pH of spray mixtures, delivery volume as well as the timing, number and frequency of applications.

- Potential for plant injury increases when this product is used under the following conditions:
  - Plants are stressed, such as under hot (> 90° F), humid and/or drought conditions.
  - More than 3 sequential applications are made at 7 day intervals.
  - The pH of the final spray mixture is lowered below 8.0.
  - High volume applications cause the spray to collect on the bottom of fruit such as apple, pear, nectarine, orange and grape.
  - Tender new foliage is present on narrow leaf evergreen trees and shrubs.
- Mixing sulfur (micronized and flowable) with this product or applying this product within 3 days of a sulfur application will increase potential for sulfur burn on sensitive plants such as grapes. Avoid tank mixes with wettable sulfur during hot weather (> 90° F).
- Application of this product may result in removal of the glaucous bloom from spruces and the waxy bloom on grapes.
- Evaluate the effect of this product alone or in combination with desired companion product(s) on a few test plants prior to full scale applications when sensitivity of plant species or cultivars under local use conditions is unknown.
- Do not apply to very sensitive plants such as: horse chestnut, Japanese maple, mountain ash, Cherimoya, bleeding heart or sweetpeas.
- The following plants may be sensitive to this product: bald cypress, begonia, chrysanthemum, Crown of Thorns and other Euphorbia, cucumber, delicate ferns, narrow leaf evergreens (especially when stressed or when tender new growth is present), Dieffenbachia, fuschia, gardenia, impatiens, jade plant, lantana, ornamental ivy, palms, poinsettia, redbud, river birch, schefflera, Zebra plant and some succulents. Test first on a few plants prior to broad scale applications when sensitivity under local use conditions is unknown.
- Flowers of plants including African violet, ageratum, azalea, begonia, camellia, chrysanthemum, dahlia, geranium, gloxinia, impatiens, lily, marigold, orchid, pansy, petunia, poinsettia bracts, rose, salvia, snapdragon, vinca and zinnia may be injured when sprayed with this product. Safety to blooms should be determined for each individual cultivar of plant to be treated by conducting a small test under local use conditions.

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# INSECTICIDAL/MITICIDAL AND FUNGICIDAL USES

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## VEGETABLES, HERBS AND SPICES (Greenhouse and Outdoor)

**Vegetables:** Artichoke, Asparagus, Brassica (cole), (such as: bok choy, broccoli, broccoli raab, brussell sprout, cabbage, cauliflower, Chinese broccoli, Chinese cabbage, collard greens, kale, kohlrabi, mustard greens, napa cabbage and Swiss chard ), Bulb (such as: green onion, leeks, garlic and onion ), Cucurbit (such as: cucumber, melon, pumpkin and summer squash), Fruiting (such as: eggplant, pepper and tomato), Leafy (such as: celery, endive, escarole, lettuce and spinach), Legume (such as: bean, pea and soybean), Root and tuber (such as: beet, carrot, horseradish, potato, radish, rutabaga, shallot, sugarbeet and yam), Herbs and spices: (such as: basil, chive, dill, marjoram, parsley and sage), Watercress.

**Use Recommendations:** For stand alone use, apply a 1-2% v/v solution of this product, unless otherwise noted. Refer to the MIXING AND APPLICATION SECTION on p.-3 of this label for general rate, timing and application information except as noted below.

PEST	RECOMMENDATIONS
Leafminer and green peach aphid	Apply this product only in tank mix combination with a labeled companion insecticide.
Other aphids	To achieve enhanced and residual pest control, use a 1-2% v/v solution of this product in combination with a recommended rate of products such as Thiodan (endosulfan), Phosdrin (mevinphos), or Orthene (acephate).
Whiteflies	Apply a 1-2% v/v solution of this product for stand alone use. To achieve enhanced and residual pest control, use a 1-2% v/v solution of this product in combination with a recommended rate of a product such as Thiodan (endosulfan), or Asana XL (fenvalerate). Lower rates (0.25-1% v/v solution) may be applied in knockdown/suppression of adult whiteflies.
Thrips, plant bugs, spider mites, broad mites, russet mites and leafhoppers	See MIXING AND APPLICATION section on p.-3 of this label for information on rates, mixing and application.
Powdery mildew	<p>Artichoke, Asparagus, Brassica (cole), Bulb, Cucurbit, Fruiting, Leafy, Legume, Herbs and Spices, Root and Tuber Vegetables, Watercress: For stand alone use, apply a 1-2% v/v solution of this product when the first signs of powdery mildew appear and repeat at 7 to 10 day intervals, or as needed. Schedule a follow-up fungicide application within 7 to 10 days after each application when this product is applied alone.</p> <p>For tank mix use, apply a 1-2% v/v solution of this product with a recommended fungicide to achieve protectant/residual control of powdery mildew.</p> <p>See Application Guidelines and Notes to User: Understanding Plant Sensitivity sections on pgs.3-4 of this label for additional comments and instructions for use with sulfur.</p>

Artichoke and Watercress moved from crop table on page 8

Listed more members of each crop group

New insect

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**FRUIT AND NUT CROPS:**

**FRUIT AND NUT CROPS:**

Citrus fruits (such as: citron, grapefruit, kumquat, lemon, lime, orange, tangelo, and tangerine), Pome fruits (such as: apple, crabapple, pear and quince), Stone Fruits (such as: apricot, cherry, nectarine, peach, plum and prune), Small Fruits and Berries (such as: blackberry, blueberry, cane berries, cranberry, currants, grape, raspberry, strawberry, boysenberry, and olallieberry) and Tree Nuts (such as: almond, chestnut, filbert, pecan, pistachio, black and English walnut).

**Use Recommendations:** For stand alone use, apply a 1-2% v/v solution of this product, unless otherwise noted. Refer to the MIXING AND APPLICATION SECTION of this label for general rate, timing and application information except as noted below.

- For all Fruit and Nut Crops: Apply to wet (minimize run off) with an air blast or other appropriate sprayer. Application of excessive water volumes will increase the potential for fruit injury by causing collection of spray on the bottom of fruit, especially when poor drying conditions exist.
- Grapes: This product may alter the waxy bloom and or cause marking on the surface of grapes which can affect the quality rating of table grapes at harvest. To reduce potential for fruit injury, do not apply in greater than 75 gallons of water per acre on table grapes after berries are 6-7 mm in diameter. Do not apply this product to Calmeria or Italia varieties of grapes.
- Citrus: Precaution: Fruit marking may occur when sooty mold is present.
- Pears: Applications of this product are not recommended after the delayed dormant stage on fresh market pear varieties including d'Anjou and Asian pears. Applications aft. fruit set may cause marking which can reduce market value of the fruit.
- Stone Fruits: Concentrate (air blast) applications are recommended with a maximum volume of 100 gallons per acre on smooth skinned fruits and 175 gallons per acre on peaches. Do not make dilute spray applications on smooth skinned fruit after fruit formation. This product is not recommended for use on yellow skinned nectarine varieties.

Listed more members of crop groups

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expanded insect groups by listing specifics

PEST	RECOMMENDATIONS
Citrus rust mite	Apply a 1-2% v/v solution of this product. Use of a suitable citrus spray oil in combination with this product applied to wet (minimize run-off) with an air blast or other appropriate sprayer may help improve performance.
European red mite, Pacific mites, two spotted mites, Wilamette mite	Apply a 1-2% v/v solution of this product to control motile stages. To achieve enhanced and residual control, use a 1-2 % v/v solution of this product in combination with recommended products such as Vendex or Kethane.
Green apple aphid	To achieve enhanced and residual control, use a 1-2% v/v solution of this product in combination with recommended products such as Thiodan.
Western grape and variegated leafhoppers	To achieve enhanced and residual control, use of a 1-2 % v/v solution of this product in combination with recommended products such as Pyrellin or Pyrenone. Scout and make first application to control nymphs during the first generation (first brood) when the majority of nymphs are in the third - fourth instars. This product is effective for late season and preharvest suppression of leafhoppers in wine and raisin grapes
Pear psylla	Apply a 1-2% v/v solution of this product at delayed dormant to control winterform and newly hatched nymphs. Make follow up applications on processing pears at petal fall and turn down for control of 1st and 2nd generation nymphs before they mature into fourth instars.
Rosy apple aphid	Apply a 1-2% v/v solution of this product. Addition of an appropriate spray oil to this product may help to improve performance. Time sprays to coincide with pre pink or pink stages of apples.
White apple leafhopper	To achieve enhanced and residual control, use a 1-2% v/v solution of this product in combination with recommended products such as Thiodan. Target 1st generation nymphs before they mature into flyers.

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<p>Other aphids, campylopa, mealybugs, rust mites, pear slug (sawfly larvae) scale crawlers, leafhoppers and whiteflies</p>	<p>See MIXING AND APPLICATION section on p -3 of this label for information on rates, mixing and application.</p>
<p>powdery mildew</p>	<p><b>Grapes:</b> Apply a 1-2% v/v solution of this product to control powdery mildew spores and hyphae. Initiate sprays at bud break or as appropriate based on local powdery mildew control recommendations. Repeat at 7 to 10 day intervals, or as needed through veraison. Schedule a follow-up fungicide application within 7 to 10 days after each application when M-Pede is used alone. Use this product in a scheduled preventive spray program with recommended fungicides such as Bayleton, Rally, Rubigan and/or sulfur to achieve protectant/residual control of powdery mildew. Do not tank mix this product with sulfur. Applications of this product within 3 days of a sulfur application will increase potential for sulfur injury, especially on early season new growth. This product may be applied in tank mixes with fungicides such as Bayleton, Rally or Rubigan.</p> <p>Tank mix this product at the rate of 1-2% v/v with labeled rates of companion pesticides. Rates of M-Pede below 1% v/v will not be fungicidal against powdery mildew.</p> <p>Complete coverage of grape clusters as well as leaf surfaces is essential for effective control.</p> <p><b>Citrus fruit, Pome fruit, Stone fruit, Small fruits and Berries, Tree nuts:</b> For stand alone use, apply a 1-2% v/v solution of this product when the first signs of powdery mildew appear and repeat at 7 to 10 day intervals, or as needed. Schedule a follow-up fungicide application within 7 to 10 days after each application when this product is applied alone.</p> <p>For tank mix use, apply a 1-2% v/v solution of this product with a recommended fungicide to achieve protectant/residual control of powdery mildew.</p> <p>See Application Guidelines and Notes to User: Understanding Plant Sensitivity sections on pgs.3-4 of this label for additional comments and instructions for use with sulfur.</p>

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Added in addition to listing in "Vegetables"

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**FIELD CROPS**

**Alfalfa, Canola, Cotton, Peanut, Soybean, Tobacco and Wheat:** for control of aphid, caterpillars (in tank mix combination only), exposed thrips, greenbug, fleahopper, plant bug (such as lygus and stink bugs), spider mite and whitefly.

Refer to the MIXING AND APPLICATION SECTION on p.-3 of this label for general rate, timing and application information except as noted below.

**SPECIFIC RECOMMENDATIONS**

**Stand alone applications:**

- Use 4 pints of this product per acre when applications are made in 3 - 25 gallons of water per acre. Use a 2% v/v spray solution of this product when 25 or more gallons of water are applied per acre.

**Tank Mixtures:**

- When used in combination with other insecticides, use 0.75 to 4 pints of this product per acre when applied in 3 - 25 gallons of water per acre. Use a 1 -2 % v/v solution of this product when greater than 25 gallons of water are applied per acre.
- To achieve enhanced and residual control of caterpillars, use this product in combination with recommended insecticides such as Baythroid, Bolstar and Orthene.
- To achieve enhanced and residual control of other insects (aphids, thrips, greenbug, fleahopper, plant bug, spider mite, white fly), use this product in combination with recommended insecticides such as Bidrin, Thiodan, Phaser, Orthene, Asana, Capture or Zephyr.
- For control of tobacco aphids, use this product in combination with a recommended rate of Orthene and apply in 25 - 50 gallons of water per acre.
- In situations where thorough coverage of pests is not possible or practical, it is recommended that this product be tank mixed with one of the companion pesticides listed above.
- This product may be used in tank mixes with penetrator type adjuvants for application to cotton, peanuts and tobacco only if prior use under local use conditions has demonstrated plant safety.

Caterpillars used instead of "Lepidopterous larvae".

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listing specific aphid

**HOPS, COFFEE, BANANA AND PINEAPPLE:**

**Use recommendations:** For stand alone use, apply a 1-2% v/v solution of this product, unless otherwise noted. Refer to the MIXING AND APPLICATION SECTION on p.-3 of this label for general rate, timing and application information except as noted below.

**Pests controlled:** aphid, leafhopper, mealybug, spider mite, plant bug, scale, exposed thrips and whitefly.

**Rate when used in tank mixes:** To achieve enhanced and residual pest control, use a 1 to 2% v/v solution of this product in combination with a recommended companion product. Use a 1% v/v rate with most companion pesticides targeted at the same pest(s) as M-Pede. Lower rates (0.25 - 1.0 % v/v solution) of this product may be used in tank mixes for knockdown/suppression of adult whiteflies.

See Application Guidelines and Notes to User: Understanding Plant Sensitivity on pgs.3-4 of this label for additional comments.

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**TURF:**

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**Use Recommendations:** For stand alone use, apply a 1-2% v/v solution of this product, unless otherwise noted. Refer to the MIXING AND APPLICATION SECTION on p.-3 of this label for general rate, timing and application information except as noted below.

PEST	RECOMMENDATIONS
Chinch bug, cutworm, flea, greenbug, grub, mites, mole cricket and sod webworm	<p>For use on mole crickets, irrigate turf prior to application of this product to bring mole crickets to the surface.</p> <p>Rate when used in tank mixes: To achieve enhanced and residual pest control, use a 1 to 2% v/v solution of this product in combination with recommended products such as: Pageant, Dursban, malathion, diazinon or Orthene.</p>
Dollar spot	<p>For stand alone use, apply a 1-2% v/v solution of this product when the first signs of dollar spot appear and repeat at 7 to 10 day intervals, or as needed. Schedule a follow-up fungicide application within 7 to 10 days after each application when this product is applied alone.</p> <p>Rate when used in tank mixes: Apply a 1-2% v/v solution of this product with a recommended companion fungicide to achieve protectant/residual control of dollar spot. See Application Guidelines and Notes to User: Understanding Plant Sensitivity on pgs.3-4 of this label for additional comments.</p>

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Added specifics

Added from previous powdery mildew table

**ORNAMENTAL LANDSCAPE TREES AND SHRUBS, CHRISTMAS TREES, ROSES, FLOWERS, BEDDING AND INDOOR PLANTS**

**Pests controlled:** adelgid, ants, aphid, buck moth larvae, earwig, elm leaf beetle larvae, sawfly larvae, gypsy moth eggs and larvae, Japanese beetle, lace bug, leafhopper, mealybug, rust mite, phylloxera, spider mite, shore fly, plant bug, psyllid, scale, tent caterpillar, exposed thrips, whitefly and powdery mildew.

**Use recommendations:** For stand alone use, apply a 1-2% v/v solution of this product, unless otherwise noted. Refer to the MIXING AND APPLICATION SECTION on p.-3 of this label for general rate, timing and application information except as noted below.

**Rate when used in tank mixes:** To achieve enhanced and residual pest control, use a 1 to 2 % v/v solution of this product in combination with a recommended product. Lower rates (0.25 - 1.0 % v/v solution) of this product may be used in tank mixes for knockdown/suppression of adult whiteflies.

**Note:** Unless otherwise noted, apply this product to wet (minimize run off). If wilting occurs a few hours after application, rinse with a clean water spray. Since applications may cause injury to flowers of some plant cultivars, test product on a few flowering plants under local use conditions prior to large scale use.

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Pest	Recommendations
Adelgid, psyllid, scale on trees and shrubs	Spray to wet infested plant surface.
Balsam woolly adelgid	Spray trees thoroughly when nymphs are abundant in early spring and/or fall. Make a second application 10 days later.
Cooley Spruce gall adelgid	Apply a 4% v/v solution to spruce in fall or spring when females begin egg laying. On Douglas fir, control exposed "woolly aphids" in early spring immediately before bud break (April) or in the fall (Sept.-Oct.) after foliage has hardened off.
Hemlock woolly adelgid	Apply this product immediately after detecting an adelgid infestation to avoid the spread of the pest. In regions with heavy infestations and on trees with a history of infestation, a total of four applications made in April/May, June, August/September and October may be necessary. Because it is a contact insecticide, do not use this product as a preventive control measure.
Conifer and pine needle scale	When insects first appear, apply a 1.0 to 2.0% v/v spray to thoroughly wet crawlers.
Tent caterpillar	Apply a 3% v/v solution. Spray directly on young larvae when congregated on outside of tent or dismantle tents and spray to thoroughly wet larvae.
Spider mite	Wet underside of leaves and needle sheaths. Wait 7-10 days to allow viable eggs to hatch and make a second application before mites reach egg laying maturity. For residual control, apply in as tank mix combination with a labeled companion product such as Avid.
Earwig	Spray directly on insects after disturbing their hiding place.
Leafminer (Dipteran)	Apply in tank mix combination with a labeled companion insecticide such as Avid which has residual activity.
Whiteflies	Scout plants regularly and apply a .0 to 2.0% v/v solution when pests first appear. Make a second application 7 days later to target newly hatched nymphs. Make additional applications at weekly intervals, but avoid more than three consecutive weekly applications. Do not apply to poinsettia bracts. To achieve enhanced and residual pest control, use a 1 to 2% v/v solution of this product in combination with recommended products such as: Avid, Dursban, Mavrik Aquaflow, Pounce, Talstar or Tempo. Lower rates (0.25 - 1% v/v solution) of this product may be used in tank mixes for knockdown/suppression of adult whiteflies.
Gypsy moth	To suppress gypsy moth populations, apply a 3% v/v solution directly to the larvae.
Blossom thrips on African violets	Spray to contact thrips on blooms.
Euonymous scale	Thoroughly wet crawlers with a 2% solution. Delayed dormant applications of this product (1 % v/v solution) plus summer oil (1 % v/v solution) will also be effective.
Spruce spider mite on conifers	Apply 1-2% solution of this product to thoroughly wet infested needles. Repeat application after 7 days if needed.

Brought from other sections with unitely specific

Powdery mildew

Additional specific information on sequential applications & tank mixes

**Roses:** Apply a 1-2% solution of this product to control powdery mildew spores and hyphae. Initiate sprays when first signs of powdery mildew appear and repeat at 7 to 10 day intervals, or as needed. Alternate applications of this product with other recommended fungicides to avoid making more than three successive applications of this product at intervals of 7 days or less.

Roses may be treated with sublimated sulfur using sulfur-heating pots or similar devices before or after treatment with M-Pede. To minimize the potential for plant injury, allow 24 hours to elapse between M-Pede and sublimated sulfur applications.

Mixing other forms of sulfur (sprayable or dusting) or applying this product within up to 5 days of a sulfur application may also increase the potential for plant injury, especially during hot weather (>90°F).

**Ornamental landscape trees and shrubs, christmas trees, other flowers, bedding and indoor plants:** For stand alone use, apply a 1-2% v/v solution of this product when the first signs of powdery mildew appear and repeat at 7 to 10 day intervals, or as needed. Schedule a follow-up fungicide application within 7 to 10 days after each application when this product is applied alone.

For tank mix use, apply a 1-2% v/v solution of this product with a recommended fungicide to achieve protectant/residual control of powdery mildew. Applying this product within 3-5 days after a sulfur application may increase the potential for plant injury.

For additional instructions on use with sulfur, see Application Guidelines and Notes to User: Understanding Plant Sensitivity sections on pgs.3-4 of this label for additional comments and instructions.

**STORAGE AND DISPOSAL:** Do not contaminate water, feed or foodstuff by storage or disposal.

**STORAGE:** Store only in original container; in a dry place; inaccessible to children and pets. Do not store full or partial containers in direct sunlight. Keep container tightly sealed when not in use.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Do not reuse empty container. Triple rinse, then offer for recycling or reconditioning, or puncture and dispose of in sanitary landfill or by incineration, if allowed by state and local authorities. If burned, stay out of smoke.

**LIMIT OF WARRANTY AND LIABILITY**

This product conforms to the description on this label and is reasonably fit for the purpose set forth on this label when used according to the label directions and under the specified label conditions. THE MANUFACTURER DISCLAIMS ANY AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE. Buyer and all users assume all risks and responsibility for loss or damage if this product is used, stored, handled or applied under any condition not reasonably foreseeable or beyond the manufacturer's control, or not as explicitly set forth in this label. THE LIMIT OF THE MANUFACTURER'S LIABILITY SHALL BE THE PURCHASE PRICE FOR THE QUANTITY INVOLVED. IN NO EVENT SHALL THE MANUFACTURER BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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The use of M-Pede alone and/or in combination with certain insecticides and miticides is covered by one or more of the following U.S. patent #'s: 4774234, 4861762, 4870102, 5192546, 4826678, 4983591, 4904645, 5047424, 5030658 and 5093124.

Patent for use as a fungicide is pending.

