



PYMETROZINE GROUP 9B INSECTICIDE

# Endeavor®

PULL HERE TO OPEN ►

syngenta.

## Insecticide

For control of listed insect pests on landscape and interiorscape ornamentals, field-grown and container-grown ornamentals, Christmas trees, and non-bearing fruit and nut trees produced in greenhouses, nurseries, lath and shade houses, and other outdoor growing structures.

For control of listed insect pests on vegetable plants grown for sale to consumers and produced in greenhouses, nurseries, lath and shade houses, and other outdoor growing structures.

### 15 ounces

Net Weight



<i>Active Ingredient:</i>	
Pymetrozine* .....	50.0%
<i>Other Ingredients:</i>	50.0%
<i>Total:</i>	100.0%

\* CAS No. 123312-89-0

Endeavor is formulated as a water-dispersible granule.

## KEEP OUT OF REACH OF CHILDREN. CAUTION

See additional precautionary statements and directions for use in booklet.

**EPA Reg. No. 100-913**

**EPA Est. 67545-AZ-1**

**Product of China**

**Formulated in the USA**

**SCP 913B-L3E 1119**

**4163212**

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## 1.0 FIRST AID

<b>FIRST AID</b>	
<b>If in eyes</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15–20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If inhaled</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>
<b>If swallowed</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<p style="text-align: center;"><b>HOTLINE NUMBER</b> For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call <b>1-800-888-8372</b></p>	

## **2.0 PRECAUTIONARY STATEMENTS**

### **2.1 Hazards to Humans and Domestic Animals**

#### **CAUTION**

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

### **2.2 Personal Protective Equipment**

**All applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of: barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, natural rubber  $\geq$  14 mils, polyethylene, polyvinylchloride (PVC)  $\geq$  14 mils, or Viton®  $\geq$  14 mils.
- Shoes plus socks

#### **2.2.1 USER SAFETY REQUIREMENTS**

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

#### **2.2.2 ENGINEERING CONTROLS**

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.

### **2.3 Environmental Hazards**

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash water.

### **2.4 Physical or Chemical Hazards**

Do not use, pour, spill, or store near heat or open 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.

**FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY AND/OR POOR INSECT CONTROL.**

#### 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.**

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:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of: barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, natural rubber  $\geq$  14 mils, polyethylene, polyvinyl chloride (PVC)  $\geq$  14 mils, or Viton  $\geq$  14 mils.
- 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.

**Do not enter treated areas without protective clothing until sprays have dried.**

### 3.0 PRODUCT INFORMATION

Endeavor is an insecticide that controls aphids and whiteflies on landscape ornamentals; field-grown ornamentals; container-grown ornamentals; non-bearing fruit and nut trees in nurseries; Christmas trees; ground covers; ornamental plants in greenhouses, lath houses and shade houses, and interiorscapes; and vegetable plants grown for sale to consumers and produced in greenhouses, nurseries, lath and shade houses, and other outdoor growing structures.

### 3.0.1 MODE OF ACTION

Endeavor has a mode of action that controls aphids and whiteflies by stopping their feeding activity. These insects stop feeding within hours, but remain on the plant for a short time (2-4 days). Endeavor has residual activity in the plant and will control aphids and whiteflies that move onto the plant after spraying.

### 3.0.2 PLANT SAFETY

Endeavor has been evaluated for phytotoxicity on many greenhouse, nursery, and ornamental plants. All plants tested under university research and commercial production conditions have not shown phytotoxicity at labeled rates of Endeavor. While many species and cultivars have been tested, a small group of each specie and cultivar should be evaluated for phytotoxicity two weeks prior to making applications to the entire crop. Foliar applications should not be made to poinsettias after bract formation.

## 3.1 Resistance Management

PYMETROZINE	GROUP	9B	INSECTICIDE
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For resistance management, Endeavor contains a Group 9B/pymetrozine insecticide. Any insect population may contain individuals naturally resistant to Endeavor and other Group 9B insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same areas. Appropriate resistance-management strategies should be followed.

### Other Insect Resistance Management (IRM) Practices

To delay insecticide resistance, take the following steps:

- Rotate the use of Endeavor or other Group 9B insecticides within a growing season, or among growing seasons, with different groups that control the same pests.

*continued...*



- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
  - o Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - o Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
  - o When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
  - o Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
  - o The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.

Contact your local Syngenta representative, retailer, or extension specialist for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.

### **3.1.1 SUITABILITY FOR INTEGRATED PEST MANAGEMENT PROGRAMS**

Endeavor is suitable for Integrated Pest Management (IPM) programs as it has a low toxicity to beneficial insects (including honeybees and bumblebees) and mite populations.

## 4.0 APPLICATION DIRECTIONS

### 4.1 Methods of Application

#### 4.1.1 FOLIAR APPLICATION

Foliar application rates are listed in **Section 6.0**. Apply Endeavor when pest populations are low to prevent the increase of that population to damaging levels.

When making foliar applications to plants with hard-to-wet foliage, such as holly, ivy, or pine, the addition of a non-ionic or organosilicone-based surfactant to improve coverage is recommended. Follow product's use directions and rate recommendations. If concentrate, mist-type or other low volume application equipment is used to apply Endeavor, apply the same amount of product per area as you would use if applying with higher application volumes.

#### 4.1.2 DRENCH APPLICATION TO SOIL MEDIA

Endeavor can be applied to the growing media of containerized plants to control listed pests. Apply Endeavor when pest populations are low to prevent the increase of that population to damaging levels. Apply to moist soil media. Avoid leaching. For application to transplanted plugs and liners, do not apply drench to soil media until root growth has resumed. Excessive irrigation after application could reduce insect control.

For drench applications, prepare a dilute drench solution by mixing Endeavor in water at the rate listed in **Section 7.0**. Apply drench solution to containers, flats, trays, benches or beds according to the application rates given in **Section 7.0**. Drench volume should be sufficient to thoroughly wet soil media without overflowing or leaching from the container. Irrigate during the next seven days following treatment to avoid leaching.

### 4.2 Application Equipment

- Use sprayer nozzles that provide accurate, uniform application to provide best control.
- Calibrate sprayer to insure delivery of adequate spray volume per unit area.
- To avoid spray drift, do not apply when conditions favor drift beyond the target area.
- Avoid spray overlap, as crop injury may occur.

### 4.3 Application Volume and Spray Coverage

- Use sufficient water to provide thorough, uniform coverage.

#### 4.4 Mixing Directions

- Prepare no more spray mixture than is needed for the immediate operation.
- Thoroughly clean spray equipment before using this product.
- Vigorous agitation is necessary for proper dispersal of the product.
- Maintain maximum agitation throughout the spraying operation.
- Do not let the spray mixture stand overnight in the spray tank.
- Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

##### 4.4.1 ENDEAVOR ALONE

1. Add  $\frac{1}{2}$  of the required amount of water to the mix tank.
2. With the agitator running, add the Endeavor to the tank.
3. Continue agitation while adding the remainder of the water.
4. Begin application of the solution after the Endeavor has completely dispersed into the mix water.
5. Maintain agitation until all of the mixture has been applied.

##### 4.4.2 TANK MIX PRECAUTIONS

- If using Endeavor in tank mixtures, all products in water-soluble packaging should be added to the tank before any other tank mix partner, including Endeavor.
- Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank mix partner to the tank.
- **It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.** No label dosage rate should be exceeded. This product should not be mixed with any product which prohibits such mixing. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the referenced products are labeled.

#### 4.4.3 TANK MIX COMPATIBILITY

Endeavor is compatible with most insecticide and fungicide products. However, the physical compatibility of Endeavor with tank mix partners should be tested before use. To determine the physical compatibility of Endeavor with other products, use a jar test.

Using a 1½ qt jar, add the proportionate amounts of the products to 1 qt of water. Add wettable powders and water-dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

**Compatibility Test:** Since pesticides, adjuvants, and fertilizers can vary in quality, always check tank-mix compatibility with tank-mixed partners before each use. Be especially careful when using complete suspension or fluid fertilizers as carriers, as serious compatibility problems are more likely to occur with these products. Commercial application equipment may improve tank-mix compatibility in some instances. The following test assumes a spray volume of 25 gal/A. For other spray volumes, make appropriate changes in the components. Check tank-mix compatibility using this procedure:

1. Add 1 pt of carrier (either the water or liquid fertilizer to be used in the spray operation) to each of two clear 1-qt jars with tight lids.
2. To one of the jars, add ¼ tsp or 1.2 mL of a commercially available tank-mix compatibility agent approved for this use (¼ tsp is equivalent to 2 pt/100 gallons spray). Invert the jar, then shake or stir gently to ensure thorough mixing.
3. To both jars, add the appropriate amount of each tank-mix partner. If more than one tank-mix partner is to be used, add them separately with dry formulations (wetable powders or water dispersible granules) first, followed by liquid flowables, capsule suspensions, emulsifiable concentrates and finally adjuvants. After each addition, invert the jar, shake or stir gently to thoroughly mix. The appropriate amount of each tank-mix partner for this test is as follows:

**Dry formulations:** Add the tank-mix ingredients in their relative proportions, e.g., for each pound to be applied per acre, add ¾ level tsp to each jar.

**Liquid formulations:** Add the tank-mix ingredients in their relative proportions, e.g., for each pint to be applied per acre, add 0.5 tsp or 2.5 mL to each jar.

4. After adding all ingredients, put lids on and tighten, then invert each jar 10 times to fully mix. Let the mixtures stand for 15-30 minutes and then assess by looking for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if a compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (A) slurry dry formulations in water before addition, or (B) add the compatibility agent directly into liquid formulations, before addition to the tank-mixture. If these procedures are followed but incompatibility is still observed, do not use the tank-mixture.

#### **4.4.4 ENDEAVOR IN TANK MIXTURES**

1. If mixture is physically compatible, add  $\frac{1}{2}$  of the required amount of water to the mix tank.
2. Start the agitator before adding any tank mix partners.
3. Add products in this order:
  - a. products packaged in water-soluble packaging
  - b. wettable powders
  - c. wettable granules (dry flowables) such as Endeavor
  - d. liquid flowables
  - e. liquids
  - f. emulsifiable concentrates
4. Always allow each tank mix partner to become fully dispersed before adding the next product.
5. Provide sufficient agitation while adding the remainder of the water.
6. Maintain agitation until all the mixture has been applied.

#### **4.4.5 SPRAY ADDITIVES**

- When an adjuvant is to be used with this product, the use of an adjuvant that meets the standards of the Council of Producers and Distributors of Agrotechnology (CPDA) adjuvant certification is recommended.
- On hard-to-wet plants, add a nonionic or organosilicone-based surfactant to improve coverage. Follow product's use directions and rate recommendations.

## 4.5 Application through Irrigation Systems (Chemigation)

### 4.5.1 CHEMIGATION

Endeavor may be applied by injection into an irrigation system, either alone or in combination with other pesticides or chemicals that are registered for application through irrigation systems. Dilution ratios for Endeavor are normally 1:100 to 1:200 depending on the system.

Apply Endeavor to listed plants through micro-irrigation (individual spaghetti tube), drip irrigation, overhead irrigation, or motorized irrigation equipment. Apply Endeavor according to use directions and not according to the irrigation schedule unless the events coincide. In general, set the equipment to apply the minimum amount of water per acre.

- Apply with center pivot or continuous-move equipment at a volume of  $\frac{1}{2}$  acre-inch or less during treatment. In general, use the least amount of water required for proper distribution and coverage.
- If stationary systems are used, such as solid set, hand lines or wheel lines other than continuous-move, this product should be injected into no more than the last 20-30 minutes of the set.

### Specific Use Restrictions and Precautions for Chemigation (see also Section 5.0)

- **Do not** apply through any type of irrigation system not listed on this label.
- **Do not** make foliar applications when winds are greater than 10-15 mph to avoid drift or wind skips.
- **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 (see **Section 4.5.3** below).
- Agitation must be maintained during the entire application period to ensure uniform chemigation.
- For foliar applications, thorough coverage of foliage is required for best control. Crop injury or reduced effectiveness can result from non-uniform distribution. Excessive water may also reduce effectiveness.
- Check with State and local regulatory agencies for potential use restrictions before applying any agricultural chemical through sprinkler irrigation equipment.

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

#### **4.5.2 OPERATING INSTRUCTIONS FOR CHEMIGATION EQUIPMENT**

1. 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.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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.
6. 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.
7. Do not apply when wind speed favors drift beyond the area intended.

#### **4.5.3 SPECIFIC INSTRUCTIONS FOR PUBLIC WATER SYSTEMS**

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.

1. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back-flow 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.

2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. 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.
5. 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.
6. Do not apply when wind speed favors drift beyond the area intended for treatment.

## **5.0 RESTRICTIONS AND PRECAUTIONS**

See **Section 6.0** and **Section 7.0** for use-specific restrictions and precautions.

### **5.1 Use Restrictions**

- **DO NOT** apply aerially.

### **5.2 Spray Drift Management**

- To avoid spray drift, do not apply when conditions favor drift beyond the target area.



## 6.0 APPLICATION DIRECTIONS - FOLIAR

Ornamental Plants			
Breeding crops Bulb, corm and tuber crops (such as tulips, calla lilies) Evergreens, including conifers Flowering plants	Flowering plants grown for seed production Foliage plants Ground covers Palms Perennial plants	Pot and bedding plants Shrubs Trees, including non-bearing fruit and nut trees* Vines (non-bearing)*	
Target Pest	Rate	Application Timing	Use Directions
<b>Whiteflies, including:</b> Silverleaf whitefly <i>(Bermisia argentifolii)</i> Greenhouse Whitefly <i>(Trialeurodes vaporariorum)</i> <b>Aphids including:</b> Green Peach Aphid <i>(Myzus persica)</i> Melon Aphid <i>(Aphis gossypii)</i>	2.5- 5.0 oz 100 gal 10 oz/A (maximum rate)	Apply when target pests appear and conditions do not favor drift beyond the target area. <u>Application interval:</u> 7-days - severe insect pressure 14-days - normal insect pressure	Apply by foliar spray or chemigation. Apply foliar spray mixture uniformly to all plant surfaces, particularly the stem and leaf undersides, to point of runoff. See <b>Section 4.5</b> for additional chemigation instructions. On hard-to-wet plants, add a nonionic or organosilicone-based surfactant to improve coverage. Follow product's use directions and rate recommendations.
<b>Precautions:</b> <ul style="list-style-type: none"> <li>• Avoid spray overlap that could cause phytotoxicity.</li> <li>• Applications should not be made to poinsettia after bract formation.</li> </ul>			

### USE RESTRICTIONS

- 1) Refer to **Section 5.1** for additional product use restrictions.
- 2) **Maximum Single Application Rate:** 10 oz/A/application (0.31 lb ai/A of pymetrozine-containing products)
- 3) **Minimum Application Interval:** 7 days
- 4) **Maximum Annual Rate:**
  - a. Outdoor: 48 oz/A/year (1.5 lb ai/A/year of pymetrozine-containing products)
  - b. Indoor: 100 oz/A/year (3.13 lb ai/A/year of pymetrozine-containing products)
  - c. Do not apply more than 48 oz/A/year In CA (1.5 lb ai/A/year of pymetrozine-containing products).
- 5) **Pre-Harvest Interval (PHI):** NA

\*Non-bearing trees and vines are plants that will not bear edible fruit or nuts for one year after application.

## 7.0 APPLICATION DIRECTIONS - DRENCH

### Ornamental Plants

Breeding crops	Flowering plants	Pot and bedding plants
Bulb, corm and tuber crops (such as tulips, calla lilies)	grown for seed production	Shrubs
Evergreens, including conifers	Foliage plants	Trees, including non-bearing fruit and nut trees*
Flowering plants	Ground covers	Vines (non-bearing)*
	Palms	
	Perennial plants	

*continued...*

## 7.0 APPLICATION DIRECTIONS - DRENCH (continued)

Target Pests	Drench Solution	Suggested Application Volumes**		Use Directions
<b>Aphids</b> <b>Whiteflies</b> Silverleaf whitefly ( <i>Bermisia</i> spp. – Biotype B & Q) Greenhouse Whitefly ( <i>Trialeurodes vaporariorum</i> )	5 oz per 100 gallons	<b>Container Size (inches)</b>	<b>Fl oz drench solution/ container</b>	Apply by soil-directed spray via ground application equipment or by chemigation. See <b>Section 4.5</b> for additional chemigation instructions.  Begin applications prior to or when pests first appear.  Use higher listed rates when longer residual control is needed.  **Adjust drench volume accordingly to ensure thorough wetting of the root zone without leaching product from the container.
		4	3	
		5	4	
		6	4	
		7	7	
		8	10	
		10	20-25	
For larger containers, apply 6 - 8 fl oz of drench solution per gallon of soil media.  For flats, trays, benches, or beds, apply sufficient amount of drench solution to adequately wet soil media without leaching.				

**USE RESTRICTIONS**

- 1) Refer to **Section 5.1** for additional product use restrictions.
- 2) **Maximum Single Application Rate:** 10 oz/A/application (0.31 lb ai/A of pymetrozine-containing products)
- 3) **Minimum Application Interval:** 7 days
- 4) **Maximum Annual Rate:**
  - a. Outdoor: 48 oz/A/year (1.5 lb ai/A/year of pymetrozine-containing products)
  - b. Indoor: 100 oz/A/year (3.13 lb ai/A/year of pymetrozine-containing products)
  - c. Do not apply more than 48 oz/A/year in CA (1.5 lb ai/A/year of pymetrozine-containing products).
- 5) **Pre-Harvest Interval (PHI):** NA

\*Non-bearing trees and vines are plants that will not bear edible fruit or nuts for one year after application.

**8.0 APPLICATION DIRECTIONS - FOLIAR – Vegetable Plants**

**Cole Crops**

Broccoli	Chinese broccoli	Kohlrabi
Broccoli raab	Chinese cabbage (bok choy, napa)	Mizuna
Brussels sprouts	Chinese mustard cabbage	Mustard greens
Cabbage	Collards	Mustard spinach
Cauliflower	Kale	Rape greens
Cavalo broccolo		Turnip greens

*continued...*

## 8.0 APPLICATION DIRECTIONS - FOLIAR – Vegetable Plants *(continued)*

Target Pests	Application Rate	Use Directions
<b>Aphids:</b> Cabbage aphid Green peach aphid Turnip aphid <b>Whiteflies</b> (suppression)	2.75 oz per A (0.31 oz per 5,000 sq ft)	Apply by foliar spray or by chemigation. See <b>Section 4.5</b> for additional chemigation instructions. Apply when pests first appear, before populations build to damaging levels. Two applications on a 14-day interval may be needed to control persistent populations.
<b>Cucurbit Vegetables</b>		
Chayote Chinese waxgourd Citron melon Cucumber	Edible gourd Gherkin <i>Momordica</i> spp. Muskmelon	Pumpkin Squash: summer, winter Watermelon
Target Pests	Application Rate	Use Directions
<b>Aphids:</b> Green peach aphid Melon aphid <b>Whiteflies</b> (suppression)	2.75 oz per A (0.31 oz per 5,000 sq ft)	Apply by foliar spray or by chemigation. See <b>Section 4.5</b> for additional chemigation instructions. Apply when pests first appear, before populations build to damaging levels. Two applications on a 14-day interval may be needed to control persistent populations.

Fruiting Vegetables		
Eggplant Ground cherry Pepino	Peppers: bell, chili, cooking, pimento, and sweet Tomatillo	Tomato
Target Pests	Application Rate	Use Directions
<b>Aphids:</b> Green peach aphid Potato aphid <b>Whiteflies</b> (suppression)	2.75 oz per A (0.31 oz per 5,000 sq ft)	Apply by foliar spray or by chemigation. See <b>Section 4.5</b> for additional chemigation instructions.  Apply when pests first appear, before populations build to damaging levels.  Two applications on a 14-day interval may be needed to control persistent populations.
Leafy Vegetables		
Amaranth Arugula Cardoon Celery Celtuce Chervil Chinese celery Corn salad	Dandelion Dock (sorrel) Edible-leaved chrysanthemum Endive (escarole) Fennel, Florence Garden/Upland cress Garden/Winter purslane Garland chrysanthemum	Head lettuce Leaf lettuce Orach Parsley Radicchio Rhubarb Spinach Swiss chard

continued...

Target Pests	Application Rate	Use Directions
<b>Aphids:</b> Bean aphid Green peach aphid Lettuce aphid Potato aphid Red lettuce aphid <b>Whiteflies</b>	2.75 oz per A (0.31 oz per 5,000 sq ft)	Apply by foliar spray or by chemigation. See <b>Section 4.5</b> for additional chemigation instructions.  Apply when pests first appear, before populations build to damaging levels.  Two applications on a 14-day interval may be needed to control persistent populations.
<b>USE RESTRICTIONS</b>		
<ol style="list-style-type: none"> <li>1. Refer to <b>Section 5.1</b> for additional product use restrictions.</li> <li>2. <b>Maximum Single Application Rate:</b> 2.75 oz/A/application (0.086 lb ai/A of pymetrozine-containing products)</li> <li>3. <b>Maximum Rate Per Crop:</b> 5.5 oz/A/crop (0.17 lb ai/A of pymetrozine-containing products)</li> <li>4. <b>Maximum Annual Rate:</b> <ol style="list-style-type: none"> <li>a. Outdoor: 48 oz/A/year (1.5 lb ai/A/year of pymetrozine-containing products)</li> <li>b. Indoor: 100 oz/A/year (3.13 lb ai/A/year of pymetrozine-containing products)</li> <li>c. Do not apply more than 48 oz/A/year in CA (1.5 lb ai/A/year of pymetrozine-containing products)</li> </ol> </li> <li>5. Apply only to vegetable plants grown for sale to consumers.</li> <li>6. Allow a minimum of 7 days (PHI) between last application and sale or shipping of vegetable plants intended for sale to consumers.</li> </ol>		

## 9.0 STORAGE AND DISPOSAL

### STORAGE AND DISPOSAL

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

#### **Pesticide Storage**

Store in original container, in a cool, dry place inaccessible to children and pets. Product is hygroscopic. Keep the container tightly closed.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes.

#### **Pesticide Disposal**

Pesticide wastes may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal Law. If these wastes cannot be used according to label instruction, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

#### **Container Handling**

**Non-refillable container.** (bags) Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill, by incineration, or by other procedures approved by state and local authorities.

*continued...*



## **STORAGE AND DISPOSAL (continued)**

### **Container Handling**

**Non-refillable container.** (Plastic containers 50 pounds or less) Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

### **Container Handling**

**Non-refillable container.** (Plastic containers larger than 50 pounds) Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container  $\frac{1}{4}$  full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

## 10.0 CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY



**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.**

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and of Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

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For non-emergency (e.g., current product information), call  
Syngenta Crop Protection at 1-866-796-4368.

Product of China  
Formulated in the USA

Manufactured for:  
Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, North Carolina 27419-8300

**SCP 913B-L3E 1119**  
**4163212**



PYMETROZINE | GROUP 9B | INSECTICIDE



**Endeavor**<sup>®</sup>

syngenta.

**Insecticide**

For control of listed insect pests on landscape and interiorscape ornamentals, field-grown and container-grown ornamentals, Christmas trees, and non-bearing fruit and nut trees produced in greenhouses, nurseries, lath and shade houses, and other outdoor growing structures.

For control of listed insect pests on vegetable plants grown for sale to consumers and produced in greenhouses, nurseries, lath and shade houses, and other outdoor growing structures.

**15 ounces**  
Net Weight



PYMETROZINE | GROUP 9B | INSECTICIDE



**Endeavor**<sup>®</sup>

**Insecticide**

For control of listed insect pests on landscape and interiorscape ornamentals, field-grown and container-grown ornamentals, Christmas trees, and non-bearing fruit and nut trees produced in greenhouses, nurseries, lath and shade houses, and other outdoor growing structures.

For control of listed insect pests on vegetable plants grown for sale to consumers and produced in greenhouses, nurseries, lath and shade houses, and other outdoor growing structures.

Active Ingredient:	50.0%
Pymetrozine*	50.0%
Other Ingredients:	50.0%
Total:	100.0%

\* CAS No. 123312-89-0

Endeavor is formulated as a water-dispersible granule.

**KEEP OUT OF REACH OF CHILDREN.**

**CAUTION**

See additional precautionary statements and directions for use in booklet.

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

EPA Reg. No. 100-913

EPA Est. 67545-AZ-1

**FIRST AID**

**If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. **If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. **If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice. If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**HOTLINE NUMBER:** For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call **1-800-888-8372**.

**PRECAUTIONARY STATEMENTS**

**Hazards to Humans and Domestic Animals**

**CAUTION**  
Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

**Environmental Hazards**

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash water.

**Physical or Chemical Hazards**

Do not use, pour, spill, or store near heat or open flame.

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal. **Pesticide Storage:** Store in original container, in a cool, dry place inaccessible to children and pets. Product is hydroscopic. Keep the container tightly closed.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes.

**Pesticide Disposal:** Pesticide wastes may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal Law. If these wastes cannot be used according to label instruction, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

**Container Handling**

**Non-refillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

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