

Iowa FFA Floriculture Career Development Event

2014 Written Exam

1. Which part of the root absorbs the moisture and minerals?
 - a. Root canal
 - b. Root cap
 - c. Medium roots
 - d. Root hairs
2. A perennial is a plant that lives _____.
 - a. For only one year
 - b. For only two years
 - c. From year to year without replanting
 - d. All of the above
3. What percentage of a plant's weight does water make up?
 - a. 90 percent
 - b. 10 percent
 - c. 50 percent
 - d. 25 percent
4. Identify the flower considered a line flower:
 - a. Liatris
 - b. Carnation
 - c. Alstromeria
 - d. Baby's Breath
5. Which common floral green is a true fern?
 - a. Asparagus
 - b. Leatherleaf
 - c. Pittosporum
 - d. Podocarpus
6. Most plants used indoors do well in soils with a pH range of:
 - a. 3.5 – 4.0
 - b. 4.5 – 6.5
 - c. 7.0 – 7.5
 - d. 8.0 – 9.0
7. In corsages we use floral wire that is sold by gauge size. Which of the following gauge sizes would have the smallest diameter?
 - a. 16 gauge
 - b. 20 gauge
 - c. 22 gauge
 - d. 26 gauge

8. Which of the following will NOT help your fresh flowers last longer?
- Recutting the stem and removing excess foliage
 - Using a floral preservative
 - Using a clean vase
 - Placing the flowers in a warm spot
9. What structure on the underside of the leaf allows the leaf to breathe or transpire?
- Stem
 - Pistil
 - Stoma
 - Chloroplasts
10. Which of these is not a warm color:
- Red
 - Orange
 - Green
 - Yellow
11. Which flower below would you use the hook method of wiring?
- Rose
 - Stephanotis
 - Stock
 - Chrysanthemums
12. This is known as the expenses and general costs of running a business.
- Overhead
 - Debt
 - Money
 - Assets
13. The stalk of the leaf is known as the _____.
- Stem
 - Petal
 - Node
 - Petiole
14. *Gypsophila* is the scientific name for _____.
- Caspia
 - Babies breathe
 - Heather
 - Bird of paradise

15. The male part of the flower is known as the _____.
- Stamen
 - Stigma
 - Pistil
 - Sepal
16. A handheld wedding bouquet style in which flowers hang down below the main portion of the design is known as _____.
- Crescent
 - Arm
 - Cascade
 - Clutch
17. Which of these is considered a tropical flower?
- Alstroemeria
 - Belles of Ireland
 - Calla lily
 - Ginger
18. If a hue is diluted with gray, the resulting color is called:
- Tone
 - Shade
 - Tint
 - Value
19. Which of these has a woody stem?
- Sweet pea
 - Statice
 - Queen Ann's lace
 - Heather
20. It is important not to keep fruit baskets in the same cooler with fresh flowers because:
- Fruit flies eat flower petals
 - Banana and apples give off an odor that is absorbed by the flowers
 - Ethylene gas from the fruit will cause the flowers to age quickly
 - Florists are not allowed to sell fruit by law
21. An example of a mass flower is:
- Snapdragon
 - Liatris
 - Star gazer lily
 - Larkspur

22. The best time to water flowering plants is:

- a. In the morning
- b. In the middle of the day
- c. In the evening
- d. At night

23. A color scheme utilizing several adjacent colors on the color wheel is known as _____.

- a. Monochromatic
- b. Complimentary
- c. Analogous
- d. Contrasting

24. In an arrangement made up of larkspur, gerbera daisies, mini carnations, and babies breathe which is considered the focal flower?

- a. Larkspur
- b. Gerbera daisies
- c. Mini carnations
- d. Babies breathe

25. In what month is Administrative Professionals Week?

- a. March
- b. April
- c. May
- d. June

Key:

1. D
2. C
3. A
4. A
5. B
6. B
7. D
8. D
9. C
10. C
11. D
12. A
13. D
14. B
15. A
16. C
17. D
18. A
19. D
20. C
21. C
22. A
23. C
24. B
25. B

2014 Iowa FFA Floriculture CDE
Phase VI Problem Solving

1. You have kept records on your sales of Gerber Daisies for 2012 - 2014. You sold 3,000 plants in 2012, 3700 in 2013, and 4551 in 2014. You are projecting your sales to increase at the same rate from 2014 to 2015. From this data, how many Wave Petunias do you expect to sell?
 - a. 5190
 - b. 5598
 - c. 6284
 - d. 6590
2. You wish to sell 25,000 petunias. You buy seed that has a germination percentage of 92.5%. How many seeds should you plant?
 - a. 23,125
 - b. 26,875
 - c. 27,027
 - d. 28,560
3. You want to order mulch for your flower beds. You have 3 rectangular beds that are 3 feet wide and 12 feet long. You also have a circular bed which is 6 feet in diameter. You want to apply the mulch 2 inches deep. The mulch comes in bags that contain 2 cubic feet. Each bag costs \$3.00. You must buy full bags. What is the cost of the mulch to cover all flower beds?
 - a. \$33
 - b. \$36
 - c. \$72
 - d. \$108
4. It takes 2.5 pounds of finely ground limestone per cubic yard of soil to change the pH one point (5 to 6). You have just mixed enough soil to cover 400 square feet of bench space that will be filled 6 inches deep. When you take the pH of the mix, you find it to be at 5.0. You want the pH to be 6.5. How much of the lime must you add?
 - a. 14 pounds
 - b. 21 pounds
 - c. 28 pounds
 - d. 35 pounds
5. You have a holding tank in which you mix your fertilizer. You add $\frac{3}{4}$ ounce per gallon. Your tanks is 3.5 foot across and 4 feet deep. How many pounds of fertilizer should you add?
Note: there are 16 ounces in a pound. 1 cu ft contains 7.48 gallons of water.
 - a. 8.99 pounds
 - b. 11.78 pounds
 - c. 28.51 pounds
 - d. 35.95 pounds

2014 Iowa FFA Floriculture CDE
Phase VI Problem Solving Key

1. You have kept records on your sales of Gerber Daisies for 2012 - 2014. You sold 3,000 plants in 2012, 3700 in 2013, and 4551 in 2014. You are projecting your sales to increase at the same rate from 2014 to 2015. From this data, how many Wave Petunias do you expect to sell?
- a. 5190
 - b. 5598**
 - c. 6284
 - d. 6590

find % of annual increase $3700-3000=700$ $700/3000=23\%$
 $4551-3700=851$ $851/3700=23\%$
Thus $4551*1.23 = 5597.73$

2. You wish to sell 25,000 petunias. You buy seed that has a germination percentage of 92.5%. How many seeds should you plant
- a. 23,125
 - b. 26,875
 - c. 27,027**
 - d. 28,560

seeds needed = $25000/.925=27,027$

3. You want to order mulch for your flower beds. You have 3 rectangular beds that are 3 feet wide and 12 feet long. You also have a circular bed which is 6 feet in diameter. You want to apply the mulch 2 inches deep. The mulch comes in bags that contain 2 cubic feet. Each bag costs \$3.00. You must buy full bags. What is the cost of the mulch to cover all flower beds?
- a. \$33
 - b. \$36**
 - c. \$72
 - d. \$108

Rectangular beds = $3 \text{ beds} \times 3 \text{ ft} \times 12 \text{ ft} \times 2/12 \text{ ft} = 18 \text{ cu ft}$

Circle = $3 \text{ ft} \times 3 \text{ ft} \times 3.14 \times 2/12 \text{ ft} = 4.71 \text{ cu ft}$

$18 + 4.71 = 22.71 / 2 \text{ cu/ft per bag} = 12 \text{ bags}$

4. It takes 2.5 pounds of finely ground limestone per cubic yard of soil to change the pH one point (5 to 6). You have just mixed enough soil to cover 400 square feet of bench space that will be filled 6 inches deep. When you take the pH of the mix, you find it to be at 5.0. You want the pH to be 6.5. How much of the lime must you add?
- a. 14 pounds
 - b. 21 pounds
 - c. 28 pounds**
 - d. 35 pounds

volume of soil = $400 \text{ sq ft} \times .5 \text{ ft deep} = 200 \text{ cu ft} / 27 \text{ cu ft} = 7.41$

Lime need = $7.41 \times 1.5 \text{ points} \times 2.5 \text{ lbs/point} = 27.79 \text{ pounds}$

5. You have a holding tank in which you mix your fertilizer. You add $\frac{1}{2}$ ounce per gallon. Your tanks is 4 foot across and 4 feet deep. How many pounds of fertilizer should you add. Note: There are 16 ounces in a pound. 1 cu ft contains 7.48 gallons of water.

a. 8.99 pounds

b. 11.78 pounds

c. 28.51 pounds

d. 35.95 pounds

Volume of tank = $1.75 \times 1.75 \times 3.14 \times 4 = 38.47$ cu ft $\times 7.48$ gal/cu ft = 287.76 gallon

Lbs of fertilizer = 287.76 gal $\times .5$ oz per gal / 16 oz per pound = 8.99 pounds

Phase IV – Floriculture Production

1. Which of these terms is not a method of asexual reproduction?
 - a. Grafting
 - b. Layering
 - c. Seed
 - d. Cuttings

2. Grower X is producing a crop of poinsettias with a natural daylength in Iowa. Grower X has set the daytime temperature at 85 degrees and the nighttime temperature set at 75 degrees and is not using any growth regulators because his plants are too small and wants them to grow faster. He is fertilizing the crop with 20-10-20 at 200 ppm. Because there is a parking lot with security lights on all night the grower has installed blackout curtains on the walls so that he does not experience a delay in bract development. It is November 30 and he still does not have any colored bracts. Why?
 - a. The daylength is naturally too long
 - b. The rate of fertilizer is too high
 - c. The daytime temperature is too high
 - d. The nighttime temperature is too high

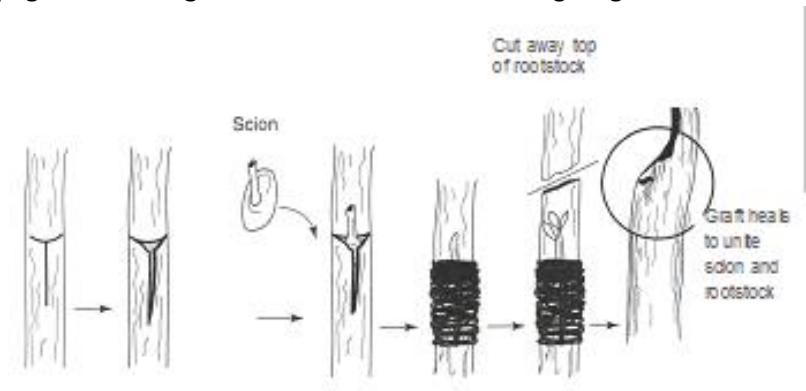
3. What component of a soilless media mix helps to buffer its pH?
 - a. Limestone
 - b. Perlite
 - c. Peat Moss
 - d. Bark

4. What is a common symptom of a plant that has a magnesium deficiency?
 - a. Interveinal chlorosis on the upper leaves
 - b. Interveinal chlorosis on the lower leaves
 - c. Death of terminal buds
 - d. Death of lateral buds

5. Which of these diseases is NOT caused by a fungus
 - a. Stem Rot
 - b. Anthracnose
 - c. Mosaic
 - d. Powdery Mildew

6. Plant Growth Regulators are chemicals that contain hormones that are commonly used in greenhouse production to alter the growth of a plant. Which type of hormone will stimulate cell elongation?
 - a. Auxins
 - b. Gibberellins
 - c. Cytokinins
 - d. Inhibitors

7. What type of propagation is being demonstrated in the following diagram?



- a. T-budding
- b. Chip budding
- c. Patch budding
- d. Petiole budding

8. What insect pest is the most likely cause of the white speckles/streaks on this petunia blossom?

- a. Aphids
- b. Spider Mites
- c. Whitefly
- d. Thrips



9. You want to purchase an indoor plant for your FFA Advisor to keep in the classroom as a thank you for all of the help that he/she has given you during the school year. There is a south facing window that would be perfect to place the plant near because it gets full sun throughout the day. What kind of plant would perform best in these conditions?

- a. Gardenia
- b. Ficus
- c. Philodendron
- d. Spathiphyllum

10. What role does water play in plant growth?

- a. It is needed for photosynthesis
- b. It is the medium by which minerals and photosynthates are transported through the plant
- c. It is needed for cooling of the plant
- d. All of the above

Phase V – Pesticide Use and Application

1. Using the label for Floramite SC, is this product:
 - a. Safe to apply near birds
 - b. Safe to apply near fish
 - c. Safe to apply near honey bees
 - d. None of the above

2. The PPE required for Judo mixers, loaders, and other handlers does not include:
 - a. Chemical resistant gloves
 - b. Respirator with organic vapor removing cartridge
 - c. Shoes plus socks
 - d. Long pants

3. Which product is labeled for use on Powdery Mildew:
 - a. Floramite SC
 - b. Marathon II
 - c. Zyban
 - d. Judo

4. Which of the following are NOT required on a pesticide label?
 - a. EPA Registration Number
 - b. Active Ingredient
 - c. Signal Word
 - d. Date of Production

5. When making a tank mix what order should the following formulations and steps be mixed in?
 - a. Water Dispersible Granules -> Agitate -> Liquids -> Emulsifiable Concentrates
 - b. Emulsifiable Concentrates -> Water Dispersible Granules -> Agitate -> Liquids
 - c. Liquids -> Water Dispersible Granules -> Emulsifiable Concentrates -> Agitate
 - d. Agitate -> Liquids -> Emulsifiable Concentrates -> Water Dispersible Granules

6. Which section of the label tells which early entry PPE must be worn and how long the REI is:
 - a. Use Information
 - b. User Safety Recommendations
 - c. Non-Agricultural Use Requirements
 - d. Agricultural Use Requirements

7. Which signal word represents the most dangerous classification:
- a. Warning
 - b. Danger
 - c. Caution
 - d. Hazard

The next 3 Questions will use the Marathon II label

8. If Marathon II is swallowed by a pesticide handler should the person:
- a. Sip a glass of water if they are able to swallow?
 - b. Be moved to fresh air?
 - c. Take off contaminated clothing?
 - d. Rinse the eyes for 15 to 20 minutes?
9. When spraying Marathon II for Aphids how many milliliters are needed to prepare 65 gallons of spray solution?
- a. 85 mL
 - b. 3250 mL
 - c. 32.5 mL
 - d. 1.105 mL
10. Which of these pests is Marathon II NOT labeled for:
- a. Thrips
 - b. Leaf Miners
 - c. Whiteflies
 - d. Spider Mites

Phase IV – Floriculture Production

Key:

1. C – seed
2. D – Nighttime temperatures should not exceed 65 degrees during floral initiation
3. A – Limestone
4. B – Interveinal Chlorosis on lower leaves - Magnesium is mobile and will be translocated to younger leaves
5. C- Mosaic is caused by a virus
6. B – Giberellins
7. A – T-budding
8. D- Thrips
9. A – Gardenia
10. D – All of the Above

Phase V – Pesticide Use and Application

Key:

1. D – None of the above
2. B - Respirator with organic vapor removing cartridge – This is found in the Agricultural Use Requirements
3. C – Zyban Fungicide
4. D – Date of Production
5. A – Water Dispersible Granules -> Agitate -> Liquids ->Emulsifiable Concentrates

The Right Mix:

Use the W-A-L-E method when mixing different formulations together in the tank:

1. Add the diluent (usually water).
2. add **W**etttable powders and Water-dispersible granules
3. **A**gitate the mix thoroughly
4. add **L**iquids, surfactants, and flowables.
5. add **E**mulsifiable concentrates last.
6. D – Agricultural Use Requirements
7. B – Danger
 - Caution – slightly toxic if eaten, absorbed through the skin, inhaled, or slight eye or skin irritation
 - Warning – moderately toxic if eaten, absorbed through the skin, inhaled, or moderate eye or skin irritation
 - Danger – highly toxic through at least one route of exposure. It may be corrosive, causing irreversible damage to the skin or eyes. It may be highly toxic if eaten, absorbed through the skin, or inhaled. If this is the case “POISON” must also be included in red letters on the front panel of the product label.
8. A – sip a glass of water
9. C – 32.5 mL
$$\frac{65 \text{ gallons solution} \times 50 \text{ mL}}{100 \text{ gallons solution}} = \frac{3250 \text{ mL}}{100} = 32.5 \text{ mL}$$
10. D – Spider Mites

2014 State Floriculture Career Development Event

TEAM ACTIVITY SCENARIO

You work for 'FFA Florals' flower shop. It is located at 321 Hawkeye Street, Waterloo, IA 50704. The shop's phone number is (319) 296-4489.

It's June and the floral shop is booming with activity! Bob and Betty Smith are celebrating their 50th wedding anniversary. They are planning a country themed party. The Waterloo Funeral Home has also called in and is in need of items for a visitation.

Betty has ordered the following items to be delivered today by 1pm for the anniversary party.

1. A small cake topper.
2. A long and low centerpiece for their head table.
3. A corsage and boutonniere.

Waterloo Funeral Home is needing 2 items delivered to them by 1pm.

1. A potted plant wrapped with a bow.
2. A one sided arrangement.

You, and your co-workers, have 40 minutes to put together the above orders, cleanup the shop, and get the invoice ready to be delivered with the flowers. The delivery and billing address for the anniversary arrangements is: Bob and Betty Smith, 4235 Orange Road, Waterloo, IA 50704. Phone number is (319) 296-3969. The billing address for the funeral flowers is: Waterloo Funeral Home, 1501 E Main St, Waterloo, IA 50704. Phone number is (319) 296-3131.



MITICIDE / INSECTICIDE	SPECIMEN LABEL
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Greenhouse and Nursery Ornamental Miticide / Insecticide

ACTIVE INGREDIENT:

Spiromesifen: 2-oxo-3-(2,4,6-trimethylphenyl)-1-oxaspiro[4.4]non-3-en-4-yl
 3,3-dimethylbutanoate 45.2%

OTHER INGREDIENTS: 54.8%

TOTAL: 100.0%

JUDO contains 4 pounds of spiromesifen per US gallon (480 grams ai per liter).

EPA Est. indicated by second and third digits of the batch number on this package.

(65) = 432-TX-1 (03) = 3125-MO-1

EPA Reg. No. 432-1280-59807

**STOP - READ THE LABEL BEFORE USE
 KEEP OUT OF REACH OF CHILDREN**

CAUTION

**For TRANSPORTATION Emergencies ONLY Call 24
 Hours A Day 1-800-424-9300.**

**For MEDICAL and PRODUCT USE Information
 Call 1-800-356-4647.**

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed, inhaled or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

Personal Protective Equipment (PPE):

Mixers, loaders and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves (such as natural rubber, EPA selection category A)
- Shoes plus socks

Applicators must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

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.

FIRST AID	
IF INHALED	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration. • Call a poison control center or doctor for further treatment advice.
IF SWALLOWED	<ul style="list-style-type: none"> • 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 a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
<p>Note To Physician: No specific antidote is known. Treat symptomatically. Have a product container or label with you when calling a poison control center or doctor, or going for treatment.</p>	

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 Personal Protective Equipment immediately after handling this product.
- Wash the outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. Avoid contamination of surface water through runoff or spray drift. 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 washwater.

Net Contents: 8 fl. oz. (237mL)



SURFACE WATER ADVISORY

This product may contaminate water through runoff or through drift of spray in wind. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

DIRECTIONS FOR USE

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

IMPORTANT: Read entire label and Conditions of Sale before using this product.

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** following application. 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, are:

- Coveralls worn over short sleeved shirt and short pants
- Chemical resistant gloves (such as natural rubber, EPA selection category A)
- Shoes plus socks

GENERAL INFORMATION

JUDO is a Flowable (Suspension Concentrate) formulation that is intended for control of mites and whiteflies on ornamental plants, flowers and foliage plants in the greenhouse and field and container nurseries. The active ingredient contained in **JUDO** is active on all mite development stages. However, mite juvenile stages are often more susceptible than adults. Application should be timed to coincide with early threshold levels in a developing mite population.

JUDO is also highly effective against whitefly nymphs, plus it has a significant effect on the otherwise difficult to control pupal stage. For best results against whitefly, applications should target these life stages.

JUDO can be applied by ground equipment. Thorough coverage of all plant parts is required for optimum performance. Performance evaluations should be made 4 – 10 days after application.

Apply specific dosage of **JUDO** as needed for control. For best results good coverage of the upper and lower leaf surfaces is recommended. An adjuvant may be used to improve coverage on hard to wet foliage. For best results the treatment should be made when whitefly or mite population begins to build and before a damaging population becomes established. Rate range is provided and is generally dependent on size of the plant and density of the foliage. Apply with ground application equipment in adequate water for uniform coverage.

PRODUCT FEATURES

- Controls all stages of whitefly (nymphs, pupae, and adults).
- Provides knockdown and residual control of all developmental stages of mites.

PESTS CONTROLLED	USE RATE
Spider mites (including twospotted spider mite, southern red mite, Lewis mite, tumid mite, maple spider mite, spruce spider mite, honeylocust spider mite, euonymus mite, boxwood spider mite) Tarsonemid mites (including broad mite, cyclamen mite) Tenuipalpid mites (including false spider mite) Rust and blister mites (family <i>Eriophyidae</i>)	1 to 4 fl. oz. (30 – 120 mL) / 100 gallons of spray solution or 1.5 – 6 mL / 5 gallons of spray solution
Whiteflies (including greenhouse, silverleaf and sweetpotato whitefly)	2 to 4 fl. oz. (60 – 120 mL) / 100 gallons of spray solution or 3 – 6 mL / 5 gallons of spray solution

WHERE TO APPLY

- To shrubs, trees (including non-bearing fruit and nut trees), flowers and foliage plants in greenhouses, shade houses and plants grown in field and container nurseries.

HOW TO APPLY

- Apply specific dosage of **JUDO** as needed for control. For best results, apply to achieve uniform coverage of the upper and lower leaf surfaces but avoid excess application that results in runoff from plant foliage.
- An adjuvant may be used to improve coverage on hard to wet foliage. For best results the treatment should be made when the whitefly or mite population begins to build and before a damaging population becomes established.
- **JUDO** is effective against the egg and nymphal stages of whiteflies and mites. Control should be directed at these stages.
- Apply as a full coverage spray to the foliage using a minimum volume of 1-2 qts of final solution per 100 sq ft (or 100 to 200 gal per acre). Actual spray volume will vary depending on the size of plants.
- For maximum efficacy against adult whiteflies, use the 4 fl. oz. rate of **JUDO**. For heavy infestations, two applications may be necessary to control adult whiteflies.

HOW TO APPLY continued next page

HOW TO APPLY continued previous page

- Rate range is provided and is generally dependent on size of the plant and density of the foliage. Apply when pests first appear and prior to leaf damage or discoloration. Apply with ground application equipment in adequate water for uniform coverage.
- Do not apply via chemigation.
- Do not apply **JUDO** more than three times per season.

RESISTANCE MANAGEMENT

- **JUDO** contains an active ingredient with a novel mode of action. Studies to determine cross-resistance with **JUDO** linked to other commercial insecticide/miticides have demonstrated no cross-resistance. However, repeated use of any plant protection product may increase the development of resistant strains of pests, including insects and mites.
- Using **JUDO** in successive miticide applications during the same cropping cycle is not recommended. Use **JUDO** as a part of a sound resistance management program that includes rotation with other treatments with different modes of action.

PLANT TOLERANCE

- **JUDO** has been evaluated for phytotoxicity on a wide range of ornamental plants. However, due to the large number of species and varieties of ornamental plants, it is impossible to test every one for tolerance to **JUDO**. The professional user should determine if **JUDO** could be used safely prior to commercial use. In a small area, test the recommended rates on a small number of plants for phytotoxicity prior to widespread use. Before using **JUDO** in tank mixture with other products and adjuvants, test the mixture on a small number of plants for phytotoxicity prior to widespread use.
- Do not use **JUDO** on geraniums (*Pelargonium* sp.), *Peperomia*, *Dracaena*, and 'Classy', 'Attache', or 'Vogue' varieties of rose.
- Insufficient information on tolerance is available for the following ornamentals: lily-of-the-Incas (*Alstromoeria*), New Guinea impatiens, *Bacopa*, ferns, phlox, English ivy (*Hedera helix*), cyclamen, *Agyranthemum*, hydrangea, schefflera, *Matthiola* (stock), Mexican heather, *Lobelia*, fuschia, *Cordyline*, croton, neanthebella palm, and primula. It is recommended that **JUDO** not be used on these plants.
- Do not apply more than 2 fl. oz. per 100 gal per applications or 4 fl. oz. per cropping cycle to chrysanthemum, Shasta daisy, snapdragon, impatiens, verbena, lantana, gerbera daisy, or marigolds.

SPRAY DRIFT

- Avoid drift or runoff into lakes, reservoirs, rivers, permanent streams, marshes, potholes, vernal pools, natural ponds, estuaries, or commercial fish farm ponds. Do not apply when winds are greater than 15 mph and avoid gusty conditions.

IRRIGATION TIMING

- If irrigation is used, conduct irrigation efficiently to prevent excessive loss of irrigation water through runoff. Time applications to allow sprays to dry prior to rain or sprinkler irrigation. Allow at least 24 hours between applications of product and any irrigation that results in surface water runoff into lakes, reservoirs, rivers, permanent streams, marshes, potholes, vernal pools, natural ponds, estuaries, or commercial fish farm ponds.

ENDANGERED SPECIES

- The use of any pesticide in a manner that may kill or otherwise harm endangered species or adversely modify their habitat is a violation of Federal law.

RESTRICTIONS

- Do not use through irrigation systems.
- Do not use on vegetable gardens.
- Do not use on plants intended for use as feed or forage.
- Do not use on bearing fruit or nut trees.

PACKAGE HANDLING

- **JUDO** is packaged in polyethylene containers. Do not allow product or containers to freeze.

COMPATIBILITY / MIXING / ORDER-OF-MIXING

- **JUDO** is physically and biologically compatible with many registered pesticides and fertilizers or micronutrients. When considering mixing **JUDO** with other pesticides, or other additives, first contact your supplier for advice. For further information, contact your local OHP, Inc. representative. If your supplier and OHP, Inc. representative have no experience with the combination you are considering, you should conduct a test to determine physical compatibility. To determine physical compatibility, add the recommended proportions of each chemical with the same proportion of water as will be present in the chemical supply tank, into a suitable container, mix thoroughly and allow to stand for five minutes. If the combination remains mixed, or can be readily re-mixed, the mixture is considered physically compatible.
- **JUDO** may be used with other recommended pesticides, fertilizers and micronutrients. The proper mixing procedure for **JUDO** alone or in tank mix combinations with other pesticides is:
 - 1) Fill the spray tank 1/4 to 1/3 full with clean water;
 - 2) While recirculating and with the agitator running, add any products in PVA bags (**See Note**). Allow time for thorough mixing;
 - 3) Continue to fill spray tank with water until 1/2 full;
 - 4) Add any other wettable powder (WP) or wettable granules (WG) products;
 - 5) Add the required amount of **JUDO**, and any other "flowable" (FL or SC) type products;
 - 6) Allow enough time for thorough mixing of each product added to tank;
 - 7) If applicable, add any remaining tank mix components: emulsifiable concentrates (EC), fertilizers and micronutrients.
 - 8) Fill spray tank to desired level and maintain constant agitation to ensure uniformity of spray mixture.
- Mix pesticides in areas not prone to runoff such as concrete mixing/loading pads, disked soil in flat terrain or graveled mix pads, or use a suitable method to contain spills and/or rinsate. Properly empty and triple-rinse pesticide containers at time of use.

For Use in California:

Allow growth of a vegetative filter strip within 25-ft (on which this product should not be applied) along lakes, reservoirs, rivers, permanent streams, marshes, potholes, vernal pools, natural ponds, estuaries or commercial fish farm ponds. This requirement does not apply to retention or holding ponds used to collect and recycle water for irrigation.

STORAGE AND DISPOSAL

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

STORAGE:

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

PESTICIDE DISPOSAL:

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

CONTAINER DISPOSAL:

- Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. If burned, stay out of smoke.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, because of manner of use and other factors beyond OHP, Inc.'s control it is impossible for OHP, Inc. to eliminate all risks associated with the use of this product. As a result, crop injury or ineffectiveness is always possible. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, OHP, Inc. MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of OHP, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. OHP, Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT OHP, INC. ELECTION, THE REPLACEMENT OF PRODUCT.

Judo is a trademark of OHP, Inc

Manufactured for:
OHP, Inc.
P. O. Box 230
Mainland, PA 19451
(800) 356-4647

ESL050407 REV061207



MARATHON® II

GREENHOUSE and NURSERY INSECTICIDE

SPECIMEN LABEL

For Foliar and Systemic Insect Control on Ornamentals, Fruit and Nut Trees, and Vegetable Plants in Greenhouses, Nurseries and Interior Plantscapes

ACTIVE INGREDIENT:

* Imidacloprid, 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine . . . 21.4%

OTHER INGREDIENTS: 78.6%

TOTAL: 100.0%

Contains 2 pounds of imidacloprid per gallon

SHAKE WELL BEFORE USING

EPA Est. indicated by second and third digits of the batch number on this package.

EPA Reg. No. 432-1369-59807

(65) = 432-TX-1 (03) = 3125-MO-1

**STOP - READ THE LABEL BEFORE USE
KEEP OUT OF REACH OF CHILDREN**

CAUTION

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

CAUTION: Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Keep children or pets off treated area until spray is dry.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton
- Shoes plus socks

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.

Engineering controls statements: 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.

Important: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "Applicators and Other Handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

USER SAFETY RECOMMENDATIONS

User 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.

FIRST AID

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.

IF INHALED

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor for further treatment advice.

IF ON SKIN OR CLOTHING

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.
- Call a poison control center or doctor for treatment advice.

Net Contents: 250 mL (8.45 fl. oz.)



FIRST AID continued

IF IN EYES

- Hold eye open and rinse slowly and gently with water for 15 to 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.

In case of emergency call toll free the OHP, Inc. Emergency Response Telephone No. 1-800-356-4647.

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

Note To Physician: No specific antidote is available. Treat the patient symptomatically.

ENVIRONMENTAL HAZARDS

This product is highly toxic to aquatic invertebrates. 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 disposing of equipment washwaters.

This product 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 chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

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 following application. Earlier entry by exception.

Exception: If the product is drenched, soil-injected or soil-incorporated, workers may enter the treated area at any time if there will be no contact with anything that has been treated.

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
- Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton
- Shoes plus socks

Do not formulate this product into other end-use products.

APPLICATION TO ORNAMENTALS AND VEGETABLE PLANTS

MARATHON II Insecticide is for insect control on ornamental and vegetable plants in nurseries and greenhouses and interior plantscapes. **MARATHON II Insecticide** is a systemic product and will be translocated upward into the plant system. To assure optimum effectiveness, the product must be placed where the growing portion of the target plant can absorb the active ingredient. The addition of a nitrogen containing fertilizer, where applicable, into the solution may enhance the uptake of the active ingredient. Application can be made by foliar application or soil applications; including soil injection, drenches, chemigation and broadcast sprays.

When making soil applications to plants with woody stems, systemic activity will be delayed until the active ingredient is translocated throughout the plant. For this reason, applications should be made prior to anticipated pest infestation to achieve optimum levels of control.

For outdoor ornamentals, broadcast applications cannot exceed a total of 1.6 pints (0.4 lb of active ingredient) per acre per year.

BARK MEDIA: Media with 30% or more bark content may confer a shorter period of protection when treated with **MARATHON II Insecticide**.

RESISTANCE: Some insects are known to develop resistance to insecticides after repeated use. As with any insecticide, the use of this product should conform to resistance management strategies established for the use area. Consult your Cooperative Extension Service for resistance management strategies and recommended pest management practices for your area.

Application Equipment For Ornamentals And Vegetable Plants

MARATHON II Insecticide mixes readily with water and may be used in many types of application equipment. Mix product with the required amount of water and apply as desired dependent upon the selected use pattern.

When making foliar applications on hard to wet foliage such as holly, pine, or ivy, the addition of a spreader/ sticker is recommended. If concentrate or mist type spray equipment is used, an equivalent amount of product should be used on the area sprayed, as would be used in a dilute application.

MARATHON II Insecticide has been found to be compatible with commonly used fungicides, miticides, liquid fertilizers, and compatibility using the correct proportion of products in a small jar test if local experience is unavailable.

APPLICATION THROUGH IRRIGATION SYSTEMS

MARATHON II Insecticide may be applied at rates recommended on the label either alone or in tank mixtures with other pesticides and chemicals registered for application through irrigation systems. The normal dilution ratio is 1:100 to 1:200, depending on the system. Always meter the product into the irrigation water during the first part of the irrigation cycle. The product may be mixed separately prior to injection. Agitation may be necessary if the mixture is allowed to stand more than 24 hours.

Remove scale, pesticide residue and other foreign matter from the tank and entire irrigation system.

Apply **MARATHON II Insecticide** only through micro irrigation (individual spaghetti tubes), drip irrigation, overhead irrigation, ebb and flood, or hand-held or motorized calibrated irrigation equipment.

Do not apply this product through any other type of irrigation system. Crop injury or lack of effectiveness can result from non uniform distribution of treated water.

If you have any questions about calibration, contact your State Extension Service specialist, equipment manufacturers or other experts in this area.

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 a person who is under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

SAFETY DEVICES FOR IRRIGATION SYSTEMS CONNECTED TO PUBLIC WATER SUPPLIES:

If the source of water for your irrigation system is a public water supply, follow the instructions below:

1. 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.
2. 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, 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.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
5. 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.
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 for treatment.

SAFETY DEVICES FOR IRRIGATION SYSTEMS NOT CONNECTED TO A PUBLIC WATER SUPPLY:

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 the 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 material that is 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 for treatment.

APPLICATION TO GRASSY AREAS IN NURSERIES

MARATHON II Insecticide can be used for the control of soil inhabiting pests of grassy areas of nurseries, such as Northern and Southern masked chafers, *Cyclocephala borealis*, *C. immaculata*, and/or *C. lurida*; Asiatic garden beetle, *Maladera castanea*; European chafer, *Rhizotrogus majalis*; Green June beetle, *Cotinis nitida*; May or June beetle, *Phyllophaga* spp.; Japanese beetle, *Popillia japonica*; Oriental beetle, *Anomala orientalis*; Billbugs, *Spherophorus* spp.; Annual bluegrass weevil, *Hyperodes* spp.; Black turfgrass ateniens, *Ataenius spretulus* and *Aphodius* spp. and mole crickets, *Scapteriscus* spp. **MARATHON II Insecticide** can also be used for suppression of cutworms and chinchbugs. **MARATHON II Insecticide** can be used as directed on nursery grass in sites such as under or around field or container grown plants, on roadways or other grassy areas in or around nurseries. **MARATHON II Insecticide** cannot be used on commercial sod farms.

The active ingredient in **MARATHON II Insecticide** has sufficient residual activity so that applications can be made preceding the egg laying activity of the target pests. High levels of control can be achieved when applications are made preceding or during the egg laying period. The need for an application can be based on historical monitoring of the site, previous records or experiences, current season adult trapping or other methods. Optimum control will be achieved when applications are made prior to egg hatch of the target pests, followed by sufficient irrigation or rainfall to move the active ingredient through the thatch.

Applications should not be made when grassy areas are waterlogged or the soil is saturated with water. Adequate distribution of the active ingredient cannot be achieved when these conditions exist. The treated grassy area must be in such a condition that the rainfall or irrigation will penetrate vertically in the soil profile. Application cannot exceed a total of 1.6 pints (0.4 lb of active ingredient) per acre per year.

Application Equipment for Use on Grassy Areas in Nurseries

Apply **MARATHON II Insecticide** in sufficient water to provide adequate distribution in the treated area. The use of accurately calibrated equipment normally used for the application of soil insecticides is required. Use equipment which will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off target drift. Check calibration periodically to ensure that equipment is working properly.

RECOMMENDED APPLICATIONS		
CROP	PEST	DOSAGE
Grassy areas of Field & Forest Nurseries	Larvae of: Annual bluegrass weevil Asiatic garden beetle Billbugs Black turfgrass ataenius Cutworms (suppression) European chafer Green June beetle Japanese beetle Northern masked chafer Oriental beetle <i>Phyllophaga</i> spp. Southern masked chafer	19.2 to 25.6 oz per acre or 0.45 to 0.6 fl oz (13 to 17 mL) per 1000 sq ft.
	Chinchbugs (suppression) Mole crickets	25.6 oz /A or (17 mL) per 1000 sq. ft.
<p>For optimum control of grubs, billbugs and annual bluegrass-weevil, make application prior to egg hatch of the target pest. Be sure to read "APPLICATION EQUIPMENT" Section of this label.</p> <p>For suppression of chinchbugs, make application prior to the hatching of the first instar nymphs. For control of mole crickets make application prior to or during the peak egg hatch period. When adults or large nymphs are present and actively tunneling, MARATHON II Insecticide application should be accompanied by a curative insecticide. Follow label instructions for other insecticides when tank-mixing.</p> <p>Consult your local turf, state Agricultural Experiment Station, or State Extension Service Specialist for more specific information regarding timing of application. NOTE: For optimum control, irrigation or rainfall should occur within 24 hours after application to move the active ingredient through the thatch.</p> <p>Do not apply more than 1.6 pt (0.4 lb of active ingredient) per acre per year. Avoid mowing grass area until after sufficient irrigation or rainfall has occurred so that uniformity of application will not be affected.</p>		

RECOMMENDED APPLICATIONS FOR USE ON OR IN ORNAMENTALS		
CROP	PEST	DOSAGE
Trees (including non-bearing fruit and nut) Shrubs Evergreens Flowers Foliage plants Ground covers Interior plantscapes Vegetable plants*	Adelgids Aphids Japanese beetles (adults) Lacebugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Sawfly larvae Thrips (suppression) Whiteflies	1.7 fl. oz. (50mL) per 100 gal of water
	White grub larvae (such as Japanese beetle larvae, Chafers, <i>Phyllophaga</i> spp. Asiatic garden beetle, Oriental beetle)	0.45 to 0.6 fl oz (13 to 17 mL) per 1000 sq. ft.
<p>Foliar Applications: Start treatments prior to establishment of high pest populations and reapply on an as needed basis. For resistance management purposes, a MARATHON II Insecticide foliar application following a soil application in the same crop is not recommended.</p> <p>Broadcast Applications: Mix required amount of product in sufficient water to uniformly and accurately cover the area being treated. Do not use less than 2 gallons of water per 1000 sq. ft. For optimum control, irrigate thoroughly to incorporate MARATHON II Insecticide into the upper soil profile.</p> <p>Refer to REMARKS section for use directions specific for "Flowers and Ground Covers" concerning additional use directions.</p> <p>* Only for use on vegetable plants intended for resale including: Broccoli, Chinese Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Chinese Cabbage, Cauliflower, Collards, Eggplant, Ground Cherry, Kale, Kohlrabi, Lettuce, Mustard Greens, Pepinos, Peppers, Potatoes, Rape Greens, Sorghum, Sugarbeets, Tomatillo, and Tomato.</p>		

**RECOMMENDED APPLICATIONS FOR NURSERY,
GREENHOUSE AND INTERIORESCAPE PLANTS**

Adelgids	Japanese beetles	Pine Tip moth
Aphids	(adults)	larvae
Armored scales	Lacebugs	Psyllids
(suppression)	Leaf beetles	Royal palm bugs
Black vine weevil	(including elm	Sawfly larvae
larvae	and viburnum	Soft scales
Eucalyptus	leaf beetles)	Thrips
longhorned	Leafhoppers	(suppression)
borers	(including	White grub larvae
Flatheaded	glassy-winged	Whiteflies
borers (including	sharpshooter)	
bronze birch	Leafminers	
and alder	Mealybugs	
borers)		

Trees	0.1 to 0.2 fl. oz. (3 to 6 mL) per inch of trunk diameter (D.B.H.)
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Soil Injection: GRID SYSTEM: Holes should be spaced on 2.5 foot centers, in a grid pattern, extending to the drip line of the tree. CIRCLE SYSTEM: Apply in holes evenly spaced in circles, (use more than one circle dependent upon the size of the tree) beneath the drip line of the tree extending in from that line. BASAL SYSTEM: Space injection holes evenly around the base of the tree trunk no more than 6 to 12 inches out from the base.

Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. For optimum control, keep the treated area moist for 7 to 10 days. Do not use less than 4 holes per tree.

No Soil Injection Application Allowed in Nassau or Suffolk Counties of New York.

Soil Drench: Uniformly apply the dosage in no less than 10 gallons of water per 1000 square feet as a drench around the base of the tree, directed to the root zone. Remove plastic or any other barrier that will stop solution from reaching the root zone.

For Control of Specified Borers: Application to trees already heavily infested may not prevent the eventual loss of the trees due to existing pest damage and tree stress.

Shrubs	0.1 to 0.2 fl. oz. (3 to 6 mL) per foot of shrub height
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Soil Injection: Apply to individual plants using dosage indicated.

Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. Keep the treated area moist for 7 to 10 days. Do not use less than 4 holes per shrub.

No Soil Injection Application Allowed in Nassau or Suffolk Counties of New York.

Soil Drench: Uniformly apply the dosage in no less than 10 gallons of water per 1000 square feet as a drench around the base of the tree, directed to the root zone. Remove plastic or any other barrier that will stop solution from reaching the root zone.

Flowers and Ground Covers	0.45 to 0.6 fl oz (13 to 17 mL) per 1000 sq. ft.
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Apply as a broadcast treatment and incorporate into the soil before planting or apply after plants are established. If application is made to established plants, optimum control will be attained if area is irrigated thoroughly after application.

**MARATHON II Insecticide
Ebb & Flood Application**

MARATHON II Insecticide may be applied through Ebb and Flood applications. To assure accurate uptake it is recommended that prior to treatment, a minimum of 10 plants be brought up to a known field capacity and allowed to dry out for one or two days. Re-wet these plant to determine how much water on average each plant will absorb to bring it back at field capacity. Use the volume absorbed per plant (keeping pot sizes uniform) multiplied by the number of pots being treated. Add to this volume a required minimum to flood your smallest treatment area. This should minimize the return back to the storage tank. Re-use the returned volume with subsequent irrigation or nutrients on the same plants.

MARATHON II INSECTICIDE EBB & FLOOD APPLICATIONS		
Adelgids	Leafhoppers	Soft Scales
Aphids	(including	Thrips
Armored scales	glassy-winged	(suppression) ⁴
(suppression)	sharpshooter)	Whiteflies
Fungus Gnats	Leafminers	White Grub larvae
(larvae only) ¹	Mealybugs	(such as
Japanese Beetles	Psyllids	Japanese Beetle,
(adults)	Root mealybugs ²	Masked Chafer,
Lacebugs	Root Weevil	European Chafer,
Leaf beetles	Complex:	Oriental Beetle,
(including elm	(such as Apopka	Asiatic Garden
and viburnum	Weevil, Black	Beetle)
leaf beetles)	Vine Weevil,	
	Citrus Root	
	Weevil ³)	
Pot sizes (inches)	Herbaceous species including vegetable plants⁵ (one or two plants per pot)	Woody perennials, Herbaceous species including vegetable plants⁵ (3 or more plants per pot)
	ML per 100 Plants	ML per 100 Plants
2	1.6 mL	2.5 mL
3	2.5 mL	3.7 mL
4	3.3 mL	5.0 mL
5	4.2 mL	6.3 mL
6	5.0 mL	7.7 mL
7	5.9 mL	9.1 mL
8	6.6 mL	10.0 mL
9	7.4 mL	11.1 mL
10	8.3 mL	12.5 mL
11	9.0 mL	14.3 mL
12	10.0 mL	16.7 mL

- Fungus gnat larvae** in the soil will be controlled by drench or incorporation. **No adult Fungus Gnat control.** Other foliar insect control is achieved by the uptake of **MARATHON II** from a healthy root system translocating the active ingredient up into the plant.
- Root Mealybug** control will require a thorough drenching of containerized media. Coverage is essential for control while minimizing the amount of leachate. Rate: 1.7 fl oz (50 mL) in 150 gallons of water.
- Citrus Root Weevil:** For use on non-bearing citrus nursery stock.
- Thrips** suppression on foliage only. Thrips in buds and flowers will not be suppressed.
- Note:** For use on vegetable plants intended for resale only including: Broccoli, Chinese Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Chinese Cabbage, Cauliflower, Collards, Eggplant, Ground Cherry, Kale, Kohlrabi, Lettuce, Mustard Greens, Pepinos, Peppers, Potatoes, Rape Greens, Sorghum, Sugarbeets, Tomatillo, and Tomato.

RECOMMENDED DRENCH AND IRRIGATION APPLICATIONS

For use only on greenhouse and nursery ornamentals, vegetable plants, and interiorscape plants using soil drenches, micro-irrigation, drip irrigation, overhead irrigation, ebb and flood irrigation, or hand-held or motorized calibrated irrigation equipment.

Pest	Use Pattern		Dosage - MARATHON II		Remarks
Adelgids Aphids Fungus Gnats ¹ (larvae only) Japanese Beetles (adults) Lacebugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Psyllids Root mealybugs ² Root Weevil Complex (Such as Apopka Weevil, Black Vine Weevil, Citrus Root Weevil ³) Soft Scale Thrips (suppression) ⁴ Whiteflies White Grub larvae (such as Japanese Beetle, Masked Chafers, European Chafer, Oriental Beetle, Asiatic Garden Beetle)	Plants in Containers	Herbaceous Species – including vegetable plants ⁵ (one or two plants per pot)	Container size (inches)	No. pots treated with 1.7 fl oz (50 mL)	Use sufficient volume to wet most of the potting medium without loss of liquid from the bottom of the container. Apply according to label directions. Follow application with moderate irrigation. Irrigate carefully during the next 10 days in order to avoid loss of active ingredient due to leaching.
		Woody Perennials	2 3 4 5 6 7 8 9 10 11 12	2000 1350 1000 800 650 550 500 450 400 350 300	
		Herbaceous Species including vegetable plants ⁵ (three or more plants per pot)	Use the above woody perennial rates		
	Ornamental and vegetable plants ⁵ grown in flats, benches, or beds		1.7 fl oz (50 mL) per 3000 square feet		Mix required amount in sufficient water to uniformly cover the area being treated. Do not use less than 2 gallons of mixture per 1000 sq. ft. Apply as a broadcast treatment and incorporate into the medium before planting or apply after plants are established. If application is made to established plants, optimum control will be attained if areas are lightly irrigated after application. Allow no leaching or runoff for 10 days after application

- Fungus gnat larvae** in the soil will be controlled by drench or incorporation. **No adult Fungus Gnat control.** Other foliar insect control is achieved by the uptake of **MARATHON II Insecticide** from a healthy root system translocating the active ingredient up into the plant.
- Root Mealybug** control will require a thorough drenching of containerized media. Coverage is essential for control while minimizing the amount of leachate. Rate: 1.7 fl oz (50 mL) in 150 gallons of water.
- Citrus Root Weevil:** For use on non-bearing citrus nursery stock.
- Thrips** suppression on foliage only. Thrips in buds and flowers will not be suppressed.
- Note:** For use on vegetable plants intended for resale only including: Broccoli, Chinese Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Chinese Cabbage, Cauliflower, Collards, Eggplant, Ground Cherry, Kale, Kohlrabi, Lettuce, Mustard Greens, Pepinos, Peppers, Potatoes, Rape Greens, Sorghum, Sugarbeets, Tomatillo, and Tomato.

RECOMMENDED DRENCH AND IRRIGATION APPLICATIONS

For use only on greenhouse and, nursery ornamentals, vegetable plants, and interiorscape plants using soil drenches, micro -irrigation, drip irrigation, overhead irrigation, ebb and flood irrigation, or hand-held or motorized calibrated irrigation equipment.

APPLICATION INSTRUCTIONS: Use 1.7 fl oz (50 mL) of product in an appropriate amount of water to avoid leaching to treat the number of pots based on pot size in the table below.

Pest	Use Pattern	Dosage - MARATHON II		Remarks
Adelgids Aphids Fungus Gnats Larvae ¹ Japanese Beetle (adult) Lacebugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy winged sharpshooter) Leafminers Mealybugs Psyllids Root Mealybugs ² Root Weevil Complex (such as: Apopka Weevil, Black Vine Weevil, Citrus Root Weevil ³) Soft Scale Thrips (suppression) ⁴ Whiteflies White Grub larvae (such as: Japanese Beetle, Masked Chafer, European Chafer, Oriental Beetle, Asiatic Garden Beetle)	Containerized plants	Container Size 1 gallon 2 gallon 3 gallon 5 gallon 7 gallon 10 gallon 15 gallon 20 gallon	No. pots treated with 1.7 fl oz (50 mL) 340 to 244 280 to 210 220 to 165 160 to 110 100 to 75 60 to 45 40 to 30 20 to 15	Apply in sufficient water to wet the potting medium. For optimum control, make applications prior to egg hatch of the target pest. Irrigate moderately after application to move the active ingredient into the root zone.
White Grub larvae (such as: Japanese Beetle, Masked Chafer, European Chafer, Oriental Beetle, Asiatic Garden Beetle)	Field and Forest Nurseries	Apply as a uniform band on either side of the row using a band width six (6) inches wider than the actual root ball diameter to be dug. Do not allow bands in adjacent rows to overlap. Use 1.7 fl oz (50 mL) per 1000 ft of row or 3,000 sq. ft. For grub control in areas of turf, apply as a broadcast application using 1.35 to 1.7 fl oz (40 to 50 mL) per 3000 sq. ft.		Vegetation in the area to be treated should be mowed to a height of 3 inches or less prior to application. Mowing to the lowest possible height will insure greater consistency of control. Apply May through July. For optimum control, treatment should be followed by rainfall or irrigation. Do not use less than 2 gallons of spray volume per 1000 square feet.

- 1 **Fungus gnat larvae** in the soil will be controlled by drench or incorporation. **No adult Fungus Gnat control.** Other foliar insect control is achieved by the uptake of **MARATHON II Insecticide** from a healthy root system translocating the active ingredient up into the plant.
- 2 **Root Mealybug** control will require a thorough drenching of containerized media. Coverage is essential for control while minimizing the amount of leachate. Rate: 1.7 fl oz (50 mL) in 150 gallons of water.
- 3 **Citrus Root Weevil:** For use on non-bearing citrus nursery stock.
- 4 **Thrips** suppression on foliage only. Thrips in buds and flowers will not be suppressed.

RESTRICTIONS

Do not graze treated areas or use clippings for treated areas for feed or forage. Avoid runoff or puddling of irrigation water following application.

Do not apply **MARATHON II Insecticide** to soils which are water logged or saturated, which will not allow penetration into the root zone of the plants.

Do not allow leachate run out for the first 10 days after application, in order to retain the product and facilitate full plant uptake of the active ingredient.

For outdoor ornamentals grown in beds or turf, applications of **MARATHON II Insecticide** cannot exceed a total of 1.6 pt (0.4 lb of active ingredient) per acre per year.

Food Crops: Treated areas may be replanted with any crop specified on an imidacloprid label, or with any crop for which a tolerance exists for the active ingredient.

For crops not listed on an imidacloprid label, or for crops for which no tolerances for the active ingredient have been established, a 12 month plant-back interval should be observed.

STORAGE AND DISPOSAL

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

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

Handle and open container in a manner as to prevent spillage. If the container is leaking, invert to prevent leakage. If container is leaking or material spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statement on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides below. In spill or leak incidents, keep unauthorized people away. The OHP, Inc. Emergency Response Telephone number is 1-800-356-4647, or contact Chemtrec at 1-800-424-9300

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: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of the smoke.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of liability before using this product.

If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following conditions, disclaimer of warranties and limitations of liability.

CONDITIONS: The directions for use of this product are believed to be adequate and should be followed carefully. However, because of manner of use and other factors beyond OHP, Inc.'s control it is impossible for OHP, Inc. to eliminate all risks associated with the use of this product. As a result, crop injury or ineffectiveness is always possible. All such risks shall be assumed by the user of buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, OHP, INC. MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of OHP, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, OHP, Inc. disclaims any liability whatsoever for special, incidental or consequential damages, resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT OHP, INC.'S ELECTION, THE REPLACEMENT OF PRODUCT.

Marathon is a registered trademark of OHP, Inc.

Manufactured for:
OHP, Inc.
P. O. Box 230
Mainland, PA 19451
(800) 356-4647

ESL031804N REV061008
OHP985250





Zyban[®]

WSB



Wettable Powder Ornamental Fungicide in Water Soluble Bags

Broad Spectrum Systemic-Contact Fungicide for Use in Landscapes, Ornamental and Nursery Crops.

- Broad spectrum contact and systemic activity on scab, rust, leaf spot, blight, anthracnose, downy and powdery mildew.
- Easy to use, pre-measured water soluble bags.
- Effective — immediate contact action plus long-lasting systemic control through a unique combination of active ingredients.
- Long lasting, reduces number of applications needed.
- Proven effective, eliminating uncertainty of tank mixes.

PACKAGING

Unit Size:

8 x 6 oz. pouch

Units Per Case: 4

STOCK #95211

(See next page
for label information)

Distributed by:

Scotts-Sierra Crop Protection Company

14111 Scottslawn Road • Marysville, OH 43041

If you have any questions regarding the use of this product, call TOLL FREE 1-800-492-8255



**Wettable Powder Ornamental Fungicide
in Water Soluble Bags**

ACTIVE INGREDIENTS:

- Thiophanate-methyl † 15.6%
- A coordination product of zinc ion and manganese ethylenebis dithiocarbamate 64.0%
- 12.8% Manganese (Mn)++
- 1.6% Zinc (Zn)++
- 49.6% Ethylenebis dithiocarbamate

OTHER INGREDIENTS. 20.4%
TOTAL 100.0%

†CAS# 23564-05-08

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

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.)

FIRST AID

IF SWALLOWED: Induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. **OBTAIN MEDICAL ATTENTION IMMEDIATELY. IF INHALED:** Remove victim to fresh air. If not breathing give artificial respiration, preferably mouth to mouth. Get medical attention. **IF ON SKIN:** Wash with plenty of soap and water. Get medical attention. **IF IN EYES:** Flush eyes with water. Call a physician if irritation persists.

EPA Reg. No. 58185-31 **EPA Est. No. 33967-NJ-1 (B)**
EPA Est. No. 65387-AR-002 (AV)

Subscript is first letter of run code on end of container.

Product of U.S.A. **NET WEIGHT: 3 lbs (1.36 kg)**
(Eight 6 oz. Water Soluble Bags)

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ZYBAN® is a registered trademark of Scotts-Sierra Crop Protection Company for its brand of Fungicide products.



Scotts-Sierra Crop Protection Company
14111 Scottslawn Road
Marysville, OH 43041
1-800-492-8255

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

CAUTION: Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

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.
- 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 PRODUCT IS TOXIC TO FISH. 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 disposing of equipment washwaters.

PHYSICAL OR CHEMICAL HAZARDS

Keep away from fire or sparks.

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 through any type of irrigation system.

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.

FOR PROFESSIONAL USE ONLY

This resealable pouch contains eight ZYBAN WSB water-soluble bags.

Add 2/3 of the required amount of water to the spray or mixing tank. With agitator running, place required amount of unopened water soluble bags into the partially filled sprayer tank or closed-system mix tank. Keep agitated to insure even suspension of material. Make fresh daily. Spray uniformly over the area to be treated with a boom type or other power sprayer.

Do not handle water soluble bags for longer than is required to place into sprayer tank. Do not expose water soluble bags to moisture.

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 24 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:

- coveralls
- waterproof gloves
- 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.

- Keep children and pets off treated area until dry or material has washed into soil.
- Do not enter treated areas without protective clothing until sprays have dried.

DO NOT REMOVE PACKAGES FROM CONTAINER EXCEPT FOR IMMEDIATE USE

HORTICULTURAL, LANDSCAPE AND NURSERY PLANTS

While disease is prevalent, spray foliage with a suspension containing 24 oz. (4 bags) per 100 gals. of water at weekly intervals, unless otherwise specified.

*For Flower Blight (Ovulinia) on azaleas and rhododendrons, 12 oz. (2 bags) per 75 gals. on a 4 to 6 day interval is recommended. For Gymnosporangium on Crabapple, use 24 oz. (4 bags) per 75 gals. at 2-week intervals. For Phomopsis on Juniper, use 36 oz. (6 bags) per 75 gals. at 7 to 10 day intervals.

Use on horticultural, landscape and nursery plants for prevention and control of the following diseases in the greenhouse, field or landscape:

DISEASE CATEGORY

1. ANTHRACNOSE
2. BLACKSPOT
3. FLOWER SPOT and BLIGHT
4. LEAF SPOT and BLIGHT
5. STEM & TWIG BLIGHT
6. DOWNY MILDEW
7. POWDERY MILDEW
8. SCAB
9. RUST

ORGANISM GENERA

Colletotrichum, Gloeosporium, Marssonina, Mycosphaerella spp.
Diplocarpon rosae
Alternaria, Ascochyta, Botrytis, Ciborinia, Curvularia, Ovulinia, Sclerotinia spp.
Alternaria, Ascochyta, Botrytis, Cercospora, Curvularia, Entomosporium, Fusarium, Rhizoctonia, Septoria, Volutella spp.
Pestalotia, Phomopsis, Rhizoctonia spp.
Plasmopara viticola
Erysiphe cichoracearum, Microsphaera, Podosphaera, Sphaerotheca spp.
Fusicladium, Venturia and Sphaeloma spp.
Gymnosporangium juniperi-virginianae

The following plants are subject to the diseases indicated (by number) and tolerate ZYBAN® at normal rates of application:

WOODY

Aralia (1,4) Hawthorn (7,9)
Ash (1) Juniper (5,9)*
Azalea (3,4)* Lilac (7)
Black Walnut (1) Maple (1)
Brassia (1,4,5) Photinia (4)
Camellia (3)* Pittosporum (4)
Cherry Laurel (4) Poinsettia (3,4,8)
Crabapple (7,8,9)* Pyracantha (8)
Crape Myrtle (7) Rhamnus (4)
Dogwood (1,4) Rhododendron (3)*
Dracaena (4,5) Rose (2,3,4,7)
Euonymus (1) Sycamore (1)
Fatsia (4) Viburnum (6)

HERBACEOUS

African Marigold (3,4) Mondo Grass (1)
Aphelandra (4) Pachysandra (4)
Aster (3,4) Pansy (1,3,4)
Begonia (3,4) Pellea (4)
Carnation (3,4) Petunia (3,4)
Cissus (4,5,6) Philodendron (4)
Chrysanthemum (1,3,4) Phlox (3,4,7)
Dahlia (3,4) Snapdragon (3,4,6)
Dieffenbachia (4) Spathiphyllum (4,5)
Epipremnum (4) Stocks (3,4,7)
Geranium (3,4) Strelitzia (1)
Impatiens (3,4) Verbena (3,4)
Kalanchoe (3,4,7) Vinca (4)
Liriope (4,7) Zinnia (3,4,7)

* See special instructions above.

Do not use on French Marigold or Gloxinia.

STORAGE AND DISPOSAL

STORAGE: Do not store at a temperature exceeding 122°F (50°C). Store in a dry place in a well-closed container. Do not allow to become wet or overheated in storage.

This may cause chemical changes which will impair the fungicidal effectiveness of ZYBAN and may also generate flammable vapors. Handle container carefully when stored at temperatures of less than 50°F to avoid breakage of inner water soluble bags.

PROHIBITIONS: Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

PESTICIDE DISPOSAL: Pesticide, spray mixture or rinse water that cannot be used according to label instructions must be disposed of according to applicable Federal, State or local procedures.

CONTAINER DISPOSAL: Do not reuse container. Dispose of empty container in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**IMPORTANT NOTICE:
DISCLAIMER AND LIMITATION OF LIABILITY.**

This product has been researched to provide necessary data to support its use on the ornamentals listed on the label. However, it is understood that tests may not have been carried out on all varieties or cultivars and under all growing conditions on all plants listed on the label. The user should always follow the label directions and exercise judgment and caution when using this product on a given variety until familiar with the results under their growing conditions. NO WARRANTY OR REPRESENTATION IS MADE, EXPRESS OR IMPLIED, CONCERNING THE RESULTS OBTAINED FROM THE USE OF THIS PRODUCT IF NOT USED IN ACCORDANCE WITH DIRECTIONS OR ESTABLISHED SAFE PRACTICE. The exclusive remedy of the user or Buyer, and the limit of liability of The Scotts Company or its affiliates, for any and all losses, injuries or damages resulting from the use or handling of this product shall be the purchase price paid by the user or Buyer for the quantity of this product involved. The Buyer and all users are deemed to have accepted the terms of this Notice, which may be varied only by agreement in writing, signed by a duly authorized representative of The Scotts Company.

SPECIMEN LABEL