

Ohio State University Extension Bulletin

Insect and Mite Control on Woody Ornamentals and Herbaceous Perennials

Bulletin 504

Authors

David J. Shetlar

Extension Urban Landscape Entomologist

The Ohio State University

1991 Kenny Road

Columbus, Ohio 43210-1090

Dan Herms

Woody Ornamentals Entomologist

The Ohio State University/OARDC

1680 Madison Avenue

Wooster, Ohio

Contents

- * Introduction
- * Making Decisions About Pest Control
- * Insect and Mite Management Alternatives
 - o Integrated Pest Management
 - o The Control Options
 - + Cultural Controls
 - + Chemical Controls
 - + Biological Controls
- * Factors Critical to Pesticide Performance
- * Understand Insecticides/Miticides Before Using Them
- * How to Protect Yourself When Using Pesticides
- * Honey Bee Protection
- * Precautions for Avoiding Plant Injury
- * Insecticide/Miticide Application Equipment
- * Alternative Products
 - o Oils
 - o Soaps - Fatty Acid Salts
 - o Botanical Insecticides
 - o Microbial Insecticides
 - o Entomopathogenic Nematodes
- * Detection and Monitoring of Insects and Mites
 - o Degree-Days: Their Calculation and Use in Management of Turf and Tree/Shrub Pests
 - o Degree-day Targets for Ornamental Plant Pests
 - o Using Plant Phenology to Predict Pest Activity
- * Host/Pest Guide to Insects & Mites Attacking Ornamentals
- * Seasonal Appearance of Ornamental Pests and Normal Time Frame to Apply Control Measures
- * Micro-injection of Systemic Insecticide Into Trees
- * Insect and Mite Control Recommendations
 - o Table 1. General Pests
(products listed for general insect/mite control)
 - o Table 2. Ornamental Pests
(specific insect/mite controls)

- o Dilution Tables and Small Gallon Rates
- o Information About Insecticides/Miticides

Disclaimer

This publication contains pesticide timing recommendations that are subject to change at any time. These recommendations are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. Due to constantly changing labels and product registration, some of the pesticide listings given in this writing may no longer be legal by the time you read them. If any information in these listings or recommendations disagrees with the label, the recommendation must be disregarded. No endorsement is intended for products mentioned, nor is criticism meant for products not mentioned. The authors and The Ohio State University Extension assume no liability resulting from the use of these listings or recommendations.

The law requires that you follow label instructions for disposal of pesticide containers.

For clarity, trade names have been included in the listings of products. This is not intended to discriminate against similar products or recommend only those mentioned. Manufacturers and/or distributors wishing to have their registered products listed should provide a recent label and MSDS sheet to:

How to Order

Residents of Ohio may order single copies through their local Ohio State University Extension (county extension agent's) office.

Out-of-state single copy orders and all quantity orders should be sent to: Extension Publications Office, 385 Kottman Hall, 2021 Coffey Road, Columbus, OH 43210- 1044.

For Sale Publication

Ohio State University Extension

Copyright © 2003, The Ohio State University

All educational programs conducted by Ohio State University Extension are available to clientele on a nondiscriminatory basis without regard to race, color, creed, religion, sexual orientation, national origin, gender, age, disability or Vietnam-era veteran status.

Keith L. Smith, Associate Vice President for Ag. Adm. and Director, OSU Extension.

TDD No. 800-589-8292 (Ohio only) or 614-292-1868

| [Ohioline](#) | [Search](#) | [Fact Sheets](#) | [Bulletins](#) |