

HORT A186: PESTS OF ORNAMENTALS

Item	Value
Curriculum Committee Approval Date	11/13/2024
Top Code	010900 - Horticulture
Units	1.5 Total Units
Hours	45 Total Hours (Lecture Hours 18; Lab Hours 27)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Open Entry/Open Exit	No
Grading Policy	Standard Letter (S), • Pass/No Pass (B)

Course Description

Common mite, insect, and other animal pests of ornamental plants and common weeds of Southern California are described and identified and ways to prevent and treat infestations are discussed. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Identify common insects, other invertebrate pests, and vertebrate pests and describe respective pesticide uses and alternative controls through integrated pest management IPM.
2. Recognize and describe infestation prevention techniques, beneficial insects, and safe application of pest control chemicals and equipment calibration.

Course Objectives

- 1. Discuss common Landscape pests and their relevant negative impact on the landscape
- 2. Realize interrelationships between pests and natural predator populations in the landscape
- 3. Discuss the importance of using IPM (Integrated Pest Management) techniques
- 4. Discuss the various chemical, cultural, legal, physical, and biological controls used in the landscape
- 5. Realize the importance of handling, measuring, spraying, and storing various chemicals safely

Lecture Content

Insect Pests of Ornamentals including hosts, typical damage and their control Chewing Insects Grasshoppers, katydids and crickets Beetles and weevils Caterpillars, loopers, inchworms (moths and butterflies) Flies (leaf miners) Sawflies, gall wasps and bees Sucking Insects (honeydew, sooty mold, ants and important species) Thrips Homoptera (aphids, leafhoppers, scale and others) True bugs Mites groups of economic importance, symptoms and control Spider mites Eriophyid, blister or gall mites Cyclamen mites Integrated Control Cultural control Legal

(quarantines against pests) Natural and physical barriers Biological control, Beneficial insects (predator prey relation) Chemical control Chemotherapy and sterilization Attractants and trapping Pesticides and their safe use Small Animal Pests of Ornamental Plants Birds Rodents and relatives (gophers, moles, ground squirrels, rabbits, deer, coyote, skunk and other mammals) Snails and slugs Millipedes and centipedes Sowbugs and pillbugs

Lab Content

Insect Pests of Ornamentals including hosts, typical damage and their control Chewing Insects Grasshoppers, katydids and crickets Beetles and weevils Caterpillars, loopers, inchworms (moths and butterflies) Flies (leaf miners) Sawflies, gall wasps and bees Sucking Insects (honeydew, sooty mold, ants and important species) Thrips Homoptera (aphids, leafhoppers, scale and others) True bugs Mites groups of economic importance, symptoms and control Spider mites Eriophyid, blister or gall mites Cyclamen mites Integrated Control Cultural control Legal (quarantines against pests) Natural and physical barriers Biological control, Beneficial insects (predator prey relation) Chemical control Chemotherapy and sterilization Attractants and trapping Pesticides and their safe use Small Animal Pests of Ornamental Plants Birds Rodents and relatives (gophers, moles, ground squirrels, rabbits, deer, coyote, skunk and other mammals) Snails and slugs Millipedes and centipedes Sowbugs and pillbugs

Method(s) of Instruction

- Lecture (02)
- Lab (04)

Instructional Techniques

Lectures illustrated with slides, demonstrations by the instructor, and interaction between students and instructor during lab sessions before class, in office hours, and by E mail.

Reading Assignments

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Writing Assignments

Written exams.

Out-of-class Assignments

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Demonstration of Critical Thinking

Tests, term assignments

Required Writing, Problem Solving, Skills Demonstration

Written exams.

Other Resources

1. University of California, Pests of Landscape Trees and Shrubs an Integrated Pest Management Guide 2. Pfadt, R., Fundamentals of Applied Entomology. 3. Metcalf, et al., Destructive and Useful Insects. 4. Pirone, P., Diseases and Pests of Ornamental Plants. 5. U.C. Extension Study Guides on Plant Diseases, Invertebrate and Vertebrate Pests