MASTER GARDENER
COLORADO STATE UNIVERSITY
EXTENSION

CMG GardenNotes #350

Weed Management

References and Review Material

Reading/Reference Materials

CSU GardenNotes

- https://cmg.extension.colostate.edu/volunteer-information/cmg-gardennotes-class-handouts/.
- #351, *Weed Management.*
- #352, *Weed Descriptions.*
- #353, *Weed Associations With Specific Environments and Cultural Conditions.*

CSU Extension Fact Sheets

- https://extension.colostate.edu/topic-areas/yard-garden/.
- #3.101, *Control of Annual Grassy Weeds in Lawns*.
- #3.102, *Musk Thistle*.
- #3.106, *Weed Management for Small Rural Acreages*.
- #3.107, *Leafy Spurge*.
- #3.108, *Canada Thistle*.
- #3.110, *Diffuse and Spotted Knapweed*.
- #3.111, *Russian Knapweed*.
- #3.114, *Biology and Management of the Toadflaxes*.
- #6.310, *Cheatgrass and Wildfire*.

Plant*talk* Colorado™

- Plant*talk* Colorado™, http://planttalk.org.

Other

- CSU Turf web site at https://agsci.colostate.edu/csuturf/.
- Online Weed Identification Keys:
  - North Carolina State University at http://www.turffiles.ncsu.edu/turfid/itemselector.aspx.
  - U. California Extension at http://www.ipm.ucdavis.edu/PMG/weeds_intro.html.
  - Michigan State University at http://www.msuturfweeds.net/.
- *Weeds of the West*. 2000. T. Whitson. CSU Extension publication XCM-147.
- *Weeds of Colorado*. 1997. R. Zimdahl. CSU Extension publication 521A.
- *Weeds of California and Other Western States*. 2007. DiTomaso, J. M. and E. A. Healy. Univ. Calif. Agric Nat. Res. Publication 3488.
- *Aquatic and Riparian Weeds of the West*. 2003. Joseph M. DiTomaso and Evelyn Healy.

- *Color Atlas of Turfgrass Weeds*. 2008. L. B. McCarty, John W. Everest, David W. Hall, and Tim R. Murphy.
- *Weed Control in Turf Grass and Ornamentals*. 2008. A. J. Turgeon, L. B. McCarty, and Nick E. Christians.
- *Colorado Natural Areas - Creating an Integrated Weed Management Plan: A Handbook for Owners and Managers of Lands with Natural Values* at http://parks.state.co.us/NaturalResources/CNAP/Publications/.
- Colorado Weed Management Association, www.cwma.org.
- Colorado Department of Agriculture, Noxious Weed Program (Noxious Weed Lists and Photos) http://www.colorado.gov/cs/Satellite/Agriculture-Main/CDAG/1167928159176.
- IPM – Principles of Landscape Weed Management
- http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7441.html.
- Invasive Plants: University of California – Definition of Invasive Plants http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn74139.html.
- *Soil Solarization: A Nonpesticidal Method for Controlling Diseases, Nematodes, and Weeds*, http://vric.ucdavis.edu/pdf/soil_solarization.pdf (a treatise on soil solarization).
- *Soil Solarization for Gardens & Landscapes*, http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn74145.html (solarization for gardens).
- *Pests in Landscapes and Gardens*, http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pni7441-tbl4.html (common garden and landscape weeds controlled by solarization).

Learning Objectives

At the end of this training, the student will be able to:

- Define what a “weed” is from the perspective of the home landscape.
- List the problems that weeds can cause in the home landscape.
- Describe why plants become weeds in the home landscape.
- Understand the difference between noxious, exotic, native and invasive weeds.
- Describe environmental, ecological, and cultural/management factors that contribute to landscape weed problems.
- Understand why weed identification is important and what resources are available to assist in weed identification.
- Describe the different weed life cycles and how that knowledge is vital for developing weed control strategies.
- Describe the different landscape settings in which weed problems arise, and how each of those settings can present a unique set of weed management challenges.
- Understand the principles of Integrated Pest Management (IPM) and how to apply those principles to managing specific landscape weed problems.
- Describe cultural and management techniques for control of landscape weeds.
- Describe the different types of herbicides and how/when each type can most effectively be used as part of a weed management program.

Review Questions

1. What “makes” a plant a weed, and what problems can weeds cause in the home landscape?
2. List or describe a few of the major types of landscape plantings or settings in which weed problems arise and how they might differ in terms of weed management solutions?
3. What are some plant characteristics that allow certain plants to become landscape weed problems?
4. Describe four ways by which weeds may be introduced into the home landscape.
5. Explain what the “seed bank” is and how it factors into weed management decisions.
6. Give an example of a setting or location in YOUR OWN home landscape where weeds almost never occur – and explain why.
7. How do winter annuals and summer annuals differ? How does understanding this difference affect management strategies for each type?
8. For which type of weeds (life cycle, age) and in which landscape situation is the use of citric acid/acetic acid/botanical oil herbicides most effective? Least effective?
9. For which types of weeds (life cycle and age) is cultivation (hoeing) most effective? Least effective?
10. How can water and irrigation management be used to lessen weed problems in the home landscape?
11. How effective is mowing and string-trimming for weed management?
12. What is solarization? In what garden situations is it most effectively used?
13. How effective is landscape fabric for controlling weeds?
14. Why is mulch effective for weed control? Which types of mulch are 1) most and 2) least effective for weed control?
15. Why are biological control weed control products not used more often for landscape and garden weed management?
16. What is the difference between systemic and contact herbicides – and in which landscape situations (or on what types of weeds) would each be used most effectively?
17. How do preemergent herbicides work – and for which types of weeds (think life cycle) are they most effectively and commonly used?
18. What is the difference between selective and non-selective herbicides? Give examples of where each might be most effectively used.
19. What are some reasons that herbicides do not always control weeds as expected?
20. How would strategies for the management of bindweed and purslane in a vegetable bed differ?