



Herbaceous Plants



Learning Objectives

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

- Select plants for different garden situations.
- Describe Colorado ecoregions found in their area.
- Describe factors that influence microclimates.
- Describe methods to create and exploit microclimates.
- Interpret catalog and plant label descriptions, as they relate to
 - Life cycles.
 - Exposure.
 - Irrigation requirements.
 - Drought tolerance.
 - Soil requirements.
- List other selection considerations related to *Right Plant, Right Place*.
- Describe clues to overly well-adapted plants in relation to Colorado noxious weeds.

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Reading / Reference

Books

- *Armitage's Garden Perennials*, Allan Armitage, 2nd Edition, Timber Press, 2011
- *Attracting Native Pollinators*, Xerces Society Guide, Storey Publishing, 2011
- *Best Perennials for the Rocky Mountains & High Plains*, Celia Tannehill and James E. Klett, Word Press, 2002
- *Colorado Wildscapes: Bringing Conservation Home*, Audubon Colorado, Westcliffe, 2005
- *Essential Perennials*, RR Clausen and T Christopher, Timber Press, 2014
- *Herbaceous Perennial Plants*, Allan Armitage, 3rd Edition, University of Georgia, 2008
- *Illustrated Encyclopedia of Perennials*, Ellen Phillips and C. Colston Burrell, Rodale Press, 2004
- *Rocky Mountain Gardener's Handbook*, MA Newcomer and J Cretti, Cool Springs Press, 2012
- *Sunset Western Garden Book*, 9th Edition, Sunset Publishing, 2012
- *Waterwise Landscaping*, Jim Knopf, Chamisa Books, 2005
- *Well-Tended Perennial Garden: Planting and Pruning Techniques*, Tracy Disabato-Aust and Steven M. Still, Timber Press Inc., 2006
- *Xeriscape Colorado*, Connie Ellefson and David Winger, Westcliffe Publishers, 2013

Web Based

CMG GardenNotes (available at www.cmg.colostate.edu)

- Herbaceous Plants: References and Study Questions, #510
- Colorado Plant Ecosystem, #511
- Herbaceous Plants: Right Plant, Right Place, #512
- Herbaceous Plants: Worksheet, #513

- Managing Soil Tilth, #213
- Mulching with Wood/Bark Chips, Grass Clippings, and Rock, #216
- Native Grasses For Colorado Landscapes, #571
- Native Plant References, #572
- Soil Amendments, #213

CSU Extension Fact Sheets (available at www.cmg.colostate.edu)

- Choosing a Soil Amendment, #7.235
- Fall and Winter Watering, #7.211
- Fall-Planted Bulbs and Corms, #7.410
- Flowers for Mountain Communities, #7.406
- Ground Cover Plants, #7.400
- Ground Covers for Mountain Communities, #7.413
- Herbaceous Perennials, #7.405
- Mulches for Home Grounds, #7.214
- Native Herbaceous Perennials for Colorado Landscapes, #7.242
- Ornamental Grasses, #7.232
- Perennial Gardening, #7.402
- Rock Garden Plants, #7.401
- Soil, Water and Plant Testing, #0.507
- Soil: The Key to Successful Gardening, #7.222
- Spring-Planted Bulbs, Corms and Roots, #7.411

- Wildflowers in Colorado, #7.233
- Xeriscaping: Garden Flowers, #7.231
- Xeriscaping: Ground Cover Plants, #7.230
- Xeriscaping: Retrofit Your Yard, #7.234
- Xeriscaping: Creative Landscaping, #7.228

Colorado Garden Show, Inc. www.gardeningcolorado.com/plants/

PlantTalk® Colorado <http://www.ext.colostate.edu/ptlk/index.html>

Plant Select www.plantselect.org

Flower Trial Gardens at Colorado State University www.flowertrials.colostate.edu/

Review Questions

Climate and Microclimate

1. Describe Colorado ecoregion(s) found in your area of the state.
2. What are the parameters used for creation of the USDA Hardiness Zone?
3. What is the hardiness zone of your region? How well does it describe your own garden situation? Why may it be different?
4. List six factors that can influence hardiness.
5. Describe a situation in the landscape where you may have a “heat-tolerant” location.
6. Define microclimate.
7. Describe how microclimates can be influenced by the following situations.
 - a. Elevation
 - b. Aspect
 - c. Hills and valleys
 - d. Rocks
 - e. Structures
 - f. Bodies of water
8. Describe techniques to create and exploit microclimates.
9. What are the advantages and disadvantages of gardening at higher elevations?
10. You have four sides of your house – north, south, east, and west – describe what types of plants or the type of growing conditions that would work best on each side:
11. Describe how a windbreak in your location could work to your advantage or disadvantage.
12. Describe the microclimates around your home landscape.

Interpreting Plant Descriptions

13. Describe what makes a well-defined (complete) plant description in a catalog and a poorly-defined (incomplete) plant description.
14. What attributes define the four different life cycles?
 - a. Annual
 - b. Biennial
 - c. Perennial
 - d. Bulbs, corms, and tubers
15. What are the benefits of having annuals, biennials, and perennials in your garden? Give one example for each life cycle.

16. List the five different exposure situations and discuss challenges associated with growing plants in each situation.
17. Describe different hydrozones associated with residential landscapes?
18. Explain common mis-understandings related to xeriscaping.
19. What makes a plant drought tolerant?
20. Plants that can be defined as xeric may have adaptations to their leaf structure that make them more drought tolerant. After each adaptation, describe why it would assist the plant in its drought tolerance:
 - a. Thick
 - b. Waxy
 - c. Fleshy
 - d. Hairy
 - e. Light-colored
 - f. Small and narrow
21. What would be a typical soil type found in Colorado? What type of soil do you have in your landscape?
22. What are some ways a gardener can enrich their native soil to improve plant growth?
23. Given your preference for time of year flowering, what type of plants (annuals, biennials, perennials, and bulbs, corms, and tubers) would be your primary choice of plants in your garden?
24. What is meant by the term 'disease resistance plant'?
25. What are the characteristics of wildlife resistant plants?
26. What are the characteristics of plants that attract pollinators?
27. Give three examples of plants that you believe have attractive or contrasting foliage.

Ecological Adaptation

28. What are characteristics of the ideal Colorado plant? Which of these characteristics are applicable in your area?
29. Give five attributes that make a plant adaptable to many of Colorado's growing areas.
30. Of these five attributes, can any of them also be attributes that could make the plants aggressive or invasive?
31. Define the following terms in regard to plant populations:
 - a. Aggressive
 - b. Invasive
 - c. Native
 - d. Alien