

2020 UC MASTER GARDENER TRAINING

Control of Weeds in the Garden and Landscape

1. What is the simplest definition of a weed?

A plant growing where it is not wanted

UCMG Handbook, page 200

2. List four traits that make weeds 'noteworthy' in the eyes of a weed scientist:

- a. Seed Dormancy
- b. Long-term survival of buried seed
- c. Abundant seed production
- d. Rapid population establishment

Other answers could include: capacity to occupy sites disturbed by human activities, multiple adaptations for spread, often including vegetative reproductive structures.

UCMG Handbook, page 200

3. Invasive plants occur in **natural habitats**. An important difference between invasive plants and many garden weeds is that invasive plants can **disperse, establish, then spread in uncultivated areas**. Invasive plants are more problematic in **natural environments**.

UCMG Handbook, page 201

4. Please list the three weed ID reference resources listed on **page 202 of the UCMG Handbook**:

- a. **Weeds of California and Other Western States (DiTomaso and Healy 2007)**
- b. **Weed Pest Identification and Monitoring Cards (DiTomaso 2013)**
- c. **Weeds of the West (Burrill et al. 2006)**
- d. **UC IPM Website (ipm.ucdavis.edu/PMG/)**

5. Name and define the three lifecycle classifications of weeds:

- a. **Annuals – complete their life cycle from seed to seed in 1 year or less**
- b. **Biennials – complete their life cycle in 2 years**
- c. **Perennials – live longer than two years and usually have a more extensive root system**

UCMG Handbook, page 203

6. What are the two taxonomic groups of weeds:

- a. **Dicots (broadleaves)**
- b. **Monocots (grasses and sedges)**

UCMG Handbook, page 204

7. The goal of any weed management program is to: **select the most effective practice that is the least harmful to people and the environment and to apply it at the proper time.**

UCMG Handbook, page 205

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8. List and define the four primary classifications of weed control methods used by gardeners:
- Cultural – modify the immediate environment, improving the crop's competitive advantage
 - Mechanical – cultivation: hoeing, hand pulling, rototilling, disking, mowing, chopping
 - Physical – physical barrier or heat: mulches, weed mats, black plastic, soil solarization
 - Chemical – herbicides that kill plants

UCMG Handbook, page 208

9. A herbicide application is preemergent if it is made **before** the weed seeds germinate. Preemergents are also referred to as **soil-residual herbicides** because they prevent seed germination for a period of time.

UCMG Handbook, page 209

10. A herbicide application is postemergent if it is made to **the weed foliage** and must be applied to **living emerged plants** to be effective. Most do not have any soil activity.

UCMG Handbook, page 209

11. A contact herbicide is a chemical that **kills only those parts of the plant it touches**. A systemic herbicide is **absorbed into the plant** and moves through the plant's conductive tissue by translocation.

UCMG Handbook, page 209-210

12. What is the difference between a selective versus a nonselective herbicide?

Nonselective herbicides should be used when all vegetation is to be killed. Selective herbicides should be used when certain specific weeds are to be killed without injuring desirable plants.

UCMG Handbook, page 210