

# Annual weeds

Examples: chickweed, annual bluegrass, annual sowthistle, common purslane, common mallow, shotweed

## Host/Site

Turfgrass, perennial beds, around trees and shrubs, and where water and nutrients are limited, including cracks in sidewalks and edges of paving.

## Identification/appearance

Varies.

## Life Cycle

Annual weeds grow from seed set in the area the previous year or blown in. Many annual weed seeds persist in soil for years and will germinate after the soil is turned and they are exposed to light. This explains the “flush” of weeds on newly turned soil. Annual weeds grow rapidly, flower, and produce seed for new generations, all within one year. Once growing in an area, most annual weeds will reseed and grow each year if conditions are favorable. Many annual weeds thrive in bare soil and will often grow when water and nutrients are poor.

## Natural Enemies

Annual weeds are subject to some insects and diseases, but they are rarely sufficient to provide much control. Grazing animals may keep weeds at bay in some situations. Appropriate groundcover plantings, once established, can out-compete or shade out weeds and reduce the need for active weed management.

## Monitoring

Visually inspect to identify weed types, quantities, and how close the weed is to going to seed. Accurate identification of the weed is necessary for development of control strategies. Judge the extent of the aesthetic problem and the potential for rapid spreading of the more invasive weeds. If numerical action thresholds are used, weed counts can be taken inside measured areas or along a diagonal marked off with string. Alternatively, a subjective 1-5 scale can be used along with notations of species observed.

## Action Threshold

Action thresholds will vary depending upon the use of the area and the specific weed characteristics. A useful approach is to have a multi-tiered management scale with appropriate action thresholds for each area. In formal areas or on ball fields action may be taken sooner than it could be in “wild” or informal areas, where more weeds are tolerated.

## Cultural/Physical Controls

Design out weed habitat. Eliminate areas of bare soil by installing dense groundcovers to shade out and compete with weeds. Locate and eliminate nearby sources of weed seeds, or erect fences to reduce blow in. Use coarse, woody mulches to suppress weeds in beds around woody ornamentals. Permeable weed barriers can be used under mulches or wood chips in some situations to reduce the germination of seeds already present, but blown in seeds will germinate in material placed over the barrier.

Annual weeds are generally not difficult to remove mechanically, especially if the soil is loose. Hand pulling or scuffle cultivation can be used if the area is not too large. Appropriate matching of weeding hoes or cultivators to the soil and landscape is critical for best results. It is absolutely necessary to control annual weeds before they set seed.

Flame weeding and hot water weeding systems are available in a variety of sizes and configurations. Flame weeding is most appropriate for weeds in cracks and paving.

String trimmers can be used to cut down top growth to prevent immediate reseeding. In turf, acceptable weed populations can be controlled to some extent by mowing before they go to seed.

## Biological Controls

Livestock, ducks, and geese can play a role in weeding in appropriate situations, but would not frequently be employed on urban landscapes.

*(continued/over)*



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## **Chemical Controls**

The most appropriate controls for annual weeds are in landscape design, use of mulches and groundcovers, and mechanical removal. If the area requires frequent herbicide applications, this usually indicates a design problem in the landscape. Address and correct causes of weed problems rather than relying on frequent chemical control.

**Avoid the use of weed and feed mixtures.** Their use broadcasts chemicals indiscriminantly, even where not needed.

**Avoid monochlor borate and pramitol.** These ingredients pose a high risk to water quality because they are persistent in the environment and move readily to water.

Pre-emergent herbicides based upon non-toxic corn gluten meal have become available recently. They are designed for annual weed control on turf. As yet, there is no scientific data on effectiveness of these products in the Pacific Northwest, although informal field testing is underway by some landscapers. The products are reported to be effective in the midwestern U.S.

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