

## at a glance

- Weeds are plants that are undesirable or hazardous, or cause injury.
- Weeds are prevented by developing healthy, well-managed lawns and by implementing an integrated weed management program that includes proper irrigation, fertilization, and mowing practices.
- Timing of herbicide application is critical for weed control success.
- Do not spray weeds that are water stressed.
- Herbicides containing quinclorac and fenoxaprop-ethyl can selectively control certain annual grass weeds.
- Herbicides containing 2,4-D can selectively control many broadleaf weeds.
- Read and follow herbicide labels for better success.

## AUTHORS

Danielle Gunn, Extension Educator,  
University of Idaho Extension, Fort Hall  
Don Morishita, PhD, Professor Emeritus  
and former Extension Specialist,  
University of Idaho, Kimberly

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# Weed Control in Idaho Lawns

## Introduction

Weeds are opportunistic and readily invade stressed or unhealthy lawns, disturbed areas, or bare soil. Many weeds found in Idaho lawns can be prevented and controlled by utilizing basic management principles, including understanding plant life cycles, plant identification, and implementing an integrated weed management program.

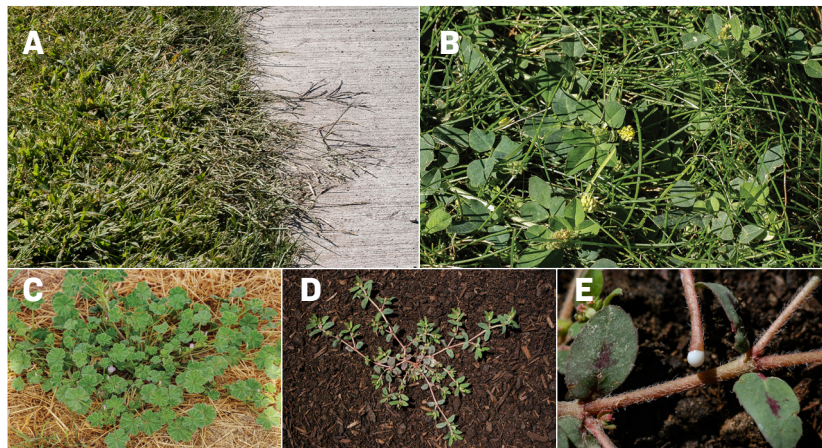
## Weed Identification and Characteristics

Weeds are divided into grasses (monocotyledons) and broadleaves (dicotyledons). Either category can have annual, biennial, or perennial life cycles. Annuals germinate from seed, grow, flower, and produce seed in one year or less.

Biennials have a two-year life cycle and only reproduce by seed. The first year, the plant develops a rosette (circular, flat patch of leaves) and taproot. The second year, the plant flowers, produces seed, and dies.

Perennials live two or more years. They reproduce by seed or vegetative parts such as taproots, creeping roots, rhizomes, stolons, bulbs, and tubers.

Common grass weeds in Idaho include quackgrass, green foxtail, downy brome (cheatgrass), crabgrass (Figure 1) and tall fescue. Common broadleaf weeds include dandelion, black medic, white clover, common mallow, broadleaf and buckhorn plantain, spotted and prostrate spurge, and prostrate knotweed.



**Figure 1.** Crabgrass (A); black medic (B); common mallow (C); spotted spurge (D); spotted spurge and exudate (E).

## Integrated Weed Management

Integrated weed management is a combination of practices to prevent and control weeds. The goal is to favor the growth of turf over weeds. Weeds often indicate an underlying problem inhibiting adequate grass development.

When turf is stressed by too little or too much water or fertilizer, the opportunity for weed invasion increases. Establishing and maintaining a dense, healthy turf through proper irrigation, mowing, fertilization, and aeration increases the likelihood of successful weed control.

### Irrigation

Improper irrigation can encourage weed growth. Irrigate lawns uniformly. Over-watering or under-watering can stress cool season grasses like Kentucky bluegrass. Irrigation just two to three times per week, with water amounts that soak in 6 to 8 inches deep, encourages healthy root growth in silt loam or clay soils. Sandy soils need more frequent but shallower irrigation because they do not hold water as well as heavier silt loam or clay soils.

### Mowing

Mowing too short can weaken or stress grass, especially in hot, dry conditions. Do not remove more than one-third of the leaf blade in a single mowing. Mow lawns frequently during periods of rapid growth. This also prevents weed seed development.

### Fertilizing

Fertilize lawns annually with four applications: in the spring, early summer, fall, and late fall, applying one-half to one pound of nitrogen per 1,000 square feet each time. White clover can be an indicator of low nitrogen levels.

### Aeration

Compacted soil and soils with high clay content can inhibit grass growth and create an ideal environment for weeds adapted to these conditions. Examples include broadleaf and buckhorn plantain, prostrate knotweed, and common mallow. Aerate soils annually to increase oxygen, water, and nutrient flow to the roots.

### Hand weeding

Annual weeds can be removed by digging or pulling. Perennial weeds are more difficult. Dandelion is a simple perennial that reproduces from both seed and a taproot. Control simple perennials (like dandelion) by cutting the root at least 2 inches below the soil surface and by not overwatering the turf. Field bindweed (“morning glory”) reproduces from seed and an extensive creeping root system. Perennials like this, with creeping roots or rhizomes, are not easily controlled by digging or pulling because roots or rhizomes left behind can regrow.

### Herbicides

Herbicides are sold as concentrates and ready-to-use liquids and granules. Concentrates must be mixed with

water and applied with a sprayer. Ready-to-use herbicides can be sprayed directly from the container. Granular herbicides are dispensed using hand or push spreaders but are generally not as effective as liquid products.

Always read and follow label instructions on how to mix and apply. Spray when weeds are actively growing, temperatures are 50–80°F, winds are less than 10 miles per hour, and no rain is forecast. If spot spraying, spray until leaves are wet, but not dripping.

2,4-D, dicamba, and triclopyr are active ingredients that are generally safe in lawns for broadleaf weed control but can also kill or injure trees, vegetables, and flowers. DO NOT apply herbicides if temperatures are forecast to exceed 80°F during the day of application. High temperatures can cause 2,4-D-based products to volatilize and may result in damaging or even killing desirable plants.

Herbicides containing quinclorac and fenoxaprop-ethyl can control some annual grass species but can temporarily discolor turf, so water the day before spraying to moisten the soil. Glyphosate, commonly known as Roundup, is non-selective: it kills almost all plants it touches. Do not use glyphosate in your lawn unless you want to kill it.

Timing of spraying is critical. Annuals are controlled best when sprayed at the seedling stage. Once annuals enter the reproductive (flower) phase, herbicide control is more difficult. Perennial weeds typically cannot be controlled well with spring applications or when temperatures reach 85°F and conditions become dry. Fall spraying (August 15–October 15) of actively growing perennials, especially after the first light freeze, is the most effective. A light fall freeze signals plants to prepare for the next year by moving carbohydrates and absorbed herbicides to the root system, resulting in a more complete kill.

After use, clean sprayers thoroughly, following label instructions, to eliminate herbicide residues that may harm beneficial plants the next time you spray. If instructed to triple rinse, do this three times: Fill your sprayer one-third full with water, shake vigorously, and spray the mixture in a gravel area away from water sources and gardens.

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ALWAYS read and follow the instructions printed on the pesticide label. The pesticide recommendations in this UI publication do not substitute for instructions on the label. Pesticide laws and labels change frequently and may have changed since this publication was written. Some pesticides may have been withdrawn or had certain uses prohibited. Use pesticides with care. Do not use a pesticide unless the specific plant, animal, or other application site is specifically listed on the label. Store pesticides in their original containers and keep them out of the reach of children, pets, and livestock.

**Trade Names**—To simplify information, trade names have been used. No endorsement of named products is intended nor is criticism implied of similar products not mentioned.

**Groundwater**—To protect groundwater, when there is a choice of pesticides, the applicator should use the product least likely to leach.

