

Lawn Weeds and their Control

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Principal Weed Groups

- Grass
- Broadleaf
- Sedge

Grass

- Jointed hollow stems
- Parallel veins
- Fibrous root systems
- Leaf blade several times longer than wide
- Most seed heads similar to grains
- Example: Foxtail and quackgrass

Broadleaf

- Showy flowers
- Network of small veins originating from a principal vein that divides the leaf in half
- Strong main root or taproot
- Some have fibrous root systems
- Example: Dandelion and knotweed

Sedge

- Grass-like
- Three-cornered stems
- Leaves extend in three directions
- Neither true grasses or true broadleaves

Annuals

- Germinates from seed, grows, matures, and dies in less than 12 months
- Control with a preemergence herbicide
- Winter annuals grow in the fall and mature the following spring
- Summer annuals grow in the spring and mature in the fall

Biennials

- Take two years to complete life cycle
- Form rosette and store food first year
- Flower second year
- Effective control is applied in the first year
- Early season application before bloom is necessary for control in the second year

Perennials

- Live more than two years
- Effective control is applied to actively growing foliage
- Control early (30 to 40 days after spring growth begins) before plants become perennial
- For many plants spray in the fall

Cool Season

- Grow best during cool periods
- Mature or go dormant during the hottest part of the summer
- Winter annuals are cool season weeds
- Chemical control must be applied before plants set seeds

Warm Season

- Remain dormant until temperatures warm
- Most start growing in April, May or June
- They remain dormant 45 days longer than bluegrass
- They turn brown 30 days before cool season grasses

Identification Aids

- Pictures
- Distinctive characteristics
- Growth habits
- Annual, biennial, or perennial
- Cool or warm season

Barnyard Grass

Echinochloa crusgalli

- Warm season annual
- Grass
- Flattened stem near the base
- Lower portion of the plant is reddish purple
- Seed head branches into 6 or 8 segments

Bedstraw

Galium spp.

- Cool season annual
- Weak stems
- Squarish stems
- Tiny saw-toothed appendages
- Leaves and stipules form whorls

Black Medic

Medicago lupulina

- Annual or short lived perennial
- Trailing stems
- Three leaflet leaves with prominent veins
- Small yellow flower clusters
- Black seed pods at maturity

Bromegrass, Smooth

Bromus inermis

- Cool season perennial
- Livestock forage
- 3/8 - 1/2 inch wide leaves
- “M” or “W” across the leaf blade
- Lower stem almost white
- Prominent veins

Chickweed, Common *Stellaria media*

- Annual
- Small, opposite, smooth, and oval leaves
- Weak vining stems
- Small white star-like flowers

Crabgrass

Digitaria spp.

- Warm season annual
- Prostrate stems
- Roots down where each joint contacts ground or wet grass
- Seed head is divided into several fingerlike segments

Creeping Bellflower

Campanula rapunculoides

- Cool season perennial
- Escaped ornamental
- Flowers are showy, deep blue to purple
- Vigorous underground root system

Dandelion

Taraxacum spp.

- Cool season perennial
- Bloom: March to late November
- Common throughout Utah
- One of the showiest lawn weeds

Dock

Rumex spp.

- Large rosette that rarely reaches maturity
- Leaves have crinkled edges
- Leaves often tinted with red or purple
- Flowering stalks may reach two to three feet high

Field Bindweed

Convolvulus arvensis

- Cool season perennial
- Extremely difficult to control
- Leaf tips and basal lobes are rounded
- Flowers are white to light pink
- Vines readily
- Spreads by seeds and underground roots

Foxtail

Setaria spp.

- Warm season annual
- Grow with same conditions as crabgrass
- Three types; red, green, and yellow

Goosegrass

Eleusine indica

- Warm season annual
- Stems flattened and whitish near the base
- Flowers are thicker and more robust than crabgrass
- Extensive fibrous root system
- Grows where blue grass is thin

Ground Ivy

Glechoma hederacea

- Cool season perennial
- Thrives in shade
- Lavender to blue funnel-form flowers
- Square stems may root where ever joints touch the ground

Henbit

Lamium amplexicaule

- Winter annual
- Squarish stems
- Lavender to blue flowers
- Leaves opposite
- Blooms: Late March to April
- Plants upright

Kochia

Kochia scoparia

- Annual
- First leaves have a silvery pubescence
- Leaf and stem color varies from greenish yellow to greenish red
- Very adaptable
- Germination starts in late March and continues throughout the summer

Mallow

Malva spp.

- Long fleshy taproot is almost white
- Flowers are whitish blue
- Seed portion is a flattened disc which breaks into 10 to 20 pie-shaped segments
- Plants are often resistant to herbicides

Moss

- Prefers a cool and moist environment
- Found in shade
- Control by changing the environment and watering less

Musk Thistle

Carduus nutans

- Biennial
- Leaves are free of hair and have a light colored midrib and leaf lobes are edged in grey-green
- Spiney
- Large, ornate purple flowers

Nimblewill

Muhlenbergia schreberi

- Warm season perennial
- Wiry fine stems root at nodes
- Shallow fibrous root system
- Forms circular patches
- Delayed spring growth and early fall dormancy

Plantain

Plantago spp.

- Cool season perennial
- Rosette with prominently veined leaves
- Leaves are oval shaped and 2 to 3 inches across
- Stems are reddish or purple
- Rat-tail like seed heads

Prostrate Knotweed

Polygonum aviculare

- Annual
- Long white taproot
- Stems wiry, very leafy, with a papery sheath at each joint
- Leaves have a bluish cast
- Three-cornered, light brown seeds that are shiny black at maturity

Prostrate Pigweed

Amaranthus blitoides

- Warm season annual
- Prostrate growing from a pink taproot
- Smooth stems, light green to reddish green
- Spreads 1 1/2 to 2 feet
- Seeds lens shaped, small, and shiny black

Prostrate Vervain

Verbena bracteata

- Warm season annual
- Low growing, hairy
- Stems branch freely forming circular patterns of growth
- Leaves often wedge shaped and toothed
- Taproot

Puncturevine

Tribulus terrestris

- Warm season annual
- Prostrate, freely branching
- Taproot
- Leaflets bright green and slightly hairy
- Flowers yellow
- Seeds angled with two stout spines

Purslane

Portulaca oleracea

- Warm season annual
- Leaves and stems fleshy or succulent, reddish in color
- Stems root when they touch ground
- Flowers small, yellow
- Seeds very small, black

Quackgrass

Agropyron repens

- Cool season perennial wheatgrass
- Spreads by underground stems and roots
- Ring of root hairs every inch along white underground stems
- Lower leaf sheath hairy
- Leaf blades twice the width of bluegrass

Red Sorrel

Rumex acetosella

- Cool season perennial
- Creeping roots and seeds
- Leaves spear shaped
- Lacy reddish flowering stalks
- Seed small, three-sided and reddish brown

Sandbur

Cenchrus pauciflorus

- Warm season annual
- Stems flattened and branched
- Found in poorly maintained turf
- Often confused with yellow foxtail before formation of spiny burrs

Sheperd's Purse

Capsella bursa-pastoris

- Winter annual
- Deeply lobed leaves form rosettes
- White flowers
- Triangular seed pods filled with tiny brownish seeds resemble purses once carried by sheperds

Speedwell

Veronica spp.

- Winter or early spring annual
- Leaves small with scalloped edges
- Flowers light blue with white throat
- Divided seed pods are almost heart-shaped
- Low growing

Spurge, Prostrate *Euphorbia maculata*

- Warm season annual
- Milky sap
- Leaves with or without reddish brown spots
- Seeds born in three's in a capsule
- Prominent in July, August, and September

Tall Fescue

Festuca arundinacea

- Cool season perennial
- Leaf veins are strongly fibrous and when mowed fibers show on edges
- Mature leaf blades may be one-half an inch wide, ribbed above and shiny below
- Lower portions are reddish to purple

Violets

Viola spp.

- Cool season perennial
- Flower color varies from very light blue to deep purple
- Prefer light shade
- Bloom in spring

Waterleaf

Ellisia nyctelea

- Cool season annual
- Grows in shade
- Small white flowers
- Grey-green leaves

White Clover

Trifolium repens

- Cool season perennial
- Spreads by below and above ground stems
- Flowers are white, sometimes tinged pink
- Seeds live for 20 years or more in soil
- Objectionable in lawns

Yellow Nutsedge

Cyperus esculentus

- Warm season perennial
- Lower portion of plant is fibrous and brown
- Roots often terminate with small nutlets
- Seed heads appear bur-like
- Triangular stems of sedges produce 3-ranked leaves near the ground

Yellow Woodsorrel

Oxalis stricta

- Warm season perennial
- Leaves are palmately divided into three leaflets
- Funnel-form yellow flowers
- Seed head a long beak
- Sour taste from calcium oxalate

IPM Management of Weeds in Turf

- Mowing
- Fertilization
- Irrigation
- Seed and Sod Selection
- Traffic Management

Mowing

- Height: 2 1/2-3 inches shades soil and protects bluegrass roots
- High mowing with Kentucky bluegrass helps to deter germination and growth of many annual weeds that need sunlight to germinate
- Regular mowing reduces problems from some weeds

Fertilization

- Fertilization during the growing season strengthens the ability of the grass to compete with weeds
- Light frequent fertilization encourages the growth of the grass and enables it to out compete the weeds

Watering

- Avoid overwatering or underwatering
- If grass goes dormant in mid summer from lack of water, some deep rooted perennials will appear
- Overwatered grass is invaded by barnyard grass annual bluegrass and other weeds

Seed and Sod

- Use weed free seed when planting
- Check the label for undesirable grass species
- Commercial sod is treated and inspected to reduce weeds

Mechanical Control

- Cut 2-4 inches below the crown on most weeds
- Pull out most species after deep watering
- Undercut around small grass patches with a spade
- Cut a matching replacement piece from an inconspicuous part of the lawn

Preemergence Weed Control

- Prevent germination
- Work best on annuals
- Have little effect on emerged seedlings

Postemergence Chemical Control

- Growth regulators
- Distort growth and rupture cells
- Impair food movement causing death

Liquid Applications

Gravity Flow

- Sprinkler Nozzle
 - Fits on gallon jug
- Cane Tube
 - Dispenser that releases right on weed
- Liquid Spreader
 - Like granular applicators
- Brush and Can

Liquid Application Pressure Systems

- Water Pressure or Hose End Sprayer
 - Difficult to control
- Air Pressure Sprayer
 - Never use when wind speed is above 5 mph