Lawn Weeds and their Control

By

Larry Sagers, Regional Horticulturist

Jessica White, Garden Intern
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 wherever 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