

Broadleaf Weeds

Most broadleaf weeds have netlike veins in their leaves and nodes containing one or more leaves. They may have showy flowers. Broadleaf weed seedlings emerge with two leaves. Because of differences in their leaf structure and growth habits, they are easy to distinguish from grasses.

A weed's life cycle has great impact on the selection and success of a given control procedure, so it is important to learn the life cycle characteristics of a weed when you first learn its identity.

Annual weeds germinate from seeds, grow, flower, produce seeds and die in 12 months or less. Annual weeds are further categorized by the season in which they germinate and flourish. Winter annuals sprout in the fall, thrive during the winter and die in late spring or early summer. Summer or warm-season grasses such as crabgrass and goosegrass sprout in the spring and thrive in summer and early fall.

Perennial weeds are weeds that live more than two years. They reproduce from vegetative (non-seed) parts such as tubers, bulbs, rhizomes (underground stems) or stolons (above-ground stems), although some also produce seed. Perennial weeds are the most difficult to control because of their great reproductive potential and persistence.

Proper identification of weeds targeted for control is necessary in order to select effective control measures, whether cultural or chemical. Further assistance with weed identification is available from any Clemson Extension office.

CHICKWEED

Life Cycle and Description: Common chickweed (*Stellaria media*) is a winter annual broadleaf weed that commonly infests thin or dormant lawn areas.

It germinates in the fall, grows during the winter and produces seed from spring to early summer, then dies.

You can identify common chickweed by its flat, mat-forming growth habit and small egg- to football-shaped leaves that are arranged in pairs. The stems have a single line of hairs running along their length. Small clusters of white, five-petaled flowers occur at the ends of stems in the spring. Common chickweed reproduces by seed and creeping stems.

Sticky chickweed (*Cerastium glomeratum*), or mouse-ear chickweed, is a mat-forming branched winter annual with fuzzy, opposite leaves that resemble mouse-ears, hence, the common name. The stems are also covered with dense hairs. The white flowers are arranged in clusters at the end of the stems. It is hairy, spreading or erect, and larger than common chickweed. The empty seed cases, which are almost transparent and have 10 teeth, are noticeable. Sticky chickweed reproduces by seed.

Perennial mouse-ear chickweed (*Cerastium vulgatum*) looks like sticky chickweed, but it has creeping stems that often take root to produce new plants. It reproduces by seed and by producing new plants from ground-hugging stems that root at the nodes (the point of attachment of the leaves).

Control: Handpulling is a simple, practical approach for small areas. Improve the health and density of the lawn by fertilizing at the right time and with the correct amount; maintaining an appropriate soil pH; mowing at the recommended height; and watering properly. Apply a 2- to 3-inch layer of mulch to ornamental bed areas to suppress germinating weed seeds. Since this weed reproduces by seed, control it before seeds are

produced. Preemergence herbicides are available depending on the kind of turfgrass and ornamental plants grown. Optimum timing of postemergence herbicides is midautumn. Apply all chemicals according to directions on the label.

DANDELION

Life Cycle and Description: Dandelion (*Taraxacum officinale*) is a deep-rooted, stemless perennial weed that is probably one of the most widely recognized weeds. It has a long taproot and a basal rosette (circular cluster of leaves radiating from the stem of a plant at ground level) of slightly to deeply cut leaves with lobes that point back towards the base. The rosette remains green year-round. Yellow flowers appear mainly in the spring on long, smooth, hollow stalks. A second bloom occurs in the fall. The leaves and flower stalks exude a milky juice when broken. The flowers give rise to a “puff” ball or globe of parachutelike brown seeds. Seedlings emerge from late spring to early fall, with most emerging in early summer, several weeks after the seeds are shed. Dandelion will grow in almost any soil type and is most commonly found in sunny areas. It reproduces by seed and from new plants that develop from pieces of broken taproots.

Carolina falsedandelion (*Pyrrhopappus carolinianus*) is a winter annual or biennial with erect branching flowering stems. The leaves are alternate, sharply pointed with leaves that may be deeply lobed or lack lobes. The basal leaves are attached to the stem with petioles; leaves on the stem do not have petioles. In late spring, bright yellow flowers similar to dandelion occur on the ends of stems. The flowers give rise to a “puff” ball comprised of a cluster of brown seeds with a parachute attachment of a long stalk of hairs. It reproduces by seed.

Catsear dandelion (*Hypochoeris radicata*) is also a perennial weed that produces a basal rosette of leaves. Unlike dandelion, the leaves are densely hairy and have irregular to rounded lobes on the leaf margins. The flower stalk bears two to seven bright yellow flowers that look similar to dandelion. The leaves and flowers also excrete a milky juice when broken.

Control: Handpulling can be done with the aid of a tool that removes the entire taproot, especially when the soil is moist. Maintain a dense, healthy turf which crowds out weeds naturally and reduces the chances for invasion. Mulch ornamental bed areas with a 2- to 3-inch layer of mulch to suppress weed seed germination and growth. Remove the flowers before they reach the “parachute stage” to eliminate seed production. There are many herbicides available depending on the kind of turfgrass in your lawn. Optimum timing of postemergence herbicide use is mid-fall. Apply all chemicals according to directions on the label.

FLORIDA BETONY

Life Cycle and Description: Florida betony (*Stachys floridana*) is a fast-spreading nuisance of lawns and landscaped beds. It grows in full sun to partial shade and tolerates a wide variety of soil conditions ranging from wet to dry. Florida betony is often called “rattlesnake weed” because it produces white, segmented tubers that resemble a rattlesnake’s tail.

This cool-season perennial weed emerges from seeds and tubers during the cool, moist months of fall. Throughout the winter months, the plants grow and spread rapidly, often reaching heights of less than 2 feet. Florida betony has square stems and lance-shaped leaves with slightly toothed or serrated edges arranged oppositely on the stems. From late spring to early summer the weeds bear white to pink trumpet-shaped flowers occurring in whorls of three to nine in the leaf axils (the upper angle formed where the leaf joins the stem). In response to the onset of high summer temperatures or cold winter temperatures, Florida betony growth stops and the plant becomes nearly dormant. Florida betony reproduces primarily from tubers but also from seeds and rhizomes.

Control: Maintain a healthy, dense lawn by fertilizing and liming according to soil test results and mowing at the proper height and frequency. Healthy lawn grasses can outcompete Florida betony for light, water and nutrients and reduce the level of infestation.

Suppress growth by applying a 2- to 3-inch layer of mulch such as pine straw or pine bark around shrubs and trees. Using landscape fabric weed barriers beneath the mulch layer will further hinder its emergence. Pull or dig out all plant parts, especially the tubers, when the soil is moist. Hoe or cut the top growth down to soil level repeatedly to “starve” the plant.

Spot-treat with herbicides when Florida betony is actively growing during the cool fall months. Preemergence and postemergence herbicides are available depending on the kind of turfgrass and ornamental plants grown. Apply all chemicals according to directions on the label.

JAPANESE CLOVER

Life Cycle and Description: Japanese clover (*Kummerowia striata*) or common lespedeza is a wiry, ground-hugging summer annual that has oblong leaflets that occur in triplets, or threes. A noticeable midvein runs down the center of each leaflet. A parallel arrangement of veins is attached at 90-degree angles to the midvein. The pink to purple single flowers appear in mid- to late-summer along the branching stems. Japanese clover reproduces by seed.

Control: Handpulling is a simple, practical approach for small areas. Improve the health and density of the lawn by fertilizing at the right time and with the correct amount; maintaining an appropriate soil pH; mowing at the recommended height; and watering properly. Apply a 2- to 3-inch layer of mulch to ornamental bed areas to suppress germinating weed seeds. Postemergence herbicides are available depending on the kind of turfgrass in your lawn. Optimum timing of postemergence herbicide use is early summer. Apply all chemicals according to directions on the label.

PLANTAIN

Life Cycle and Description: Both buckhorn, or narrow-leaved plantain (*Plantago lanceolata*), and broadleaf plantain (*Plantago major*) are perennial weeds that reproduce by seeds. Both produce a

rosette or cluster of leaves at ground level and have fibrous root systems. The leaves of buckhorn plantain are narrow and lance-shaped (2 to 10 inches long – about five times as long as wide), often twisted or curled. Raised, parallel veins can be found on the underside of the leaf.

As the name suggests, the leaves of broadleaf plantain are broad and egg-shaped – 1½ to 7 inches long – with several main veins running parallel to the leaf margins. The petioles are sometimes tinged with red at the base.

Both plantains produce erect flower stalks from June to September. Buckhorn plantain produces a cone-like spike of white flowers perched at the top of the leafless flower stalk. Broadleaf plantain produces white-petaled flowers along the length of a leafless flower stalk that may be 2 to 18 inches long. Seed germinates in late spring through midsummer and sporadically in early fall.

Control: Handpulling is a simple, practical approach for small areas. Improve the health and density of the lawn by fertilizing at the right time and with the correct amount; maintaining an appropriate soil pH; mowing at the recommended height; and watering properly. Apply a 2- to 3-inch layer of mulch to ornamental bed areas to suppress germinating weed seeds. Postemergence herbicides are available depending on the kind of turfgrass in your lawn. Optimum timing of postemergence herbicides is midautumn. Apply all chemicals according to directions on the label.

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