Winter weeds

- Begin to germinate in the fall; typically not seen until the warmer temperatures of spring.

- Cultural control: Practices to improve health and density of lawn
    - Proper fertilization after soil test
    - Deep and infrequent irrigations (1”/week)
    - Mow at proper height

- Chemical control
    - Preemergence herbicides:
        - Applied before weed seeds germinate
        - To control winter annuals, apply when nighttime lows reach 55-60° F for four consecutive days; on average, August to October.
        - Generally effective for six to 12 weeks; for season-long control, may need to be reapplied twice in the fall for season-long control.
        - CHECK PRODUCT LABEL. Read and follow all directions
    - Postemergence herbicides:.
        - For visible weeds, best when weeds are small and actively growing.
        - Apply to winter broadleaf weeds and wild onions and wild garlic from November to January and from February to March, before turfgrass begins to green up, apply to winter broadleaf and summer broadleaf weeds that have emerged.
        - For acceptable control, repeat applications 10 to 14 days apart may be needed.

Grassy weeds

Annual bluegrass (*Poa annua*)

- Spreads by seed
- Tufted habit with bright green leaf color, fine texture
- Smooth leaves with boat-shaped tip.
- Greenish-white seeds, the majority of which appear in the spring.
- Prefers area with moist and/or compacted soil.
- Dies back as temperature rises.
- Can be dug easily before it’s well-established.
- If herbicide required:
    - Pre-emergent on well-established lawns, late summer early fall when temperatures drop to daytime high of 75° F for 4 consecutive days.
- For further information and how to deal with this weed in vegetable gardens and landscape beds, go to https://hgic.clemson.edu/factsheet/annual-bluegrass-control/.

Wild garlic (*Allium vineale*) and wild onion (*Allium canadense*)

- Winter perennials; wild garlic is predominant in South Carolina.
- Emerge in late fall from underground bulbs
- Develop aerial bulblets in late spring; die back in early summer.
- Underground bulbs can persist in soil for several years.
- Both have thin, green, waxy leaves.
    - Wild garlic: leaves are round and hollow
    - Wild onion: leaves are flat and solid
- Control:
    - Mechanical: pulling, even in moist soil, may leave bulbs or bulblets in the ground to grow new plants; best results by digging them with a thin trowel. Mowing won't kill them but can weaken them and prevent them from setting seed.
    - Chemical: no pre-emergent herbicides kill these weeds. Must be treated with post-emergent and treated more than once per season. Best times are November and again in February/early March. Don't apply most weed killers on centipede or St. Augustine during spring greenup.
- For further information including recommended herbicides, go to https://hgic.clemson.edu/factsheet/wild-garlic-wild-onion-2/.

Broadleaf weeds

Carolina geranium/Cranesbill (*Geranium carolinianum*)

- Winter annual or biennial
- Leaves have five to seven deep lobes and each lobe has lobes and blunt "teeth."
- White to lavender flower, borne two or more together on stalks from upper nodes.
- Basal rosette of leaves.
- For further information including recommended herbicides, go to https://content.ces.ncsu.edu/carolina-geranium

Common Chickweed (*Stellaria media*)

- Low-growing winter annual or perennial; prostrate stems (grow along ground) with vertical lines of hairs.
- Weak, shallow root system
- Small white flowers in clusters at the ends of the stems have five deeply-notched petals.
- Similar to mouse ear chickweed bur mouse ear chickweed leaves are covered with soft hairs and are dark green or gray-green; common chickweed leaves are less hairy and are light green.
- Cultural control: will survive under close mowing, forming dense patches
- For further information including recommendations for herbicides, go to https://www.turffiles.ncsu.edu/weeds-in-turf/common-chickweed/

Purple deadnettle (*Lamium purpureum*)	**Henbit** (*Lamium amplexicaule*)
Mint family (square stem)	Mint family (square stem)
Winter annual, dies in late spring.	Winter annual, dies in late spring.
Sparsely hairy oval to egg-shaped leaves	Sparsely hairy oval to egg-shaped leaves
Opposite leaves	Opposite leaves
Small purple flowers on axils of upper leaves in spring	Small purple flowers on axils of upper leaves in spring
Has long petioles (stalks that attach leaves to stem) on lower leaves and short petioles on upper leaves. Upper leaves look like they hang loosely and overlap other leaves. Can often have red or purple hue.	Has petioles (stalks that attach leaves to stem) on lower leaves but not upper.
Toothed margins (edges) on leaves.	Toothed margins (edges) on leaves. Upper leaves more lobed than those of deadnettle.
For further information, go to http://www.uky.edu/Ag/ukturf/5-5-14.html	

Leaf and stem differences between purple deadnettle (left) and henbit (right).

Florida betony (*Stachys floridana*)

- Reproduces primarily from tubers but also from seeds and rhizomes.
- Distinctive “rattlesnake tail” root: white, segmented tubers.
- Fast-spreading in full sun to part shade in wet to dry soils.
- Square stems and lance-shaped leaves with slightly toothed or serrated edges arranged oppositely on the stems.
- White to pink trumpet-shaped flowers late spring to early summer in whorls of three to nine in the angle formed where the leaf joins the stem (axils).

- Difficult to control.
    - Cultural: suppress growth with 2 to 3 inch layer of mulch; pull or dig out all parts, especially tubers, when soil is moist. Hoe or cut top growth down to soil level repeatedly to starve the plant.
    - Chemical: spot treat with herbicides.
- For a list of control products, go to https://hgic.clemson.edu/factsheet/florida-betony/.

Speedwell/Veronica (*Veronica* spp.)

- Annual and perennial species, some in cold season, some in warm season.
- All are creeping, prostrate plants with small, rounded leaves, toothed along the margins (edges).
- Flowers light blue to white with 5 petals.
- Reproduce by seed.
- Low fertility soil favors growth.
- For further information including herbicides: https://extension.umd.edu/hgic/topics/speedwell-veronica .