

# Identification and Control of Henbit and Purple Deadnettle

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With cooler fall weather a plethora of winter annual weed seeds begin to germinate. Although they germinate in the fall, we typically don't think much of them or even see them until the spring arrives and brings warmer temperatures with it. With the warmer temperatures we begin to see things like chickweeds, buttercups, Carolina geranium, and many others. Most of the winter annual broadleaf weeds are distinguishable from each other and thus fairly easy to key out or identify. However, there are two that show up each spring that often get people scratching their heads as to which is which—is it purple deadnettle (*Lamium purpureum* L.)? Or is it henbit (*Lamium aplexicaule* L.) (Figure 1)? There are several similarities between these weeds—both are members of the mint

family, both have square stems, both have sparsely hairy oval- to egg-shaped leaves, leaves of both are opposite, and both have small purple flowers that appear in the axils of the upper leaves during the spring (Figures 2 and 3).

Although very similar, there are also some distinct differences between the two plants. First, henbit has petioles (the stalk that attaches the leaf to the stem) on the lower leaves but not on upper leaves. Purple deadnettle has long petioles on lower leaves and short petioles on upper leaves. Although the leaves of both plants are similar, purple deadnettle's upper leaves are smaller than its lower leaves. The upper leaves also appear to hang in a loose way and overlap other leaves. These upper leaves can often have a red or purple hue (Figure 4).

## Creeping Charlie (*Glechoma hederacea* L.)

Another plant in the mint family that looks similar to henbit and purple deadnettle is creeping Charlie (also known as ground ivy). Because it is a mint, it has the characteristic square stems, but under close inspection, it is easily distinguishable from henbit and purple deadnettle. Whereas henbit and purple deadnettle are winter annuals that flower in early spring and die in the late spring, creeping Charlie is a perennial that will flower in late spring. Flowers are light purple while leaves are kidney shaped and toothed and are attached with long petioles. As the name suggests, this plant will creep and compete with the desirable lawn species for space (Figure 5).



**Figure 1.** Identifying purple deadnettle (right) and henbit (left) can be quite easy if you know what to look for. (The light colored plant growing among the other plants is common chickweed [*Sterllaria media* L.]



## Cultural Control

Deadnettle and henbit are more severe in disturbed areas that lack turf cover. Thin turf caused by disease, voids left from summer weeds, small rodents such as moles, or improper fertilizing or watering can all cause increased numbers of winter annual weeds. Practices to improve the health and density of the turf area will reduce incidence of these two weeds. Proper fertility amounts (2-3 lb of N/1000 ft<sup>2</sup>/year applied in the fall on cool-season grasses), irrigating deep and infrequently during the summer, mowing at the proper height (2.5-4 inches for most cool-season lawns), and using pest control products when necessary will result in natural weed control due to the overall health of the turf.



**Figure 2.** The square stems of purple deadnettle (left) and henbit (right) are common identification characteristics of members of the mint family.



**Figure 3.** The oval shaped leaves and purple flowers are both common characteristics of purple deadnettle (left) and henbit (right).





Figure 4. Leaf and stem differences between purple deadnettle (left) and henbit (right).

## Chemical Control

The ideal time to control weeds with a post-emergent herbicide is when they are small and actively growing. For winter annual weeds this is typically in the late fall after weed germination but before temperatures begin to drop and plant growth significantly slows (air temperature needs to be above 50° F). Applica-

tions can be made in the spring as well, but it is important for the herbicide to be applied prior to flowering. A three-way herbicide is most commonly applied for control of these two weeds. Three way herbicides contain 2,4-D, mecoprop (mcpp), and dicamba and can be found in most garden centers. Glyphosate is commonly used for control of henbit and purple deadnettle in landscape beds.

Pre-emergent herbicides may also be used to control henbit and purple deadnettle. These herbicides must be applied in the early fall prior to weed germination. One critical factor to keep in mind if applying a fall pre-emerge is that interseeding or overseeding to help thicken a lawn cannot be performed as the herbicide will also inhibit the desirable plants from germinating.



**Figure 5.** The characteristic toothed leaves, square stem, and creeping stem of creeping Charlie.