

Purple Deadnettle and Henbit

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Purple Deadnettle *Lamium purpureum* L.

Also known as: red deadnettle, red henbit

Henbit *Lamium applexicaule* L. **Also known as:** deadnettle, hen's bite, henbit deadnettle, henbit nettle.

Classification and Description:

Purple deadnettle and henbit are members of the Lamiaceae – also Labiatae – (mint) family. These two species resemble each other from a distance and many folks often call both species henbit. Purple deadnettle is an erect or decumbent winter annual commonly found throughout Tennessee and the U.S. It is native to Eurasia.

This weed can reach heights of 16-18 inches. The cotyledons of purple deadnettle are oval, lack hairs and have crenate margins. Subsequent leaves all have petioles, though petiole length lessens upward on the plant. Leaves are opposite, triangular to heart-shaped, sparsely hairy and have coarse, rounded teeth at the margins. Leaves may be up to

1 inch long. Upper leaves appear closely stacked, are overlapping and bent downward. Upper leaves are more purplish red in color than the lower leaves, which tend to be deep green. Leaves become smaller as you go up the plant.

Stems are branched at the base, spreading and square in cross section. Purple to pinkish-purple flowers occur in whorls in the upper leaf axils. Flowers are slightly hairy outside and have a ring of hairs inside. Small nutlets are light brown mottled with white spots. Reproduction is by seed. Purple deadnettle has a taproot.

Henbit is an herbaceous winter annual commonly found throughout the temperate regions of the world. It is native to Eurasia and can grow to heights of 15 inches. The cotyledons of henbit are oval and the hypocotyl is green and smooth, becoming purple in color. Leaves are green, opposite, circular to heart-shaped and have rounded teeth at the margins. They can appear to be three-lobed. Upper leaf surfaces appear to be crinkly. Leaves have hairs on the upper



Purple deadnettle and henbit in the spring



Henbit (left), purple deadnettle (right)

surfaces and on prominent veins underneath. Lower leaves have petioles, while middle and upper leaves are without petioles. Henbit has square stems, which are common to plants in the mint family. The stems are branched, spreading and low-lying at base with tips that are ascending. Stems are slightly hairy and can root at the lower nodes. Flowers are reddish-purple and sessile (attached) in the upper leaf axils. Henbit has the classic hooded, five-lobed, long-tubed flowers of the mint family. Seeds are found in a nut-like fruit called a mericarp, are light to dark brown and often mottled. Reproduction is by seeds. Henbit has a fibrous root system.

Weed Status and Injury:

Purple deadnettle and henbit are frequently found in fallow fields, winter grain crops, pastures, turf-grass, gardens and orchards. The sea of purple often found in fallow fields in early spring in Tennessee is usually purple deadnettle and/or henbit.

Interesting Facts:

“Archangels” is an old common name for this family of plants. It is believed this name refers to the clusters of small, hooded flowers that rise up like a choir of robed figures. Purple deadnettle and henbit have been found to be an overwintering host for soybean cyst nematode. Purple deadnettle has been found to produce more than 27,000 seeds per plant

when not in competition with a wheat crop. Though they are called dead nettles, they have no sting. Henbit has been reported to produce 200 to 2000 or more seeds per plant. The oil from henbit seeds has shown antioxidant properties. Young henbit has been used in salads and as a potherb. Henbit is an alternate host for corn earworm and an overwintering host for two-spotted spider mites in areas of the southern U.S. In a recent survey, henbit was listed as one of the 10 most troublesome and 10 most common weeds of wheat and small grains in the southern U.S.. Henbit seeds are consumed by some species of birds.



Purple deadnettle (left), henbit (right)

References:

DeFelice, M. S. 2005. Henbit and the Deadnettles, *Lamium spp.* – Archangels or Demons? *Weed Tech.* 19:768-774.

Holm, L., J. Doll, E. Holm, J. Pancho, and J. Herberger. 1997. *World Weeds: Natural Histories and Distribution.* New York: John Wiley and Sons. 1,129 p.

Stubbendieck, J., G. Y. Friisoe, and M. R. Bolick. 1994. *Weeds of Nebraska and the Great Plains.* Nebraska Dept. of Agric. Bureau of Plant Industry, P.O. Box 94756, Lincoln, NE 68509-4756 USA. 589 p.

Webster, T. M. 2000. Weed Survey - Southern States; Grass Crops Subsection. *Proc. S. Weed Sci. Soc.* 53:247-274.

Wilson, B. J., N.C.B. Peters, K. J. Wright and H. A. Atkins. 1988. The influence of crop competition on seed production of *Lamium purpureum*, *Vioia arvensis* and *Papaver rhose* in winter wheat. *Asp. Appl. Biol.* 45:71-80

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