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Identification and Control of HEMP NETTLE (*Galeopsis tetrahit*)

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Other names: Dog nettle, bee nettle, flowering nettle.

Hemp nettle is an annual that reproduces by seed. It is found in grain fields, barnyards, pastures, open woods, along roadsides and other waste places. Hemp nettle does not persist in hay fields that are harvested twice annually because this management does not permit the weed to produce seed. It is known to occur in many locations in the Matanuska Valley and is apparently becoming more widespread. Hemp nettle has appeared recently in newly cultivated fields in the Talkeetna area where it was apparently introduced as a contaminant in seed grain.

Hemp nettle is native to Europe and occurs also in Asia. It originated as a hybrid between two European species of *Galeopsis*. It is common in the Northeast and northern Northcentral states. Of significance to Alaska is the fact that hemp nettle is a more serious weed in areas of northern latitude including the Scandinavian countries and Canada.

Flowers are small, pink to pale purple in color, and are borne in clusters on the upper portion of the main stem at nodes where leaves arise. Each flower gives rise to a seed capsule possessing 5 long, sharp spines and containing 4 seeds. Seeds become ripe while the capsule is still green and are often dislodged before the capsule becomes straw-colored in September. In areas where tillage does not spread the seeds, hemp nettle occurs in dense stands inasmuch as seeds have no appendages that permit their spread by wind--hence, the seeds are deposited near the base of the parent plants.

Seeds are about 1/8 inch long, somewhat egg-shaped and grayish-brown with small, darker spots. Seed size is such that complete removal from grain by screening is difficult. Thus, great care should be exercised to prevent its dissemination in the movement of seed grain to invade new fields. Hemp nettle occurs in barnyards as a result of the seeds passing through the digestive tract of livestock. Manure containing hemp nettle seeds provides an avenue for distribution of this weed when manure is dropped in pastures or spread on cropland.

Stems of the plant are usually one to 2½ feet tall and often somewhat branched. The stems are swollen just below the joints. Bristly hairs pointing slightly downward are abundant on the stems and tend to penetrate the skin when full-grown plants are handled.

The leaves arise in pairs and on opposite sides of the stem. When viewed from above, each successive pair of leaves is oriented perpendicular to the preceding pair. Leaves have toothed margins and are borne on stalks about one-half as long as the leaves.

CONTROL: No conclusive results are available from tests in Alaska regarding control of hemp nettle. However, results from other areas may be useful as suggestions for control until more reliable recommendations can be derived from trials in Alaska.

Unlike many other broad-leaf weeds, hemp nettle is quite resistant to 2,4-D. However, two herbicides appear promising for selective control of hemp nettle in grain crops. They are MCPA (2-methyl, 4-chlorophenoxyacetic acid) and Banvel D (2-methoxy, 3,6-dichlorobenzoic acid). MCPA has been available commercially for a number of years. Banvel D is a very new product and is probably not available as yet from dealers in Alaska.

MCPA should be applied at the rate of ½ pound of acid equivalent per acre. When the herbicide label states that the concentration of acid equivalent is 4 pounds per gallon, one quart of solution will contain one pound of acid equivalent. In this case, ½ quart (1 pint) of solution should be applied per acre in a water solution.

Banvel D at ½ pound of acid equivalent per acre has given very good control of hemp nettle in spring-sown grain crops. Banvel D, like MCPA, is marketed in a formulation containing 4 pounds acid equivalent per gallon. Therefore, one pint of this herbicide solution also contains ½ pound of the acid equivalent. Other weeds reportedly controlled at this rate were chickweed, wild buckwheat, lambsquarter, and wild mustard.

IMPORTANT--For satisfactory control of hemp nettle, chemical sprays must be applied when the weeds are quite small. Best control will be obtained when the weed seedlings possess no more than 4 to 6 true leaves. At this time plants will be 2 to 4 inches tall. Both MCPA and Banvel D will kill broad-leaf forage plants such as clovers or alfalfa.

HEMP NETTLE

(Galeopsis tetrahit)