

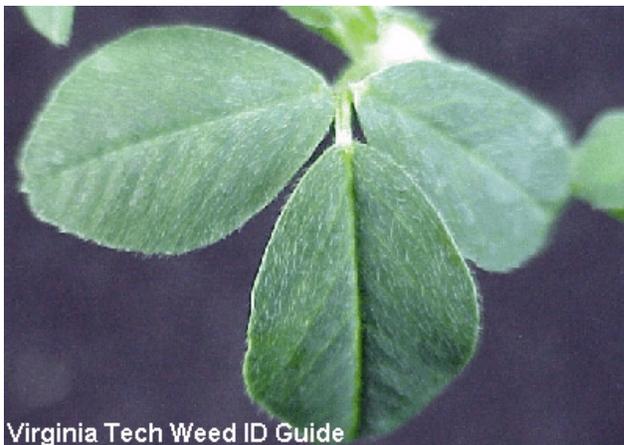
BLACK MEDIC
(*Medicago lupulina*)

Description: Black medic is a member of the Fabaceae or pea family. The plant is a low trailing annual, biennial, or short-lived perennial that can reach lengths of 1 to 2 feet. Stems of the plant are slender, prostrate, 4-angled, glabrous to hairy, and branched at the base of the plant. Leaves are pinnately trifoliate and petioles are long. Leaflets are ovate, rounded, slightly-toothed at the tips, finely-pubescent, prominently veined, and 1/2 inch in length or less. Bright yellow flowers are small, rounded to slightly elongated, and borne in dense clusters that are about 1/2 to 3/4 of an inch long. Flowers produce small pods that are thick walled, curved, hairy, 1/8 of an inch long, 1/32 of an inch wide, contain one seed, and turn black at maturity. Seeds are kidney-shaped, 1/16 of an inch long and gold or brown in color.



Black medic

Plant Images:



Pubescent leaves



Flower

Distribution and Habitat: Black medic is found throughout the United States and Canada. The plant is widely distributed throughout temperate and subtropical regions and is able to adapt to a wide range of environmental conditions. Black medic can occur on a variety of soils

but prefers fairly calcareous and dry soils. The plant also favors fine-textured soils that are neutral or slightly acidic. Black medic generally establishes in lawns, pastures, fields, stream valleys, roadsides, railway embankments, rocky beaches, and waste areas.

Life History/Ecology: Black medic reproduces solely through seed production, although one report describes stem cuttings developing roots under a controlled mist system, indicating the plant may be able to reproduce vegetatively. Seedlings that germinate after mid-July generally remain vegetative until the following spring and may not survive the winter. Immature plants are able to flower within six weeks of emergence and a mature plant can continue to initiate inflorescences throughout the growing season. Seeds can be produced and distributed throughout the growing season as well. A single plant can produce up to 6,600 seeds. The amount of seeds produced may depend upon growing conditions and location such as lawns, riverbanks or waste areas. Black medic seeds can remain viable in the soil for several years.

History of Introduction: Native to Europe and western Asia, black medic was likely introduced to North America in the late 1700s or early 1800s, in general pasture mixtures for forage or as an impurity in crop seed. The plant is now considered naturalized throughout the United States and Canada. In North Dakota, black medic is found extensively and has been reported in most counties.

Effects of Invasion: Black medic is an aggressive species that can rapidly establish in waste areas or sites that are frequently cut such as lawns. The plant can also contaminate seed samples of alfalfa, white clover, red clover, and birdsfoot trefoil.

Livestock will graze black medic, but the plant may cause bloating in cattle.

Control: Management objectives for black medic control should involve periodic monitoring of populations and preventing seed production. Seeds of black medic can remain viable in the soil for several years, therefore, particular attention is required for several consecutive growing seasons to prevent germination of new plants.

Mechanical - Hand pulling, hoeing, or cultivation can effectively reduce infestations of black medic. Black medic may be able to tolerate mowing due to the prostrate growth habit of the plant.

Chemical - Several herbicides are available for black medic control. Herbicides that contain 2,4-D, MCP, dicamba, clopyralid or triclopyr as an active ingredient can successfully control the plant. 2,4-D applied alone may not have much success. Glyphosate can also be effective in reducing infestations. Herbicides applied in early spring or fall when the plant is young and actively growing are most effective.

Contact your local county extension agent for recommended use rates, locations and timing.

Biological - No biological agents are currently available for black medic control; however, a few fungi, including bean leaf roll virus, a leaf spot disease, a rust, and black root rot, have been reported to infect the plant.

References:

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- Black medic photograph courtesy of Eleanor Saulys, Connecticut Botanical Society.
- Pubescent leaves and flower photograph courtesy of Virginia Tech Weed Guide.