

## BLACK HENBANE

(*Hyoscyamus niger*)

**Description:** Black henbane, also referred to as common henbane, hogbean, hogbane, or insane root, is a member of the Solanaceae or nightshade family. Black henbane is an annual or biennial plant that can range in height from 1 to 3 feet tall. Rosette leaves are alternate and have petioles almost as long as the leaf blades. Stems of a mature plant are erect, leafy, thick, coarse, and widely branched. Leaves are alternate, oblong to ovate, coarsely toothed to shallowly lobed, and grayish-green in color. Foliage is covered with fine, sticky hairs and has a foul odor. Flowers are funnel-shaped, 5-lobed, brownish-yellow with dark purple veins, and arranged in long, leafy, spike-like clusters. Fruit of the plant is pineapple-shaped, approximately 1 inch long, and contains hundreds of tiny, black seeds.

### Plant Images:



Black henbane



Rosette



Pineapple-shaped fruits



Flower

**Distribution and Habitat:** Black henbane is native to Europe and is currently spread throughout the United States. The plant is primarily found in sandy or well-drained loam soils with moderate fertility and does not tolerate waterlogged soils. Black henbane is common in rangeland, pastures, fence rows, roadsides, and waste areas.

**Life History/Ecology:** Black henbane is an annual or biennial that reproduces solely through seed production. Seeds germinate and develop a rosette with a large, whitish branched taproot the first growing season. During the second growing season, the plant bolts and flowers from June to August.

The plant produces hundreds of seeds from July to October that can remain viable for a period of five years.

Black henbane contains alkaloids; hyoscyamine, hyoscyne or scopolamine, and atropine that have caused occasional livestock poisoning. All parts of the plant, including the seeds, contain these alkaloids, which can be toxic to humans and animals if consumed.

**History of Introduction:** Black henbane is native to Europe and was cultivated as a medicinal and ornamental plant. In 1670, the plant escaped cultivation in the United States and became sparingly naturalized by 1859. Black henbane has since spread throughout much of the United States, particularly in the northeast, midwest and the Rocky Mountains. In North Dakota, black henbane has been occasionally found in the southwestern, central, south-central part of the state. Recent surveys in North Dakota have reported the plant in Golden Valley, Billings, McKenzie, Dunn, Stark, Burleigh, Morton, Barnes, Ward, Hettinger, Grant, Logan, McIntosh, LaMoure, and Towner county.

**Effects of Invasion:** Black henbane is a poisonous species that can be toxic to both humans and animals if ingested. The plant is not known as a competitive or aggressive species but is still capable of replacing desirable native species, thus reducing plant bio-diversity.

**Control:**

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

*Mechanical* - Hand pulling, cutting, or digging small infestations of black henbane can be effective if conducted prior to seed production. Mechanical methods such as disking or plowing, should be repeated annually because seeds can persist in the soil for an extended period of time.

*Chemical* - Herbicides recommended for black henbane control include 2,4-D, dicamba, picloram, and glyphosate. Herbicides should be applied prior to flowering to prevent seed production and dispersal.

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

*Biological* - No biological control agents are currently available for control of black henbane.

**References:**

Graham, J. and W. S. Johnson. 2004. Managing black henbane. Univ. of Nevada Coop. Ext. Serv. Circ. Fact Sheet FS-04-10. Reno, NV.

Great Plains Flora Association. 1986. Flora of the Great Plains. Lawrence, KS: Univ. Press of Kansas. 1392 pp.

Mitich, L. W. 1992. Intriguing world of weeds - black henbane. Weed Technol. 6:489-491.

Morishita, D. W. 1991. Dalmatian toadflax, yellow toadflax, black henbane, and tansymustard: importance, distribution, and control. p. 399-407 *In* L. F. James, J. O. Evans, M. H. Ralphs, and R. D. Child. Noxious Range Weeds. Boulder, CO: Westview Press.

Whitson, T. D., editor. 2000. Weeds of the West 9<sup>th</sup> Ed. Western Society of Weed Science, Newark, CA 94560. 630pp.

Black henbane, rosette and pineapple-shaped fruits photographs courtesy of Weeds of the West, Tom Whitson.

Flower photograph courtesy of Washington State Noxious Weed Control Board.