

Black Henbane

Hyoscyamus niger



FAMILY Solanaceae- Nightshades

ORIGIN

Europe, Asia, and Northern Africa

LIFE CYCLE Annual or Biennial

OTHER NAMES

Common henbane, Fetid nightshade, Hog's bean, Hogbane, Insane root, and Stinking nightshade.

QUICK FACTS

- Black henbane is **toxic** to all animals and humans, causing serious symptoms like **hallucinations, seizures, and even death**. All parts of black henbane are poisonous, including the smoke from burning. Livestock will usually avoid it because of its foul odor and bitter taste, unless other forage is unavailable.
- Black henbane doesn't spread vegetatively. Instead, it relies entirely on seeds—making early removal before flowering the key to controlling outbreaks. A single black henbane plant can produce up to **500,000 seeds**, which remain viable in the soil for up to 5 years. The plant is capable of forming dense infestations, replacing desirable native species, impacting agricultural production, and reducing plant biodiversity.
- Its cream-to-yellow flowers with distinct purple veins and **rotten smell** make black henbane unmistakable once encountered.

A noxious smelling, bitter tasting plant, that if the climate and soils permit, will take over your field in 2 years. It is found in temperate climates. It is an annual or biennial herbaceous plant commonly found along roadsides, in rocky terrains, and in uncultivated areas. It was brought to North America originally as a medical herb. Historically, the plant has been used during rituals and in witchcraft or in medicine as a sedative or painkiller. Currently the tropane alkaloids within Black Henbane are being used in medicine to treat a variety of ailments such as intestinal problems, respiratory disorders, neuralgias, Parkinson's tremors and possibly some cancers.

What does it look like?

Black henbane is a biennial herbaceous plant that can act like an annual if given a long growing season. The whole plant is sticky and covered in glandular hairs. The plant can grow up to 1-3 feet tall. The plant will develop fruits that dry into capsules containing many small black seeds. The plant has a pungent, nauseous/fetid odor. The color of the overall plant tends to be grey-green.



Fritz Stockreiter, inaturalist



Alexander Iosipenko, inaturalist



Jan Samanek, Phytosanitary Administration, Bugwood.org

Flowers: are seen in June–September. However, the annual flowers are in July or August, and the biennial flowers are in May and June. The flowers are brownish-yellow and have a purple center and purple veins. They grow on long racemes in the axils of upper leaves. Annual plant has shorter and weaker flowers than biennial plants.

Leaves: The leaves are lance-shaped to oblong with a few hairs on the bottom margins. The margins of the leaves are slightly wavy. The leaf veins are prominent and depressed on the upper surface. Leaves are coarsely-toothed to shallowly lobed. They are sticky and hairy with a foul odor. Leaves may grow in rosettes (a radiating cluster of leaves at ground level), the first year. The leaf arrangement is alternate

Stems: The stems of mature black henbane are erect, leafy, branched, and densely covered with long glandular hairs and reach 1 to 3 feet.

Seeds: Hundreds of golden to brown seeds, 1.5 millimeters long, are in oval shaped fruit. As one plant produces about 10,000 seeds, the annual forms produce weaker and later developed seeds.

Impact and Management

Toxicity

It is extremely poisonous to both humans and livestock. The plant contains toxic alkaloids like hyoscyamine and scopolamine that can cause severe neurological, cardiovascular, and gastrointestinal symptoms. Accidental exposure through ingestion, inhalation of smoke from burning plants, or dermal contact with sap can lead to poisoning, requiring immediate medical attention.

Economic Losses

Decreasing crop yields and lowering available forage for range animals, resulting in a decrease in livestock health. The full extent of ecological, economic, and sociological impacts of black henbane is not well documented.” Harbors major crop pests, which can be detrimental to the farming industry. Potato pests are fond of the prickly leaves.

Native Ecosystems and Biodiversity

Once established, it forms dense stands due to its prolific seed-producing nature that creates shade and large volumes of leaf litter. The extra competition, shade and possible smothering prevents native plants from growing. This reduces plant biodiversity and forage for wildlife

Black henbane is a biennial that reproduces only by seed, so the best management is to prevent seed production. This also makes small infestations much easier to manage, as you only have to focus on preventing seed production. Mechanical methods such as pulling or digging can be effective if the taproot is removed at least 2 inches deep. This process should be repeated annually until the seed bank in the soil is exhausted. The best long-term weed control is promoting healthy native or desirable plant species after initial removal of black henbane. This method will promote healthier soils and help continue to out-compete the henbane. There are no biological control agents for black henbane, and grazing is not recommended due to its toxicity.

DO's

- Prevent seed production by cutting down the plant before it flowers or uprooting it 2 inches deep before it flowers.
- Monitor your property regularly, especially in areas with disturbed or bare soils.
- Maintain healthy soils by not overgrazing and promoting desirable vegetation.

DON'Ts

- Use grazing as a control method, as henbane is toxic to poultry, cattle, and swine. They also avoid it as it tastes and smells bad. So it is not an effective control method.
- Leave seeds to mature, as they will produce thousands of seeds, and increase the chances of it becoming a larger infestation.
- Unnecessarily disturb the soil, as it will expose henbane seeds and promote germination.



For more information on managing black henbane, please visit www.nmweeds.org

