

# BLACK HENBANE: Options for Control

**Black henbane** (*Hyoscyamus niger* L.) is a Class C Designate noxious weed in Ferry County. Black henbane may be an annual or biennial, 1 to 3 feet tall. Leaves are coarsely toothed to shallowly lobed and pubescent. Foliage has a foul odor. Flowers, on long racemes in axils of upper leaves, are brownish-yellow with a purple center and purple veins. Fruits are approximately 1 inch long and 5-lobed.

Black henbane is a native of Europe and has been cultivated as an ornamental. It has spread throughout the United States and is a common weed of pastures, fencerows, roadsides, and waste areas. Henbane alkaloids have been used in the past and are currently used as medicines at controlled dosages. It is considered a poisonous plant to humans.



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## **Common Names**

Black Henbane  
Henbane  
Hog's-bean  
Stinking Nightshade

## **Impact**

Black henbane is narcotic and poisonous to humans and livestock. Livestock will usually avoid it because of its foul odor and bitter taste, unless other forage is unavailable. Black henbane contains two alkaloids (hyoscyamine and scopolamine) that are used as medicines under controlled conditions.

## **Management Methods**

**Prevention:** Learn to identify plants and beware of fill dirt, hay, and contaminated crop seed form outside your area. Always sow certified weed-free seeds. Clean equipment after being in an area of infestation, apply sanitation procedures, and control individual or small infestations. Monitor both private and public land for invasions annually. Eliminate this plant where it is found, and revisit the site each year to make sure there are no escapes.

**Mechanical Controls:** Hand-pulling or digging can be effective if the taproot is entirely removed. In order to prevent seed dispersal, plants with mature fruits should be put in bags after removal. The area must be monitored for new seedlings for at least four years. Mechanical control methods are only effective for small infestations. Wear gloves and protective clothing when handling the plants to prevent rashes.

**Cultural Controls:** Good vegetative cover considerably reduces the chance of infestation. Black henbane with mature fruits can be burned to kill the seed and reduce spread. It will not tolerate plowing, disking, or cultivation.

**Biological Controls:** There are currently no known biological controls for black henbane.

**Chemical Controls:** For large infestations, a systemic herbicide, such as glyphosate, can be applied. Glyphosate is nonselective, but should provide effective control. Monitor the area after application and reapply to regrowth and escapes.

## Identification

Black henbane, a member of the nightshade family, may be an annual or biennial and it grows up to three feet tall (Fig. 3). The seed leaves (cotyledons) are lance-shaped to oblong with a few hairs on the bottom (basal) margins. Its lower midvein terminates with a gland. The stalk below the cotyledons is short, and only able to be seen above ground at the earliest stage of growth. The rosette leaves are alternate and often have petioles or stalks almost as long as the blades. The margins are entire to slightly wavy. The veins are prominent and depressed on the upper surface (Fig. 1). The stems of a mature black henbane are erect, leafy, branched, and densely covered with long glandular hairs. Alternate, gray-green leaves are covered with short glandular hairs and are oblong to lance-shaped. They are coarsely toothed to acutely pinnate-lobed, with noticeable pale veins covered with long glandular hairs. Lower leaves are short-stalked and upper leaves are sessile or stalkless. Its foliage has a foul odor. Its taproot is thick and fleshy. Black henbane flowers from June to September. The brownish-yellow flowers have a purple center and purple veins. The flowers grow on long racemes in the axils of upper leaves. The calyx forms a pineapple-shaped fruit about one inch long with five lobes (Fig. 2). The fruit capsules are egg-shaped and contain hundreds of tiny black seeds that spill out at maturity when the thickened lids pop off. The seeds are deeply pitted, flattened, and contain a higher concentration of alkaloids than the leaves or roots. The vitality of the seeds can last 70 years.

## Habitat

Black henbane is found on disturbed open sites, roadsides, fields, waste places, and abandoned gardens. It grows best in sandy or well-drained loam soils with moderate fertility. It does not tolerate waterlogged soils.

Information from Weeds of The West and Nevada Cooperative Extension Publication 04-10

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Black henbane fruits are approximately 1 inch long and 5 - lobed.



Photo by Steve Dewey, Utah State University  
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