Hello from the Humboldt Watershed CWMA! The HWCWMA was developed to address the invasive weed problem and subsequent decline in water quality within the entire 16,843 square mile watershed, which covers most of Northern Nevada. The primary function of HWCWMA has been to provide land managers, owners and weed control groups assistance in the areas of funding, agency and weed group coordination and cooperation.

This month we would like to introduce you to one of Nevada’s state listed noxious weeds, black henbane (*Hyoscyamus niger*). 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, fence rows, roadsides, and waste areas; known to occur in Elko, Eureka, Humboldt, Lander, Lincoln, Lyon and White Pine counties in Nevada. Black Henbane contains hyoscyamine and other alkaloids which can cause livestock poisoning. It is considered a poisonous plant to humans.

Black henbane is an annual or biennial of the nightshade family (Solanaceae) that reproduces solely through seed production. Seeds germinate and develop into a rosette in late May. Rosette leaves are soft, alternate and have leaf stalks nearly as long as the leaf blades. Black henbane has a large, whitish, branched, fleshy taproot. The plant grows 1 to 6 feet tall. Stems of a mature plant are erect, leafy, thick, coarse, hairy and widely branched. Leaves are large – up to 6 inches wide and 8 or more inches long. Leaves are alternate with coarsely toothed to shallowly lobed margins, and are grayish-green in color. Foliage is covered with fine, sticky hairs. It flowers from June to September, with peak flowering usually in July. The 5-lobed, funnel-shaped flowers are brownish-yellow in appearance with dark purple veins. Flowers are arranged in a long spike-like inflorescence in the upper leaves with the youngest flower at the tip. Two rows of 1 inch long, five-lobed, pineapple-shaped fruits appear after flowering. Each fruit capsule contains black, pitted seeds. Black henbane produces 10,000 to 500,000 seeds per plant. Black henbane has an unpleasant odor at all growth stages, especially when it is crushed.

**Integrated Management**

Management objectives for black henbane control should involve preventing seed production and periodically monitoring populations. Field observations suggest the 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 control newly emerging plants. Good vegetative cover of desired plants considerably reduces the chance of black henbane infestation.

**Mechanical Control**

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.

**Grazing**

Grazing to control black henbane is not an option because it is poisonous to livestock, poultry and swine. Fortunately, because of the foul odor of the plant, livestock seldom graze black henbane, and few cases of livestock poisonings have been reported. However, dried plant matter in baled forage retains its toxic properties and will be readily consumed.

**Chemical**

Several herbicides are listed as providing control of black henbane. Herbicide recommendations vary by region and site. Read and follow the herbicide label to determine whether the herbicide applies to your situation, what rates are appropriate, and ensure all safety recommendations are followed. Herbicides should be applied with a non-ionic surfactant at the rosette stage and prior to flowering to prevent seed production. The area should be monitored after application and any escapes or regrowth should be retreated.

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| ***Herbicide Active Ingredient*****(Trade Name)** | **Product per Acre** | **Application Timing or Growth Stage** |
| *Dicamba* (e.g. Vanquish, Clarity) | 8 to 32 ounces | Rosette to bolting |
| *Picloram* (Tordon) | 1 to 2 pints | Actively growing plants when there is adequate soil moisture |
| *Metsulfuron* (Escort) | 0.5 to 1.0 ounces | Bolting to early flowering |
| *Metsulfuron* + *chlorsulfuron* (Cimarron Plus) | 0.625 to 1.25 ounces | Actively growing plants |

As always, please notify the HWCWMA if you see black henbane growing within the Humboldt River Watershed - it is only known to be established in a few locations in this region and we may have an opportunity to stop this highly invasive species from spreading if we act quickly. Our [staff](http://www.kingcounty.gov/environment/animalsAndPlants/noxious-weeds/program-information/who-we-are.aspx) can provide the property owner or appropriate public agency with site-specific treatment options for these plants. The HWCWMA also maps and monitors heavily infested sites in the watershed which allows the HWCWMA the ability to provide educational and financial assistance to land owners and groups in their management efforts, ultimately improving all of the qualities of the land and water in our watershed.

The HWCWMA has also developed a website to serve as a clearinghouse for information on invasive weeds in the Humboldt Watershed. Our website (http://www.humboldtweedfree.org) contains fact sheets for state listed noxious weeds in Nevada, Board of Director’s information, funding partner’s links, and many more features including a detailed project proposal packet that you can print, fill out and mail back to us at your convenience. We are looking to expand our project area outside of the Humboldt River and always welcome new funding opportunities.

If you have any questions, please feel free to contact Andi Porreca, HWCWMA Coordinator at (775) 762-2636 or email her at aporreca@humboldtweedfree.org. You may also speak with Rhonda Heguy, HWCWMA Administrator at (775) 738-3085, email: hwcwma@gmail.com.