

Pest Management – Invasive Plant Control

Black Swallow-Wort

Conservation Practice Job Sheet

MN-797



Photos by Peter M. Dziuk, Minnesota Department of Agriculture
Black Swallow-Wort (*Cynanchum nigrum*)



Black Swallow-Wort, flowers

Black Swallow-Wort

Black Swallow-wort is native to southwestern Europe and was intentionally introduced into North America as an ornamental in the 1900's.

Black Swallow-wort is an herbaceous perennial vine in the milkweed family, with a single non-branching stem that grows up to six feet in length. The vines typically twine and sprawl over other vegetation and are difficult to control.

Black swallow-wort is associated exclusively with upland areas and is tolerant of a range of light and moisture conditions. It is most commonly found in heavily-shaded woodlands, and has also become invasive in disturbed sites, old fields, pastures, fence rows and road ditches.

Ecological Threat

Black swallow-wort spreads long distances by seed and rhizomes. Thick infestations in full sun can produce 2,000 seeds per square meter. One seed produces one to four embryos, which greatly increases the likelihood of seed survival and establishment. Rhizomes can form extensive patches in clumps of several to many stems that crowd out the native

vegetation. Stands can eventually cover several acres of land. According to laboratory research, when monarch butterflies lay eggs on black swallow-wort, the resulting larvae experience a high rate of mortality.

Description

Black Swallow-wort has dark, glossy-green, simple leaves with smooth edges and a tapered point, 3-4 inches long by 2-3 inches wide that occur in pairs along the stem. The small five-petaled star-shaped flowers, borne in clusters at leaf axils, are deep purple to almost brown or black and are fragrant. They appear in June and may be found until late summer. Like native milkweeds, the seed is winged and readily spread by the wind. Reproduction is primarily by seed. In winter, stems may be found entangled in small shrubs with remnants of old seedpods still attached. It dies back to the ground each year.

Control

As with all invasive species, early detection and removal is the best approach for preventing the establishment and spread of this plant. Aim to remove all plants at a site.

Biological Control

There are no biological controls for this plant at this time.

Mechanical or Manual Control

To control this plant, the whole crown must be removed. Pulling the plants by hand generally leads to resprouting, but can prevent seed production if repeated during the growing season. Plants bearing seeds should be burned or bagged and disposed of in a landfill.

Mowing will not eradicate swallow-wort but can be used to prevent seed production. Mow several times during the season, just as the pods are beginning to form. Stay out of patches that are actively dispersing seeds, unless you plan to collect and dispose of the seeds carefully. Clean all machinery that has traveled through swallow-wort patches.

Hay crops infested with swallow-wort and then sold elsewhere can be a means of spreading this plant.

Prescribed Burning

There is little information about the efficacy of burns.

Chemical Control

Herbicide applications to swallow-wort must be carefully planned and implemented. Methods include spraying and wicking.

Important Note

Mention of specific pesticide products in this document does not constitute an endorsement. These products are mentioned specifically in control literature used to create this document.

By law, herbicides may only be applied as per label instructions. Follow all label instructions when applying pesticides including “grazing and re-entry level restrictions” and application site restrictions (is the product labeled for “the application site” you are considering?).

Most of the products listed are not acutely toxic but have high potentials to move off-site via leaching or runoff under certain conditions. Off-site movement potential can be minimized by avoiding over-spraying or application to the point where products are reaching or dripping onto the ground.

Foliar Treatment: Foliar sprays of systemic herbicides only kill plants in the upper layers of the infestation, requiring repeated applications to effectively control the entire mass. Systemic herbicides such as glyphosate (brand names Roundup, and for use near waterbodies, Rodeo) or triclopyr ester (brand names Garlon, Pathfinder, and others) have been found to be effective in controlling swallow-wort. Glyphosate is a nonselective herbicide which kills both grasses and broad-leaved plants while triclopyr is a selective herbicide that kills broad-leaved plants but does little or no harm to grasses. These herbicides should be applied when plants are actively growing, after flowering has begun and before pods begin to form. Do not apply so heavily that herbicide will drip off leaves. **DO NOT SPRAY TOO SOON.** Avoid the temptation to spray the plants as soon as they emerge in May. Only when the plants flower will they be large enough to receive enough spray on the exposed leaf surface to deliver a killing dose to the roots. Plants that are sprayed before pods form will probably not produce a viable seed crop that season. Be patient. Systemic herbicides do not cause a “burn down” of plants like contact herbicides do. Within 1-2 weeks, the plants will look sick. There may be dead tissue spots on most leaves and many yellowing leaves. Do not waste herbicide, money or effort by spraying the plants twice. Sick plants cannot effectively absorb the herbicide through the leaf surface or move the herbicide to the roots. Swallow-wort control may take a few years and it is important not to use more herbicide than is necessary. In situations where foliar sprays are undesirable, sponging the herbicide on individual plants is an option.

Cut stem treatment: Use this method in areas where plants are established within or around non-target plants or where vines have grown into the canopy. Cut the live stem about 2 inches above ground level (between the lowest nodes). Immediately apply a 50 to 100% solution of glyphosate. If treated plants have mature pods, the seeds may ripen and disperse after treatment so it is important to cut plants low and bag and dispose of the portions with pods.

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