



CULVER'S ROOT

Veronicastrum virginicum (L.) Farw.

Plant Symbol = VEVI4

Alternative Names

Common Names: black root, Culver's physic,

Scientific Names: *Leptandra virginica* (L.) Nutt, *Veronica virginica* L.

Description

General: Culver's root is a perennial wildflower native to eastern North America. The stems are usually about 3-6 ft tall (0.8-2m) with leaves in whorls of 3-6 (Weakley et al. 2012). Each leaf has finely serrated edges and is usually 1-6 in (3-15cm) long by 0.5-1.5 in (1-4cm) wide (Weakley et al. 2012). The small tubular pink or white flowers (about ½ inch-long; 4-12mm) appear together in spikes at the top of the plant (Weakley et al. 2012), in late summer (New York Natural Heritage Program [NYNHP], 2026), blooming first at the bottom of the spike (Tallgrass Prairie Center, 2025). Like other members of the Plantaginaceae family, the fruit is a capsule that dries and splits open (Weakley et al. 2012), allowing the small seeds to fall out. Culver's root produces seed in early fall (NYNHP, 2026). The plant often spreads asexually through rhizomes and appearing in clumps in the landscape (Tallgrass Prairie Center, 2025).

Distribution: Culver's root grows in the temperate forests and prairies of the Eastern half of North America, from Manitoba to Texas and from Florida to Maine (Plants of the World Online [POWO], 2026).

For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

Habitat: Culver's root grows in dry woodlands, in wet meadows and prairies, and along riversides in frequently scoured rocky edges of woods and streams (Weakley et al. 2012). It also grows along railroads, roadsides, and powerline corridors and in abandoned quarries and gravel pits, ditches, thickets, and seeps (Southwest Environmental Information Network [SEINet], 2026)

Uses

Culver's root is widely used in plantings to improve pollinator habitat, and the USDA Natural Resources Conservation Service recommends it as a component of a conservation seed mix for 14 states (Natural Resources Conservation Service [NRCS], 2026). Many types of pollinators visit these flowers, including honeybees (*Apis mellifera*), bumblebees (*Bombus* sp.), yellow-faced bees (*Hylaeus* sp.), small carpenter bees (*Ceratina* sp.), sweat bees (*Agapostemon* sp. and *Lasioglossum* sp.), and other bees (*Melissodes* sp., *Heriades* sp., *Augochlora* sp.), in addition to several species of butterflies, moths, flies, and wasps (Battle et al. 2021). The endangered rusty patch bumble bee (*Bombus affinis*) uses Culver's root, among many other flowers, for nectar (Wolf et al. 2022).

Landscaping: Culver's root is widely used in gardens and landscaping in the Northeast (NYNHP, 2026). It is deer resistant and is used for cut flower arrangements (Sullivan and Kujawski, 2010).

Ethnobotany



Culver's root in flower, showing white flower spikes and whorled leaves. Photo by Catherine Callaghan.

Chippewa and Cherokee, Iroquois, and Menominee communities have used Culver's root to treat fever, cough & pain, and to induce vomiting; *Veronicastrum* species in Asia have been used for an even broader array of medicinal purposes (Mutinda et al. 2023)

Status

Threatened or Endangered: Culver's root is ranked as Critically Imperiled in (S1) in Alabama, Delaware, Nebraska, Oklahoma, South Carolina, South Dakota, and Vermont, and Imperiled (S2) in Massachusetts, Mississippi, New York, North Carolina, Manitoba and Ontario (NatureServe, 2026). Populations are apparently secure or secure in Iowa, Kentucky, Pennsylvania, Virginia and West Virginia (NatureServe, 2026). Across its range, Culver's root is threatened by loss of prairie habitat due to agricultural use, residential development, fire suppression, and invasive plants, in addition to herbicide applications on roadsides and in agricultural areas (NatureServe, 2026).

Wetland Indicator: Culver's root usually occurs in wetlands (FACW) in the Atlantic and Gulf Coastal Plain, usually occurs in non-wetlands (FACU) in the Eastern Mountains and Piedmont, and is equally likely to occur in wetlands or non-wetlands (FAC) in the Great Plains, Midwest, and Northcentral and Northeast (U.S. Army Corps of Engineers, 2022).

Weedy or Invasive: This plant does not become weedy or invasive if not properly managed.

Please consult the PLANTS Web site (<http://plants.usda.gov/>) and your state's Department of Natural Resources for this plant's current status (e.g., threatened or endangered species, state noxious status, and wetland indicator values).

Planting Guidelines

The plants should be spaced 18-24 inches apart, should be planted in small groups where they have full or partial sun, and should be regularly watered (weekly) for the first season (Lessard 2026).

Management

Careful selection of planting location is important for Culver's root; if the plant is grown in too much shade, if soil conditions are saturated, or the bed is too weedy, plants perform poorly (Tallgrass Prairie Center, 2025). Populations may appear irregularly from year to year (Weakly et al. 2012).

Pests and Potential Problems

Lygus bugs, aphids, leaf beetles, leafhoppers, thrips and Japanese beetles occasionally use Culver's root (Michigan State University Extension, n.d.). *Peronospora digitalis*, a downy mildew has been found on plants in a greenhouse in Wisconsin (Salgado-Salazar & Hudelson, 2025).

Environmental Concerns

There are no environmental concerns associated with Culver's root.

Control

Culver's root does not require special control methods. Please contact your local agricultural extension specialist or county weed specialist to learn what works best in your area and how to use it safely. Always read label and safety instructions for each control method. Trade names and control measures appear in this document only to provide specific information. USDA NRCS does not guarantee or warranty the products and control methods named, and other products may be equally effective.

Seeds and Plant Production

The capsules can be collected in early to mid-fall and are brown when fully ripe (Sullivan and Kujawski, 2010). The seeds should be dried for 1-2 months and after the seeds are cleaned, they average 12 million seeds per pound. (USDA NRCS Ellsberry Plant Materials Center and Missouri Department of Conservation, 2005). Direct seeding is not recommended for this species (Tallgrass prairie Center, 2025). To grow them in the greenhouse, the seeds should be stratified for about 3 months, and will germinate in about 3 to 4 weeks when sown on the soil surface in polyhouse conditions of 50-60°F during the day (10-15°C) and 30-40°F (-1-5°C) during the night (Sullivan and Kujawski, 2010). About 6 weeks after germinating, with consistent irrigation and fertilizing, seedlings can be transferred to plug trays; Sullivan and Kujawski (2010) recommend they be transplanted in small clumps of 2 to 3. These plugs can then be moved to larger containers after about another 6-8 weeks (Sullivan and Kujawski, 2010) and should be hardened off before planting outside. Peak seed yield may occur in the second year after planting (Tallgrass Prairie Center, 2025).

Culver's root can also be propagated by root division in late fall or early spring; each segment should have a bud (Lady Bird Johnson Wildflower Center, 2026). It can also be propagated through cuttings taken from non-flowering side shoots in the summer, and rooting them in individual pots (Fisher, 2024).

Cultivars, Improved, and Selected Materials (and area of origin)

There are many cultivars with flowers that are darker pink or purple than the usually white flowers of Culver's root. 'Albopurpurea' and 'Erica' cultivars have pink buds opening to pale pink flowers; 'Challenger' has pink flowers; 'Cupid' has purple flowers, 'Apollo' and 'Caeruleum' have dark purple flowers, 'Fascination' cultivar has light purple flowers, and; 'Queen of Diamonds' has pink flowers with leaves that are tinted red when they are young (Catskills Native Nursery, 2026). Cultivars should be selected based on the local climate, resistance to local pests, and intended use. Consult with your local land grant university, local extension or local USDA NRCS office for recommendations on adapted cultivars for use in your area.

Literature Cited

- Battle, K.F., de Rivera, C. E., & Cruzan, M. B. (2021). The role of functional diversity and facilitation in small-scale pollinator habitat. *Ecological Applications*, 31(6), e02355.
- Catskills Native Nursery (2026). Plant Info: *Veronicastrum virginicum* – Culver's root <https://catskillnativenursery.info/product/veronicastrum-virginianum-culvers-root-5-pint/>
- Fisher, S. (2024, 19 August). How to grow *Veronicastrum* (and which to plant). *Gardener's World*: <https://www.gardenersworld.com/how-to/grow-plants/how-to-grow-veronicastrum-and-which-to-plant/>
- Lady Bird Johnson Wildflower Center (2026). *V. virginicum* https://www.wildflower.org/plants/result.php?id_plant=vevi4
- Lessard, E. (2026, 18 June) Plant Profile: Culver's Root: The Plant Native. <https://theplantnative.com/plant/culvers-root/>
- Michigan State University Extension (no date) Culver's Root: https://www.canr.msu.edu/nativeplants/plant_facts/culvers_root#gallery
- Mutinda, E. S., Mkala, E. M., Ren, J., Kimutai, F., Waswa, E. N., Odago, W. O., ... & Hu, G. W. (2023). A review on the traditional uses, phytochemistry, and pharmacology of the genus *Veronicastrum* (Plantaginaceae). *Journal of ethnopharmacology*, 300, 115695.
- NatureServe. 2026. *Veronicastrum virginicum*. NatureServe, Arlington, Virginia. Retrieved September 30, 2026, from <https://explorer.natureserve.org/pro/>.
- New York Natural Heritage Program. 2026. Online Conservation Guide for *Veronicastrum virginicum*. Retrieved September 30, 2026 from: <https://guides.nynhp.org/culvers-root/>
- Plants of the World Online (2026). Facilitated by the Royal Botanic Gardens, Kew. Retrieved September 30, 2026, from <https://powo.science.kew.org>.
- Salgado-Salazar, C., & Hudelson, B. (2025). First observation of *Peronospora digitalis* causing downy mildew on Culver's root (*Veronicastrum virginicum*) in the USA. *Journal of Plant Diseases and Protection*, 132(1), 54.
- Southwestern Environmental Information Network (2026) Biodiversity occurrence data accessed through the SEINet - AZ/NM Node. Retrieved August 25, 2026, from <https://swbiodiversity.org/seinet>
- Sullivan, J., & Kujawski, J. (2010). Propagation Protocol For Culver's Root *Veronicastrum virginicum*. *Native Plants Journal*, 11(2), 138-142.
- Tallgrass Prairie Center (2025). Species Production Guide: Culver's Root. <https://tallgrassprairiecenter.org/native-seed-production-manual/species-production-guides/forbs/culvers-root>
- US Army Corps of Engineers (2022). National Wetland Plant List. https://nwpl.sec.usace.army.mil/static/reports/2022_NWPL_National.xlsx
- USDA NRCS Ellsberry Plant Materials Center and Missouri Department of Conservation (2005) Central Region Seedling ID Guide for Native Prairie Plants <https://nrcspad.sc.egov.usda.gov/DistributionCenter/pdf.aspx?productID=1681>
- USDA NRCS Field Office Technical Guides (2026). Retrieved 30 September 2026 from <https://efotg.sc.egov.usda.gov/#/>
- Weakley, S., Ludwig, J. C., Townsend, J. F., & Crowder, B. (2012). *Flora of Virginia*. 1st ed. Botanical Research Institute of Texas Press.
- Wolf, A. T., Watson, J. C., Hyde, T. J., Carpenter, S. G., & Jean, R. P. (2022). Floral resources used by the endangered rusty patched bumble bee (*Bombus affinis*) in the Midwestern United States. *Natural Areas Journal*, 42(4), 301-312.

Citation

Howe, N. and Belt, S. 2026. Plant Guide for Culver's root (*Veronicastrum virginicum*). USDA-Natural Resources Conservation Service, Norman A. Berg National Plant Materials Center, Beltsville, MD, 20705.

Published October 2026

For more information about this and other plants, please contact your local NRCS field office or Conservation District at <http://www.nrcs.usda.gov/> and visit the PLANTS Web site at <http://plants.usda.gov/> or the Plant Materials Program web site: <http://plant-materials.nrcs.usda.gov>.

PLANTS is not responsible for the content or availability of other Web sites.

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotope, American Sign Language, etc.) should contact the State or local Agency that administers the program or contact USDA through the Telecommunications Relay Service at 711 (voice and TTY). Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at [How to File a Program Discrimination Complaint](#) and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Mail Stop 9410, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

USDA is an equal opportunity provider, employer, and lender.

Keeping Working Lands in Working Hands