



Southeast Exotic Pest Plant Council Invasive Plant Manual

Common Name: Crown Vetch

Scientific Name: *Coronilla varia* L.

Crown vetch is a member of the Pea or Fabaceae family. This low growing vine is commonly used throughout the United States for erosion control, roadside planting and soil rehabilitation. Crown vetch is toxic to horses because of the presence of nitroglycosides. If consumed in large amounts, it can cause slow growth, paralysis, or death.

Height: Crown vetch has a creeping stem reaching 3 to 5 dm in length.

Leaves: The compound leaves range from 5 to 10 cm in length and have nine to twenty-five leaflets. Leaflets are one to two cm long, oblong with persistent stipules.

Flowers: Five to twenty pea-like flowers are umbellate and borne on a stalk 5 to 15 cm long. Flower color is somewhat variable from pink, rose, or lilac. Flowers appear in late May-August

Fruit/Seeds: The four-angled legume is from 1.5-5.5 cm long. It has from three to seven one-seeded segments.



Photo by Dave Powell

Life History

Crown vetch spreads vegetatively by underground roots or rhizomes and by seeds. These perennial roots primarily serve to anchor the plant and as a storage structure. Flowers emerge May through August and seeds will mature by September. Seeds remain viable in the soil for several years requiring consistent post treatment monitoring.



Photo by Dave Powell

Origin and Distribution

Crown vetch is native to Europe, Asia and Africa. It is widely cultivated as a ground cover and for erosion control in the U. S. since the 1950's. It has become naturalized in much of the U.S. and southern Canada. In some areas, crown vetch will totally dominate pastures and abandoned fields

Similar Species

Crown vetch may be confused with partridge pea (*Cassia fasciculata*), other native vetches (*Vicia* sp.) and non-native plants in the Pea family. Distinguishing characteristics include compound leaves with an odd number of leaflets, flowers stalks and leaves that arise from the main stem, and flowers in the form of an umbel.

Habitat

Crown vetch is primarily found along roadsides, fields, and road cuts. It does well rocky dry sites as well as moist well-drained areas. It is intolerant of shade but will tolerate sparse shade along the edge of forested areas. It grows in a wide range of climactic conditions from Zone 3 to 7.

Management Recommendations

Mechanical Control:

Hand pulling of mature plants can be effective when controlling small initial infestations. Mowing plants in the flower bud stage for two or three consecutive years may reduce the vigor and control further spread. Plants should be cut before seeds mature and as low to the ground as possible. Impact to adjacent native plants should be minimized as much as possible.

Herbicidal Control

Spot Treatments: For herbicidal controls to be effective, herbicides should be applied while the plants are actively growing. Glyphosate, triclopyr and metsulfuron have been shown to be effective in controlling crown vetch. A 1%-2% solution triclopyr or glyphosate thoroughly mixed with water is effective during the vegetative stage prior to branching or during flowering. Triclopyr is selective to broad-leaved plants and can be used in areas where native grasses are intermingled with the target plants. Glyphosate is non-selective and will affect any plant it comes in contact with. Metsulfuron should be applied at a rate of 0.3g/gallon of water. Treatments should cover the leaves and stems of plants to the point of runoff. The addition of a non-ionic surfactant at a concentration of 0.5% improves the effectiveness of foliar treatments. Read the herbicide label thoroughly prior to use.

Broadcast: Broadcast treatments are appropriate for large infestations such as fields or prairies. Since native plants will be intermingled with lespedeza, triclopyr and metsulfuron are the preferred herbicides due to their selective characteristics. Apply triclopyr at a rate of 1.0-1.5 pints per acre. Metsulfuron should be applied at a rate of 0.5 oz per acre. Use a non-ionic surfactant according to manufacturer's instructions to improve effectiveness.

Bibliography

Brown, D. The impact of species introduced to control tree invasion on the vegetation of an electrical utility right-of-way. *Canadian Journal of Botany*. Aug 1995. v. 73 (8) p. 1217-1228.

Coronilla varia. Ohio State University. Oct. 22 2002. <http://www.hrc.ohio-state.edu/plantlist/description/co_varia.html>

Crown Vetch (*Coronilla varia*). Wisconsin Department of Natural Resources. Oct. 22, 2002. <<http://www.dnr.state.wi.us/org/land/er/invasive/factsheets/crown.htm>>.

Gleason, H. A.; Cronquist, A. *Manual of vascular plants of northeastern United States and adjacent Canada*. 2nd ed. The New York Botanical Garden. 1991.

Kartesz, J.T. A Synonymized Checklist and Atlas with Biological Attributes for the Vascular Flora of the United States, Canada, and Greenland. First Edition. In: Kartesz, J.T., and C.A. Meacham. *Synthesis of the North American Flora, Version 1.0*. North Carolina Botanical Garden, Chapel Hill, NC. 1999.

USDA, NRCS. 2002. The PLANTS Database, Version 3.5 <<http://plants.usda.gov>>. National Plant Data Center, Baton Rouge, LA 70874-4490 USA. Nov. 3, 2002.

Radford, A. E.; Ahles, H. E.; Bell, C. R. *Manual of the vascular flora of the Carolinas*. Chapel Hill, NC: The University of North Carolina Press; 1968.

Smith, T. Vegetation management guideline: Crown vetch [*Securigera varia* L. Lassen]. Synonym *Coronilla varia* L. In Missouri Vegetation Management Manual. Missouri Department of Conservation, Natural History Division. 1993.

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