

BLACK NIGHTSHADE

Solanum americanum P. Mill. var. *nodiflorum* (N.J. Jacq.)

Family: *Solanaceae* (Nightshade).

Other Scientific Names: *Solanum nigrum*.

Other Common Names: Garden nightshade, common nightshade.

Legal Status: Not categorized.



Identification

Growth form:

Annual or short-lived

perennial forb.

Flower: Flowers are white to pale blue, 5–10 mm wide, and borne in clusters.

Seeds/Fruit: The globe-shaped berries of black nightshade are 8 mm wide. Green when immature but turn black upon maturity (Basset and Munro 1985).

Leaves: Alternate, ovate, wavy-edged, and tapered.



Stems: Single-stemmed, erect, 15–60 cm tall. Smooth appearance.

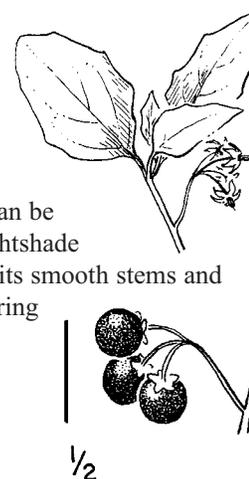
Roots: Taproot.

Seedling: Ovate, tapering to a pointed tip.

Similar Species

Exotics: Black nightshade can be distinguished from hairy nightshade (*Solanum physalifolium*) by its smooth stems and leaves, and the smaller covering (calyx) on top of the berry.

Natives: None known.



Impacts

Agricultural: Commercial berry crop quality is significantly reduced when black nightshade berries mix with them. The plant also produces a sticky substance that clogs agricultural equipment such as combine screens and rotors (Basset and Munro 1985).

Berries can be poisonous to cattle, sheep, goats, pigs, ducks, and chickens (Basset and Munro 1985).

Ecological: No information available.

Human: Poisonous to humans.

Habitat and Ecology

General requirements: In BC, occupies dry to moderately dry sites at low- to mid-elevations. Commonly found on disturbed soils such as roadsides, rights-of-way, cultivated fields, flowerbeds, and vegetable gardens. Black nightshade is found on a variety of soils from sandy/gravelly soils to fertile cultivated soils but seems to be adapted to soils that are high in nitrogen.

Distribution: Occurs infrequently in southern parts of the province (Douglas et al. 2000) but is present in the

Okanagan, Thompson, Mainland, Vancouver Island, and Peace River agricultural reporting regions. Not considered a major concern in the province.

Historical: Introduced from South America.

Life cycle: Germinates in spring and through the summer. Flowering begins by mid-June, and the berries mature 4–5 weeks later. Maximum flower initiation occurs under full sunlight (Masset and Munro 1985).

Mode of reproduction: By seed.

Seed production: Capable of producing 2,500–5,000 seeds/plant (Basset and Munro 1985).

Seed bank: Can remain viable for more than 5 years.

Dispersal: Berries and seed are dispersed by rodents,

birds, livestock, and humans and along watercourses.

Hybridization: May hybridize with other closely related nightshades (Basset and Munro 1985).

Management

Biocontrol: None.

Mechanical: Mowing and tillage over several years before seed-set may achieve eradication.

Fire: No information available.

Herbicides: Post-emergence application of dicamba and glyphosate will provide control. Atrazine, cyanazine, and linuron have also been effective (Basset and Munro 1985). Consult the most recent edition of BC Ministry of Agriculture, Food and Fisheries Crop Production Guides for specific recommendations.

Before applying herbicides, read the label for full use and precautionary instructions.

Cultural/Preventive: Prevent the establishment of new infestations by minimizing disturbance and eliminating seed production and dispersal.

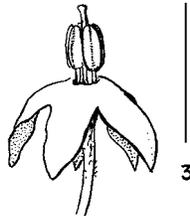
Integrated Management Summary

Integrated management should focus on eliminating seed production and depleting the seed bank. Use mechanical or chemical methods to prevent seed production, and revise land management practices to ensure the maintenance of a vigorous perennial plant community.

References

Basset, I. J., and D. B. Munro. 1985. The biology of Canadian weeds. 67. *Solanum ptycanthum* Dun., *S. nigrum* L., and *S. sarrachoides* Sendt. *Canadian Journal of Plant Science* 65: 401–414.

Douglas, G. W., D. Meidinger, and J. Pojar, eds. 2000. *Illustrated Flora of British Columbia*. Vol. 5: *Dicotyledons (Salicaceae through Zygophyllaceae) and Pteridophytes*. Province of British Columbia.



Whitson, T. D. (ed.), L. C. Burrill, S. A. Dewey, D. W. Cudney, B. E. Nelson, R. D. Lee, R. Parker. 1996. Black nightshade. *Weeds of the West*. Western Society of Weed Science, in cooperation with the Western United States Land Grant Universities Cooperative Extension Services, Newark, CA.