St. John's-wort

Hypericum perforatum L.

Family: *Clusiaceae* (St. John's-wort).

Other Scientific Names: None.

Other Common Names: Klamath weed, goatweed.

Legal Status: Not categorized.

Identification

Growth form: Perennial forb.

Flower: Flowers are 2 cm in diameter, bright yellow, numerous in flat-topped clusters. Flowers have 5 separate petals that are twice as long as the sepals. Stamens are numerous and paired into 3 groups.

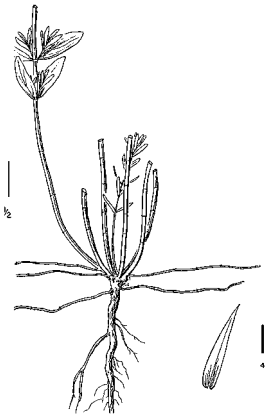
Seeds/Fruit: Seed pods are 6 mm long, rust-brown, with 3-celled capsules that contain numerous seeds (Whitson et al. 1996).

Leaves: Leaves are opposite, 1–3 cm long, oval-shaped, with prominent veins and covered with transparent dots.

Stems: Mature plants are 0.1–1.0 m high. The stems are erect, 2-sided, rust coloured, with numerous branches.

Roots: Short rhizomes.

Seedling: No information available.



Similar Species

Exotics: None known.

Natives: None known.

Impacts

Agricultural: St. John's-wort invades grazed and disturbed lands. In dense stands, it displaces native plant species and reduces livestock and wildlife forage. The plant also contains a toxin that causes skin irritation and blistering in light-coloured livestock when they are exposed to sunlight (Powell et al. 1994).

Ecological: No information available.

Human: Commercially available as an antidepressant.

Habitat and Ecology

General requirements: In BC, St. John's-wort grows at low- to mid-elevations in coastal, grassland, and open forested regions. It is commonly found on rangeland, pasture, and meadows and along roadsides and disturbed areas. It is best adapted to dry, gravelly, or sandy soils and can tolerate pH ranges of 4.3–7.6 (Rutledge and McLendon. Undated).

Distribution: St. John's-wort occurs in scattered pockets in the Kootenays, Okanagan, Boundary, North Thompson, Cariboo, Skeena, Fraser Valley, and Vancouver Island areas. It is not present in the Peace River area. It is common throughout the US Pacific Northwest (Powell et al. 1994).

Historical: Introduced from Eurasia.

Life cycle: St. John's-wort grows early in spring when soil moisture is available, and flowers from June to September, depending on geographic location. Its deep root system is capable of supporting the plant when the water available to other species has been depleted (Crompton et al. 1988).

Mode of reproduction: By seed and vegetatively from roots. The root system spreads laterally and is capable of forming new buds that separate from the parent (Rutledge and McLendon. Undated).

Seed production: It produces 15,000–30,000 seeds/plant.

Seed bank: Seeds may remain viable in the soil 6–10 years.

Dispersal: Seeds have a gelatinous coat that facilitates long-distance dispersal.

Hybridization: No information available.

Management

Biocontrol: *Chrysolina hyperici* (beetle) and *Chrysolina quadrigemina* (beetle) have been released in the province (Powell et al. 1994) and have continued to produce sustainable populations on the weed, although the insect needs to be moved to new populations periodically. *Agrilus hyperici* (beetle), *Aplocera plagiata* (moth), and *Aphis chloris* (aphid) have also been released in the province.

Mechanical: Can be managed by tillage in agricultural fields.

Fire: No information available.

Herbicides: Combinations of 2,4-D and picloram, or 2,4-D and glyphosate have successfully managed this weed in the US (Rutledge and McLendon. Undated). 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: Maintain plant communities dominated by perennial grasses and forbs (Piper 1999).

Integrated Management Summary

St. John's-wort is considered to be under successful biological control throughout the province. For small infestations, herbicide use and seeding disturbed areas are likely the best combination initially. Manage grazing animals to maintain dense stands of perennial species.

References

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