



Perennial Sow-thistle

Sonchus arvensis



Overview:

Perennial sow-thistle has long been an aggressive agricultural weed, but can invade both natural and disturbed sites. It is a perennial plant that reproduces both by seed and creeping roots (rhizomes). Above ground portions of mature plants die in winter and new shoots sprout from root buds in spring. Many native lettuces closely resemble perennial sow-thistle, but they either do not have the extensive root system or their flowers are a different color. Annual sow thistle is very similar but reproduces only by seed and its flowers are smaller. Native to western Asia and Europe and was probably introduced as a seed contaminant.

Habitat:

Adapted to a wide range of conditions (including saline soils), perennial sow-thistle does best in moist, fertile soils with full sunlight. It can become a serious problem in riparian areas, and chemicals from decaying sow-thistle inhibit the seed germination of other species.

Identification:

Stems: Stems are upright, leafy at the base, branched in the tops and grow up to 2m tall. Cut stems exude a milky juice.

Leaves: Leaves are alternate and waxy, with weakly prickled edges and the shape is variable. Lower leaves are stalked, but clasp the stem higher up. Leaf color varies from light to dark green and they can be up to 20cm long.

Flowers: Flowers are small, yellow and dandelion-like. They are grouped in loose clusters at the ends of stems. The bracts of the flower heads are often covered with sticky hairs. One plant may have up to 20 flower heads, but with only few in bloom at a time. Flowers have both male & female organs but are generally self-incompatible, and are pollinated by insects.

Seeds: Seeds are tufted to aid in wind dispersal. Seeds can germinate in spring or fall – fall seedlings overwinter as rosettes. Seed production is highly variable and seeds are relatively short-lived.

Prevention:

New infestations must be controlled before the extensive root system develops.

Control:

Grazing: Perennial sow-thistle is not especially palatable to livestock. Invasive plants should never be considered as forage.

Cultivation: Seedlings are easily controlled by cultivation. Intense cultivation over long periods can exhaust root reserves of mature plants, but root pieces as small as 1 cm can produce new plants.

Mechanical: Mowing can prevent seed production, but the plant's long flowering period would necessitate many cuts. Seedlings can be easily hand-pulled.

Chemical: 2,4-D, Aminopyralid, Bromoxynil, Clopyralid, Chlorsulfuron, Dicamba, Dichlorprop in a product mix with 2,4-D, Florasulam, Glyphosate, Glufosinate ammonium, MCPA, MCPB and Quinchlorac are registered for use on perennial sow-thistle. Always check product labels to ensure the

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herbicide is registered for use on the target plant in Canada by the Pest Management Regulatory Agency. Always read and follow label directions. Consult your local Agricultural Fieldman or Certified Pesticide Dispenser for more information.

Biological: The possibilities of using the natural enemies of *S. arvensis* for biological control have been studied (Schroeder, 1973). Introductions were made into Canada, starting in 1979. *Tephritis dilacerata* did not become established despite an extensive release program. *Cystiphora sonchi* is established but suffers heavy parasitism and is not effective. *Liriomyza sonchi* was established in Nova Scotia in 1987 and was under evaluation in 1990 (Julien, 1992)¹.



REFERENCES

¹ <http://www.cabi.org/isc/?compid=5&dsid=50583&loadmodule=datasheet&page=481&site=144>