



INVASIVE ALIEN SPECIES

Perennial Sow-thistle

(*Sonchus arvensis*)

Provincial Designation: Noxious

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.

Seed: 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:¹ Herbicide resistances are a problem with sow-thistles and increased rates may be necessary. Clopyralid, dicamba, 2,4-D, picloram and glyphosate can be used before flowering. Consult your local Agricultural Fieldman or Certified Pesticide Dispenser for more information.

Biological: Two agents are approved for Canada; a seed head feeder and a gall former.



¹ Always follow the product labels. The use of pesticides in any manner not published on the label or registered under the *Minor Use of Pesticides* regulation constitutes an offence under both the *Federal Pest Control Products Act* and *Alberta's Environmental Protection and Enhancement Act*.