

PERENNIAL SOWTHISTLE: Options for control

Perennial sowthistle, a class - B noxious weed in Lincoln County, Washington (*Sonchus arvensis*), is a perennial of the Asteraceae (sunflower) family. A native of Europe introduced to North America by the transport of contaminated crops, it is now widely distributed across the northern half of the United States.

This perennial plant is 2-3½' tall, branching occasionally in the upper half. The dull green stems are hairless. The alternate leaves are up to 12" long and 3½" across, becoming smaller as they ascend the stems. Most of these leaves are located in the lower half of the plant. They are lanceolate, oblong, or ovate in overall shape, but usually have about 2-5 lobes with pointed tips on each side. Some of the upper leaves may be un-lobed, and occasionally there are plants without significant lobes on the leaves. The margins are dentate-prickly. The upper surface of each leaf is glabrous, while the lower mid-rib is without prickles. At the base of each leaf, there is a pair of small basal lobes that clasp the stem.



Widely spreading white brittle roots penetrating 5-10 ft., producing new plants from small root pieces.



Stem leaves are clasp and without stalks.



Erect hollow stems contain a harmless, milky latex sap, as do the leaves.

branch sparingly and produce clusters of composite flowers. Each composite flower is about 1-1½" across, consisting of numerous yellow ray florets. The base of the flower is covered with overlapping green bracts - it is about ¾" in length.



Has flowering stalks and bracts with glandular hairs. The blooming period occurs during the summer and lasts about 1-2 months. There is a pleasant floral scent. Each ray floret is replaced by a rather flat achene that is tapered on both ends and has several longitudinal ribs along its length. The achenes have tufts of fine white hairs and are distributed by the wind. The root system consists of a stout taproot that can run 9 ft. into the ground, and it produces long spreading rhizomes. This plant frequently forms vegetative colonies.

Perennial sowthistle is common in roadside and low maintenance turf and somewhat less common in landscapes. It prefers slightly alkaline or neutral soils, fine-textured, rich soils. Perennial sowthistle will not thrive on coarse sandy soils. The leaf shape resembles dandelion or chicory but has spines along the margin of the leaf. Perennial sowthistle spreads by rhizomes. The sparse leaves on the flower stalks are often entire (no lobes). The yellow flowers of sowthistle are similar to dandelion but are not

These basal lobes are usually rather small and well-rounded.

The upper stems terminate in flower stalks of composite flowers. These stalks are quite long and have few leaves. These stalks



Leaves are alternate with slightly toothed margins, 6-12 in. long.



Flowers have 5 small teeth across the outer end, and open for 2 to 3 hours after sunrise and close around noon.

Key identifying traits

- Rich, yellow, dandelion-like flowers can be up to 2 inches wide.
- Numerous gland tipped hairs on bracts surrounding flower and on upper stem
- Exudes a harmless milky latex sap when injured
- Leaves vary from deeply lobed to entire, have a clasping base and mildly prickly margins
- Most leaves on lower portion of the stem
- Plants are usually 2 to 4 feet tall.
- New shoots from roots foster dense stands
- Stems are hollow and branch near the top

Biology and ecology

- **Perennial**, reproducing from seeds and creeping roots
- Found in gardens, fields and roadsides
- Prefers fertile areas with adequate water
- Seeds are wind borne
- Withstands some cultivation
- Each plant capable of producing 4000 seeds



Plants are 2 to 4 feet tall, and stems are hollow and branch near the top.

CONTROL MEASURES:

For this and other publications, see our website at: www.co.lincoln.wa.us/weedboard

Prevention:

- Beware of fill dirt, hay and seed from outside your area. **Early detection** is vital to prevent invasion.

Biological:

- No biological agents available.

Cultural:

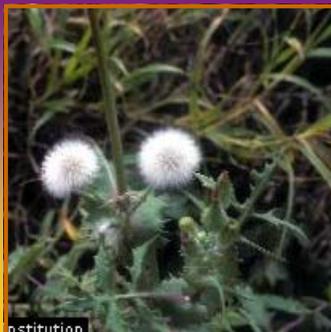
- Good vegetative cover lessens potential but this weed can invade well managed sites.

Mechanical:

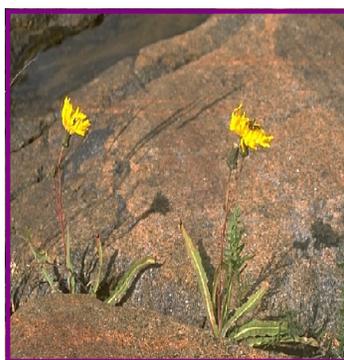
- Grazing, cutting mowing, cultivation and digging can reduce seed set but does not eliminate all plants or root spread.

Chemical:

- Chemical control can be achieved by using 2,4-D, clopyradid, dicamba, glyphosate, and Picloram. Applications should be made at the pre-bud or bud stage. Use the highest recommended herbicide rates on the label to destroy the underground roots of established plants.
- Lower or medium rates will kill seedlings, but may only kill aboveground parts of mature plants, and new plants will emerge soon after from the roots.
- Fall treatment of the rosettes appears to be more successful than treatments earlier in the year.
- **Read the label instructions** before applying.



Perennial sowthistle is often confused with the common dandelion. The white, silky, parachute-like hairs on the seeds facilitate its spread to great distances in the wind. The seeds germinate rapidly and seedlings can grow into mature plants a few weeks after emergence. Seeds are reddish-brown, ridged, and wrinkled with a tuft of fine white hairs. The seeds can be spread by the wind and also by sticking to fur, feathers, and clothing.



Photos and references courtesy of: Washington state NWCB, written findings; Stevens County Noxious Weed Control Board; Dow AgroSciences; University of Nevada, Cooperative Extension; David Cappaert, Michigan State University, Bugwood.org; Michael Rasy, University of Alaska, Bugwood.org; Illinois Wildflowers; IPM, University of Michigan; cdfa.ca.gov; Plants Database..

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