

## Featured Pest: Perennial Sowthistle (*Sonchus arvensis*)

Originating from Europe and Asia, the bright yellow flowers of Perennial Sowthistle are now endemic across southern Canada and the northern United States. A common pest it can be a difficult to control weed in cultivated crops and its presence in untended areas, field edges, pastures, along roadsides and ditch banks poses particular problems for land managers as a continuing source of re-infestation.

**Biology:** Perennial Sowthistle has creeping, spreading roots and re-grows from the roots each year and spreading not only from seeds but also from the rhizomes (creeping stems).

**Identification:** The midrib of the lower surface of the leaf is lined with sharp prickles. Also, there are numerous gland-tipped hairs along the flower stalks and the bracts surrounding the flower head. Mature plants can grow to 60 to 125 cm tall, with smooth, hollow, unbranched stems. Stems and leaves exude a milky sap when cut or crushed. The leaves are alternate and have prickly and lobed margins, and the first leaves growing back from the crown in the spring have a haphazard look to their growth. The lower leaves tend to clasp the stem while the smaller upper leaves are attached without lobes or stalks. Flowering occurs throughout the summer.

**Figure 1.** Flower



Flower stalks rise from the base and may branch several times, each branch terminating with a single flower head. These may be up to 3.8 cm in diameter and they are bright yellow in both the disc and the ray flowers, opening very wide and similar in appearance to a dandelion flower. Seeds have a feathery, white pappus for wind dispersal.

**Control:** The perennial nature of the weed with a spreading root system and rhizomes makes control difficult and ineffective if the rhizomes escape control measures. Herbicides are best targeted at the control of fall rosettes and at elimination of spring seedlings. Follow-up with in-crop herbicide applications will improve overall control with the most effective timings targeting the plants at bud or pre-bud stage. Alternatively mowing/haying of non-crop areas will reduce seed set but will not eliminate the weed unless it is combined with a herbicide program.

**Herbicide Resistance:** No known cases of herbicide resistance have been confirmed for Perennial Sow thistle. However; resistance in similar species; Spiny Annual Sow thistle (Alberta, United States and France), Prickly Lettuce (Australia and United States) and Annual Sowthistle

(Australia) have been confirmed.

**Figure 2.** Lower leaves tend to clasp stem



**Figure 3.** Leave with prickly and lobed margins



**Similar Weeds With Yellow Flowers:** To distinguish perennial sowthistle the flowers are larger than annual sow thistle, with gland tipped hairs on flower stalks and bracts. The seedlings may come from rootstock as opposed to from seed. It has lobed leaves with prickly margin and unlike dandelion the basal leaves have winged stalks.

Annual Sowthistle (*Sonchus oleraceus*): is very similar in appearance but has a short taproot and lacks the long taproot and the creeping, spreading roots of Perennial Sowthistle. Annual Sow thistle also has smaller flowers with a diameter of 2.5 cm across or less versus Perennial Sowthistle.

Spiny Annual Sowthistle (*Sonchus asper*): has sharp spiny leaves and smaller flowers. Leaves are bluish-green in colour and leaf margins very prickly.

Prickly Lettuce (*Lactuca serriola*): the mid-vein on the underside of the leaf is whitish with a row of sharp prickles. The leaves will also tend to be twisted. The flowers are all ligulate (strap-like petals) and at less than 1.3 cm are smaller than the other three weeds above. The flowers may dry to a bluish colour.