

Common Sowthistle

Sonchus oleraceus L.

Family: Asteraceae.

Names:

Sonchus is the Greco-Latin name of the Sow Thistle.

Oleraceus is Latin and means pot herb or vegetable.

Common Sowthistle

Other names:

Annual Sowthistle

Milk thistle

Sowthistle

Thalaak.

Summary:

Common Sowthistle is an erect, hairless, branched annual or biennial herb about 1 m tall with hollow stems which have a milky sap. The basal leaves are up to 30 cm long, form a rosette and are soft and lobed or toothed. The stem leaves are somewhat smaller and stem clasping. The yellow dandelion-like flower heads are clustered, each about 2 cm in diameter, with all the florets having a radiating petal-like blade. These sprays of 'flowers' are at the ends of branches. The tiny fruits are short and flattened, topped by a tuft of fine soft bristles. Native to Europe, Asia and northern Africa, they are common weeds of pasture and waste land, but also invade bushland, particularly in damp areas. It flowers for much of the year but mainly in spring and early summer.

Description:

Cotyledons:

Two. Oval, 6-10 mm, tip flat to slightly indented. Base tapered. Hairless. Short merging stalk. The seedling has a short hypocotyl and no epicotyl.

First Leaves:

Arise singly, round with slightly toothed and softly spined edges, 7-18 mm long with a stalk 5 mm long. Base tapered. Few, white, multicellular hairs on the top side. Later leaves are stalkless and lobed.

Leaves:

Develops as a rosette about 250 mm in diameter. Exudes a sticky white sap when damaged.

Petiole - Broad on the lower leaves.

Blade - Dull green, thin, deeply and irregularly lobed or sharply toothed, 60-300 mm long x 10-150 mm wide, soft, edges scarcely prickly. End lobe wider than the side lobes. Side lobes usually point towards the base of the leaf. Edges of lobes toothed and softly spined. Tip pointed. Base indented.

Stem leaves - Alternate. Clasp stem with pointed tip lobes but do not continue down the stem as wings. Lower leaves deeply lobed or toothed, upper ones smaller and triangular with stem clasping, spreading lobes forming bracts below the flowering branches. Hairless.

Stems:

Erect, 300-2000 mm tall, hollow, waxy bloom, round in cross section, fluted with lengthwise grooves, wingless. Hairless or a few glandular hairs especially near the top. Branch from the base and along their length. Often red, lengthwise stripes. Exudes a sticky white latex when damaged.

Flower head:

Clusters of several heads on the ends of stems in a corymbose panicle to almost umbellate. Head (involucre) initially egg shaped and becoming conical, 10-25 mm diameter x 9-25 mm long with bracts and woolly at the base when young, otherwise hairless with several rows of unequal bracts.

Flowers:

Yellow, thistle type.

Bracts - Hairless, unequal.

Florets - Yellow, all tubular, all with 'petals' (ligules). 'Petals' about the same length as the tube.

Ovary - Receptacle naked.

'Petals' - Yellow.

Stamens -

Anthers -

Fruit:

Brown, elliptical to oblong achene, 2.5-3 mm long x 1 mm wide, flattened, 3-5 rough ribs per face with crosswise, wrinkles or stripes, between and on the ribs. Edges thickened, no wings. Fine hairs. Pappus of many, very fine, silky bristles and down like barbed hairs.

Seeds:

Enclosed in the achene.

Up to 25,000 seeds per plant.

Roots:

Taproot.

Key Characters:

Stems leafy.

Sap milky.

Leaves flaccid, scarcely prickly with acute appressed auricles, terminal lobe wider than those below it.

Inflorescence branched.

Florets all ligulate.

Receptacle naked.

Achenes elliptic in outline, narrowed towards both ends, compressed, obtuse, ribbed lengthwise, ribs rugose, transversely wrinkled, not beaked, margin thickened, faces with 3-5 prominent ribs which are never raised to form small wings.

Pappus of numerous silky bristles intermixed with fine down like barbed hairs.

Adapted from J.M. Black, N.T. Burbidge and N.S. Lander.

Biology:

Life cycle:

Annual or short lived perennial. Seeds germinate from autumn to spring and it grows mainly in the cooler months. It usually flowers in spring and dies after flowering finishes in summer.

Physiology:

Reproduction:

By seed.

Flowering times:

Mainly spring in western NSW.

Most of the year in SA.

June to December in Perth.

June to February in WA.

Seed Biology and Germination:

Surface seed is short lived but buried seed will survive for 2-3 years.

Few seeds will germinate if buried more than 2 cm deep.

Germinates at an time of the year with moisture and temperatures from 5-35⁰C.

No after-ripening period. (Seed will germinate as soon as it is mature)

Vegetative Propagules:

None.

Hybrids:

Intermediate forms between Common Sowthistle (*Sonchus oleraceus*) and Rough Sowthistle (*Sonchus asper*) may occur.

Allelopathy:**Population Dynamics and Dispersal:**

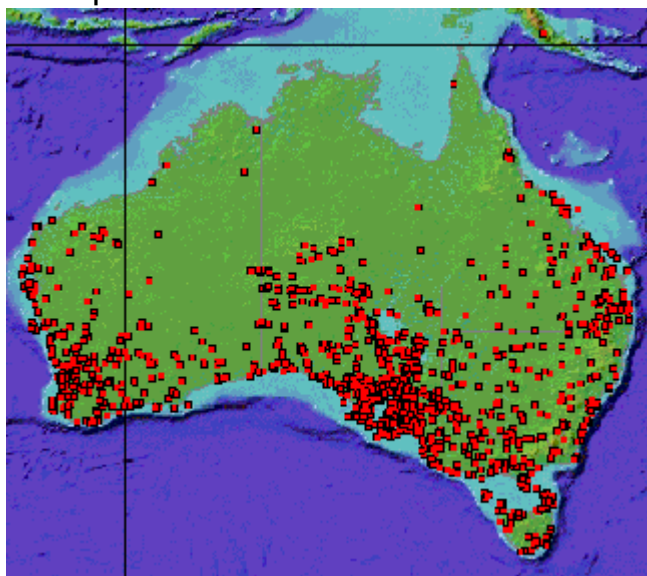
Spread by seed that is mainly dispersed by wind.
Since it is palatable in the young stages it does not normally survive in pasture.
Increases in stubble mulching and minimum tillage systems.

Origin and History:

Europe, Asia and North Africa.

Distribution:

ACT, NSW, NT, QLD, SA, TAS, VIC, WA.
In all parts of Tasmania.



Courtesy Australia's Virtual Herbarium.

Habitats:**Climate:**

Temperate. Mediterranean.

Soil:

Most soil types.

Plant Associations:

Most communities.

Significance:**Beneficial:**

Palatable fodder.

Stems and root eaten by aboriginals. Leaves and shoots eaten as cooked vegetable. Juice used in herbal medicine for curing ulcers and an extract used as a purgative.

Detrimental:

Weed of crops, fallows, gardens, horticulture and disturbed areas. Increases in stubble mulching systems.

Toxicity:

Plants affected by aphids may cause photo sensitisation in cattle.

Legislation:

None.

Management and Control:

Establish competitive pastures and graze.

It is sensitive to competition so increasing crop density and reducing row spacing will reduce populations.

The leaves are hard to wet, so the addition of a wetting agent usually improves control by herbicides.

Thresholds:

Eradication strategies:

Manually remove isolated plants or graze the area to prevent seed set for several years. Single plants may be sprayed with 50 mL glyphosate(450g/L) in 10 L water or wiped with a mixture 1 L glyphosate(450g/L) in 2 L water at any time before budding.

Spray small areas with a mixture of 100 mL of Tordon®75-D plus 25 mL wetting agent in 10 L of water in June each year. This will kill growing plants and leave a soil residue to control seedlings.

In bushland situations 4 L/ha 2,4-DB(400g/L) or 80 mL 2,4-DB(400g/L) plus 25 mL wetting agent in 10 L of water for hand spraying will provide reasonably selective control when applied in June. A repeat application may be necessary in late spring if a spring germination occurs.

Herbicide resistance:

Populations resistant to group B (sulfonylurea e.g. chlorsulfuron, metsulfuron) and group M (glyphosate) have been found.

Biological Control:

Related plants:

Clammy Sowthistle (*Sonchus tenerrimus*) has wrinkled achenes that taper at the base.

Corn Sowthistle (*Sonchus arvensis*)

Native Sowthistle (*Sonchus hydrophilus*) has seeds (achenes) with hairy ribs, longer narrower leaves which are wavy or shallowly lobed rather than toothed.

Rough Sowthistle (*Sonchus asper*) has pricklier and more leathery leaves with a nearly straight leaf base. In the early stages they are very difficult to distinguish. In the rosette stage it has a less distinct petiole. The two species are often difficult to tell apart and occasional hybrids have been found.

Plants of similar appearance:

Capeweed (*Arctotheca calendula*) has a light underside and darker upper surface on the leaf.

Common Sowthistle (*Sonchus oleracea*)

Dandelion (*Taraxacum officinale*)

Flatweed (*Hypochoeris radicata*)

Fleabane (*Conyza* spp.)

Hawkbit (*Leontodon taraxacoides*)

Indian Hedge Mustard (*Sisymbrium orientale*)

Ox tongue (*Helminthotheca echioides*)

Prickly Lettuce (*Lactuca serriola*)

Prickly Sow Thistle (*Sonchus asper*)

Rapistrum (*Rapistrum rugosum*)

Slender Thistle (*Carduus* spp.)

Smooth Catsear (*Hypochoeris glabra*)

Skeleton Weed (*Chondrilla juncea*) has backward pointing leaf lobes.

Wild Radish (*Raphanus raphanistrum*)

Wild Turnip (*Brassica tournefortii*)

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Acknowledgments:

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