

these up and keeping them under cultivation for a year or two should cause it to disappear. Stray plants on roadsides, head-lands and waste places should be cut down enough to prevent them from seeding.

SALSIFY, OYSTER PLANT, PURPLE GOAT'S-BEARD (*Tragopogon porrifolius*, L.)

This plant, which is cultivated as a vegetable, is often found growing on roadsides and waste places. It is very similar to Yellow Goat's-beard except for the color of the flower-heads, which is purple instead of yellow.

THE PERENNIAL SOW THISTLE (*Sonchus arvensis*, L.).

This is by all means the worst weed in the Province of Ontario at the present time. It is found in almost every county, and upon almost every farm. So rapidly and so persistently is it spreading that in some parts of the Province it threatens to completely over-run the fields and drive out the farmer. In spite, however, of its rapid dispersal there are many who are not able to recognize this pest and who mistake it for its two comparatively harmless cousins, the Common Annual Sow Thistle and the Spiny Annual Sow Thistle. This should not be the case, as it is a very conspicuous weed, and differs markedly from the other two species. The Perennial Sow Thistle grows freely on a very great variety of soils, but is especially troublesome on rich, low, damp land. It appears the first year in a field in scattered patches consisting of young plants, each plant made up of a rosette of leaves lying close to the ground, and thus, when numerous, they completely cover it. These young plants have short underground root stocks and are comparatively easy to destroy. The second year a large stem bearing numerous leaves and flowers is produced and the root stocks grow along and send up quantities of new shoots. Once established in this manner, it is no easy task to destroy this pest.

The Perennial Sow Thistle (*Sonchus arvensis*) is a tall, coarse growing perennial with deep roots and numerous thick, underground stems or rootstocks, commonly spoken of as "roots." Upon these at intervals of a few inches are borne young plants which develop into new plants. The stem is smooth and hollow and the whole plant is filled with a bitter milky juice. The leaves are pointed, 4 to 12 inches long, deeply cut with the segments pointing backwards (runcinate), slightly prickly. The flowers, or, more correctly speaking, the heads of flowers, are about 1 to 1½ inches across, and bright orange in color. The involucre, or, as it is commonly called, the flower cup, and the peduncles or flower stems are covered with distinct, yellow, scabrous bristles. The seeds are dark reddish-brown in color, about 1/8 of an inch long, somewhat spindle shaped with blunt ends, and each surface bears a number of very deeply wrinkled, longitudinal ribs. Each seed bears at the top a tuft of silky hairs (pappus) which, when dry, acts as a parachute and enables the seed to be borne long distances by the wind.

POINTS OF DISTINCTION BETWEEN THE PERENNIAL SOW THISTLE AND THE ANNUAL SOW THISTLES.

1. The Perennial Sow Thistle is a taller, coarser growing plant than either of the other two Sow Thistles.
2. The Perennial Sow Thistle has numerous underground rootstocks while the annual species have only fibrous roots. (See illustrations.)