

3. The leaves of the Common Annual Sow Thistle are deeply cut and lobed and scarcely spiny. The leaves of the Spiny Annual Sow Thistle are almost entire, very prickly and often decidedly waxy. The leaves of the Perennial Sow Thistle are deeply cut, but not lobed, and slightly prickly. (See illustrations.)

4. The flowers of the Perennial are bright orange in color and about $1\frac{1}{2}$ inches across, while the flowers of the Annuals are pale yellow and less than $\frac{1}{2}$ inch in diameter.

5. The flowercups (involucres) and flower stems (peduncles) of the Perennial Sow Thistle are conspicuously covered with yellow glandular bristles, while those of the annual species are nearly smooth.

6. The seeds of the three species also differ as to shape and markings.

HOW THE PERENNIAL SOW THISTLE IS SPREAD.

The Perennial Sow Thistle is being rapidly and widely spread by means of its numerous seeds, which are blown far and wide by the wind, and to some extent by its abundant underground rootstocks which with remarkable rapidity spread through a field, sending up new shoots which soon entirely cover the ground and choke out all other vegetation. The rootstocks when broken up are often carried from field to field by harrow or cultivator. It has been estimated that an average plant produces 2,000 seeds. There are thousands of these plants going to seed on neglected farms, on road sides and in fence corners. Many more mature plants are harvested with the grain and their millions of seeds scattered at threshing times. Is it to be wondered that the Perennial Sow Thistle is becoming such a serious pest in Ontario?

METHODS OF ERADICATION.

These are discussed under the headings of General Suggestions and Detailed Methods.

GENERAL SUGGESTIONS.

1. Bear in mind that a few patches of Perennial Sow Thistle, if allowed to mature, may seed down a whole neighborhood. Therefore, take every precaution to prevent the seeding of patches in meadows, grain fields, fence corners, and on the road side.

2. Watch for the first two or three patches in the field and destroy them before the pest becomes established.

3. Be careful not to harrow or cultivate through patches and drag the underground rootstocks all over the field.

4. The Perennial Sow Thistle thrives most luxuriantly on rather low, damp land. Underdraining, therefore, will help to control it.

5. Sheep are fond of this weed, and, if turned on a field after harvest, will prevent it seeding and by their close cropping weaken the underground rootstocks.

DETAILED METHODS.

Several methods of exterminating the Perennial Sow Thistle are here outlined in detail. They have all been suggested by practical farmers. It is hoped that those who are looking for information on this subject will find among them a method suited to their own conditions.