

(11) Use only Canadian-grown seed. The experience of thousands of farmers, that southern-grown seed produces a crop less able to withstand the rigours of our severe winters, has been corroborated by scientifically conducted experiments in which the best crops of red clover were realized when Canadian-grown seed was used.

Advantages of Canadian-grown Seed. Seed grown in a mild climate, although an excellent looking sample, is less desirable for regions where the winters are severe than inferior looking, acclimated seed. Northern-grown seed of a hardy strain containing considerable numbers of weed seeds may give a cleaner stand than less hardy seed free from weed seeds, for the reason that the hardy seed may survive the winter and give a heavy stand of strong plants that will choke out the weeds. Where the crop winter-kills, it is the common experience that weeds are always ready to come up. Imported seed often contains seeds of weeds new to the district, whereas the impurities of home-grown seed are usually those already common.

The preparation of the soil* prior to seeding with grasses and clovers is usually intended primarily for the benefit of the nurse crop. To get a good catch, it is important that the surface soil be of fine tilth, friable, well-drained and contain a liberal supply of decaying vegetable matter. If the soil lacks humus and a hard crust is formed over its surface, growth will be stunted and the young plants will suffer from even a few hot, dry days.

Seeding to clover should follow a cleaning crop that has had deep and thorough cultivation. The suppression of perennial weeds should precede the making of a meadow. Such a location as a clayey hillside, where the soil is apt to become hard after heavy rains, may be greatly improved by a light top-dressing of rotted stable manure, which should be incorporated with the surface soil by harrowing.

Nurse crops* are designed, in part at least, for the protection of seedling plants of grasses and clovers. When all the soil moisture does not have to be saved for the meadow, a light nurse crop screens the seedlings from the burning heat of the sun; it helps to suppress weeds until the clover has sufficient vigour to compete with them; and it may give a return from the land while the meadow is developing. Wheat or barley is generally considered most satisfactory as a nurse crop. Oats, even with thin seeding, are later to mature and apt to make too much shade. Standing in a nurse crop, one should be able at any time during the growing season to see the young plants ten or twelve feet away. The nurse crop should be ready to harvest as soon as the clover commences to develop new shoots or branches from the crown.

In districts where the rainfall is less than thirty inches, or not well distributed throughout the growing season, the nurse crop may rob the young fodder plants of necessary moisture. In some seasons a good stand of Red Clover is difficult to obtain, partly because of the lack of humus in the soil, but also because the nurse crop, frequently oats, robs the young plants of the available moisture. If the meadow is of more importance than the nurse crop, it is advisable in a dry season to dispense with the latter, or, if planted, to cut it for fodder before the seedlings perish from thirst.

The suppression of noxious weeds in meadows* is most effectively and economically accomplished by clean cultivation before fodder crop seeds are sown. After seeding to clover on reasonably clean land, an early maturing nurse crop can usually be counted upon to check weed growth and prevent the seeds from maturing before the crop is harvested. The nurse crop should be ready to harvest or be cut for fodder within three or at most three and a half months after seeding. If weeds are not too prevalent when the nurse crop is harvested, it is better for the seedling clover, to leave a stubble four or five inches high. That will remove the seed stalks of the taller and more vigorous weeds and will enable the still tender clover plants to gradually adapt themselves to altered conditions. Autumn weeds may be largely prevented from seeding by clipping with a mowing machine about a month after the nurse crop is harvested, and when ragweed is prevalent this is especially important.

* These paragraphs and that at the top of the next page are taken from the introduction to "Fodder and Pasture Plants." See footnote page 17.