

RED CLOVER SEED

AND ITS IMPURITIES.

IMPORTANCE OF THE CLOVER CROP.

From the standpoint of maintaining soil fertility, there is no more important crop than red clover in those parts of Canada where it may be successfully grown. It is unexcelled as a forage plant and has great value as a soil renovator. By the proper use of clover in rotations it is possible permanently to maintain the supply of nitrogen in the soil. The value of clovers and other leguminous plants as soil improvers is due to their ability to use the free nitrogen of the air through the agency of bacteria living in the little tubercles on their roots.

CANADIAN-GROWN RED CLOVER SEED.

Success in clover growing is much more certain if Canadian-grown seed is used. Imported seed, especially from a southern country, is likely to have been produced by varieties too tender for the Canadian winter. When Canadian-grown seed is used the risk of losing part of the crop from winter-killing is very much less than with imported seed.

One factor that discourages the production and use of Canadian-grown seed is that so much of it has a high weed seed content. This condition to a great extent, is due to the fact that the area of cultivated land per agricultural worker in Canada is very high.

It is quite possible, however, to improve the purity of our seed without materially increasing the labour applied to its production if correct principles are understood and applied.

Weed Seeds Lower the Value of Seed by making it necessary to waste so much of the clover seed to remove them. Some weed seeds are about the same size as the smaller clover seeds and to take them out, much small seed must be wasted. Other weeds have seeds that are the size of the larger clover seeds. To eliminate these, much of the plumpest and best clover seed must be sacrificed. If No. 1 seed is selling at \$12 a bushel, a rejected sample that must be reduced by one half to make it No. 1 will be worth much less than \$6, as the time, labour, power, etc., to clean it must be taken into consideration as well as the dockage. Indeed, few rejected samples could be cleaned to No. 1. If, after reducing a lot of seed by $\frac{1}{2}$ or $\frac{2}{3}$, it will grade only No. 3, its original value must be quite low since this grade is in small demand and consequently sells at a price considerably below that for No. 1. Some lots of rejected seed cannot be made saleable by any amount of cleaning. Clover that will yield such seed should never be left for seed.

The weeds that cause trouble in clover seed production are not, as a rule, those which are seriously injurious to ordinary crops, and for this reason farmers are not in the habit of giving them much attention.* Most of them are weeds that grow up from seeds during the summer, mature seeds in the fall about the time clover seed ripens, and then die. A few live two or three or more years. They make a start during the year the clover is seeded, live through the winter and are ready to produce seeds the next year, and in many cases every subsequent year until the field is broken up and the plants destroyed.

* Occasional lots of clover seed contain the seeds of such weeds as wild mustard, bladder campion or other serious pests. It is never safe to use seed whose weed seed content is not known.