

Canadian seedsmen claim that it is necessary to protect themselves by inserting such a clause, because the seed they sell is seed which they have purchased and with which they receive no guarantee regarding its genuineness, purity, or vitality. Again it is claimed by some seedsmen that purchasers of seeds might make claims for damages because of crop failures, even though the seeds were genuine, pure and vital.

HOW QUALITY IS AFFECTED.

The principal indication of value in most agricultural seed is the pedigree or history of the stock from which it came. A high percentage of vitality, in seed of ordinary grain or root crops, is not sufficient proof that the seed is of superior quality. With such crops it is a great deal more important that the seed be true to name and taken from a crop that possessed vigour and gave a large yield per acre. These qualities cannot be determined in a seed laboratory. Purity and vitality, however, count for much in all kinds of seed and are of great importance in seeds of grasses and clovers.

Purity.—From the standpoint of an agriculturist the real worth of grass and clover seeds is most of all affected by the nature and amount of their impurities. The cost of labour in fighting weed pests has grown to be a very important item to the farmer. The seeds of many weed pests have, undoubtedly, been introduced by unwittingly sowing them with grass and clover seeds.

It would be impossible to estimate the loss that is sustained by farmers because of abuses in the seed trade. Crop failures caused by the use of seed of low vitality are inconsiderable items of loss when compared with the serious injury that is done by sowing seed which contains noxious weed seeds. If it were not for the prevalence of noxious weeds in Canada the net cost of producing agricultural products would be very much decreased.

Vitality.—Vitality and vital energy are desirable qualities in any kind of seed. It is important that a large percentage of seed sown be capable of germination, and also that when the conditions favourable to germination are present, the young plant, while depending upon the seed alone for its food, will put forth a strong vigorous growth; that means that it possesses a high degree of vital energy. Fresh, well ripened seed of grasses and clovers is seldom deficient in these qualities. Unfavourable weather conditions sometimes make it difficult to ripen seeds of Red Clover. In some seasons a great deal of seed is harvested before it is fully matured, and in consequence it is weak in vitality and vital energy. During seasons of low prices, grass and clover seeds are carried over by wholesale firms from year to year. If these seeds be kept in a cool dry place they do not lose their vitality rapidly, but if improperly stored or if kept for two or more years the power to germinate and vital energy become seriously weakened.

Origin of Growth.—Few Canadian farmers consider whether origin of growth in grass and clover seeds makes any difference in their value. In a few localities only, is home grown seed preferred.

The results of a long clover seed grown under various climatic conditions was tested by the United States Department of Agriculture at Washington. Plots were sown with seed from different varieties of clover grown in Europe and also under various conditions of climate in America. In every case the plots from the imported seeds showed a lack of vigour and succumbed to the strong summer heat, while the plots that were sown with home grown seed thrived well throughout the season. Canadian grown seed of the very best quality is usually catalogued and sold in Great Britain at a few cents per pound less than the English grown article. English and Scotch farmers prefer a home grown seed of lower vitality to Canadian seed that would germinate 100 per cent. Although there is as yet no exact data to show that changing grass and clover seed from one part of Canada to another has a tendency to influence the resultant crop, general indications are that these as well as other kinds of seeds are better for having been grown in the locality or district where they are wanted for use.