

RED CLOVER.

Although there are several varieties of Red Clover, only two distinct varieties are well known in Canada. Common Red Clover (*Trifolium pratense*), and Mammoth or Pea Vine Clover (*Trifolium medium*) or (*Trifolium pratense, verrucosum*), are quite extensively grown in Ontario and Quebec and to some extent in the Maritime Provinces and in the West. These two varieties are offered in the markets under a large number of confusing names, and although most farmers are acquainted with the nature of growth of the two varieties, difficulty is very often experienced in getting seed of the kind desired because of these local terms.

Common Red Clover is a deeply rooted biennial plant rarely appearing in quantity after the second year, although, if the after growth be not cut or closely pastured, it freely re-seeds itself and frequently continues in the hay crop for a number of years. The stem is shorter, and it is from ten days to two weeks earlier than the Mammoth variety.

Mammoth Red or Pea Vine Clover is claimed to be a short lived perennial for moist climates. In a dry inland climate it seldom produces a profitable crop after the second year. It is very hardy and is considered a better variety for light soils than the Common Red. Its roots are more fibrous, and its stems are longer and weaker. It is in some respects the best variety to sow with grasses. It matures at about the same time as Timothy, and the grasses help to keep its weak stems from trailing on the ground.

Nature of Seed.—It is practically impossible to distinguish the Common Red from the Mammoth Red seed, though in some cases the seed of the Mammoth shows a slightly higher coloration. One pound of either variety contains about 350,000 seeds. When sown alone from ten to sixteen pounds of seed, according to the nature and condition of the soil, should be used per acre.

Production of Seed.—Red Clover seed is produced from the second crop the second year after it is sown. When the crop is to be left for seed it is usually pastured until about the middle of June, or cut for hay early so as to allow the second crop to get a vigorous growth. The yield of seed fluctuates according to the season and it is very difficult in any year for seedsmen to get reliable information regarding the possible supply until much of the clover has been threshed.

Fertilization.—The fertilization is accomplished chiefly by insects, but on account of the long tubular corolla of the flower few insects can gather nectar from Red Clover, and in consequence fertilization is left to a few species of insects, the most important of which is the common 'bumble' bee. It is stated on good authority that the reason for seed not forming, except to a limited extent, in the first crop is because only the queen 'bumble' bee lives through the winter, and her first brood is not hatched in time for the young bees to fertilize the first crop.

The harvesting and threshing of Red Clover is managed much the same as Alsike.

Nearly two hundred samples of Red Clover seed were examined, and scarcely any of these were free from the seed of noxious weed pests. The results of the investigation, as is shown by the large quantity of weed seeds, explain how weeds become rapidly disseminated from field to field and from province to province.

The remunerative prices that have been offered for both Alsike and Red Clover seeds during the last few years, has encouraged their production on farms which are foul with weeds. Much of the seed which is grown in Canada is handled by the wholesale firms who buy both direct from the farmer and from local seed buyers. In the wholesale houses it is graded and re-sold on sample to local seed dealers.

Although in the retail trade two or three grades may be kept and offered by local seed dealers, with the difference of from 50 cents to \$1 per bushel between the lower and the best grades, the actual value of the lower priced seed is usually from \$2 to \$4 per