

gives such marked results when applied to land where any clovers or legumes are to be grown.

The day has long since arrived when all should profit from these nitrogen fixing bacteria. On alfalfa we must have them. On red clovers and other legumes where these do not thrive as they should the peculiar forms of bacteria adapted to each offer the solution to their successful growth.

Sources of Seed Corn Supply

E. D. Eddy, B.S.A., Seed Branch, Ottawa

One of the first essentials for the production of ensilage corn is the selection of a variety or strain suited to the conditions under which it is to be grown. One of the greatest problems of corn growers in Eastern Ontario and Quebec has been to secure an adequate supply of acclimated seed. Until a few years ago at least, the bulk of the seed corn for ensilage production was imported from the western and southern states. In some instances fairly good crops were produced, but often results were very unsatisfactory.

There are two principal reasons why this corn is not likely to give satisfaction in Eastern Ontario and Quebec. In the first place, larger and

too late. Experience has shown that among the varieties best adapted to Eastern Ontario and Quebec are Longfellow, Angel of Midnight, Compton's Early, White Cap Yellow Dent and Selected Leaming. Leaming has constituted the main crop at the Central Experimental Farm, Ottawa, for 10 or 12 years, and during that time, with possibly one exception, has given satisfactory results, the quality of corn being almost invariably such as to make first-class silage. The Flint varieties produce a somewhat better quality of ensilage and will ripen earlier, but of course the yield is not so heavy as with the Dents. As a rule, the Dent varieties mentioned can be depended on to be sufficiently early in this district and to give satisfactory results. However, there is sometimes considerable difference between different strains of the same variety, depending on the selection, and every effort should be made to secure an early strain.

Where then can the corn growers of Eastern Ontario and Quebec get acclimated seed of desirable varieties and strains? The best source is southwestern Ontario. Within the last few years the corn growing industry has received a great impetus in the Lake Erie district, and

The Seed Trade in 1911

T. G. Raynor, Seed Division, Ottawa

The trade in farm seeds, especially in clovers and timothy, is now well advanced and some conclusions can be formed as to the conditions of the trade as compared with last year. The red clover crop was a very large one in the province of Ontario last season, and it was very fortunate that the demand was so good in the United States, or it would have been a drug on the home market, especially those lots that were foul with weed seeds. Uncle Sam, while partial to good seed, took everything at a price and seemed glad to get it. Just now, however, even his appetite seems to be satisfied.

So many farmers grew some seed last year that the retail dealers didn't stock up very heavily in districts where seed was grown. There is evidence, too, that the farmers did a good deal of trading in seeds among themselves. It is to be regretted that many of them, with or without knowledge sold neighbors rather questionable seed, sometimes even at good prices.

A case of this kind was reported to the department, and on investigation it was learned that a farmer who lived in a seed producing district, had 40 bushels to sell. The local buyer offered this farmer a price that he thought was too small. He turned the seed over to a son-in-law who lived in a locality where most of the farmers buy seed. He was selling it readily at \$8.00 a bush in competition with first class seed at \$9.30 a bushel. On examining the farmer's seed, not only was there apparently much more buckhorn and ragweed than was lawful to sell for seeding purposes, but I should judge that fully 15 per cent. of the seed was foxtail. To make matters worse the seed was not well graded, and there was a lot of inferior, dead and shrunk-en looking wheat in it.

Which was the cheaper seed to the purchaser? If my estimate of 15 per cent. weed seeds was correct, the pure clover seed of that lot would cost \$9.41 a bushel. It was argued that the one-half or more per cent. of ragweed and buckhorn did not matter to the farmers of the locality as they all had more or less of these weeds in their farms, and a few more wouldn't matter much. It is to be hoped that not many farmers reason that way, especially those who are producing clover seed for the market. It is a matter of great satisfaction that the seed merchants are putting on the market in all their grades a purer lot of seed than last year.

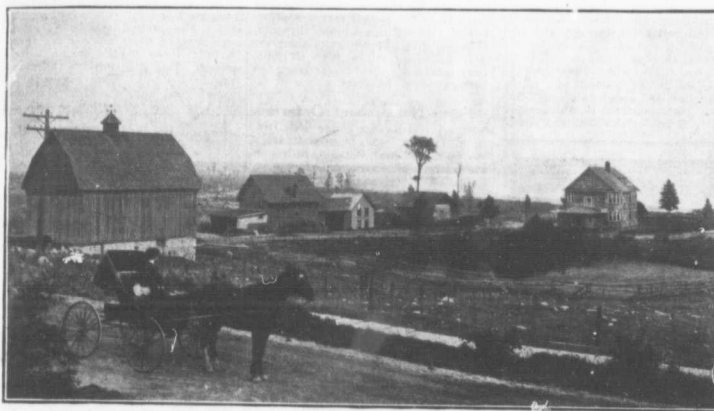
POORLY COLORED SEED

There is one respect in which the seed this year doesn't measure up to last year and that is in color. Owing to the season of growth being uneven or from early frost, most of the seed has a large percentage of brown discolored seeds, only 65 per cent. of which will grow.

A noticeable feature of the trade this year is the unheard of price of timothy seed. Of course the increased price will not mean that it will cost so very much more per acre to sow six pounds of timothy seed at \$8.00 per bushel. The price per bushel or per pound, as compared with former years is what opens the purchaser's eyes. If the price induces farmers to sow less timothy and more clover it will be a good thing for the country. Timothy impoverishes the soil, while clover enriches it.

Many purchasers of seed will think that the price paid to the producer is not commensurate with the price asked by the retailers of seed, and that

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A Scene on a Greater Ontario Farm, where are to be found Some Decidedly Attractive Buildings

Greater Ontario as a farming country has advantages unparalleled by other new countries. Were these advantages placed through a persistent and comprehensive advertising campaign before our own people and people of other countries yet unsettled farming lands of Greater Ontario. It is up to the Ontario Government to shoulder their responsibility in this one mile south of Lindsay.

later varieties are grown in the corn states than will do well here. The large Dent varieties or strains, which are favorites in the southern states, are selected for heavy yielding capacity rather than quality or early maturity and are not usually suited to our conditions.

ADVANTAGES OF ACCLIMATIZED SEED

There is a decided advantage in getting seed that has been produced under conditions as similar as possible to those under which the crop is to be grown. It is a well recognized law of nature that plants tend to adapt themselves to their environment, and a great variation may be found in the same variety of corn when grown under different conditions. Southern grown strains will produce large stalks, heavy foliage, with deepkerneled ears that will be late in maturing; while northern grown corn will be smaller in the ear, finer in the stalk, and will mature earlier. These variations become more or less fixed after a few years, so that the characteristics suited to local conditions are reproduced through using acclimated seed.

The question of variety is very important. Care should be exercised to get corn that is not

there are a large number of farmers making a specialty of growing seed corn. The Ontario Corn Growers' Association has members scattered over Essex, Kent, Elgin, and Lambton, and they are producing practically all of the common Dent and Flint varieties. The Dents most commonly grown are Leaming, White Cap Yellow Dent, and Bailey.

I have reliable information that the seed corn produced in the Lake Erie district last season is of exceptionally good quality, the best they have had for years, so I have no hesitation in recommending farmers to look to the Lake Erie counties for their seed supply. You can secure good seed there with \$1.25 for Dents and \$1.50 for Flints about the ruling price, except in a large wholesale way, which will be much more likely to give satisfaction than anything you can import.

In making this statement I realize that there were some complaints last year regarding the quality of seed corn secured from southwestern Ontario, but it is safe to say that there would have been as much dissatisfaction, if not more, with corn purchased in the states.