

The effect of mustard on grain crops has been a subject of contention. Mr. Edwards told of having staked out a series of plots two years ago, spraying three and leaving three unsprayed. In every case the yield was slightly better from the sprayed plot. The spraying did not injure the crop.

HOW LONG WILL MUSTARD SEED LIVE?

G. H. Clark contributed a few important facts regarding the longevity of weed seeds. As the results of tests made, he would challenge anyone to produce a mustard seed that had been kept over 15 years, under any conditions of storage, that would produce a crop. As an explanation of the opinion that they will last longer than this, he told of having walked over a creek flat, on his old home farm, which had been once bad with mustard, but had been seeded down for thirty or forty years. Close examination revealed various small weak mustard plants, some of them with but a single leaf growing hidden among the grass, but producing a small amount of seed.

At the Wednesday evening meeting Hon. Wm. H. Hearst spoke on Ontario while W. Bert Roadhouse, Deputy Minister of Agriculture, dealt with Ontario's part in federal agricultural co-operation, for shadowing the probability of an increase in the federal agricultural grant.

NEW OFFICERS.

The slate of incoming officers elected is as follows: President, Lewis Toole, Mount Albert, Ont.; Vice-President, T. H. Mason, Aylmer, Ont.; Directors, Dr. G. C. Creelman, O. A. C., Guelph; Hon. Nelson Monteith, Stratford, Ont.; F. C. Hart, Galt, Ont.; Jas. I. Dennis, Weston, Ont.; H. Groh, Preston, Ont.; J. H. Winslow, O. A. C., Guelph.

Quebec Province, it seems, is to have a separate Department of Provincial Government to look after good roads. J. O. Mousseau, M. P. P., for Soulanges, is appointed as the Minister in charge.

1912 Harvest Below 1911.

Final estimates of the yield and value of the principal field crops of Canada for the season of 1912 were issued on January 10th by the Census and Statistics Office of the Department of Trade and Commerce. Upon a total area under field crops of 32,474,000 acres a harvest has been reaped, the value of which, calculated at average local market prices, makes a total of \$509,437,000. The area under wheat last year was 9,758,400 acres, of which 781,000 acres represents the harvested area of fall wheat grown principally in Ontario and Alberta, but also to a limited extent in Manitoba, Saskatchewan and British Columbia. The total production of wheat was 199,236,000 bushels of the value of \$123,522,000. Fall wheat produced 16,396,000 bushels of the value of \$13,735,000. Oats upon 9,216,000 acres yielded 361,733,000 bushels of the value of \$116,996,000, barley upon 1,415,200 acres yielded 44,014,000 bushels of the value of \$20,475,000 and flax upon 1,677,800 acres, yielded 21,681,500 bushels of the value of \$19,626,000.

By comparison with 1911 the results of last year's harvest, both as regards yield and value, are, upon the whole, inferior. The average prices realized for most of the crops were somewhat less, whilst the yields from wheat, rye, peas, beans and corn for husking were also lower. On the other hand oats yielded about 13½ million bushels more than in 1911, and the following crops show more or less an excess yield: barley, buckwheat, mixed grains, flax, potatoes, turnips, etc., fodder corn, sugar beet and alfalfa. The average yields per acre for the year 1912 compared with 1911 are as follows: Wheat, 20.42 bushels as against 20.87; oats, 39.25 against 37.76; barley, 31.10 against 28.94; rye, 17.44

against 18.89; peas, 14.96 against 15.80; buckwheat, 26.34 against 22.69; mixed grains, 33.67 against 18.89; peas, 14.98 against 15.80; bush beans, 17.40 against 19.06; corn for husking, 56.58 against 59.59; potatoes, 172 against 144; turnips, etc., 402 against 374; hay and clover, 1.44 ton against 1.61; fodder corn, 10.26 tons against 9.92; sugar beets, 10.74 tons against 8.66, and alfalfa, 2.79 tons against 2.24.

The quality of the grains of cereals, as shown by average weight per measured bushel, is somewhat inferior to that of last year in the case of wheat, rye, peas, mixed grains and flax, but is superior in the case of oats, barley, buckwheat, beans and corn for husking.

In the three Northwest Provinces of Manitoba, Saskatchewan and Alberta, the production of wheat is placed at 183,322,000 bushels compared with 194,083,000 bushels in 1911, of oats at 221,758,000 bushels compared with 212,819,000 of barley at 26,671,000 bushels compared with 24,013,000 bushels. The wheat production of 1912 in Manitoba was 58,899,000 bushels from 2,653,100 acres; in Saskatchewan, 93,849,000 bushels from 4,891,500 acres, and in Alberta, 30,574,000 bushels from 1,417,200 acres.

Conditions as affecting live-stock are reported to have been much the same as those of 1911. Mild weather through the fall and up to Christmas enabled farmers to economize their feeding supplies, and live-stock have entered winter quarters in excellent condition.

ARCHIBALD BLUE, Chief Officer.

Dr. Rutherford, Superintendent of Animal Husbandry, in the C. P. R. Department of Natural Resources, announces that \$3,400 in cash prizes and two silver cups for sweepstakes will be offered for open competition at the Spring Show, to be held in Calgary in April. Leading packers have co-operated extensively in contributing funds. This is the first of a number of such competitions which the new C. P. R. Department proposes to conduct in the Canadian West.

Eastern Ontario Dairymen's Convention.

For thirty-six consecutive years the dairymen of Eastern Ontario have been meeting in annual convention to discuss the problems of the producers and the makers of cheese and butter. As was pointed out at the convention held in Kingston, January 8th to 10th inclusive, dairying is the main agricultural industry of Eastern Ontario, and it was no unusual occurrence that there was a large attendance and every meeting was marked with that enthusiasm which only successful dairymen can manifest. The city hall in the historic lime-stone city was an ideal place to hold the convention, and was well filled throughout the entire sessions. Some of the old problems are still vital and are still unsolved to the satisfaction of all and, as is always the case with a progressive association or a live business, new problems are ever confronting the members of the Dairymen's Association and makers and producers generally.

G. A. Gillespie, Peterboro, Ont., acting president, referred in fitting terms to the great loss the association had sustained during the past year through the death of its president, J. H. Singleton, Smith's Falls, and also that of Edward Kidd, North Gower, and M. K. Everetts, each being a past president of the association. He reviewed the changes which have taken place during recent years, particularly during 1912, in the dairy business, showing how cities have developed such a trade for milk as to take much of it from cheese factory and creamery. Regulations with regard to factories have tended to eliminate poor cheese and poor butter by the elimination of the inferior class of makers. Cow testing he believed to be of greatest benefit, and had no hesitation in stating that if all producers of milk practiced systematic testing, the returns for butter and cheese could be increased by twenty-five per cent. Another step in advancement is the increased interest in the breeding of pure-bred dairy cattle.

The output of cheese last year was greater than that of 1911, although exports showed a falling off due to the greatly increased shipments to the Canadian North West and to British Columbia. The exports from Montreal in 1912 were 1,723,000 as against 1,810,000 in 1911. The price in 1912 was the highest in the history of the trade since 1876, and the quality the best since the beginning. Only 70 packages of butter were exported last year, and those went to South Africa, but the shipments to the West increased fully fifty per cent. in 1912. The outlook Mr. Gillespie considered as brighter than ever before, and urged his hearers to produce more milk from the cows at less cost by more intelligent feeding



G. A. Gillespie.

President Eastern Ontario Dairymen's Association.

and better care, and to produce a higher quality of output by more up-to-date methods of handling the products. Carelessness should not be permitted at the farm or at the factory, and a fair margin should be allowed on cheese for shrinkage.

The report of the secretary, J. A. Thompson, of Madoc, showed 1912 to be financially the banner year of the association. Climatic conditions had been so favorable that the output was heavy, and owing to the good work of the dairymen, the Dairymen's Association and instructors, in encouraging more liberal and scientific feeding and the best methods of factory and farm dairying is making substantial and healthy progress in Eastern Ontario. He strongly eulogized the work of G. G. Pablow and Henry Glendinning in connection with the district meetings.

CROP PRODUCTION FOR DAIRY FARMERS.

The dairy farmer, to make a success of his business, must be prepared to supply his cows in milk with as large quantities of the right kind of feed as they can be induced to consume, said J. H. Grisdale, Director of Experimental Farms. This, of course, refers to the treatment he should give his cattle in summer as well as in winter; and in spring, and in autumn, the same general rule will apply.

To induce cattle to consume liberal quantities of feed necessitates catering to their tastes or likes, that is to say, the first consideration in producing crops for dairy cattle should be the insuring of a high degree of palatability in the resultant forage. As aids to palatability, succulence, variety and quality in the ration take first rank.

Succulence, can, as we all know, be imparted in some degree to dry forage by sprinkling it with water, either pure or flavored as with feed molasses, and allowing it to lie softening for some time before feeding. The only really satisfactory method of insuring succulence in the ration, however, is the growing of succulent feeds and storing them as such. In any case succulence is the almost absolute condition of success in feeding dairy cattle.

Variety, like succulence, is undoubtedly a material aid to palatability, hence it is important that the dairy farmer do all he can to provide some variety in the feeds he stores for his cows. Cattle have a somewhat different idea of what constitutes variety in food than have men. Men as a rule like their rations to vary day by day, cattle, however, like the same ration continuously, but like it to include as many different kinds of food as are available and to have them all in the same proportion each day. To illustrate, a ration including both red clover and alfalfa hay is likely to give better results than either the one or the other fed alone. A ration including both corn ensilage and mangels will usually prove more satisfactory than the ration whose chief constituent is exclusively one or the other of these two probably equally valuable succulent feeds.

Quality is another peculiarity of the feeds going to make up a ration likely to add greatly to its palatability, which is the same as to say to add to its effectiveness. Quality means that peculiar condition of a forage or a feed which is observable when the crop from which it has been prepared has been cut at the right time, cured in the best way, housed under the most favorable conditions and preserved in the best shape possible. Quality in the ration is a feature too frequently lost sight