Corn Growing: Varieties and Methods of Planting

THE last annual convention of members of the Canadian Seed Growers' Association of Ontario, held in connection with the Provincial Winter Fair at Guelph last December, was marked by several interesting addresses and discussions of interest to corn growers. As the corn season is now on hand, at least the season when dairy farmers should be looking around for a supply of good seed corn, a review of the corn features of that session may be of interest and value. Mr. T. G. Raynor opened up the discussion on corn, his subject being "Observations on the Growing of Ensilage Corn in Eastern Ontario."

"The big southern corns are going out and the Flints are coming in," said Mr. Raynor. Among the now popular Dent varieties, Mr. Raynor especially mentioned Wisconsin No. 7, Golden Glow and Bailey. He strongly advocated buying of corn on the ear. "A few years ago," said he, "some progressive farmers near Belleville bought their corn on the ear. They were the only ones in that district who had good corn that year. Their results became known all through the district, and now dealers in Belleville are obliged to get a good proportion of their seed on the ear to meet the demands of their customers.

Speaking of methods of planting, Mr. Raynor said: "Taking one year with another, for silage purposes I would advocate planting corn in hills three and one-half feet each way. This method will not give the largest yields of ensilage, but it will give the best quality of ensilage with more ear corn.

Choice of Varieties.

"During the year of 1915 we experimented with seven varieties of corn all over Eastern Ontario. In point of yield, Wisconsin No. 7 came first, White Cap Yellow Dent second, Bailey third, and Golden Glow fourth. There was very little difference in yield between the Bailey and Golden Glow. The White Cap went down worse than any of the other varieties, which would seem to indicate that it lacks brace roots. Wisconsin No. 7 was not as mature in the ear as either the Bailey or Golden Glow, but was always first in amount of stover.

"Among flint corns, Longfellow was the earliest, but was deficient in quantity of fodder. Compton yielded the most fodder, but was the slackest in ear and latest in date of maturity. Of all the flint corns grown in Eastern Ontario, I would say that Salzer's North Dakota is the best all-round variety. In planting corn for ensilage, I would advocate a mixture of one-third flint and two-thirds Dent corn."

At the conclusion of Mr. Raynor's address, Wade Toole, editor of The Farmers' Advocate, started the hottest discussion that marked the meetings at the Winter Fair. Two years ago on Weldwood Farm, run in connection with The Farmers' Advocate, some corn was planted very thickly in drills, three feet apart. The results were so satisfactory that in 1915 three acres of corn was drilled in thickly, so thickly that the stalks almost touched each other in the drills. At harvesting, toward the end of September, the thickly sown corn stood as high as that sown in the regular way. The stalks, as might be expected, were much finer and there was hardly an ear to be found on the whole three acres. The corn, however, was ripe, just as ripe as that sown thinly in hills, and most interesting of all, the thicker sown corn made 32 tons of ensilage to the acre, while that planted in hills made only a little over 16 tons of ensilage to the acre; and this latter is generally considered an excellent yield.

Mr. Toole argued that the food in the thickly sown corn was distributed all through the stalk and leaves, instead of being concentrated in the ears, and that therefore it would make as good ensilage as the corn that was well eared. Samples of the ensilage from both fields were sent to Guelph for analysis, and the showing made by the thickly sown corn was just as good as from that planted in the regular way. Mr. Toole asked that the relative value of these two methods be experimented with by our agricultural colleges, and insinuated that in this particular, at least, the colleges have not done their full duty by the farmer.

A Canadian War Time Champion—But in a Milky Way.

This is Lakeview Dutchland Artis, the new Canadian Champion Sen. three-year-old in the 7-day division with 567.7 lbs. milk and 34.66 lbs. butter; 14 days, 1,160.5 lbs. milk, 61.57 lbs. butter; 30 days, 2,302 lbs. milk, 110.84 lbs. butter. Only one other cow in Canada has equalled her 30 day record. Owned by Lakeview Farm, Bronte, Ont.

The college professors, of whom there were several present, sprang right to the defence of the methods that they have been advocating for some years. Prof. Zavitz remarked that they had conducted experiments similar to that described by Mr. Toole, some 20 years ago, and had convinced themselves that the thick sowing of corn for ensilage was a mistake. They had considered the method a dead letter. Prof. Murray of Macdonald College stated that they had been carrying on an experiment similar to that which Mr. Toole had requested for four years, but did not consider that they were yet in a position to make an authoritative statement. He admitted that in a wet season such as they had had in Western Ontario in 1915, heavily seeded corn might make an excellent showing, but it was the average season that must be considered in advocating methods of corn growing. In their experiments at Macdonald College, some of the corn had been planted four inches apart in drills three feet apart, and from this the distance apart varied up to hills three and one-half feet apart each way, with two to five stalks in the hill. In the early part of the last season, the thick sown looked decidedly the best of the two up to the first of July. July, however, was a dry month, and the thickly planted corn almost stopped growing. The thinner planting came right along, ripened up well, and gave not only a better quality ensilage, but more of it. In reply, Mr. Toole admitted that weather conditions last season may have been favorable, but stated that they had such confidence in the thick seeding method that next year half of their corn at Weldwood Farm would be planted in this manner.

Varieties of Quebec

Prof. Murray added a few remarks on corn growing in Quebec. In the Huntingdon district, Wisconsin No. 7 had done splendidly. In all other counties where they had conducted variety tests, the Wisconsin No. 7 had been too immature. Golden Glow had given the best results with them, followed closely by Bailey. Among the flints, Longfellow had given the best results; in Missisquoi county he had seen field after field, 10 to 12 feet high, yielding a heavy tonnage of well matured ensilage. Salzer's North Dakota and Compton's Early did not mature as quickly as Longfellow, and were advisable for best corn growing districts only.

Considerations in Selecting Seed Grain

PROF. C. A. ZAVITZ, O.A.C., GUELPH, ONT.

EXTENSIVE work in experimenting with seed selection at the Ontario Agricultural College has taken place. This has extended over a long period of time, and the results are very convincing. The experiments with cereals have been repeated from four to nine years. In comparing large plump with small plump seed, there has been an average increase in bushels of grain per acre per annum of the former over the latter as follows: 15.4 in oats, 7.8 in barley, 4.0 in spring wheat, 7.8 in winter wheat, 5.1 in peas, and 3.8 in spring rye.

Very poor returns have been obtained from grain broken or split by the separator and peas injured by the pea weevil would grow. In many tests which were made at the college, it was found that only about 21 per cent. of large peas and 41 per cent. of small peas which had been injured by the pea weevil would grow. In many instances the weevil completely destroyed the germs and in other instances weakened the vitality and produced plants of uneven growth.

In rather extensive experiments with winter wheat it was found that seed which was allowed to become thoroughly ripened before it was cut produced a greater yield of both grain and straw and a heavier weight of grain per measured bushel than that produced from wheat which was cut at any one of four earlier stages of maturity.

Seed of Strong Vitality

Weakened vitality may be brought about in various ways. The wise farmer will either send samples to be tested for vitality or will make a test of the germination of the seed himself before it is used for field work. Any farmer in Ontario has the privilege of sending a sample of seed to the Seed Laboratory, Department of Agriculture, Ottawa, and of having it examined for purity and for germination entirely free of cost. As an illustration of weakened vitality I would draw your attention to the season of 1915, when there were excessive rains which caused a considerable amount of winter wheat throughout Ontario to become sprouted before it could be harvested. In each of two years when winter wheat was sprouted in the fields germination tests of grain were made. The following re-