

seed has had much to do with the light yield of barley in many parts of the province. While we have for years, of necessity, changed our wheat, oats and peas to suit the different sections of the country, and obtained other sorts of renewed vigor by the introduction of hybrid wheats, imported oats, seedling potatoes, and so along the whole line of staple crops, carelessness and neglect has marked the selection of seed for the barley crop for which Ontario has been long noted among the brewers of America. This may have been on account of the sometimes dangerous self-satisfaction, and thereby antipathy to improvement, which may attach itself to communities as well as individuals. Diminishing crops invariably make farmers look for new seed, and the necessary change is too often put off until a total or partial failure has proved that a hitherto popular variety has developed weakness.

At Guelph a few plots had been cut the day previous to the storm which flattened so many fields of grain in that vicinity. Among those was the old six-rowed (Canadian). The sheaves in this plot were quite rough, displaying a weakness in the straw that has so often made harvesting this sort tedious, especially so now that the binder has been brought into use. The grain on this plot was exceedingly good and heavy, and should yield very well indeed.

Chevalier was ready to cut, but was badly lodged with the storm. It was a moderately close crop.

Early Black, a sort which has been grown in some parts for feed, was short in the straw compared with those beside it. The head is short, and the yield will be found correspondingly disappointing.

Two-rowed Spreading, one of the newly imported kinds, has no special quality except that it stands well. The straw is medium in length, but the crop is not close enough for an abundant yield.

Carter's Prize Prolific had gone down through the late storm. It has not ripened as evenly as it should. There appeared a good many suckers all through the crop that were green, while the greater part of the crop was ripe, which would tend to spoil the sample. We were not particularly impressed with any of the Carter varieties of barley on these grounds.

Duck Bill was not true to name on the plot here, and another two-rowed sort had been sown under this name. The barley in this plot was weak in the straw, which was short; the head had a long beard and a very few grains in a rather short head, having nothing whatever to recommend it, and quite different from the Duck Bill.

A very different sort from the last named is an American variety called Saltzer's Californian Prolific; this is two-rowed. The head is very long and full of plump, large grains; the straw is bright and moderately strong, having stood well, and is reported to have yielded exceptionally last year, and from all appearance it will be up among the best here this season.

Hungarian is another new sort—a hullless six-rowed, a vigorous grower; the straw is bright, with plenty of length and stiffness, and stands well, while all around it were down. This should prove an admirable sort for feed purposes.

Kinnakula, imported from Sweden, has the longest and stiffest straw of any variety on these grounds. It has a very long two-rowed head, grows a very heavy, close, straight crop, and from present appearances it should yield an

immense quantity of grain, withstanding the severest storms without lodging. It has a very striking appearance while growing, easily distinguished from any other sort.

Many novelties in the barley line were to be seen, a great number being entirely too late in ripening at present to be of any use in general cultivation, but as they become acclimatized may develop into some useful kinds. With some of the sorts we were highly impressed we would name them in the following order: 1st, Kinnakula; 2nd, Hungarian; 3rd, Saltzer's Californian Prolific; any of these are worthy of a trial by those who grow barley.

SPRING WHEAT.

Although this grain has not occupied as high a position in regards number of bushels produced, compared with that of fall wheat, throughout the province, still it is a strong factor in increasing our agricultural wealth. With regard to the number of bushels, the average annual production of spring wheat for the ten years, ending 1890, in the Province of Ontario, was nearly 9,000,000, while that of fall wheat reached nearly 20,000,000; and this year's production will doubtless be much above these figures. It is important, therefore, to impress on our farmers the necessity for paying more attention to the cultivation of this crop, not necessarily by increasing the number of acres, but by increasing the yield per acre. Again, taking comparisons of the average product per acre, spring wheat is behind that of fall wheat. The former has averaged for the past ten years nearly 20 bushels per acre for the entire province, while that of spring wheat is little over 15 bushels, nearly a quarter less; although this is a good showing, compared with the official reports from our cousins across the lines, still there is room for an immense improvement on this particular point. A drive through any of our farming communities will show how easily this could be obtained if those engaged in farming were only so minded. Instead of sowing old run-out varieties, as we see on the majority of farms, strict attention should be paid to the selection of kinds that are undoubtedly good yielding and reliable sorts. It is not saying too much that with the indifferent working the soil is now getting, in too many cases, that if proper selection of seed were made, suitable to each locality, that this point alone would add at least 25 per cent. to the present production. Think of it in the case of spring wheat, the least important grain we grow. Add to the 9,000,000 bushels now produced another 2,250,000 bushels. This would add this much to our exports, for it is only our surplus that adds to our exports. It is here that the experimental farms at Guelph and Ottawa come to our relief. These that are aiming to make farming profitable should watch the test of the yield closely. At Guelph over 50 varieties of spring wheat were grown on the experimental plots set apart for this purpose, affording a most interesting and valuable lesson to the student seeking for the best class of information on the subject. Red Fife, which deserves mention for the immense benefit it was to this country when fall wheat failed all over this province, is as handsome as ever, and promises exceedingly well. The straw is bright; sample good. The crop is moderately close, and should yield well. It is a beardless white chaff. Ladoga, introduced from the Ottawa Experimental Station, is not as good—thinner on the ground, the straw weaker and the quality of grain is

inferior. This sort is bearded, and the grain dark. Wild Goose, on the next plot, is quite thin on the ground, with nothing to recommend it but the large, coarse berry, which assists in bulking up the bushes; the head is heavily bearded, and very rough looking. Red Fern, also bearded, is a good, thick crop here, and promises to yield abundantly. The straw is stiff, moderately long, and is among the best kinds, judging from its appearance this season. Winter Fife looks very like the red when growing; the straw not quite so long as the red sort, yet a nice sample. Pringles Champion, the seed originally imported from Germany, bids fair to become a useful variety. It is a bearded white chaff, moderately stiff in the straw, and should yield fairly; the berry is small but plump. Manitoulin is also a moderately good-looking wheat—straw moderately stiff, with fair length; has a long, bald head, but is late. Holborn, improved bald, shows well this year; was not thought so highly of when first brought out. It now promises well; the straw is bright and stiff, and should yield well; medium bearded; has a black chaff; the head is good, but grows thin on the ground. White Russian was late here. The head is long, but the grains too far apart, and does not appear to be reliable every year. Saskatchewan Fife appeared to us much the same as Red Fife, but later. Colorado appears to be one of the most likely as to yielding qualities; the grain was showing through the chaff, and was a beautiful sample. It appeared to be the earliest; it has a bearded brown chaff, with plenty of good straw, and grows more closely than any sort except the next mentioned. Huison's Bearded, a French wheat, is a favorite here, and is considered by Mr. Zavitz the very best they have. It has been grown in Canada for several years, and appears to be improving yearly. It grows closer on the ground than any spring wheat; the head is very thick, though moderately short; the straw is stiff, but very fine, which allows it to grow closely; this accounts for its abundant yielding qualities. Many more old and new sorts might be mentioned, some of which are out of date, others, among which are numbers of the imported sorts, may yet be heard from. Campbell's White Chaff was not obtained last season, although very favorably mentioned by those who have grown it on different seed farms. To summarize: Colorado and Huison's Bearded, to our minds, were decidedly in advance of any other sorts, being more vigorous, closer growers and freer from defects than any other variety seen at Guelph.

OATS

is a crop that is too often neglected, not alone in the selection of seed, but by careless cultivation. Any field on the farm is thought good enough for oats; if it is run down by excessive cropping, it will surely grow oats; if it is foul with couch grass, oats should grow; if thistles, mustard or any other weed is so abundant that it would entirely hide a crop of peas, still it is quite fit for oats, so some reason. Farmers who would not think of sowing a field to the other grains do not hesitate to leave that part of the farm to grow their oats. While all this is too true in point of fact, there is no crop produced that responds more heartily or more certainly to superior cultivation. Again, it is the most important of all our spring grains, something over 60,000,000 bushels being the average annual produce of the Province of Ontario for the past ten years, while