

Arnold's Hybrid Wheat.

A limited quantity of these new varieties of wheat, the results of Mr. C. Arnold's carefully conducted hybridizing experiments, will probably be in the market after next season's crop, and we have pleasure in publishing extracts from the report of the Committee appointed by the Board of Agriculture to examine the wheat. The Committee consisted of Hon. D. Christie, Messrs. W. H. Mills and James Cowan, who state that in their opinion the wheats were "really new varieties—cross-bred, and inheriting some of the valuable qualities of both parents; that is, they seemed to have the midge-proof character of the Amber Michigan, while Soules parentage had greatly improved the quality of the grain as compared with that of the Amber Michigan. Another important fact ought to be stated, viz.; the ears of the new varieties were much larger than those of the parent kinds, while they had even more than the compactness of the Soules wheat. The yield per acre was large, being as Mr. Arnold says, 52 bushels per acre. This return was not the result of extra culture; the land was not better prepared than any good farmer would deem necessary for good crops."

A Committee appointed by the North Brant Agricultural Society to examine these varieties of wheat report in similar favourable terms, respecting the size of the berry, the productiveness, hardness, and midge-proof qualities of the grain. Many other agricultural authorities have given equally flattering testimony, and we shall watch the result of more extended trial with much interest. Such experiments as those of Mr. Arnold deserve every encouragement, and in the present aspect of the wheat question, and considering the gradual deterioration of most of the old varieties, the matter is of special importance.

Sugar-Beet Contrasted with Mangold.

Sugar-beet is being extensively cultivated in Great Britain as food for stock, and for this purpose it is fast coming into competition with mangold. A correspondent of the *Agricultural Gazette* says that, as a rule, the sugar-beet does not grow as large as the mangold, and therefore to ensure the same weight per acre more must be grown. To make this plain, he presumes that in an ordinary crop of large mangold there will be from sixty to eighty roots to the perch. Now, in sugar-beets there should be about two hundred roots to the same area. This increase of the individual roots will compensate for their lightness, and the gross yield of the sugar-beet will probably be as great as that of mangold. Already they are running each other pretty close in the Livenham district. The heaviest crop of sugar-beet this year weighed in the gross thirty-one tons per acre. The best crop of mangolds weighed one ton less, or thirty tons per acre. Weighed with out tops the mangolds reached twenty four tons per acre, and the sugar-beets twenty one

and a half tons. The number of mangolds per perch was one hundred; of sugar-beets, two hundred.

These facts and figures point a lesson and indicate the direction improvement should take in regard to sugar-beet. Many a one who remembers the first crop mangolds, with their uncouth roots and coarse large leaves, and contrasts them with the fine stock and small leaves of the most approved sorts of today, will see, at a glance, that the same course of selection and crossing, if needful, must be pursued with the sugar-beet. Among the crops now there are great differences in regard to top and habit. These have been noted by the growers, and most of them are saving their own seed from what they consider the best samples. It is probable that in a few years there will be model crops of sugar-beet, with little, if any, greater development of top than among the best mangolds. Once this is accomplished, the roots may go even closer together, and as, bulk for bulk, they weigh heavier than common mangold, it follows that by-and-by we shall have as heavy, or even heavier, crops of the sugar-beet per acre.

Selecting Seed.

We cannot too strongly urge upon the farmers the importance of exercising a close supervision in selecting samples of seed, especially grain, of whatever crop is intended to be grown.

In the first place, it should be sound, plump and solid, and of the most productive varieties; and in the second, it should be entirely pure and free from any admixture of other grain of the same kind, and the seeds of weeds.

We are no advocate of the plan followed by some, of giving extortionate prices for a fancy article, with some new-fangled name, the merits of which are belauded in highly coloured circulars and advertisements of interested dealers. We believe good seed can be had at reasonable prices from those who, by careful selection, and clean culture, find it pay to dispose of their produce for seeding purposes, and having acquired a good name by honest dealing, are anxious to keep it up.

Above all, use the fanning mill; it is not valued half as much as it should be, and even with the best of seed we would run grain through at least once before sowing.

PRIZE ESSAY.—We have received a copy of an essay on turnip culture, by H. Love, Secretary of the South Huron Agricultural Society. This excellent treatise received, at the last fall show of the Society, the prize offered by the President, Mr. Dickson, for the best essay on the subject, and the author has well merited the honour. The essay is thoroughly practical, and its publication will no doubt promote the interests of agriculture in the county.

Stock Department.

Notes on Canadian Herds.

No. VIII.

About ten miles north of Duffin's Creek station, G.T.R., near Atha P.O., Pickering township, is Burnside Farm, the residence of John M. Bell, Esq., comprising some 200 acres. He commenced his herd of Shorthorns in 1857, with two cows imported from Scotland, along with some of George Miller's, brought out at the same time. They were Jane 3rd, by Sir John (13735), from Young Jane by Strathmore (6547), and Lucy Neal, by Sir Charles (13705), from Young Rose, by Remus (11987), both bred by Robert Syme, of Redkirk. In our account of George Miller's herd, these two were erroneously credited to him. Jane 3rd has gone to the butcher long ago, and left but one female descendant, Jane 4th. Lucy Neal, a fine rich roan cow, still survives, and stands at the head of the herd. She is now in her 15th year, and is a large massive animal of great depth and substance, and has bred regularly up to the present time. Jane 4th, a light roan cow fourteen years old, by Nichol [497], is a fine milker. She has a neat red heifer calf, Ruby, by Highland Chief. Jessie, roan, nine years, is by Young England [822] from Lucy Neal. She is a fine cow, though not so massive as her dam, and has a very handsome red and white heifer calf, Favourite, by Highland Chief. Jane 5th, roan, nine years, by Prince of Wales [578] from Jane 4th, is of good quality and a splendid milker. She has a heifer calf by Highland Chief. Bride, roan, six years, by Charles [118] from Jane 4th, is much of the same style. She has a red bull calf by Highland Chief. Bessie Bell 3rd, red with some white, 5 years, by Clifton Duke 2nd, [133] from Bessie Bell, is one of the best in the herd. She partakes strongly of the Kentucky character through her sire. Mary Gray, roan, five years, by Prior [589] from Jane 5th, partakes of the good milking quality of her dam, while she has good style and substance from her sire. She has a red bull calf, Redcap, by Highland Chief. Jane 6th, red, four years, is by Prior from Jane 5th. She is rather small, though of good style and quality. She has a very fine red bull calf, Grand Duke, by Highland Chief. Pride, white, three years, by Prior from Jessie, is the handsomest animal in the herd, and for her age is very large and massive. She has a roan bull