

NOTES ON TESTING AUSTRALIAN CEREALS.

This is the first time we have had the opportunity of reporting the results of Australian cereals grown in Canadian climate. The seed was sown at the usual time of Canadian spring seeding. The time of ripening was also about the same as that of our common varieties, although some were a little earlier and some a little later. There were three varieties of barley, two of oats, and nine of spring wheat.

Barley.—Owing to the small quantities obtained we seeded thinner than we did the other barleys, putting only six pounds to the plot, or at the rate of sixty pounds per acre. These grains were sown also in Range 1. of the old experimental field. Each plot consisted of one-tenth acre. The seed was sown broadcast as before, and harrowed in.

The Scotch is a six-rowed variety with rather short, stout straw, and yielded at the rate of 31.7 bushels per acre. This may do much better another season. The Cape barley was below the average in point of yield of grain and quantity of straw. The grain was not as plump as might have been expected from a two-rowed variety. The largest growth of straw was from the Chevalier, another two-rowed grain. This was nearly three weeks later than the others in reaching maturity, and produced very coarse and succulent straw.

A sample of fall barley was received from Germany in 1887, and sown in the following autumn. It germinated very well, and grew nicely until winter. In the spring it was discovered that part had been frozen out, but what remained grew rapidly, and a very good sample of six-rowed barley was produced. The straw was medium in height, stout and clean, and produced 42.9 bushels of grain to the acre.

Oats.—Only two varieties of oats were obtained from Australia, viz., the White and the Triumph. The former produced a medium-length straw of fair quality, with a yield of nearly 43 bushels of grain to the acre, the sample being superior to the oats sown. The latter was much longer in maturing, and the straw considerably heavier and coarser. There was 14.4 per cent. more grain obtained from this than from the White oats.

The St. John oats was a variety grown in New Brunswick, and given to Prof. Brown to test among others. The crop was good, the straw being heavy, clean, and standing well. The grain was plump and heavy, and, on weighing, shown to yield 53.2 bushels per acre.

Spring Wheats.—Among the nine varieties of spring wheats none produced very promising yields, but when it is considered that this is a poor section for spring wheat, and when we again consider the average yield per acre over the Province, we conclude that some of the varieties did fair for the first season under Canadian conditions. The Indian and the Soft White were very similar in every respect, producing very short straw, but grain of good quality. These two varieties were one week earlier in maturing than the next earliest variety, and eleven days earlier than some. The Improved Baart was very highly recommended by the Australian Experimental Station, and took a place among the best with us. The only other variety which we will mention is the African Bearded, which gave a fair yield, but the sample was somewhat inferior to those previously mentioned. The best four varieties produced the following yield per acre:—

Soft White.....	13.3 bushels.
Improved Baart.....	12.6 "
African Bearded.....	12.3 "
Indian.....	11.3 "

III. APPLICATION OF SALT WITH BARLEY ON FOUR KINDS OF SOIL.

The results from salt application have varied to such an extent that no definite conclusions appear to have been obtained as to its most economical use. It has been found by co-operative experiments with different fertilizers by members of the Experimental Union over Ontario and at this station, that in some cases salt acts very beneficially in increasing the yield of crops, while in other instances no perceptible good results occur. An interesting experiment was conducted during the last season, in which the effect of salt might be observed upon four varieties of soil under somewhat similar conditions.

40	62	75.5	27
1-20	1-20		
Good sample, large and plump.	Good sample, large and plump.	Average size, considerably rusted.	
Average length, a very little rusted.	Very short and nearly free from rust.	Long and considerably rusted.	
Aug. 4	July 27	Aug. 7	
" 4	" 4	" 11	
" 9	" 10	" 9	
" 27	" 27	" 27	
" "	" "	" "	
Improved Baart	Soft White.....	Ward's Prolific..	
" ..	" ..	" ..	
" "	" "	" "	