

TWO-ROWED BARLEY.

Five varieties of two-rowed barley were tested this year. Two-rowed barley is not as well suited to Manitoba as is six-rowed, as it is lighter yielding and later. Gold, a new variety from Sweden, gave the best returns last year. The best five-year average is that of Canadian Thorpe.

PEAS.

Nine varieties of peas were tested this year. Paragon is the highest yielding variety this year, and Muckay the highest on the five year average. Arthur is the earliest variety, and at the same time yields well. For these reasons it is recommended.

FLAX.

Seven varieties of flax were tested this year. Three new varieties obtained from the North Dakota Agricultural College, N. D. R. No. 52, N. D. R. No. 114 and N. D. R. No. 73 have given the best results both in earliness and in productiveness. They are recommended as of outstanding merit. Golden, a variety much talked of in the West now, was tried for the first time. It was a distinct disappointment, being light in yield, very short and late.

EXPERIMENTAL FARM, INDIAN HEAD, SASKATCHEWAN.

T. J. Harrison, B.S.A., Superintendent.

WEATHER CONDITIONS.

In southern Saskatchewan the season of 1914 was not very favourable for the production of cereal crops. On the whole the season was too hot and dry, causing a very short growth of straw and premature ripening of the grain. On the Indian Head Experimental Farm wheat seeding started on April 15. The land was in a good state of tilth and a few scattered showers caused the early sown wheat on summer-fallow to germinate quickly. After May 9 no rain fell until June 18, and as most of the oats and barley were sown between these dates the germination was uneven. The few showers in the latter part of June caused a considerable second growth especially in the oat crop. July was very hot and dry and the grain ripened too quickly, causing the kernel to be lean and light. The Prelude wheat and some of the earlier sorts of oats and barley were harvested the latter part of July and first part of August. On the night of August 9 the temperature dropped three degrees below freezing. This damaged the wheat to a great extent, lowering the quality from one to three grades. In the later maturing sorts the grain was so shrivelled that the yield was much lighter than it would otherwise have been. The weather in August and September was very dry and harvest and threshing were completed one month earlier than the previous season.

SPRING WHEAT.

At Indian Head spring wheat is sown as soon as the frost is out of the ground a sufficient depth to allow of good cultivation. This season this occurred about April 12, and wheat seeding started on the 15th.

The quantity of seed sown per acre depends largely on the viability. When the seed gives a germination test of 80 per cent or over one and one-half bushels per acre are sown. If the test is below this a comparatively larger amount is put on. As a prevention against smut the seed is all treated with a formaldehyde solution. It is made up by putting one pound of 40 per cent formaldehyde to 35 gallons of water. The seed is sprinkled by running it through a grain picker.