

Q. We find by the change of seed from old land to the new land and back from the new land to the old land, that we can keep it up so as long as we have the new land, and wish to put the wheat there, and change back, we can thus keep the varieties strong. It may be a generation before it goes back.

A. It may be several generations, but there is little doubt that the time will come, and when it does, we want to be ready for the emergency. Then there are other parts of the Dominion where Red Fife is not so successfully grown. In parts of Quebec, we find Preston produces excellent crops, but the Red Fife does not grow so well. When Red Fife is sown in eastern Canada it becomes starchy and deteriorates. In the North-west the climate is very favourable for this wheat, and it is produced there of the highest quality, very hard and rich in gluten. The Canadian North-west, the northern United States, and the northern parts of Russia are the only places where such high grade wheat can be grown, and the world must look for its supplies of this hard spring wheat from those countries. The millers of England have lately taken some action in regard to this question of improved varieties. They want to see varieties of wheat tested in England sufficiently hard to improve the quality of the wheat grown there, so that they may be able to use less of these hard wheats and maintain the quality of the flour they are making. A few days ago we sent forward several sacks of grain for this purpose, including Red Fife and Preston, and if the result is satisfactory it may lead to increased cultivation of spring wheat in Great Britain. I mention this to show the value of these different wheats. I am very glad that the question of Red Fife was brought up, as I recognize the great importance of encouraging its general cultivation. At the same time, letters frequently reach me from farmers asking if there is not some variety they could grow which would ripen a few days earlier than Red Fife. Hence it is important to have other varieties as nearly equal to Red Fife as possible and at the same time earlier, so as to prevent them from importing starchy wheats of poor quality which would be likely to deteriorate the quality of grain grown in that district if generally cultivated.

As a rule, Red Fife can be grown with success in most parts of the North-west, if the land is well prepared and the seed got in early.

Mr. BOYD.—My anxiety and the anxiety of every person interested in the west is in having that hard Fife wheat grown as largely as possible. It was only the other day that in one of the leading milling papers in the United States, *The North-west Miller*, there were statistics to show that there are only 200,000,000 bushels of hard wheat, that is estimated, grown in the United States. One hundred million of it is available at Minneapolis, and they cannot get enough of the balance of it at Duluth to bring up their other wheat to the standard necessary for exportation, and there is pressure being brought to bear on the United States government at the present time to induce them to permit our hard wheat to go out of Manitoba as be ground for the very reason that they want to get the best rates. I bring this to the attention of Mr. Saunders, and am glad to find as I have always found, that he was deeply interested in that particular kind of wheat.

The WITNESS.—I might say that two years ago I went to Minneapolis and spent some days there among their mills, and seeing the kinds of wheat they were working up, and I was surprised at the quantity of lower grades of wheats the millers were able to use, and still keep the grade up, by the addition of judicious quantities of hard wheat. I found cars loaded with wheat that was very smutty, but they have means of cleaning it and making a good sample. There was also considerable quantities of starchy wheat worked up. I was kindly taken through the mills and shown everything I wanted to see, and found that they had a very complete and interesting system of testing the quality of the flour they make from day to day. Every day the chief millers from the different mills, of which there are generally a number under one management, come together with samples of the flour they are making from the mixed grain used, and these samples are submitted to the chemist, who has several assistants. He determines the proportion of moist gluten in each sample, also the quality of the gluten. The