

In Defense of Ladoga Wheat.

To the Editor of the Colonist.

Many of the leading newspapers of the country have published within the past few weeks the results of a comparative test recently made in Minneapolis, Minn., of the value of Ladoga wheat for milling as compared with Red Fyfe and other sorts in which the Ladoga wheat was held to be very inferior. Articles headed "Ladoga wheat a failure" have been common and the large number of letters of enquiry from farmers which have of late been received at the Experimental Farm leads me to ask the use of your columns, to make what I believe to be a fair presentation of the whole question.

It has long been known that varieties of grain ripened as far north as it is possible to grow then where the summer season is short, often acquire by a long process of acclimatization an early ripening habit. This habit, once stamped by nature on any particular variety, appears to be retained by that grain even when it is grown in localities where the season is longer. As soon as possible after the organization of the Experimental Farms was begun, efforts were made, under instruction of the Minister of Agriculture to obtain from Northern Russia some of the best early-ripening varieties of wheat grown there for experimental test in Canada. Correspondence was opened in November, 1886, with a seed dealer of high repute in Riga, Mr. E. Goegginger, and a sample of the best Red Fyfe obtainable was forwarded to him with the request that he would select and forward to the Experimental Farm at Ottawa, 100 bushels of the best early-ripening wheat he could obtain, and to get it as nearly as possible equal in quality to the sample of Red Fyfe sent.

In reply, Mr. Goegginger stated that he had secured and forwarded one of the most highly esteemed early-ripening varieties produced in Northern Russia; that it was a wheat much valued there on account of its quality, and, being grown near Lake Ladoga, in latitude 60, north of St. Petersburg, it was known as Ladoga wheat. When this wheat arrived in the spring of 1887, and before it was distributed, samples were submitted to several parties who were believed to be good judges of wheat from a Northwest standpoint, and they all gave it as their opinion that the Ladoga wheat was of good quality. This grain was distributed at once among farmers in Manitoba and the Northwest Territories, and some of it was sent to the Indian agencies for tests. It proved earlier in ripening than Red Fyfe by an average of about ten days, and that early ripening quality it still retains. In the spring of 1888, a further distribution of this wheat was made, and after the harvest of that year, a sufficient quantity was obtained to make some tests of its milling qualities.

Sixteen bushels of Ladoga which had been grown at the Experimental Farm at Indian Head were taken with a similar quantity of the best quality of Red Fyfe grown in an adjoining field to the roller mill at Fort Qu'Appelle. The flour of the Ladoga when compared with the Red Fyfe had a slightly deeper yellow shade. The product from both these varieties was forwarded to Ottawa where sacks

were sent to two of the leading bakers and after a careful test both gave it as their opinion that the Ladoga was the stronger flour of the two although darker in color. Samples of the bread, flour and grain of both Ladoga and Red Fyfe were submitted also to the Agricultural Committee of the House of Commons when the most critical members could find no fault with the Ladoga other than on the ground of its being a little yellower than Red Fyfe. Samples of the Ladoga grains grown in different parts of the Dominion were also sent to the leading Boards of Trade in Canada and to a number of special experts for their opinion. To indicate the object in view in the introduction of Ladoga wheat, permits me to quote the following from the letter which was written by me to the boards of trade and experts and forwarded with the samples:

"It is well known that farmers in the northern parts of Manitoba and the Territories have in the past suffered much loss from the frozen wheat and they are anxious to obtain some variety which will ripen a few days earlier than the Red Fyfe so as to admit of it being harvested before the early frosts occur. So strong is this feeling that farmers are willing to grow inferior varieties rather than suffer such losses as they have experienced in the past."

"In view of this condition of things, efforts are being made, under the instruction of the Minister of Agriculture, to endeavor to secure an early ripening wheat of *good quality* as nearly up to the standard of the Red Fyfe as possible. You will bear in mind that the object of this introduction is not by any means to displace the Red Fyfe; I think the growth of that variety should be encouraged in every practicable way, but the Minister desires that an earlier wheat of *good quality* should be grown where the Red Fyfe does not succeed, and thus discourage and prevent, as far as is practicable, the introduction of soft and inferior varieties of wheat, so that the present high standard of our Northwest grain may be generally maintained, and at the same time the necessity of farmers met and the settlement of the country stimulated."

I shall not weary your readers with details of the opinions of the experts on these several samples of Ladoga wheat; they were most perplexing and varied on the same sample, in some instances from soft to extra No. 1 hard. All these particulars, together with the results of a number of careful analysis of these wheats by Mr. F. T. Shutt, chemist of the Experimental Farm, will be found in Bulletin No. 4, issued from the Central Experimental Farm in March, 1889.

A second milling test was made late the same season, by taking to the roller mill at Souris, Man., about 20 bushels of Ladoga and a similar quantity of Red Fyfe of same weight, grown at the Experimental Farm at Brandon, and the results obtained were precisely similar to those already given.

In summing up the evidence submitted in Bulletin No. 4, I wrote as follows: "The Ladoga wheat has been subjected to a searching criticism; tables of the entire results of its growth have been given; the public have been advised of such defects as have been noted during the progress of the two years' tests, and making the most liberal allowance for these defects, it seems not too much to say that the evidence thus far obtained is sufficient to show;

that the Ladoga is a productive and valuable variety of hard wheat, which has thus far ripened over the whole Dominion ten days earlier on the average than the Red Fyfe, that the better samples obtained are fully as rich in gluten as the best Red Fyfe, and while the cultivation of the Red Fyfe should be recommended in every section of the Northwest, where it is likely with early sowing to escape the autumn frosts, the growth of the Ladoga may be safely encouraged wherever the ripening of the Red Fyfe is uncertain without incurring the risk of materially lowering the reputation or the general quality of Canadian hard wheats."

These, as far as I can recall, are the strongest words of praise I have ever uttered concerning Ladoga wheat, and I think no one will consider them extravagant who will read the evidence in its favor submitted in Bulletin 4. In the two tests of making flour from Ladoga wheat grown in Canada and its comparison with Red Fyfe, the comparisons were in every respect fair, both varieties being equally plump and well developed, whereas in the recently published tests at Minneapolis, a very poor sample of Ladoga wheat was taken, weighing only 57 lbs. to the bushel, and compared with a very choice sample of Red Fyfe, weighing 63 lbs. to the bushel. Comment on such a test is unnecessary.

When the results of the Canadian test of grinding the Ladoga were made public many of the millers thought that no satisfactory trial could be made with quantities so small as from 18 to 25 bushels (the recent Minneapolis test was with 25 bushels) and efforts have been made every year since to have such a test made as would be satisfactory, one that would definitely settle the question of the relative value to the millers of Ladoga and Red Fyfe. I am pleased to be able to say that arrangements have lately been completed with the Dominion Milling Co. of Toronto, with this object in view, and a carload of Ladoga wheat, grown in the Northwest, will shortly be available for the purpose. As soon as the results of that test are made known they will be made public. In the meantime it would be unwise to attach any weight to the test which has recently been made in Minneapolis.

It should never be forgotten that the work carried on by the Experimental Farms with new varieties of grain is purely experimental. No effort is spared to secure every promising sort for test. The whole world has been laid under tribute for this purpose. Many varieties of wheat have been brought from Russia, Germany, France, Great Britain and other parts of Europe; other sorts have been brought from the Cape of Good Hope and Algiers in Africa. Asia has sent its quota from the plains of India and from the mountain districts of the Himalayas, from altitudes of 10,000 to 17,000 feet above the sea. Other varieties have been brought from Japan, Australia and New Zealand, to which has been added every sort obtainable from the United States and Canada. These have all been carefully tested side by side, their growth watched and their quality and yield recorded. A large proportion of the foreign sorts have proven very inferior to many of the varieties already grown here, and whatever may be the conclusions regarding Ladoga as compared with Red Fyfe, if early ripening wheat must be had, no other sort has yet been