

and I therefore sowed it last spring alongside Red Fife, and watched them both very carefully throughout the season. They proved to be identical at all stages of their growth as well as when the grain was harvested. A larger plot of Galician wheat furnished grain for milling purposes. This was ground, analyzed and baked. Red Fife from a plot in the same field was similarly treated. The two samples of flour were found to be alike in all respects, and thus the absolute identity of the two wheats was established. The firm from which the seed of the Galician wheat was obtained informed me that the variety was procured by them many years ago from a farmer in Galicia. It seems, therefore, quite clear that the kernel of wheat which came into the hands of Mr. Fife was a kernel of this Galician spring wheat, accidentally present in the cargo of winter wheat from Dantzic, of which he obtained a portion. It is interesting to be able to throw this light on the subject of the origin of Red Fife, which has hitherto seemed very dark. There is no doubt that this variety is still grown in Europe, and so far as our tests have gone, it seems to be of the same quality there as it is here."

#### **As to Marquis Wheat.**

And what of Marquis wheat? It is an offspring of Red Fife, having this old and trusty variety as its father and Hard Red Calcutta as its mother. Its story was told in the Annual Report of the Canadian Experimental Farms for 1913, pp. 118, 119.

"All the details in regard to the origin of Marquis are not available, but it is one of the descendants of a cross between an early-ripening Indian wheat, Hard Red Calcutta, (as female) and Red Fife (as male). The cross (as appears from unpublished notes) was made by Dr. A. P. Saunders, probably at the Experimental Farm at Agassiz, in the year 1892. The cross-bred seeds, or their progeny, were transferred to Ottawa, and the writer of this report was appointed in 1903 to take charge of the work of cereal breeding. He made a series of selections from the progeny of all the cross-bred wheats which had been produced at Ottawa up to that time. Some of these had been named and others were under numbers. Though they had all been subjected to a certain amount of selection, each of them consisted of a mixture of related types. In some cases all the types present were similar. In other instances striking differences were observed. The grain which had descended from the cross referred to above was found by careful study of individual plants (especially by applying the chewing test to ascertain the gluten strength and probable bread-making value) to be a mixture of similar-looking varieties which differed radically in regard to gluten quality. One of the varieties isolated from this mixture was subsequently named Marquis. Its high bread-making strength and color of flour were demonstrated in the tests made at Ottawa in the early months of 1907, and all the surplus seed was at once sent to the Indian Head Experimental Farm for propagation."

#### **By Way of Wisconsin.**

It will be clearly seen from the above account that the question, "When was Marquis wheat originated?", can never be answered. It came into existence probably at Ottawa between the years 1895 and 1902. It remained, however, mixed with other related sorts until discovered by the writer in 1903. It was first grown in a pure state in 1904, when a few seeds were sown in a sheltered garden on the Central Experimental Farm. Even then, however, its fine qualities were only partly known, and it was not until the cerealist's baking tests of 1907 were completed that he decided to send out this wheat for trial in Saskatchewan. Its success in the prairie country was phenomenal.

And so we trace back the millions of acres of Canadian Western wheat by way of Wisconsin and Illinois to a little