Canadian Wheat History

Where did the famous Canadian hard spring wheats, Red Fife and Marquis, come from? Probably there are few farmers who have any idea of the origin of the grain they have just sown this spring. While the practical value of such knowledge is not to be compared with that of knowing the characteristics of the varieties, so that the seed sown is always clean and true to type, still the following history recently prepared by C. C. James, C.M.G., LL.D., of the Dominion Department of Agriculture should prove interesting to every progressive farmer.

Red Fife Wheat

In October, 1860, a Wisconsin farmer, J. W. Clarke, wrote a letter to The Country Gentleman and Cultivator calling attention to the high qualities of Red Fife wheat, and the success he had had in growing it. In that year his crop averaged 36 bushels to the acre, and he recommended it to replace winter wheat. He referred to its originator, David Fife, of Otonabee, Canada West. The Canadian Agriculturist reproduced Mr. Clarke's letter, and added an account of the origin of the Red Fife wheat written by George Esson, a neighbor of Mr. Fife. The Fifes and the Essons came from Kincardine, parish of Tullyallen, Scotland, and settled in Otonabee, Peterboro County, Ontario, about 1821. Here is Mr. Esson's letter, which may be found in The Canadian Agriculturist for March, 1861, (p. 167):—

"About the year 1842, David Fife, of the township of Otonabee, Canada West (now Ontario), procured thru a friend in Glasgow, Scotland, a quantity of wheat which had been obtained from a cargo direct from Dantzig. As it came to hand just before spring seed time, and not knowing whether it was a fall or spring variety, Mr. Fife concluded to sow part of it that spring and wait for the result. It proved to be a fall wheat; as it never ripened, except three ears, which grew apparently from a single grain. These were preserved, and altho sown the next year under very unfavorable circumstances, being quite late and in a shady place, it proved at harvest to be entirely free from rust, when all the wheat in the neighborhood was badly rusted. The produce of this was carefully preserved, and from it sprang the variety of wheat known over Canada and the Northern States by the different names of Fife, Scotch and Glasgow. As the facts occurred in my immediate neighborhood, and being intimately acquainted, not only with the introducer, but with the circumstances, I can vouch for the correctness of the statement, and if necessary produce incontestible proof."

From An Ontario Farm

There are some traditions in connection with David Fife's wheat that differ from the above. One is that having by experiment found that the Scotch Dantzig wheat was a spring and not a fall variety, the sack in which the wheat had been contained was looked up and a handful of grain was found in it, and this was sown in the succeeding year. Mr. Esson's account is probably the more accurate. Another story is that Mrs. Fife is entitled to share in her husband's honor; for, discovering the family cow contentedly making a meal off the growing clump of grain, she was in time to rescue a portion of it before it was too late. It is worth recording in Canadian history that the millions of bushels annually produced on the Canadian prairies are the descendants of one or more grains that a pioneer farmer in Ontario was fortunate enough to save over seventy years ago. In 1862, Walter Riddell, of Northumberland County, in one of his communications to The Canadian Agriculturist called attention to the fact that no public recognition had been paid to Mr. Fife by the farmers of Upper Canada. "It does not reflect much credit on our farmers that they have not ere this bestowed some public testimonial on the gentleman who was the means of introducing it into the province." (July 16, 1862, p. 442). It is too late now to make the personal recognition, but we can at least inform our people of this story and suggest a proper place in the historical records of our country.

European Origin Established

But the story is not yet complete. In 1905, Dr. Chas. E. Saunders, Dominion Cerealist, in his evidence before the Parliamentary Committee on Agriculture and Colonization, referred to Mr. Esson's letter, and then added the following:—

"This account has given rise to the idea that Red Fife is a Canadian wheat, that it originated with Mr. Fife in some wholly unaccountable manner, or as a sport from some European variety. It always seemed to me probable that the kernel which Mr. Fife obtained was merely a seed of some common European variety which had found its way into this wheat from Dantzig. Last season, among our newly imported European varieties, was one under the name of 'Galician' obtained from a seedsman in Germany. Now, Galicia lies about 300 miles inland from Dantzig. This imported Galician wheat struck me at once as being very much like Red Fife, and I therefore sowed it last spring alongside of Red Fife, and watched them both very carefully thruout 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 Dantzig, 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. Tho 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."

Telegraph position covered by a roof of barbed wire in an advanced trench at Verdun

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 sown 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 settlement in the back woods of Ontario, thence back thru Glasgow and Dantzig to Galicia, and link up the peaceful prairies of Canada with the blood soaked, ravaged fields of the peasants of Galicia in Central Europe.

I have referred to the Wisconsin farmer's letter of 1860. He had been growing Red Fife for a few years. At that time this variety had made its way farther north and was being grown also in the Red River Valley of Manitoba. In a few years it became the standard of excellence upon the prairies of the West—Manitoba Hard.

Wanted Five Thousand Bushels

In 1876 spring wheat failed in Ontario, the old reliable Red Fife appar ently had run out, it had lost its vigor—perhaps the fault lay in the soil rather than in the grain. The Red River Valley Fife wheat had made a reputation, and so in the fall of the year the late R. C. Steele, of Steele Brothers, Toronto, started for Manitoba. He travelled by rail to St. Paul and thence to Fisher's Landing, where, doubtful of the river navigation so late in the year, he took a lumber wagon and made the 150 miles to Winnipeg in thirty hours of continuous going. He wished to bring back 5,000 bushels, but all that he was able to secure at Winnipeg was 857 bushels, which he bought at 85 cents a bushel. This wheat came down to Toronto by steamer from Winnipeg to Fisher's Landing, where he secured some additional United States wheat, thence by rail to Duluth, by vessel Duluth to Sarnia, and by rail from Sarnia to Toronto. This was the first wheat exported from Manitoba to the East. It was in the latter part of October, 1876. Mr. Steel paid 85 cents per bushel for this wheat on October 12, 1876.

Harvest and Battlefield

Hundreds of thousands of Russians, Germans and Austrians have for months been battling over the wheat lands of Galicia. Meanwhile a British army has been slowly moving north from the Persian Gulf, and driving the enemy out of the wheat lands of prehistoric times. This country of the Tigris and Euphrates, wherein human history begins, may well have been the original home of the Galacian Red Fife wheat. Let us take a brief glance at the agriculture of that region. The farmer must first prepare his land. The plow consists simply of a share of soft iron attached to a frame of rough wood. It is drawn by a yoke of native cows or oxen and the depth of the furrow will depend mainly upon the strength of the man or boy who drives the beasts.

Over the soil thus roughly scored and turned the sower goes forth to sow his wheat or barley, scattering the seed by hand. He next brings out his drag, which consists simply of a heavy plank on which he stands while driving his cows or oxen. Thus he breaks the clods, levels the soil, and covers the seed. If the rains come in due season all is well; if not, he must flood his field thru his irrigation system. Perhaps he is fortunate to be able to tap a source of supply that will furnish him water by gravity; if not he must raise it bucket by bucket from his wells. He has cast his bread upon the waters or watered soil and he expects it to return unto him after many days of sunshine. About midsummer the farmer and his family start out to reap the matured crop, and the sole implements are hands and sickles. The grain is thrown loose into a stack.

Threshing with Cattle

When harvesting is finished, threshing begins. The straw is spread out on the ground. The faithful cows are hitched to a crude log frame which carries a pair of wooden rollers. In these rollers are set short blunt blades. There is a seat for the driver. Back and forth the farmer drives his beasts. The knives cut and break the straw, and the grain is set free by the treading of the beasts and the crushing of the runners. And now the wheat must be separated from the broken straw and the chaff. A windy day is chosen and the winnowers arm themselves with wooden forks. Starting on the windward side they throw the straw into the air, the wind blows the straw and chaff away and the heavy grain falls at their feet. Any chaff or husks that may be left are rubbed off in stone mortars and then the grain is ready for market. The broken straw is used as food for the cattle and for making brick.

Meanwhile, the gleaners may be seen in the fields gathering up the straw bands and straw that are sure to be left after such a crude method of harvesting. The crop of wheat will average about five bushels to the acre, the barley a little more. Remote from the cultivated land we see the flocks of sheep and of goats feeding and fattening upon the grass, not grass such as we have, but plants that show here and there the yellow or bluish blossom of alfalfa. Accompanying them is the shepherd.

This, you say, is a rough picture of the agriculture of Bible times. Yes, it