



Six binders drawn by a "caterpillar" engine did the harvesting this year on the 4,160-acre Crowfoot Farm in Southern Alberta. The six binders mowed down the crop in a 48-foot swath. The cost of the binders and engine alone would be equal to the value of a good crop on a fair-sized farm.

FIGHTING THE BATTLES OF WHEAT

News of our Great Agricultural Army Now Operating in the Grain-fields

OCTOBER, 1915, will see the greatest drive ever set in motion in this country. By that time the biggest wheat crop ever produced in Canada will be on the march out from the prairies to the markets of Great Britain. An army of farmers is behind the movement. The farmers of the West this year will have somewhere in the neighbourhood of 200,000,000 bushels of wheat to move out of the country by rail and water, thousands of miles to the British consumer and the armies in the trenches of France and Flanders.

The total crop of all grains estimated this year for the country west of the Great Lakes varies from 537,000,000 to 566,000,000 bushels. Of this, about two-fifths in bulk, quite half in weight and much more than half in value will be wheat. The lowest mean average of the rosier estimates gives the West nearly 100,000,000 bushels more wheat this year than last. It is the wheat that moves out. And it is the increase in the wheat bushelage that will make the transportation in Canada this year the most complicated labour of Hercules Canada ever had.

Call it Patriotism and Production, or just plain production—or paradox. But it happens that just when we have the most wheat to move we have in sight the least machinery for moving it beyond the terminal elevators. In all probability, before navigation closes, 100,000,000 bushels of grain will have been railed to the spout of the hopper at the great lakes terminals. From past experience, less than half this amount can be carried down the lakes and out to Canadian ports. The balance will have to get an outlet through American ports just about the time when the belated billion-bushel wheat crop of the United States sets on its grand march out.

THERE is no doubt about the capability of the box car and railway end of our transport system to handle this colossal cumulative mass of wheat. The tie-up must occur at the Montreal and eastern elevators. Our ships are not as numerous as they were in the years when we had less wheat to export. Many of them are busy transporting troops and munitions of war. The war can't wait. Some of the wheat must. Joffre and French and Kitchener will not declare a war holiday in order to get Canadian wheat across the Atlantic. Steamship companies can't move the wheat fast enough without sufficient ships. Governments must act. The Canadian Premier has already said that facilities would be provided to move Canada's record crop. He does not say what facilities. Negotiations are said to be under way. As the Imperial Government has requisitioned Canadian ships for war purposes, will it also provide other ships for wheat purposes?

Time will tell. Meanwhile, the farmer army is busy speeding up the movement that will tax the capacity of railways and steamships and elevators and corporations and governments. That army began the movement last fall in extra fall ploughing. It took it up again this spring with more and more

By **NORMAN S. RANKIN**

gasoline tractors and horse teams than ever were known before. Nature joined the movement with the finest series of crop-making weather programmes ever seen in that grain empire 800 miles east to west and 350 miles south to north. There were bad weather zones, but they were scattered and did not materially affect the output.



In this sea of Marquis Wheat, 320 acres in one field, the heads were six inches long.

The season opened earlier than usual. "Precipitation," as the scientists call it, began in good time. At one time optimists joined with pessimists in predicting an overplus of rain. The weather wizard, Foster, from across the line, gave out a dark intimation that not a binder would be in operation west of the great lakes. Foster was fooled. Ceres, the crop god, chose a psychological moment when old

Sol was put into commission to ripen the grain that was headed out on a total grand area of 20,589,023 acres. For three weeks at the most critical time most of the grain belt had good weather.

And it was a vast empire of grain heads—wheat, oats, barley and flax—raved about by experts and amateurs of all descriptions. Some of the wheat-fields of the West are too immense to be well seen with the naked eye except from a roof. The old joke about the farmer starting off to plough came true many a time. "Why does he bid his family good-bye?" asked the tenderfoot. "Oh, he's going off to plough and he won't be back till next week," was the reply. "You see, it takes a week out here to go from one end of a furrow to the other and back again."

A trifle exaggerated; but some of these farms are of fabulous size—4,000 acres and more. They have come right to the front this year. In Alberta, just to be specific, there are a few of these plantations: George Lane's—cattle-breeder and old-timer; Pat Burns, the cattle king; the Noble farm at Nobleford; the Crowfoot farm in the Irrigation Block.

AND it was on these big farms that the grand rush of the binder machine reached the dimensions of a spectacle. It was a hungry year for binders. "My kingdom for a binder," shouts the agricultural Richard III. "Binders, binders—more binders." On the Crowfoot farm, six binders got out behind a caterpillar locomotive that looks like one of those German siege guns in transit. They cut a swath 48 feet wide—eight feet to a binder, that if pulled by horses would take two teams.

Binder twine became an immediate problem. Bushelage and straw had increased with intensive farming. Ordinary years some of these fields took two pounds of twine to the acre. This year they took three and a half pounds. From a place called Taber, in Alberta, comes the information that in some cases six pounds of twine was needed for an acre. Saskatoon has been fetching in twine by carload lots to supplement the under estimates of the farmers.

It was the highest average of crop ever known and the greatest record of individual big crops. In Alberta the average jumped from 20.19 bushels to 23 bushels. Individual crops went as high as 40, 50 and even 54 bushels. Estimates of from 30 to 50 bushels per acre have come in from all parts of both provinces. In the Irrigation Block, close to Calgary, the estimates are even greater than these. "Without doubt," said Immigration Commissioner J. Bruce Walker, after a tour of the West, recently, "both as regards quantity and quality, it is the finest crop I have ever seen." Mr. Walker is conservative in his statements, and knows thoroughly what he speaks about.

To get down to the small farms, intensively cultivated, and their yields. It is conceded that Bob Comer, who came in from Colorado State last year, and took up an irrigated farm in the Bassano Colony,