



flax, barley, etc?" One manufacturer voiced the phrase that "Kerosene would reduce the cost of raising a bushel of wheat ten cents," and the world said "Is it possible?" Such a thing as "cost of crop production" had not affected the farmer seriously. It couldn't very well, because there was really no basis upon which to calculate. The farmer raised his own stock of "power" horses, but for the life of him he couldn't tell what it really cost him to plow an acre of sod or old ground. Such a term as "horse power hour" was unknown, except to a few. It was a case of feed as much of the grain crop as necessary in order to fatten or keep in condition his live stock, and sell the rest. It looked easy to dip the half bushel measure into the well filled out bin and the maintenance of horse flesh was an item that seemed scarcely worthy of consideration.

Today, however, we speak of the cost of operating a tractor per "horse power hour," or, in other words, what is the charge made against the engine for every horse power delivered for a period of one hour, such items as interest, or investment, depreciation, repairs, fuel, operating help, lubricants, etc., being taken into consideration. It is a simple matter. There are just two main items that enter into the proposition. First: work done and second, cost of operation. This is all very well, in so far as it can be placed upon paper, but back of it all lies the real problems, the ability to master distinguishing the real "power farmer" from the unsuccessful makeshift.

In Western Canada today there are approximately 4,000 outfits that did traction plowing during the past season. These outfits will average easily 20 horse power at the draw bar, making the equivalent of 80,000 horses. Assuming that each horse power is good for one acre per day it means that 80,000 acres are being turned over every day that they work. Let us further assume that each acre is capable of producing 20 bus. of wheat, and it is but a simple matter of arithmetic to show that each day's work means 1,600,000 bus added to the wheat crop of Western Canada. Put it in figures, and it can be seen that the proposition is



not only a big one, but a vital one. Let us assume that it takes one man for every three horse team, and our 80,000 horses will require 26,500 men. With the engines representing the above horse power and allowing three men to each outfit, it will take only about 12,000 men to produce the same results in work done. The labor problem in Western Canada is a vital one,



The old Highland 12 feet Wooden Plow.

and anything that will help to solve it is worthy of serious consideration.

The importance of the tractor in Western Canada's future development cannot be estimated. With practically 200,000,000 acres of the best virgin prairie upon which the sun has ever shone yet to be broken, it will take something stronger and more speedy than horse flesh to handle the proposition. This is

the past by horses is pure drudgery. In the hurry and rush of spring work the horse must be pushed to the limit, with the result that a large amount of good horse flesh is soon relegated to the scrub class. Furthermore, on the large farm the number of horses required makes it necessary that a greater or less percentage of them be anything but standard bred, because of

price and an insufficient supply. In other words there is as yet a place for the scrub horse, which tends to lower the tone of horse flesh in general. It is a question whether the time will ever come when the tractor will entirely supplant the horse for farm work. I, myself, do not believe it will ever come, and at least, hope it never will. I do, however, believe that the tractor will, before many years, take



The Highland Clath Chais.

no criticism upon the horse. He is just as important and demands a higher price today than he ever did, and may that day be far distant that would see him lose admiration and respect in the eyes of the farmer.

Right here lies a nice little subject for discussion that I can only touch upon in passing.

A large share of the work on the farm that has been done in

away from the horse the burden of the heavy farm work and that fewer but better farm horses will be kept by the average farmer. He will have only one or two teams, but they will be standard bred, sleek, fat horses, that any one would be proud to draw a rein over. Instead of having to care for a whole army of horses during the winter, only a team or two will demand his

attention. I was recently talking with a Saskatchewan farmer who farms two sections of land. He told me that before he purchased his tractor that he always wintered from 25 to 30 head of horses, and that a winter did not pass that he did not lose one or more. He said that it took practically all of one man's time to look after them, and that the amount of hay and oats consumed every winter was enormous. He now keeps but two teams, all mares, and as they are not compelled to do any real heavy work he raises from two to four colts every year. These colts soon grow into money, and as the dams are standard they command a good price. Some one has said that the tractor is the "Modern Farm Horse." It should be said that the tractor is making possible the "Modern Farm Horse." The tractor should cause no fear in the mind of the horse breeder, but rather he should see in it something that will furnish an outlet for his product. If the "scrub" should become a thing of the past, and the standard bred animal the rule on every farm, what a magnificent bunch of horseflesh we should have. Going a step further, there is another matter that demands attention with reference to this "power farming" proposition. The tractor, big in power and tireless, satisfies the man who wants to do big things and get his work done quickly. It is perhaps very satisfying to turn over 20 or 25 acres per day and pack it at the same time.

Twenty acres means 400 bushels of wheat, or about \$350, and with this sum dangling before the eyes of the farmer he is apt to sacrifice quantity for quality in the work done. Western Canada is really man's last natural agricultural heritage. There is fertility enough here, if properly handled, to satisfy all future generations, but it can soon be riotously squandered through improper tillage. Every bushel of wheat taken from the soil robs it of some of its fertility, and this fertility must be returned in some manner or shape, or the farmer is playing a losing game. Nature is very rigid in her laws, and won't stand for having them transgressed. The fundamental of these, in so far as the farmer is concerned, is "you can't raise wheat and fertility on the same field in the same year."

