# TRACTION PLOWING
## AS TOLD BY THE MEN WHO DO IT

**Mixed Farming Necessary**

Replying to yours of January 29th, will say that Mr. Gray and myself purchased a 25 h.p. Case steam plow engine and Cockshutt plows in May of last year. We plowed with this outfit from May 16th to June 25th. This was all breaking sod. We put in 34 days work breaking 750 acres.

After threshing last fall we fall plowed 100 acres on our own places, averaging about 18 acres per day. This land we plowed about 8 inches deep which is quite a little deeper than the average steam plowing.

Our cost per acre for steam plowing can hardly be figured accurately until we have the engine worn out, as we hardly know what proportion to figure as depreciation. However, we can give you cost for operating. We usually figure on a basis of 20 acres daily average. This, I have found in five seasons plowing in Saskatchewan and Alberta to be a fair average, I have also figured that operating expenses are approximately $2.00 per acre. However I think this is over rather than under what it really is for successful operation.

Figuring on a 20 acre average as follows:

| | |
|---|---|
| 2 tons coal, delivered $6 per ton | $12.00 |
| Fireman 1 day | 2.00 |
| Tank team and man | 4.00 |
| Oil | 2.00 |
| Sharpening lathes (40 acres to set of 8, 35c each.) | 1.40 |
| Engineer 1 day | 5.00 |
| Cook | 1.75 |
| Provisions | 2.50 |
| | $30.65 |

This gives us $1.55 per acre actual operating expense. Then there are a great many incidental expenses besides cost of maintenance which begin to mount as the rig grows old.

For my part I think traction farming is only a makeshift. We can hardly get along without it in the West at first, on account of the scarcity of horses and help. But, I think as the land is broken up and put under cultivation, we shall have to raise stock to survive, and so will go out of the tractor habit.

Mixed farming is the only successful farming, and the steam and gas tractor tend to propogate the all grain farmer who is rarely successful for long. He takes too much out of the land without putting anything back.

Whenever this western country is all broken up and the big farms are also "broken up" and parcelled out to small farmers, who can raise stock as well as grain, then will this become a great country for certain. Until that time we shall hear stories and stories of big hits in extensive farming.

Respectfully,
McDaniel & Gray,
Per H. C. McDaniel,
Whitla, Sask.

**Engine Beneficial Rather Than Detrimental to Plowed Land**

Your letter asking us for a frank statement of our opinion of the tractor and its usefulness on the farm, was received a few days ago. We have had our tractor only one season and the uses to which we put it were not varied enough to enable us to make a very comprehensive summing up. We used it exclusively for plowing; but any deductions that our limited experience has enabled us to make we shall gladly give and hope that they may prove beneficial to others.

From the standpoint of both economy and efficiency, we consider the tractor incomparably ahead of horses. Anything we say has no reference to the steam tractor. The scarcity of water and the lack of good coal in our district, prohibit the use of the steamer.

Of course there are tractors and tractors; and when one contemplates the purchase of one, the great question is, which?

Every man's opinion of traction farming is rose-colored or otherwise, according to the performance of his engine.

We were exceedingly fortunate in our choice of engine, and her performance was so entirely satisfactory, that we look upon traction farming with great favor. We have a Hart-Parr 30-60 oil cooled engine, burning kerosene or gasoline and having but one speed, 2.3 miles per hour. Her builders extolled her merits with becoming modesty, but we found by actual test that she was more powerful than they had led us to expect. At Bengough another engine of the same rated power, but of a different make had been hitched to fairly large two story general store containing a $3,000 stock. She failed to move it. Our engine was tried. She snapped quite a number of chains but after having been securely fastened she started the store, but but reared up in front. Enough of the bystanders to hold her down, jumped on in front and she pulled the store to its new site across the street. She will pull eight breaker bottoms on ground that is fairly level. As a hill climber she is a wonder. The Hart-Parr people keep a man in the field at their own expense, to assist its patrons until they have thoroughly mastered the engine.

Avery and Deere

We can plow 20 acres in a ten hour day. One can easily reckon how many horses, plows, sets of harness and men would be required to do that, and what the expense of feeding them throughout the year would be. We now round the corners and plow in a circle, never lifting the plows, and one man can handle the outfit. If necessary the engine will work at night which horses cannot do.

On a section or half-section a lighter engine of less power would meet all requirements and be more suitable. An engine that could pull four or five plows with harrows, or drills, or other implement behind would be plenty large enough. But she ought to be geared for at least two speeds.

For discing, harrowing, cultivating, etc., a four mile speed would be about right. The only fault that we find in our engine is the low speed. An engine that will pull five stubble bottoms, with a harrow and a six foot binder at the same time, would be an ideal one for a small farm. One operation would cut the grain, plow and harrow the field immediately after. This method would save much time with no appreciable expense for fuel, and would be in keeping with the best methods advocated by our Experimental Farms for preservation of moisture, and would make a perfect fire guard.

Fuel is the question of great importance. An engine that will burn either gasoline or kerosene is better than one that burns gasoline only. Some owners of one-fuel engines were tied up last fall because they could get no gasoline. Our engine will burn either fuel, but we have found that gasoline works more satisfactorily for us than kerosene and also that the former is more economical than the latter until it reaches three times the price (which may not be long). We bought kerosene at 22¼c per gallon, gasoline at 27¼c per gallon, paid 2c per gallon freight and hauled it 75 miles to the farm. It was shipped to us in wooden barrels and the leakage was appalling. The loss in leakage on kerosene was about 50 per cent., and of gasoline about 25 per cent. The latter is shipped in better barrels. Allowing for leakage and teaming, gasoline is cheaper at 30c than kerosene at 20c. One and a half barrels of gasoline will do as much work as two and a half barrels of kerosene, and do it quicker.

This year we shall have a metal storage tank at the farm and steel barrels for hauling. A ten barrel metal tank to fit the wagon would be better. These are absolutely indispensable to every engine owner and will save treble their cost in one season. We use