The Adaptation of the Tractor to Farm Work is a Problem already Solved on the Extensive Ranches of the West

The Place of The Mechanical Horse

Can We Domesticate the Tractor on the Farm of Average Size

BY R. P. JORDAN

EDISON once said, 'The horse is the poorest motor ever built." From the standpoint of mechanical efficiency Edison was right. For every one hundred pounds of energy that we put into a horse in the form of feed, only two pounds of working energy are delivered on the traces. There is not another power, no, not even the old-fashioned steam engine, that has so low an efficiency unit. Yet this hay-driven motor is the machine with which farmers are producing the food of the world. Farmers cling to this most wasteful of all powers because no tractor has yet been devised that they believe will take the place of "Old Dobbin." In the meantime horse flesh is becoming more expensive, horse feed, too, is tending upward, but the thermal efficiency is the same. Is it any wonder that farmers with farms of average size are calling to the manufacturers to hurry up and get a workable, practicable farm-sized tractor. I believe that this farm tractor will soon be with us, if indeed it is not already here.

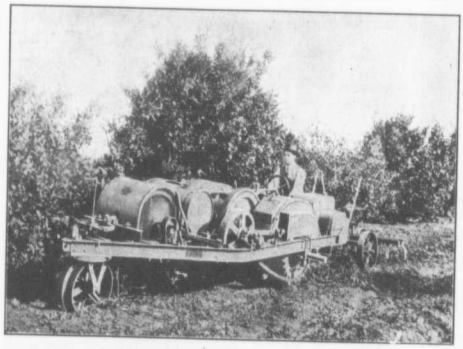
So far as the large farm is concerned the tractor has already proved its usefulness and thousands of them are even now in active operation. Perhaps the point about the tractor that makes its widest appeal is its all-round usefulness. In the spring and fall it hauls the plows or harrows economically and easily. It is easy to handle, never gets tired, and eats only when it works. The tractor can also be harnessed to all belt-driven machinery such as feed choppers, thressing machines, cutting boxes, and circular saws. They can even pump water if occasion demands. In some sections of America it is not unusual to see a traction engine taking a farmer's crop to market and doing the work of a dozen horses.

The tractor appeals to me, too, because it enables the farmer to do his work when it most needs to be done. With a good tractor we can plow at the right time, harrow at the right time, and seed at the right time. In fact, I have seen all three operations combined in one when in the Western States. I have heard of farmers working their tractor 24 hours a day—all that was needed was a strong headlight and an extra man.

There are many factors to be considered when discussing the advisability of buying a tractor. We must decide how many days a year we will use it and determine fuel charges and compare these with feed charges. It is well to remember that gasoline is advancing in price quite as quickly as oats, hay, or corn; more quickly, in fact. There will also be a tendency on the part of farmers to under-rate the cost of horse upkeep. I have figured carefully on this problem, and believe that a little study should convince any farm horse owner that the man who keeps good horses is really expending over $100 a year for each horse. That would go a long way in buying gasoline, repairs, and accounting for depreciation. The initial cost of a small tractor should not be greater than that of the horses it displaces. The difficulty will be to find a tractor that will fit the average farm so completely that most of the horses can be dispensed with. Perhaps cooperative ownership of the tractors and the dispensing with a team or two on two or three farms will make the first outlay an economical one. A shelter for the tractor can be built at much less cost than a barn and stable for horses. Repairs will not cost as much as harness repairs, shoeing, and veterinary bills.

This may sound very 'fetching," but also theoretical. It is so far as the small tractor is concerned. But I know from hard, practical experience that these advantages apply to the large tractor. The tractor is no longer the wild, bucking bronco of its experimental days. It has been entirely domesticated. What I want is to see the domestication of the mechanical horse carried out in its entirety so that the man who farms 100 to 150 acres may use the never-tiring traction engine.

It might mean an expensive experiment for an individual farmer to give the small-sized tractor a trial. What do our experiment stations know about it? Can they give us any light on the subject? Have they given any of the common makes a trial? Is it not time they did? The farm tractor is coming sooner or later, and I believe our Government experts should help us to get in on the ground floor by testing the more promising of the tractors that manufacturers are now offering.



Is the Tractor Adapted to the Small Farm?

Horse power is wasteful power. Only a small percentage of the horse's energy is transformed into work. Hence the demand for a small farm tractor and the efforts of manufacturers to supply it. The farm sized tractor here illustrated is the one devised by the Rumely Company.

Field Shed for Implements

John Jack, York Co., Ont.

ONE of the big holes in the farmer's pocket is the loss that comes from the depreciation in value of farm machinery and implements. The regrettable part of it is that the implement is done for long before it has rendered the service that it should. It is a notorious fact that the same bit of machinery, as far as construction goes, will last a manufacturer far longer than it will the farmer. In the meantime, the manufacturer has got many times over the amount of work out of the machine that the farmer has secured.

That this need not be the case is borne out by the practice and experience of a farmer near Hamilton, who has made it a practice to erect implement sheds on one or two of his fields where he may store his outfit when it is not in actual use. Six posts, a few rails in lieu of plates, and boards enough to act as roof and ends, and you have the whole thing. The lumber is not the best but it serves to keep off rain, dew and sun.. Into this structure the implements are driven of a night or till they are needed for the next farm operation. Experience shows how little injury is done to this farmer's equipment by actual field service. This house simply serves as a protection for the implements when on summer duty. One season will pay for the construction of such a protection. Try it and stop one more leak.