



Barns and Outbuildings of a Large Estanciero and Cattle-breeder, Argentine.

SOMETHING OF AGRICULTURE IN FOREIGN LANDS.

AN ARGENTINE RANCH.

The size of an Argentine estancia or ranch varies from 3,000 to 600,000 acres, the average being about 20,000 acres. The people live very simply, and have little occasion to spend money, almost their only indulgence in the amusement line being the playing of the guitar or mandolin. Nevertheless, they seem contented, and if there is little extravagant living, there is also very little poverty among them.

INFLUENCE OF HEIGHT OF WHEELS UPON DRAFT OF WAGON.

Speaking at a Missouri convention, Professor T. I. Mairs, Assistant Agriculturist at the Missouri Experiment Station, gave the results of tests made at the Station to determine the influence of height of wheels upon draft of wagon. In part, he said:

It has already been demonstrated that wide-tired vehicles, under almost all circumstances, draw lighter than narrow-tired ones, and that their beneficial effects upon roads are very great. Their advantage over narrow-tired vehicles, in hauling feed, spreading manure, and doing general farm work, has long been recognized, and hardly needs to be mentioned.

The chief drawback to the use of the broad-tired wheels has been their unwieldiness. It takes much more room to turn a wagon with a six-inch tire than it does one with a two-inch tire and the same height of wheels, on account of the rim of the wheel coming so much nearer to the wagon bed, while, if the wheels are reduced in size to facilitate turning, the draft is necessarily increased.

To study the effect of height of wheels upon the draft, and discover, if possible, to what extent wheels may be reduced in height without materially increasing the draft, has been the object of some of our experiments.

The test was made with three wagons, and under a variety of conditions. The wagons all had iron wheels, with six-inch tires. The wheels known as "high" were of standard height, viz., 44 inches in front and 56 in the rear, while those known as low were 24 inches in front and 28 inches in rear. The high wheels weighed 692 pounds, the medium ones 510 pounds, and the low ones 292 pounds. The dead weight of the wagons, exclusive of wheels, and including driver and man to work dynamometer, was made the same in each case, about 1,070 pounds.

Then a load of 2,000 pounds was placed upon each wagon, making the total weight as follows: High, 3,762 pounds; medium, 3,580 pounds; low, 3,362 pounds.

It was found that the first two runs over any track drew heavier than later ones, but after the second run the draft was fairly uniform for any one wagon. Therefore, before each test one of the wagons was run over the road four to six times, and the best runs were made in their tracks. On meadows and in fields, a piece of ground of uniform grade was chosen, wide enough so that all the runs could be made without running twice in the same track.

The following are detailed results of tests made:

Dry gravel road, sand about one inch deep, some small, loose stones, ranging in size up to a small hen egg. Length of run, 400 feet:

High wheels, average of two runs, draft 158.9 pounds.

Medium wheels, average of two runs, draft 161.9 pounds.

Low wheels, average of two runs, draft 185.3 pounds.

Advantage in draft of high over medium wheels, 3.0 pounds, or 1.9 per cent.; medium over low wheels, 23.4 pounds, or 14.5 per cent.; and high over low wheels, 26.4 pounds, or 16.6 per cent.

At this rate, the draft required to draw 2,600 pounds on the low wheels would draw 2,290 pounds on the medium wheels, 2,332 on the high ones.

The draft required for 2,000 pounds on the medium wheel would draw 2,038 pounds on the high ones.

Gravel road, up grade of 1 in 44, with about one-half inch wet sand, ground frozen underneath; length of run, 250 feet.

High wheels, average of two runs, draft 231.3 pounds.

Medium wheels, average of two runs, draft 236.5 pounds.

Low wheels, average of two runs, draft 291.0 pounds.

Advantage of high over medium wheels, 5.2 pounds, or 2.2 per cent.; medium over low wheels, 54.5 pounds, or 23.0 per cent.; high over low wheels, 59.7 pounds, or 25.8 per cent.

At this rate, the draft required to draw 2,000 pounds on the low wheels would draw 2,460 pounds on the medium wheels, or 2,516 on the high ones, and the draft required for 2,000 pounds on the medium wheels would draw 2,044 on the high ones.

In cornfields, across rows laid by spring-tooth cultivator, ground dry on top, in good condition for working. In the last cultivation the ground was left as nearly level as possible to leave it, thus the rows afforded no ridges to speak of. Length of run, 400 feet.

High wheels, average of two runs, draft 335.7 pounds.

Medium wheels, average of two runs, draft 360.1 pounds.

Low wheels, average of two runs, draft 445.6 pounds.

Advantage of high over medium wheels, 24.4 pounds, or 7.6 per cent.; medium over low wheels, 85.5 pounds, or 23.7 per cent.; high over low wheels, 109.9 pounds, or 32.7 per cent.

At this rate, the draft required to draw 2,000 pounds on the low wheels would draw 2,476 pounds on the medium wheels, or 2,654 on the high ones; and the draft required for 2,000 pounds on the medium wheels would draw 2,152 on the high ones.

As an average of the twelve runs made under these varying conditions, we have an advantage of the high wheels over the medium ones of 6.8 per cent., and over the low ones of 27.4 per cent., and an advantage of the medium ones over the low ones of 19.6 per cent.

Thus, it is seen that the difference in draft between the high and medium wheels is not great, while that between the medium and low wheels is considerable. The greatest care with which the wheels of the medium height can be turned and loaded and unloaded would more than counteract its increased draft over one with wheels of the normal (highest) height.

In the low-wheeled wagon, while we gained somewhat in convenience of turning and loading, we increased the draft out of proportion. Moreover, another great disadvantage of a wagon with wheels as low as 24 and 28 inches is the increased vibration of the tongue, which is almost, if not quite, as worrying upon the team as the increased draft, and tends to keep the horse's neck sore on top. On the other wagons the vibration was not noticeable.

Taking all things into consideration, including draft, convenience, etc., we believe that the most suitable height for wheels of a farm wagon, especially one with wide tires, is 32.36 inches in front, and 40.11 in the rear.

THE DAIRY.

FROM GUESSLAND TO FACT PASTURE.

The dairy cows of Illinois and Iowa are feeding in Guessland, writes Wilbur J. Fraser, Chief of Dairy Husbandry, University of Illinois, in that piquant and original style which has characterized his several recent communications to the agricultural press. The dairyman simply guesses at the milk they give and the money they make him. The dairyman doesn't guess at the amount of money he receives for it, but counts every penny every time. Then why should he guess at the milk his own cow sells him? But he does right along, and never thinks how unbusinesslike it is. It is a poor rule that will not work both ways.

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The only way from Guessland to Fact Pasture, where the dairyman knows the annual production of each, is the way of the scales and the test. There is no other way but to weigh and test the milk of each cow separately. All estimates and guesses miss the mark, and most of them miss it a long ways; they are absolutely unreliable. This is agreed to by all the dairymen who have had practical experience on both sides of this question. This testing brings many surprises to the most experienced dairymen. It is not only the most natural and easy way, but it is absolutely the only way to learn the facts.

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While there is but one entrance to Fact Pasture, there are two ways out of it. One is the way to the slaughter-house, and it is astonishing how naturally and how soon the poor producers find this way out of Fact Pasture. At the other side of the pasture is the fine barn and abundant feed of the proper kinds provided by John Thinkwell, who keeps a really high-profit dairy, and has a modern home for himself as well as for his cows. Here the high-producing cows are known and thoroughly appreciated; they go in and out, and find pasture and plenty. And here the poor producers can't stay.

These words are well weighed—and so should be the milk of every dairy cow. "Weighed in the balance and found wanting," will then be said of a thousand times more dairy cows than of old-time kings. So true is the Babcock test, and so badly needed in Illinois, that it may almost be said that its use will soon be a test of the progressive dairyman himself. Science has given a simple and practical and proven test to the dairymen, and now the dairyman, as well as his cow, is "up to" the test.

A FLOATING WHEY TANK.

Discussing the subject of whey tanks at the February meeting of the Michigan Dairymen's Association, one speaker told this story:

"They say there is nothing new under the sun, but I believe I once discovered something new. It was a floating tank, and my friend, Mr. Henry, said, 'I wonder if the calves and pigs float, too?' A new factory had been built in one of the southern counties, and they had put what we would call a cistern into the ground for the whey. The space around the cistern had not been filled in. The morning we visited this factory was right after a big rain, and the water from the eaves and the surrounding ground filled in the hole, and the whey tank was bobbing up and down, full inside and out. The farmers were wading up to it with rubber boots, laying planks on boxes, pumping the whey, putting it into their cans, and going home apparently perfectly satisfied. There was little danger of a man stealing more than his share of whey. Some makers use barrels, and I once asked an operator why he did. He said, 'Well, the farmers steal whey, and so we put each patron's whey into a tank of his own and measure it out for him every day.' I just put my nose over one of those barrels, and it had not been cleaned out, I will guarantee, in three months. You cannot raise good calves on that kind of stuff."

"We seemed to have larger crowds of visitors than ever this year, and, as far as we can tell, there were at least 31,000 people on the grounds during June alone," writes President Creelman, of the Ontario Agricultural College. Considering the backwardness of the season and consequent rush of farm work, this is a most gratifying report, indicating that Ontario farmers are learning to appreciate the institution as time goes on. It pays to take a day off from work now and then, and there is no better place to go than Guelph. One can pick up more useful information there in one day than he can at an exhibition in two.

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