May 17, 1917.

More Corn---Less Work

Does Corn Always Pay for Cultivating By F. E. ELLIS.

THE teaching of the colleges, likewise of the practical Institute lecturer, has always been Cultivate! Cultivate! Cultivate! With most hoe crops this is good advice. Thousands of us have proved it so on our own farms. Now, along comes the Illinois Experiment Station with the information that in cultivating the corn crop we may do more harm than good, and that in an average year we can grow more corn with less work by cutting out several of the latter scufflings In telling of this new method of growing corn 1 do not wish to be suspected of endorsing it. I merely submit the evidence of the Illinois Experiment Station for the

consideration of Canadian farmers

It was back in 1907 that these experiments were first started The experiments were conducted on the brown silty loam of Illinois. Three plots were plowed to a depth of six inches, and the seed bed carefully worked. The fourth was left unplowed and received no preparation beyond the removal of stubble and other refuse." The purpose of this last plot was to find out whether plowing and careful seed bed preparation are paying operations for the corn crop. The fields were all planted with the same seed and at the same time. When the plots were

ready for cultivation; one was allowed to go entirely uncultivated through the whole season. the weeds having full opportunity to develop. The second was given three shallow cultivations, this removing all weeds and maintaining an ideal soil mulch. The third plot was not cultivated, but the surface of the ground was carefully scraped with a sharp hoe, very shallow, to destroy weeds without disturbing the soil. The surface of this plot baked as hard as it pleased. The fourth plot, the one with no seed bed preparation, was also hoe scraped as number three.

This experiment has been repeated every year up to the present. The averages for the eight years, 1907 to 1913, have been 7.3 bushels of corn per acre for the weedy plot; 39.2 for the cultivated one with the dust mulch; 45.9 for the hoe scraped crop which was plowed and 31.4 for the plot which received no seed bed preparation. These results are rather startling. The dust

23

ed

FARM AND DAIRY

mulch seems to have lost its virtue, as a plot without mulch and the surface baked hard yielded more heavily in a period of eight years.

The explanation, I believe, is found in the peculiar rooting system of the corn plant. I remember one year when we had some corn on a hillside. A heavy rain washed away the surface soil on parts of the rows. It left exposed a perfect net work of fine corn rootlets which covered every square centimeter of that confield. In the Illinois experiments, these rootlets must have absorbed the moisture as quickly as it could be brought to the surface. Hence the growth of the corn on the uncultivated plot. But why did the corn not grow equally well on the well cultivated plot? Probably because the cultivator, even though carefully managed, destroyed a portion of the rootlets



W. H. MILLS, Elgin Co., Ont.

TE are getting great and wonderful satisfaction from the milking machine. We installed a two double unit milker last June, which we used continually until December, when we put it away as the cows were

about dry. We milked 36 cows last year and never had a cow lose a quarter. We expect to milk the same number this year, besides 12 on which we are raising calves. We keep one man to look after the cows and calves, do what little stripping is necessary, take care of milker, wash pails, cans, etc. It takes him an hour and a quarter to an hour and a half to milk 36 cows.

We cannot see that it is hurtful to the cows in any way.

sincerely believe that the milker does much better work than the average hired man In fact, the labor problem is so acute, and men so dislike to milk cows by hand, that we consider the mechanical milker will be used by all dairymen in the near future. We keep six men, none of whom we could hire to milk cows by hand.

On first using the milker last spring we had very little trouble with the cows getting accustomed to it. The heifers gave their milk down very freely, but

Can Corn be Grown in British Columbia? This Field on the Colony Stock Farm Yielded 26 Tons of Ensilage per acre.

> The lesson that I would draw from the Illinois experiments is not that corn cultivation should be neglected, but that the seed bed in the first place should be thoroughly prepared, that the early harrowings before the plants are more than two or three inches high, should be frequent and thorough, and that the first scuffling or two, the ones that really kill the most of the weeds, should be made with cultivators of the hoe type and very shallow. Thereafter scuffling should be omitted if the weeds are not making a dangerous growth. Where scuffling is necessary, it should be very shallow, just enough to scrape off the weeds with sharp hoe blades. Apparently the root system of the corn plant is of more importance to its growth than is a dry mulch. Every farmer can afford to duplicate the Illinois experiments under his own peculiar conditions. It would represent no extra labor worth mentioning, and if his results were similar to the ones given above he would save himself many days' work each season.

two or three of the older cows did not. However, this spring, those same cows are in fresh and are milking perfectly with it. We cannot see that it is hurtful to the cows in any way.

I think a man should have a dozen cows before it would pay him to instal an outfit. He could milk 12 to 20 cows with one double unit and do his own stripping. As to the cost of installation that depends entirely upon the number of units used, and the kind of power used. We are using a 4 H. P. coal oil engine, which milks the cows, pulps the roots, cuts feed, etc.

We have no repair bills yet. The teat cups are not perishable. The rubber lining inside will occasionally have to be replaced, but they are only about 60c. each.

I believe it is the best investment we ever made. If it were not for the milker I would not be a dairyman, as it would be impossible to get the men and time to milk so many cows along with the other farm work.

