

or 600 feet in all, and eight barrels of oil were used in the experiment. The day after the oil was applied and before it had time to be absorbed a heavy rain fell. The road was examined during the rain and where oiled it was evident that the dirt beneath the surface was still dry and retained its supporting power, while on each side of the oiled portion it was muddy and rutty. A heavy frost, with the temperature at zero, followed the rain. The oiled portion after this was perfectly smooth, and the wheels made on it a muffled sound that showed the dirt beneath the surface was unfrozen and dry, while the unoled portion was cut up with ruts one to two inches deep and frozen rough and hard. Crude oil costs from 60 to 90 cents per barrel at the wells in the United States, so that its application to a roadway is not a very expensive affair.

A New Use for Barnyard Manure.

A French authority states that farmers are wasting their time in using barnyard manure or refuse as a fertilizer. The contention is that the chemical constituents of manure, which alone are valuable, form such a small part (about 1.62 per cent.) that there is a great waste of time and labor in putting it on the land. The rest consists of water, of unassimilable woody fibre and mineral matter of which the soil has always a plentiful supply. All this is considered as dead weight which serves to retard the effect of the active constituents, and it is claimed that it would be better to employ the chemical constituents proper, a handful of which represents effectively the vegetative force of a ton of manure. It is also added that the small percentage which is of use is constantly wasting because of fermentation causing the gases such as ammonia to escape.

The director of the Pasteur Institute at Lille has devised a means of using these gases. To this end he advises covering the manure with a bell-shaped cover furnished with a tube that ends in a receiver filled with acidulated water. The ammonia, instead of dispersing through the atmosphere, could be collected in liquid form, from which the ammoniacal salts could easily be secured. It is also claimed that the other gases formed by fermentation, such as carbonic acid and gaseous hydro carbons, will burn in the open air and if this received were furnished with a gasometer could be utilized for lighting the buildings on the farm. This is an ingenious plan and may come into use after a while. It shows, however, what can be done when science is applied to agricultural subjects.

Sheep versus Dogs

A new England sheep-raiser claims to be able to keep dogs from his sheep by a barbed wire fence, so constructed that neither the dogs nor the sheep can get through. The fence consists of seven strands of barbed wire on posts eight feet apart, with a wooden rail below the top wire to steady the posts, the total cost being \$67.20 per mile, which seems very low. The first strand of wire is put very close to the ground so that sheep and dogs cannot crawl under, and should not be more than three inches from the ground at any point. The second wire is put four inches above the first, the third five inches above the second, the fourth six inches above the third, the fifth six inches above the fourth, and the sixth eight inches above the fifth, then a wooden rail eight inches above the sixth wire, and a seventh strand of wire eight inches above the wooden rail.

Such a fence would certainly enable a farmer to protect his sheep from dogs. There is one strong objection to a barbed wire fence for such a purpose and that is that so much wool would be lost by the sheep coming in contact with the barbs. The writer states, however, that this would not amount to much even in a large flock of sheep.

Mr. Elias Pannabecker, of Hespeler, Ont., says: "I like your weekly very much."

CORRESPONDENCE

Distribution of Cereals for Improvement of Seed

To the Editor of FARMING:

For the past ten years systematic efforts have been made to increase the average returns and to improve the quality of the cereals and other important farm crops grown in Canada by an annual distribution from the Experimental Farm at Ottawa of samples of seed of the best and most productive sorts. These varieties have been first tested at the Experimental Farms, and only those which have proven to be the very best have been chosen for this distribution. The samples sent out have contained three pounds each, and every precaution has been taken to have the seed in every instance thoroughly clean and true to name, and the packages have been sent free through the mail. Those who have received such samples and grown them with care have usually had at the end of the second year enough seed to sow a large area, and in this manner careful farmers all over the Dominion have been gradually replacing any inferior and less productive sorts which they have been growing in the past, with superior varieties possessing greater vigor.

By instruction of the Hon. Minister of Agriculture, another such distribution is being made this season, consisting of samples of oats, barley, spring wheat, field peas, Indian corn and potatoes. These samples will be sent only to those who apply personally. Lists of names from societies or individuals cannot be considered, and only one sample in all can be sent to each applicant. Applications should be addressed to the Director of Experimental Farms, and may be sent any time before the 15th of March, after which date the lists will be closed, so that all samples asked for may be sent out in good time for sowing. Parties writing will kindly mention the sort or variety they would prefer, and then, should the available stock of the sort asked for be exhausted, some other good variety will be sent in its place.

WM. SAUNDERS,
Director.

Experimental Farm, Ottawa, Feb. 7, 1899.

Lucerne as a Hay and Fodder Crop

To the Editor of FARMING:

In your issue of January 24th I saw an article on Lucerne clover, by Mr. A. Rawlings, of Forest, Ont, and thought he had taken the wind out of my sails, as I had thought of giving you my small experience. But as he gave us the value of Lucerne as a pasture only, I will, with your permission, give you my experience with it as a hay and green fodder crop.

In the winter of '97 one of the speakers at our Institute meetings recommended it very highly, and said he would not try to run a farm without it, and that he had then 27 acres seeded down with Lucerne. I took his advice and in the spring sowed two small pieces, one about three acres and the other just half an acre, near the barn to cut green for cows and pigs and help out the pasture. This was sown with peas and oats, which I cut green. Where I cut this feed first the Lucerne did the best and grew very fast after the peas and oats were off. In a few days it was a foot high and I turned the cows in several times. Then it grew till October, when I cut nineteen good cocks of hay (first year).

This last spring, on the 18th of May, I commenced to cut the Lucerne for pigs and cows at night. I have for years sown cow corn for this purpose, but I see that I will not need it any more. On the 1st of June I cut what was left, eighteen cocks; cut the second crop on July 8th, the third on August 18th, and as we got no rain for weeks I did not cut the fourth crop until October 10th, and it was some time curing but made good feed. These cuttings