

after quoting and commenting upon the Edinburgh reports, expresses his estimate of their utility by stating, in conclusion, that "experience proves that the third of these reports by Andrew Smart, M.D., of Edinburgh, has been the most widely useful as suggesting preventives for the Rinderpest which proceed on known scientific principles, and which have proved far away the most successful of any in this country."

Before closing this letter, I shall ask your lordship's permission to express once more my opinion upon one of the most vital and important questions of the day—viz., Do sheep take rinderpest? In a report which I had the honour to submit to your lordship and colleagues, dated the 11th December, and subsequently published, I stated that I had completed a careful experiment, undertaken for the purpose of deciding that very important question, and that I had succeeded in inducing the disease in a perfect form in a sheep which had during a lengthened period been kept in contiguity with affected cattle. Although there were at this time many conflicting opinions and apprehensions as to the ovine susceptibility to the poison of rinderpest, this report, so far as I am aware, gave the first public announcement of the fact, deduced from conclusive experiment, that sheep were undoubtedly liable to the disease. And had the distinct note of warning which I then sounded been heeded, and the simple precautions attended to which I had recommended, I venture to think we should not now have had the plague amongst our flocks, and anxious owners of stock would have been spared the perplexity of diverse opinions. I would again repeat the opinion which I formerly expressed. There need be no great apprehension as to the disease passing over the country as an epizootic among the sheep, as it has been with cattle. With the exercise of ordinary precaution such a catastrophe will not occur, although isolated cases and occasional little outbreaks are inevitable during the continuance of the disease in the country.

Let it be remembered that ovine susceptibility to the virus of true cattle plague is greatly less than pertains to the oxen tribe, and sheep succumb to the disease only after inoculation, or in consequence of lengthened exposure to the contagion in a more than usually concentrated form.—*Andrew Smart, M.D., in Agricultural Gazette.*

NITRO SUPERPHOSPHATE MANURE.

A considerable quantity of this manure has lately been sold in Halifax. The sample analyzed by W. T. Rickards, F. C. S., for J. D. Nash & Co., was found to contain—

Moisture	- - - -	16.450
Soluble Organic Matter	- - - -	10.765
Insoluble Organic do	- - - -	23.112
Alkaline Sulphate and Chloride	- - - -	2.226
Soluble Phosphate Lime	- - - -	19.580
Insoluble do. do.	- - - -	20.630
Sulphate Lime	- - - -	6.850
Silica	- - - -	150
Loss	- - - -	242
		100,000

Nitrogen 5.62 per cent. Ammonia 6.80 per cent.

"In using this Manure it should be first well mixed with about ten times its own weight of dry soil or sand, so as to ensure a uniform distribution over the surface. From 200 to 500 lbs. per acre, according to previous state of the ground will be required. If once used no farmer will ever be without it if he can procure it, as the large increase of crop is such that no other can equal it."

Communications.

A NEW PLAN OF MAKING SUPERPHOSPHATE OF LIME.

MR. EDITOR:—I have read many plans for making superphosphate at home and have tried several, but my own is so much superior to any other that I send the details for you to publish if you consider it worthy.

Firstly—pound the bones to a coarse powder with a hammer, then put them into a boiler with a little water and steam them for half an hour, remove the bones to a half barrel or other convenient vessel. If the sulphuric acid is of full strength take of it half the weight of the dry bones you are about to dissolve, and add to it one third of its bulk of water, pour this mixture on the bones, and in about a week, with daily stirring, they will be reduced to a paste. I then put all the hen manure I have on an earthen floor, and pour on it the dissolved bones reduced with its own bulk of water, and mix the whole thoroughly, then add a barrel of charcoal dust or dry peat to every twenty pounds of bones, again mix, make the lot into a snug heap; in a few days, work it over and again let it heat, repeating the working and heating till the whole becomes a dry powder that you can sow broadcast, or feed from a drill machine.

Last year with the bones from the house and the manure from twelve hens, I made eight barrels of superphosphate that proved itself superior to Coe's where ever tried, particularly in the garden and on corn.

The cost was almost nominal:—	
Sulphuric acid, 20 lbs.	- - - \$1 00
Labour and horses, say	- - - 1 00
Half barrel spoiled	- - - 0 50
	\$2 50

8 bbls. superphosphate, 150 lbs. each — 1200 lbs., at Coe's price, 2 cts. per lb. - - - \$24 00

This plan is the result of several experiments, and I can confidently recommend it to your readers. I am, &c.,

G. T. B.

Granville, April 14th, 1866.

FRUIT TREES.

MR. EDITOR:

I am pleased to see that the Journal is about to be enlarged, and I trust therefore that you will be able to spare a corner to an occasional contribution.

I happened to overhear part of a conversation between two gentlemen in the Truro train, relative to their young orchards and fruit trees, and I therefore take the liberty of offering you a few lines on planting and rearing fruit trees.

The gentlemen above alluded to, both remarked that their trees rotted at the root; and they both seemed to think that the soil the trees were planted in was the cause of it. I think you will agree with me that this conclusion was more than likely erroneous.

That a healthy tree properly placed in the ground should come to grief through the roots rotting, I can scarcely understand, for an apple tree will live in almost any soil, though it may not thrive.

If a tree dies after being properly set out, the cause of death may, and most likely does come through the roots, but the head dies first and then perhaps the roots may rot, but I believe it oftener happens that after the head withers and dies, the roots, or some of them, recover and send out a wilderness of water shoots.

I am more inclined to think these gentlemen lost their trees through the instrumentality of the "borer," the result of whose operations will certainly convey to some the idea of a rotten root. I would therefore suggest to those in the country who may have trees that appear to be rotting at the root, to draw the earth carefully away from the base of each tree, and by scraping and washing the bark for a few inches above and below where the soil covered it, search out the cause of this appearance of rot.

The workings of the "borer" can easily be discovered, and the grubs either picked out, or effectually killed by thrusting a small twig into the holes they have bored. Then cover the base of the tree up again with a little lime and charcoal, and it will be more than likely to recover.