

Mr. Shutt lays the average losses of farmyard dung by water at from one-third to one-half, or even more, of its original value. To avoid this, he proposes: 1, to cut the straw used for litter, and thus increase its absorbent power; 2, to use air-dried muck, when it can be had. To which, of course, Mr. Shutt adds that clover ploughed in will greatly benefit the soil, as no doubt it will, and a good practice it is if the farmer has no stock that would be glad of it in the winter. Ploughing in buckwheat or white mustard is one thing; ploughing in such a valuable fodder-crop as clover, is another.

Tannery-ashes.—The finest crop of tobacco we ever grew was manured with spent ashes, and waste from a tannery at Joliette; some of the leaves, as measured by M. Panneton, the Grand Connétable of that town, were upwards of 40 inches long and more than 24 inches broad; Connecticut seedleaf; not good to smoke but decidedly profitable; people came from as far off as 20 miles to see it.

Wood-ashes.—Some one mentioned that, in his opinion—who it was we forget—it was not likely that a dressing of wood-ashes would bring a crop of turnips. We had spoken of having succeeded in growing white turnips in England with this manure alone. Now, just look at Prof. Shutt's analysis:

The analysis of a sample of wood-ashes forwarded by Messrs. Reford & Co., Montreal, showed their composition to be as follows:

Moisture	2.26
Loss on ignition (charcoal, &c) .	5.62
Insoluble matter (clay, sand, &c.)	17.36
Phosphoric acid	2.21
Potash	6.22

Commercial wood-ashes necessarily vary somewhat in composition; but good samples should range between 5% and 6% potash, and 1-5 per cent to 2-5 per cent phosphoric acid. It is evident, therefore, that this sample may be regarded as quite equal to the standard of good commercial grades.

Thus, a dose of 25 bushels of ashes of the above quality would contain a fair amount of phosphoric acid; quite enough to bring a crop of white turnips, for allowing the ashes to weigh 75 lbs. a

bushel, they would contain 41 lbs. of phosphoric acid, about the same quantity as would be contained in the ordinary dose of 300 lbs. of good mineral superphosphate; thousands of acres of turnips are grown every year in England for sheep with no other dressing than that.

The experiments of Nitragin, a preparation containing the germs resident in the roots of legumes, with a view to ascertaining its practical value for encouraging the growth of clover, pease, and beans, have been continued at the Experiment Farm.

The clover experiment failed, as the nitragin arrived too late in the season of 1899; but very satisfactory conclusions were reached in the "treated and untreated" clover-plots of 1898, that is, on the second year's growth.

The soil was almost pure sand, humus and nitrogen being present only in excessively small quantities. Ten square yards were manured with 4 oz. muriate of potash, and 12 oz. of superphosphate, i. e., at the rate of 120 lbs. of muriate of potash and 300 lbs. of superphosphate to the acre.

FIRST YEAR'S CROP, 1898.

The yield of the crop from inoculated seed was about 15% heavier than that from the untreated seed.

SECOND YEAR'S GROWTH, 1899.

	Inoculated.	Untreated.
Total weight of plants . . .	745 grms.	252 grms.

Mr. Shutt concludes with the following piece of practical advice:

There are, however, several rather serious difficulties in the way of the general introduction of nitragin. First, it must be used while still freshly prepared (the German manufacturers will not guarantee its vitality after it has been made six weeks), and, secondly, it must have been protected from strong light and kept at a temperature below 100° F.

We are of the opinion that any farmer might without purchasing nitragin obtain the same results by taking soil from a field that has grown a good crop of clover and sowing it over the poorer soil. The earth which comes from the roots of clover contains the germs and, therefore, this method would be an actual inoculation of the poorer soil. This plan has worked most successfully with several experimenters, in both Europe and America. Another plan would be to pour