Upon a measured portion of young clover and other uriate. spring seeds, on a light, gravelly soil, Mr. Long, of Brancroft, sowed the ground gypsum as a top dressing in showery weather. Comparing the produce and growth of this portion with the remainder of the field, he expresses himself thus-" You have often seen a particular spot where a manure heap has been laid, its thickening and towering above everything around it-now this is exactly what the gypsum has done." The best time for applying gypsum to clover is in April (1) or May, the former being preferred.

Formerly, one half of the farmyard manure was kept under cover, and the other in an open pit. It was noted that the manure from the covered pit gave better results than that which had been all along exposed, and therefore the whole of the manure pit has now been roofed in. In fresh farmyard, manure the ammonia-the most valuable ingredient-exists in a highly volatile condition, and is thus very apt to pass away into the atmosphere. To prevent this, Mr. Barter uses gypsum freely. The gypsum box sits in a corner of the byre, and, immediately after each cleansing, a little of this useful stimulant is sprinkled on the fresh manure, and over the spaces behind the cattle. Gypsum is very cheap-not more than about 30s per ton-and, in addition to its inherent value as a fertilizer, it possesses properties which make it very useful for the purpose just mentioned. Besides helping greatly to fix the ammonia-that is, to prevent it from flying off into the air-the gypsum is also useful in keeping down unpleasant odour.

Gypsum is present in considerable force in the clover plant. It is said that an ordinary crop of clover will contain per nore about two hundred weight of this mineral, and the same may be said of sainfoin. Hence, when dressing your seeds with gypsum, there is no special need for a heavy dressing, three hundredweight per acre will be enough. "Worn out" land is above all others suitable for dressing

with gypsum. On any farm where the clover plant fails to make a strong growth the year after sowing, there the need of gypsum is apparent. It is best to seatter it on a misty day or very early in the morning, when the plant is saturated with dew.-N. DEvon.

With regard to gypsum as an ammonia fixer, 12, I consider it one of the very important items connected with the farming of the present day. There can be no question about the great quantity of ammonia wasted every year in open foldyards, and many farmers are quite alive to the fact, but, like the landlords, are unable to bear the expense of covering them, hence the necessity of endeavouring in every known way to save the most costly of all fertilizers. In my own case I have a small covered foldyard, but am obliged to empty it once, if not twice, during the winter, and all I can do-as far as I know-is to keep scattering a little gypsum in the foldyard while the manure is being carted away, or on the mixen when each load is emptied The action it has is to prevent the ammonia escaping in the air.-NORTH RIDING.

Sulphuric acid.—As mentioned last month, whether in a lecture or in this periodical I really forget, the papers say that the duty is to be removed from sulphurio acid. If this is the case, a great absurdity will vanish from our trade. What can be more absurd than for Canada to send her rough apatite to England, there to be ground and dissolved in the acid, to be sent back again to us in the form of mineral superphosphate of lime. See p. 82.

(1) This is for England : apply gypsum when the grass begins to

grow is my rule. (2) By the sulphuric acid, bu. to be effective the application must A. B. J. F. be liquid. A. R. J. F.

Root-crops.-" The deplorable state of agriculture in this province is greatly due to the absence of root-crops." This wise sentence must have struck many who observed it in the article on the Beet sugar Industry. by Mr. Wilfred Skaife, in the March number of the Journal. The generality of our farmers do not see that no amount of lying idle in grass will profit the land half so much as the constant sultivation it reocives during the proparation for, and the horse- and handhoeing of, one root crop. It is worth while repeating over and over again, till the i lea sinks into men's minds, that manure is good, but that manure and tillage are better.

Frozen seed-wheat.—A professor of agricultural science in the States has been conducting certain experiments by which he has ascertained that from 40 to 50 per cent of frozen wheat will grow. May be so. but I hope my friends ia the lower parts of the province will not be tempted to risk it, though Mr. Mackenzie, on his 40,000 acre farm in the West, announces his intention of doing so.

Oats.-It appears that the American Agriculturist-to the publishers of which periodical I am indebted for a sight of the best farm paper I have yet met with on this side of the Atlantic-has offered a prize of \$500.00 "for the largest yield of oats per acre" : open to the whole of North America. Mr. Harris, a well known writer on agricultural matters, contributes a very sensible article in aid of the efforts of those who may be tempted to try for this very liberal prize. It will be found below.

I do not think spring ploughing will assist Mr. Harris' neighbour. There is nothing like a stale-furrow for springgrain of all kinds. Again; why not drill the whole of the seed? Surely, the equal depth at which the seed is deposited by that implement is more likely to produce an equal braird, which, again, is more likely to produce an equally ripening crop, than the half and half plan of the neighbour! The quantity of seed-3 bushels - is, if the land is, as it appears from the description to be, in perfect condition, about right for the drill. But what does "a ton of hill and drill phosphate" mean? One of the first lessons to be taught by the very handsomely endowed experiment stations in the States should be a proper system of nomenclature. Phosphate conveys to the scientific mind a compound of phosphoric acid and a base-lime, iron, &c. - , what the neighbour means by the term is some indefiuite mixture of phosphorio acid, in a soluble and insoluble state, potash and nitrogen. And a ton to the acre! And this preposterous dose on " a piece of land that has had for years more than its proper proportion of manure"! Why, the cost of this dressing alone will exceed \$30.00, and, as oats are selling in the States, that would be equivalent to the value of nearly one hundred bushels! It is not this extravagant style of work that the American Agriculturist desires to encourage, I am sure.

Mr. Harris is, I am glad to see, sound on the quantity of seed question. The English farmers, having an earlier seedtime, never sowed quite so quickly as the Scotch. The latter, even as late as 1882, frequently sowed a quarter-8 bushels imperial-to the Scotch acre of five roods = 6 bush. 2 pks. to the imperial acro. (1) Besides, the drill was common, I may say universal, in the South East of England in 1830, whereas, in Scotland, it was rare when Stephen's Book of the Farm was published-1852. We, in the "home counties," seldom exceeded 3 bushels with the drill, or 4 bushels broadcast.

In this province, as farmers often sow grain just as it come

(1, See Transactions of the Highland and Agricultural Society for 1881.