

Besides, pulling a field is not pulling a farm. If nitrate of soda helps the yield of straw, it helps the manure heaps, and these can be returned to the land with advantage. All top-dressings should be employed with judgment, and in combination with a good head of stock, and no damage will then follow.

Nitrate of soda is well applied to cabbages, mangel, and occasionally to swedes. It promotes the growth of clover and ryegrass, as is well known in Scotland, where the newly-cut clover ground is manured with such a top-dressing. For cabbages it is the best fertilizer, and for mangel it is as good as dung. Nitrate of soda is a first-rate manure for corn, so that its uses are great and varied.

#### APPLICATION.

For efficient application a manure distributor is almost essential. Such an implement costs about £14, but it will last for a great many years. It is difficult to distribute nitrate by hand without putting on double the proper quantity on one place and missing others entirely. The consequence is blighty and over-grown straw where the nitrate fell in excess, and a patchy condition of crop generally. The top-dressing should be fine and well mixed, and be applied dry, and the distributor should be protected from rain and put away clean when done with.

#### SULPHATE OF AMMONIA.

A good deal of attention was drawn to the advantages of this substance over nitrate of soda last spring. It is considered to produce a better effect on the quality of the crops to which it is applied, but on this point some reserve is necessary.

Ordinary field experiments are seldom to be trusted. They depend too much on the special character of the soil of each plot, and of the season, and are too liable to contradict each other. The crop growing on contiguous patches of land always varies in quantity and quality, irrespective of any difference in treatment, and no one can say how much of the difference may be due to the soil and how much to the fertiliser. It is my own opinion that, after all, the safest guide is the verdict of general experience, and this has been given in favour of nitrate of soda and its companion manure sulphate of ammonia. These two may always be trusted to show an effect, and there is never any doubt as to where they have been applied. Either deepens the colour of the herbage, and increases

the size and vigour of the foliage. You might write your name with either on corn and read it in a fortnight.

Besides these two it would be difficult to name another so active and so certain. Nitrate of soda has its weak points, but they are not efficiency. Cake feeding will produce similar effects, and of the two methods I prefer the last as more permanent and less exhausting.

JOHN WRIGHTSON.

#### ECHOES FROM THE FARMER'S CLUBS.

*Ste Hélène Club, Kamouraska.—Experiment-field.*  
—Effects of lime on grain-crops.—Report of M. Pierre Roy.—The experiment-field comprised about (a great want of accuracy) an arpent of black land divided into two plots. On one plot, was ploughed in 4 inches deep, during the fall of 1897, on an oat-stubble, two barrels of lime mixed with black mould. The lime cost \$1.30 a barrel. The land was worked in spring with the spring-tooth harrow, and well ditched at the same time as the ploughing was done. Low-lying land, near a small stream. Preceding rotation: after meadow, an oat crop, which was very short in the straw, and the yield in grain trifling. This year, 1898, the experiment-field was again sown with oats. (About as bad farming as can well be conceived. Ed. J. of A.).

*Results:* The limed plot, straw longer, ears better grained, grain heavier, yield 19½ bushels.

(Signed) PIERRE ROY.

*Report of Mr. Joseph St Pierre.—Soil, sandy loam. Mixed 3 loads of black earth with 3 barrels of lime; worked it in with a spring-tooth harrow, last fall, 1897, on a wheat-stubble. The lime cost \$1.35 a barrel. Ploughed the field in the spring of '98 from 4 to 5 inches deep.*

The land, on a slight slope, was dried by ditches and water furrows. Rotation: 4 years in meadow, and last year wheat, all without manure. This year, the experiment-field, about an arpent in superficies, was divided into two equal plots and sown to wheat. The limed plot yielded 6 bushels, 53 lbs.; the unlimed plot, 4 bushels, 47 pounds. In the limed plot, the straw was the longer by 3 or 4 inches, the ears longer, the grain bigger, and the stems stouter.

(Signed) JOSEPH ST PIERRE.