

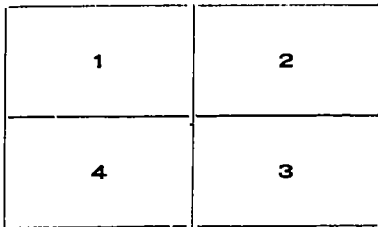
grain is above ground. (1) Be careful not to sow the nitrate the second time unless the leaves of the plant be dry ; otherwise, they may be scalded.

No. 4 plot, the comparison plot, is to receive no manure.

Briefly, No. 3 will show the effect of phosphoric acid alone ; No. 2, the effect of phosphoric acid and wood-ashes ; No. 1, the effect of phosphoric acid, nitrogen, and wood-ashes. (It must not be forgotten that wood-ashes contain a notable percentage of phosphoric acid. Ed. J. of Ag.)

Competitors are to note with care the difference between the various plots, both during their growth and at harvest time ; and the Judges appointed by the Club are to make their report with those points in view.

2nd COMPETITION.—*Crops of mangels or field-carrots.*—Competitors shall enter in the competition an experiment field of one arpent, divided into 4 equal plots of half an arpent each, as shown in this diagram :



The field is either to have been manured in the previous fall, or this spring, with 12 tons of dung.

The whole of the 3 plots Nos. 1, 2 and 3 shall have received last fall, or shall receive as early as possible this spring, 600 lbs. of good wood-ashes, to be buried in, and mixed with the soil with plough or grubber.

A week at least before sowing, shall be spread on the plots 1 and 2, 200 lbs. of plain superphosphate, to be worked in with the harrows. (2)

After the seed is in, shall be spread, on plot No. 1, 50 lbs. of nitrate of soda, well pulverised and mixed with twice or thrice its bulk of dry mould. This shall be done at twice ; 25 lbs. immediately after seeding, and the rest a few days after the plant is above ground, the latter in dry weather.

The comparison-plot, No. 4, is to have no

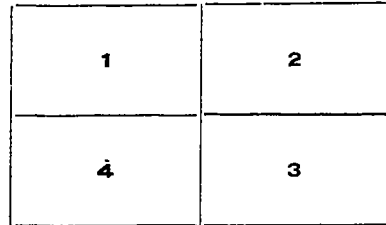
other manure than the original dressing of dung common to all the plots.

To sum up, plot 3 will show the effect of wood-ashes, plot 2, the effect of wood-ashes and phosphoric acid, plot 1. the combined effect of wood-ashes, phosphoric acid, and nitrogen on mangels and carrots. (We should back the plot of mangels that receives the nitrate of soda together with the 3 tons of dung, even if it had neither wood-ashes, nor the phosphoric acid in the superphosphate. Ed. J. of Ag.).

The competitors will carefully observe the differences that manifest themselves during the growth of the plants and at harvest-time ; and the judges of the competition will make their report in terms of agreement with the facts stated.

3rd COMPETITION.—*Tobacco.*—The experiment-field is to be an arpent of land fairly rich in humus and nitrogen from previous dressings ; for instance, a soil that had been manured one or two years before with dung or with a second crop of clover ploughed in, etc.

This arpent is to be divided into 4 plots, as below :



The whole 3 plots, 1, 2 and 3, i. e., $\frac{3}{4}$ of an arpent, are to receive, as early as possible in the spring, 600 lbs. of wood-ashes ; 200 lbs., that is to the $\frac{1}{4}$ arpent ; which are to be interred and well mixed with the soil with the grubber. If the ashes had been mixed with the soil in the previous fall, all the better.

A fortnight before the tobacco-plants are to be set out, plots 1 and 2 shall receive in addition, 150 lbs. of plain superphosphate, to be mixed with pulverised mould and harrowed in.

Then, after planting the tobacco, as soon as the plants have taken, on No. 1 plot 35 lbs. of nitrate of soda shall be spread in this way : mix the nitrate with 2 or 3 times its bulk of sand or dry mould, and scatter it ; in dry weather ; round each plant.

Plot 4, the comparison-plot, is to receive no manure.

(1) What our Scotch friends would call *braided*. Ed.

(1) By "superphosphate simple," is meant mineral phosphate dissolved in sulphuric acid.