

# TOBACCO.

## MANURE IN TOBACCO CULTURE.

### BULLETIN No. A 2.

In visiting the most important centres of tobacco culture in Canada, and questioning the growers, it becomes evident that the quantities of manure used in growing tobacco are, as a rule, insufficient.

The reserves of manure arising from the wintering of cattle, are never very considerable, and the quality would be improved if greater care were bestowed on them, than is generally done. Risk of heavy loss is incurred through negligence.

However rich the land, it cannot produce many successive crops, as exhausting as are those of tobacco, without rapidly becoming impoverished, and even irremediably ruined, unless some of the fertilizing qualities taken from it are (artificially) restored.

This paper will set forth, what are the requirements of tobacco,—showing that they are considerable ;—it will suggest a more rational mode of cultivation than is employed by many Canadian growers, and demonstrate, so that growers using these instructions may clearly understand, the effect of the various commercial manures upon the plant under consideration.

#### REQUIREMENTS OF A TOBACCO CROP.

Recent experiments show that 1,000 lbs. of leaf tobacco (containing from 22 to 25 per cent of water), absorb from the soil about: 60 lbs. nitrogen, 13 lbs. phosphoric acid, 100 lbs. potash, 83 lbs. lime.

Comparing these figures with the composition of certain good partly matured farm manures, which contain: 0.33 per cent of nitrogen; 0.255 per cent of phosphoric acid, and 0.25 per cent of potash, it is apparent that in order to completely restore the ground, supposing it was done solely with farm manure :—

17,000 lbs. nitrogen, 5,060 lbs. phosphoric acid, 35,000 to 40,000 lbs. potash would be required.

Canadian planters are far from being able to use a corresponding manure, which would represent, for potash, from 17 to 20 tons of manure for 1,000 lbs. of leaf containing 25 per cent of moisture.

It must, however, be borne in mind that the soil is able to furnish, owing to the decomposition of its mineral constituents, a considerable portion of the potash, without which it would be very difficult to carry on the cultivation of tobacco, especially when it is intended to obtain tobacco, sufficiently combustible for smoking.

It must be remarked also that it is advantageous to give the plant the greatest possible quantity of assimilable elements, as the mineral reserves of the soil are slow in action, and a plant which reaches maturity very quickly, needs to find within its reach, and in superabundant quantity, all that it requires.

One should therefore when using farm manure only, spread the manure freely, and as early in the spring as possible so that the manure may have time to be absorbed into the soil and commence nitrification, that is, its transformation into soluble matters; as for the autumn manurings, they must be made only when