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WOOD ASHES ARE A VALUABLE FERTILIZER

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WHEN properly applied wood ashes are of great value for increasing both the quantity and quality of the various crops of the farm and garden. Yet, immense quantities of this valuable fertilizer are exported annually from this province. Returns from the Department of Customs, Ottawa, show that during the last calendar year $43,392 worth of ashes were exported from Ontario.

These ashes were probably bought from their original owners for not more than five cents per bushel, when, at the lowest calculation, figuring their value at the market price of the potash and phosphoric acid contained in them, they would be worth fully five or six times that. In addition to this, in the aggregate, tons and tons of ashes are allowed to go to waste through being exposed to the rains.

The three substances specially required by plants to induce a healthy and vigorous growth are: potash, phosphoric acid, and nitrogen. All three substances have their own particular part to perform in the development of the plant, and neither one can take the place of the other.

Nitrogen as a plant food appears to influence more especially the formation of stems, leaves, roots, etc., or, in other words, the growth of the framework of the plant. Potash is necessary for the formation of the woody parts of stems and the pulp of fruits, and is apparently essential to the formation of sugar and starch. The flavor and color of fruits is also credited to potash. Phosphoric acid influences more particularly the maturity of plants, and the production of seed or grain.

The natural plant food of the soil comes from many sources, but chiefly from decaying vegetable matter and the weathering of the mineral matter of the soil. Both these processes are somewhat slow, except under favorable conditions, and both supply potash and phosphoric acid, but only the former supplies nitrogen. Comparatively recently it has been learned that by the growth of certain crops the immense supply of nitrogen in the atmosphere may be drawn on to replace that taken out of the soil by plants, consequently it is only for special crops and under special conditions that nitrogen need be applied to the soil other than as farm yard manure.

In the case of potash and phosphoric acid it is somewhat different. The supply will depend on the nature of the rock from which the soil was formed and on the amount of these constituents returned in the form of manure. Clay soils usually contain large quantities of these ash constituents, the availability of which will depend largely on cultivation, drainage, etc. On