"Phosphoric acid, potash and nitrogen are the three constituents which above all others must be put back into the soil if we are to preserve its fertility. Plants of certain orders require more of one or other of these than plants of other orders. Some soils are specially rich or poor in one or more of the materials, and consequently in the rational mode of application of fertilizers much intelligence and patience must be exercised.

That the leaves of the apple trees draw a large amount of food from the soil annually, has been shown. This must be replaced in excess for the vigourous growth of the tree. The leaves of the tree play no unimportant part—respiration and digestion are their two chief functions—which, if they do not perform well, the tree cannot live and bring to perfection its fruit. Therefore, when we feed the leaves we are indirectly feeding the fruit.

The results of this work seem to point in the direction of mineral fertilizers, and specially of potash, as being more particularly required for the growth of the leaves, and, therefore, for the vigorous development of the tree, including an abundant crop of fruit.

A heavy dressing of wood ashes (which may be procured in many parts of Canada at a very low price) or of kainit or other form of potash is, therefore, to be recommended for orchards.

The value of the leaves composted—a process to be advised as more economical than burning—is also well established by the data afforded by this work."

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LIBRARIAN'S REPORT 1889-90.

To the Council of the Ottawa Field Naturalists' Club :—

GENTLEMEN,—I have the honour to report that, as soon as possible after taking office as your librarian, I collected the books and periodicals forming the library of the Club, as well as the back numbers of the Club publications, from those of my predecessors who still had them in their keeping. Through the kindness of the Custodian of the Ottawa Literary and Scientific Society, I have been able to find storage room for these in the lecture room of the society. This has enabled me, to a certain extent, to classify and arrange them, and to prepare in