

effect is deranged, and often to the extent of converting a benefit into an injury.

Strong, vigorous, well-developed seed when sown into the ground does not necessarily produce maximum profit per acre even if a maximum crop is obtained. It is one important factor, but only one of a large number which are necessary to attain this desirable result. A farmer may, and often does, produce and develop a vigorous seed which matures into a maximum crop, yet these conditions and results, if obtained by a financial loss, cannot be called a financial success—and yet it may be a great success—as to products per acre or per farm. But this is not what the Canadian farmer wants. It is not a large product of this or that crop that is wanted, but the largest possible profit *per acre, per farm, and per county*, and the greatest added value given to land from year to year.

Again, it is stated that economizing fertility, good cultivation, early seeding, clover growing, etc., etc., are the underlying principles of profitable farming. In reply to these statements, I would say that they are merely a part of the whole truth. There are many farmers who successfully practise these conditions and yet experience but only a portion of the extent of profit that they should have. All these factors do materially help to promote and successfully acquire large soil products, but do not necessarily produce maximum profit per farm. My experience, obtained from personal practice, has established the fact—and I here desire to state it—that it is not possible for any farmer in any ordinary pursuit to maintain the fertility of his farm by the most careful conservation of plant food within himself, either by the saving of manures, sowing of clover, good cultivation, etc., etc., individually or all combined.

A successful farmer must sell farm products in large amounts to realize sufficient cash to pay his expenses, and have a balance left to pay a profit on capital invested, and therefore in the selling of such farm products he must necessarily sell and lose a corresponding amount of soil fertility, the ingredients of which are potash, phosphoric acid, lime, nitrogen, etc., etc. No amount of care in the saving of straw, chaff, roots, animal manures (liquid and solid), manure drainage, or gases arising from fermentation, will make up for the loss of these ingredients, which are made up in the products which are usually sold off of farms.

While it is universally admitted that the growing of clover will reclaim nitrogen from the air, yet it is possible that the labor and expenses incurred in the acquiring of sufficient nitrogen in this way would be more than the same amount could be obtained in other direct ways, and it appears to me that nitrogen in sufficient quantities can be obtained at less cost than by or through clover.

These facts, prove conclusively that in order to obtain a maximum profit from farm work and capital invested in farming it does not depend entirely on vigorous seed, soil fertility maintained, early seeding, good cultivation, etc., etc., but upon a combination of these, along with a proper selection of crop, animal and finished product, which when sold will yield the greatest cash and capital profits per farm, and at the same time prepare an annual condition which will cause these to progress to the greatest extent from year to year, thereby making yearly maximum cash profits and increased value to the land of each farm.

To virtually settle this very important unsettled question, "How can an average Canadian farmer be enabled to make his farm produce the greatest growing profit from year to year and at the same time more valuable each year?" I desire to make this proposal for a demonstration test:

Let the Dominion or Provincial Governments, one or either, select three one-hundred acre farms owned by three average Canadian farmers. The owners being known for their honesty, integrity and industry, and all three farmers and farms be selected under average conditions, known and proved to be similar in all details as is possible to obtain. I propose that Prof. Robertson undertake to direct one, Dr. Saunders direct another and I will undertake to direct the third. The government advancing such means to carry on the three farms as each one reasonably calls for. This contest is to continue for five years, or as long after this period as is found desirable to continue the good or bad work. The director of each farm shall put into execution the theories that each submits to the public at the present time. A careful record of results, financial or others, shall be minutely kept in systematic, business-like form. A careful inventory shall be made out at the start, as well as a balance sheet struck off each six months, also a fertility account shall be minutely kept of all debits and credits in such account. All these three farms shall be under the