by the simple application of Mr. Goods theories. Nevertheless, he has shown himself to be possessed of considerable ingenuity both in the articles above referred to and in his answer to my last letter.

In that letter I attributed to Mr. Good the statement that Canadian farmers buy two-thirds of all goods imported as well as of those made in Canada. He however, repudiates that as a misrepresentation. Of course if I do not quote his exact words he can always reply! "I did not say that." This then is what he did say. After arriving at the conclusion that there is an indirect tax of $270,000,000 on all homemade goods consumed in Canada, he says: "A very conservative estimate would place the farmer as purchaser of fully twice as much in the way of manufactured articles as the average city worker." If Mr. Good contends that that statement refers to only protected goods made in Canada and dutiable imports he may as well say that any other statement means something else. And by what strange process of reasoning he concludes that farmers buy a much smaller proportion of free goods and unprotected manufactures than of others I cannot understand. An examination of the lists of those goods does not warrant that conclusion. Supposing, however, that the farmer buys only one-third of these articles, some very simple mathematical deductions from Mr. Good's figures would still show an agricultural deficit of about $200,000,000.

Mr. Good appears to be rather mystified by the last sentence of my letter and would like it elucidated. One of the laws of human nature is that man is a gregarious being and enjoys the society of his friends. But some, like Mr. Good's first settler, for the sake of financial betterment, are willing to forego that pleasure for a period of many months or perhaps years. And so they settle beyond the confines of civilization hoping eventually to possess a good farm in a prosperous community. But when that day arrives Mr. Good's taxing machinery would be set in motion and would take from them this so called "unearned increment;" unearned perhaps by the sweat of their brow, but certainly earned, as few of us would want to earn it, by years of privation and solitude. This would, in many cases, be the unhappy ending of ignoring the laws of human nature in our blind attachment to principles based on economic theories. There would be "confusion worse confounded." Mr. Good would, I fear, find considerable difficulty in arriving at a just estimate of this "unearned increment." He has bestowed sufficient thought upon economic problems to understand that land in itself has no value apart from that given it by the world's population. And, if he is going to do absolute justice to all, any increase in value must go to the whole working population. This would necessitate the organization of a co-operative commonwealth where everyone would receive wages according to his ability and the necessaries of life according to his needs.

Whatever flaws we may pick in Mr. Good's theories there is no doubt that his intentions are good, that he is zealously working in the interests of farming and Canada's prosperity and as such is worthy of our attention and, if possible, our support.

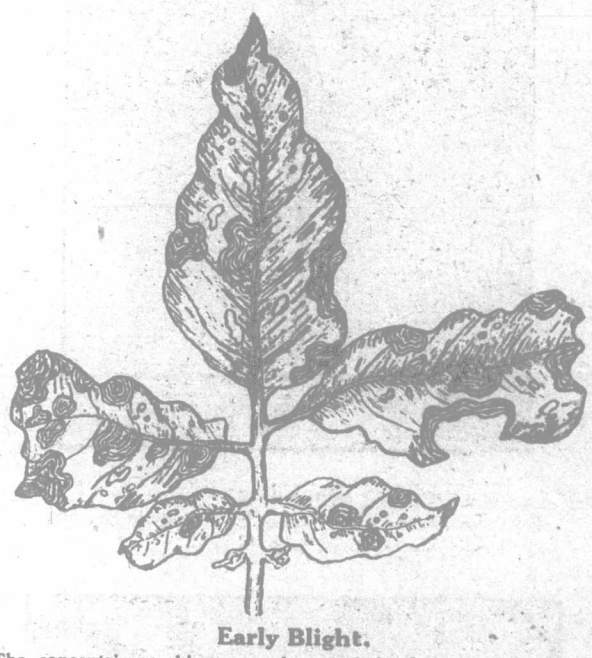
Huron County, Ont. JAMES LOVE.

Increase the Yield of the Potato Crop by Controlling Diseases.

Potatoes are successfully grown on different kinds of soils and under varied climatic conditions, but there are few crops produced in which the yield is so materially influenced by the treatment given it during the growing season. Of course, the variety planted, nature of soil and weather conditions play an important part, but if the grower neglects to use the cultivator or allows bugs or disease to get in their destructive work, a profitable crop need not be expected. The soil should be frequently stirred, the bugs kept in check, and an effort made to control diseases to which the plant is susceptible. Lack of cultivation permits the soil to become firm, and the tubers have no opportunity to expand uniformly in all directions from the parent stem. After the crop is planted the harrows should be used a time or two to keep a dust mulch and destroy any weeds that might germinate. As soon as the rows can be followed the horse cultivator may be worked. The first time over the field cultivation should be fairly deep, as it is the last opportunity to safely loosen the soil between the rows to the depth of the tubers. The tiny feeding roots soon spread out, and before the season is over will practically reach from row to row. Several cultivations through the season are necessary. On sandy or light loam soil level cultivation is usually followed, although some growers prefer to mold the soil to the rows the last time over with the cultivator. With this method there is less danger of loss of moisture than from rows banked high with the plow. However, in clay soil or in a wet season the deep furrows drain the excess water away and there is less danger of rot setting in. It is necessary in either case to have the growing tubers covered with soil to prevent sunburn. The looser the soil around the tubers the more even they grow.

Colorado Potato Beetle.

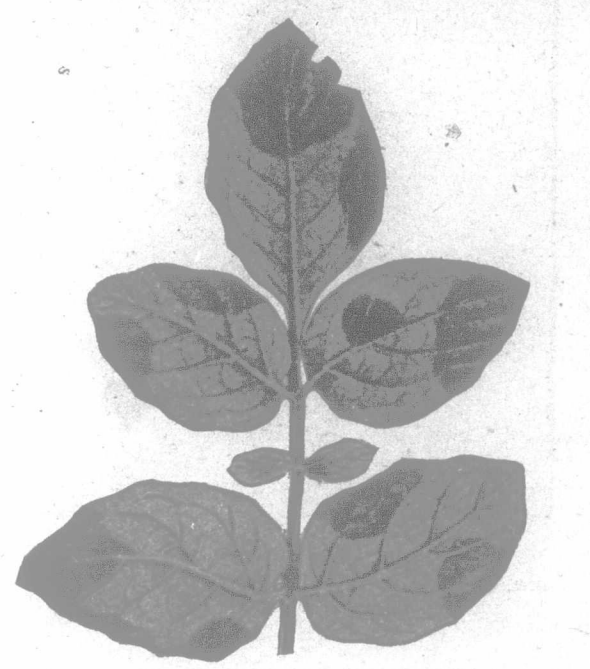
The potato beetle is known to all growers in districts where the crop has been under cultivation for a number of years. It is claimed that the beetle has not found its way to some of the newer sections. Where it is common it soon strips the leaves from the vines unless steps are taken to control it. Many crop yields are greatly reduced by having the first leaves of the plant destroyed. Without a full growth of the foliage the manufacturing process which goes on in the plant is hindered. The adult beetle hibernates during the winter, but puts in its appearance about the time the first shoots peep through the ground. Eggs are laid on the underside of the leaves or on blades of grass or weeds which happen to be near. These eggs hatch in about seven days, and it is the young larvæ that feed so ravenously on the tender foliage. Where only a few potatoes are grown it is a good plan to go over the patch a couple of times and destroy the adult beetles. This will save any further trouble. However, this is not practicable where the crop is grown on a commercial scale. Poisons or insecticides must be relied upon to keep the bugs from completely destroying the vines. As the eggs are not all laid at one time, it is frequently necessary to apply poison several times during the season. Paris green is most commonly used, and may be applied as a dry powder or dissolved and put on with a watering can, knapsack sprayer or large twelve or more nozzle outfit, made on purpose for doing the work rapidly. When used dry it is customary to mix one pound of the green with 50 pounds of slaked lime, land plaster or some other dry powder, and shake it over the vines when they are damp. A small can with a number of holes punched in the end may be used to apply the material if a specially-made receptacle is not at hand. When a sprayer is used 8 ounces of Paris green to 40 gallons of water proves effective. Some growers advise adding several ounces of lime to neutralize the effect of burning by free arsenic in solution. Three pounds of arsenate of lead are required to 40 gallons of water in order to supply sufficient poison to destroy the bugs. While this material is slower acting than Paris green it is not so readily washed off the vines, consequently in a wet season it is preferable. The use of one-half the regular quantity of each to a barrel of water is recommended by some growers. At least two and sometimes three applications are necessary. With 40 gallons of the material to an acre, the amount of Paris green required to control the bugs on one acre will cost in the neighborhood of 50 cents. When arsenate of lead is selling at 12 cents a pound each application will cost 36 cents per acre for material alone. This is not expensive, and an effort should be made to have some kind of poison on hand, so that the larvæ may be attacked before they destroy too much of the foliage. Besides the poisons mentioned there are several prepared mixtures on the market that have proved effective.



Early Blight.

The concentric markings are characteristic of this disease. From Minnesota extension bulletin No. 35.

Of recent years a predaceous insect known as the soldier bug or friendly perillus has been found destroying the larvæ of the Colorado beetle. When they increase in numbers they may be able to cope with the situation and save using poisons. This new bug can be recognized by its black color with orange or yellow markings.



Late Blight.

From "The Potato," by Grubb & Guilford.

Late planted potatoes oftentimes escape attacks of the bug, but when planting is delayed the season of growth is shortened and the yield usually decreased.

Late Blight.

Late blight of potatoes not only attacks the foliage of the plant, but follows down the stem to the tuber where the disease may remain dormant. However, it frequently causes rot to develop either before the potatoes are dug or after they are placed in storage. This disease causes a heavy loss to many growers every year. With warm, moist weather the latter part of July, August and September the disease spreads very rapidly, and a whole crop may become badly infected in a few days if some means is not taken to guard against it.

The disease is caused by a blight fungus which may winter in the tuber and be planted the following spring. Infected tubers usually send up weak shoots bearing the fungus fruiting spores, which are spread from one plant to another by cultivation, splashing of rain, and the plants coming in contact with each other. The first indication of trouble is seen on the tip or edge of the leaf. Under favorable conditions the fungus spreads very rapidly and soon destroys the tissue of the whole leaf. An offensive odor is detected in every badly-infected field. The characteristic leaf markings are a water-soaked appearance in damp weather, and in dry weather they are usually brown. The diseased leaves are no longer able to perform their customary work, consequently the tubers seldom increase much in size after the plants become infected.

As the development and spread of the disease depends a good deal on weather conditions, it may not do much harm one year but be quite prevalent the next. Because the crop is free from an attack this year is no guarantee that it will not be infected the following season. It is always advisable to guard against any chance of infection. Planting clean seed and following a system of crop rotation are the first means of control. This should be followed by coating the leaves and stems with Bordeaux mixture every ten days or two weeks after the plants are six inches high. This material destroys the spores of the disease before they gain an entrance to the leaf tissues. In a wet season five or six applications may be necessary, while in an ordinary season less may be sufficient. The proper strength of Bordeaux mixture carefully applied has saved many crops of potatoes from being a failure. Not only does it prevent blight developing, but it appears to have a stimulating effect on the leaves. Invariably the foliage of a treated crop is larger and healthier looking than that of the untreated crop, even though no disease be present. Experiments have shown that it is possible to materially increase the yield by several applications of Bordeaux.

Bordeaux Mixture.

This material is made by using 4 pounds of copper sulphate and 4 pounds lime to 40 gallons of water. Copper sulphate is rather hard to dissolve in cold water, but if it is put in a coarse sack and suspended in hot water it will readily go into solution. A wooden pail should be used, as the material will destroy tin or iron, and iron has a detrimental effect on Bordeaux. For immediate use dissolve the copper sulphate in one vessel which holds 20 gallons, and put the lime in another of a similar size. Lime that has not been air slaked should be used and slaked in a small quantity of water, then add water to make up to the 20 gallons. The two solutions may then be poured into one receptacle. An ordinary barrel will hold 40 gallons, which is sufficient to go over one acre, provided nozzles are used that will give a fine spray. The material may be effectively applied with the small hand sprayer, but where there is a considerable acreage grown the work can be done more quickly and thoroughly with a power machine. Tanks are built on two-wheeled carts with the power developed from the wheels. The nozzles are arranged to apply the spray underneath and on top of the plants so that no part escapes being coated with the spray material. Different sized machines are on the market. Three or four rows may be sprayed at once, according to the number of nozzles used. To do the work most effectively plenty of pressure must be generated. The required amount of material applied at too low pressure may not control the disease.

Where a considerable amount of spraying is done it is advisable to make a stock solution of Bordeaux. Dissolve the copper sulphate at the rate of one pound to one gallon of water. Slake lime and add water to make the proportions of one pound of lime to one gallon of water. When using the stock solution one gallon of each would represent one pound of the dry