material. Four gallons of each would be required to make up 40 gallons for spraying. They should be diluted separately to 20 gallons before mixing together. In case there might be any dirt or lumps to clog the nozzles the material should be strained into the barrel. Paris green or arsenate of lead may be mixed with the Bordeaux, and one application serves two purposes.

Early Blight.

This disease is caused by a fungus, but is not nearly so destructive of the crop as late blight. It usually appears in July and may continue to work throughout the season. It is distinguished from other leaf diseases by the concentric markings on the leaves. These may increase in size and cause the leaves to die back from the margin. The stems are not affected, but the death of the leaves interferes with the production of tubers. Bordeaux mixture will control this disease, and at the same time go a long way in preventing the more destructive blight getting a start.

Little Potato.

There are several diseases which cause heavy loss in some sections, but no spray material has yet been found that proves effective in checking their spread. Every grower should look over his crop occasionally and be on guard against new but destructive diseases attacking the crop and getting into the soil. Some of the newer diseases remain in the soil for a number of years, rendering it unfit for potato growing. The disease known as little potato is quite common in some districts, but does not usually cause much loss. The leaves often curl and the tops have a compact appearance. Small, green potatoes are frequently produced above ground in the axils of the leaves, at other times they are found growing in clusters just below the ground surface. This reduces the crop considerably. Infected tubers are often covered with small, dark masses resembling bits of soil. These contain a fungus which may spread rendering the tubers unfit for seed, and sometimes are the means of causing rot to start. Diseased plants should be destroyed in the field. In order to control the disease only clean seed should be planted, and it is advisable to treat suspicious looking tubers with formalin as for common scab.

Blackleg.

This is a bacterial disease which is spread by seed tubers. Reports from several districts indicates that this disease is gradually spreading. It has been introduced to this country on imported seed. Infected tubers rot soon after being planted, which results in a weak stand of plants being produced. The rot spreads up the stem, turning it black. The plants stop growing, have a sickly appearance, and frequently die before any tubers are set. In sections where potatoes are grown for seed every effort should be put forth to prevent this disease becoming common. Disinfecting the seed and destroying diseased plants are control measures.

Fusarium Wilt.

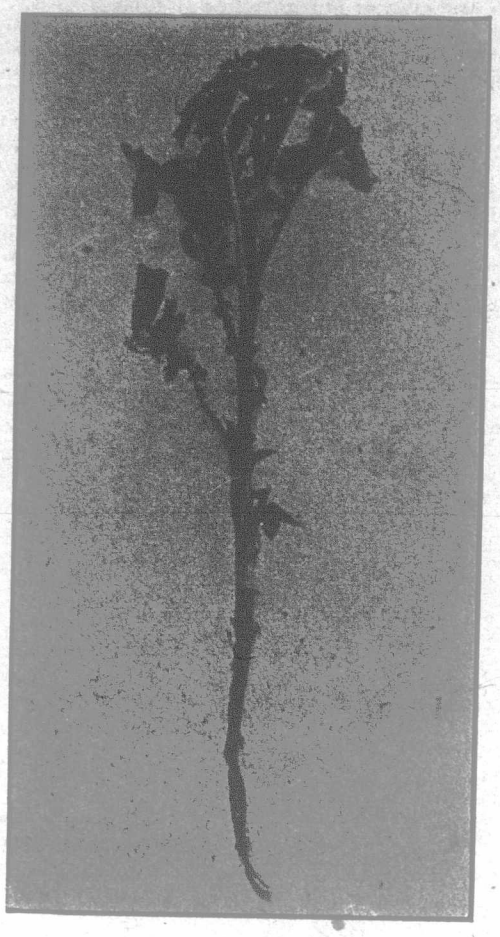
This is another disease which is not common, but may be distinguished in the field by rolling and wilting of the leaves, causing premature death of the foliage. The leaves appear to lack moisture, but death seldom occurs until within three or four weeks of the normal time of maturing. Therefore, infected hills may be passed unnoticed in the field. The disease extends to the tubers, forming brownish rings at the stem end. Tubers often develop rot in storage although many do not, and are a source of infection if planted. It is through seed that the wilt is spread, consequently being careful to select healthy tubers for planting is the best means of control.

Potato canker, black rot, powdery scab and common scab are diseases affecting the potato, causing heavy loss wherever they become established. Their presence in the field is not shown by the foliage, therefore, the loss is not known until the tubers are dug.

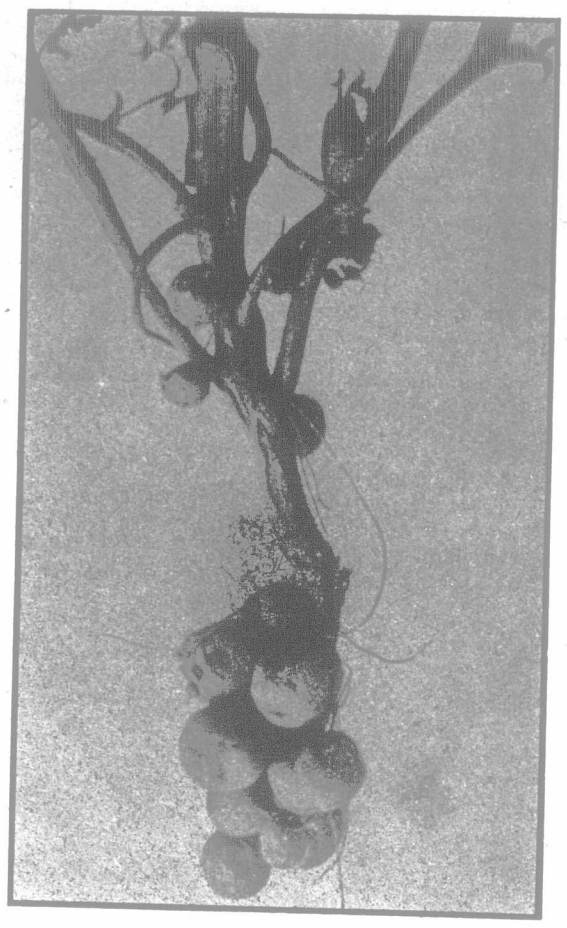
Rogue the Crop.

Every potato grower, and especially those who grow the crop for seed purposes, should go over the field carefully at least twice during the season, preferably about the time the plants are blossoming, and destroy any that show symptoms of the diseases mentioned so that no tubers will form. This will aid in preventing the spread of the disease through seed. Any plants not true to variety should also be removed from the field, or else marked so that they may be dug when mature and kept by themselves. Plants that appear a little different from the average might be marked, so that a study could be made regarding the relation of type or size of tops to yield and size of tubers. Hill selection has been the means of increasing the yield of potatoes. If there is not time to rogue the entire patch a few rows should be done, and the mature product from these rows saved for seed.

It has been proven that the two potato blights can be controlled by spraying with Bordeaux mixture. Commence when the plants are 6 or 8 inches high, and give at least three applications at intervals of ten days or two weeks. To be effective the plants must be covered with a fine mist. Cost of spraying material being higher than usual should not deter any grower from spraying to prevent the disease developing. The cost of material will not exceed $2.00 per acre for each application, and the returns may be ten fold. Any suspicious-looking plant should be removed and an endeavor made to prevent diseases, that might infect the soil as well as the tuber, from becoming established. The heavy yearly loss caused by disease could be largely overcome by the growers planting clean seed, and then giving the crop proper treatment during the growing season.



Black Leg.
Note the diseased stem. From Penn. Bulletin No. 140.



Rhizoctonia.
Showing development of tubers on stem. From "The Potato," by Grubb & Guilford.

Daylight Saving Versus Efficiency.

EDITOR "THE FARMER'S ADVOCATE":

In an issue of "The Advocate" some weeks ago, I noticed an article in which the writer, R. H. Harding, called upon farmers to give their opinions regarding the so-called "daylight saving". In his criticism of the scheme Mr. Harding meets with my hearty approval.

Where it possible to "save daylight" by so simple a means as moving the hands of the clocks forward, the world would have done so before nineteen hundred and sixteen, A. D. By this time the day has been so suitably divided in accordance with the habits of the people, that so far as I can see, no improvement can be made on the existing system. It is utter nonsense to imagine that the lifelong habits of a people can be changed by simply putting forward the time by a definite number of hours.

Among us farmers the chap, who does not now utilize every available hour of daylight for the advantage of his farm work, is not the farmer who is going to do the country much good. Further, as Mr. Harding points out, every farmer knows that for killing weeds and harvesting the crops one hour in the evening is worth many in the early morning. If some of the "daylight savers" would kindly enlighten me as to what advantage a daylight-saving law would be under such circumstances I should be much obliged. In our towns and cities let us suppose that the average working man retires at 10 o'clock p. m. [standard time]. If a daylight-saving law were passed it is not likely that he would go to bed an hour earlier, which would be shortly after dark in the summer months. But work would start an hour earlier in the morning, so that one hour's sleep would be given up every morning for one hour's pleasure the night before. It is a well known fact that already, especially among the younger people, far too many hours' sleep are sacrificed for amusement; why decrease further the efficiency of the working people, when one of the things that the nation needs most at this time is greater personal efficiency?

Perhaps the most objectionable feature in connection with this scheme is the way it is being introduced throughout the country. Almost daily the press bears record of its adoption in some town or city of the Dominion. The only possible result that can come from such a haphazard distribution of "daylight-saving" centers will be endless confusion and inconvenience, especially to the travelling public. If the plan of "saving daylight" by moving forward the hands of the clocks must become law, let it be adopted universally throughout the country. However, if the legislators and agitators of such shallow and sensational "schemes" would devote more of their time and energy to saving needless expense rather than the freer daylight, I feel assured that Canadians would appreciate more their patriotic efforts.

Perth County, Ont. EXCELSIOR.

England's Farm Labor Problem.

EDITOR "THE FARMER'S ADVOCATE":

Considerably over 50,000 women have registered in the villages of England in connection with the scheme being carried out by the Boards of Agriculture and Trade to recruit women labor for our farms. And let it be added that the farmer is coming forward in a much more encouraging way, and making use of the women on the register. Laughed at at first, the truth is being borne steadily home upon farmers and breeders of live stock that there are many valuable uses which the help of the gentler sex may be put to. They proved it during the lambing season. They have already earned glorious opinions as careful and expert shearers, and now, in the show ring, they are found to be quite capable of exhibiting young stock, and particularly cattle not too bulky of frame and reasonably amenable to quiet handling. Lord Selborne, the Minister of Agriculture, has told us that he can only enlist women's help on the land and on our stock farms by appealing directly to their patriotism, but he has succeeded very well, and each week brings more and more recruits to the large army of women workers. Judged on the efforts that are being put forth all over the country to secure still more willing and patriotic workers of this kind, the 50,000 figures should be well nigh doubled ere the cereal harvest is upon us. Let me add that at the Suffolk County Show, held in Ipswich, England, a little time ago, a woman "herdsman" led into the ring and exhibited a Jersey heifer. She did it very well too, and got into the money with her charge.

Between them, the Yorkshire Council of Agricultural Education and the Agricultural Department of the University of Leeds seem determined to address themselves to the subject of training women workers. Their idea is to get farmers to receive several women for a fortnight's preliminary training. The farmer is to house and feed his pupils, for which he will receive half a sovereign a week each from the Agricultural Council. At the end of the fortnight the probationers may go to other farms or stay with their teacher if he wishes. It is recognized that only the good sense and patriotic spirit of the farmers will induce them to undertake this work, as little value could be attached to the assistance rendered by women, at any rate during the first week of their stay on the farm. These proposals were made so recently that it is impossible to say yet how far they will answer. Negotiations with the object of bringing suitable women workers, and farmers willing to receive them together are so delicate that a little more time must be allowed for the experiment. A considerable number of farmers would be willing to train, say, four women each for a fortnight if they could find accommodation for them. That is one of the foremost difficulties. Another drawback is that of finding sufficient women to meet the requirements of the farmers. Women of the middle classes, to whom the question of wages is not an important consideration, are readier to undertake farm work than women of the industrial classes, to whom the rewards of the munition and other factories, and of other employments in civil life are too strong for them to resist.

A training scheme worked by Mrs. Herbert Peake, at Bawtry, Yorkshire, has created much interest, and may probably be intimated with advantage. Twenty girl pupils, furnished in relays of ten a week, are actively engaged full ordinary farm hours doing