

HOW WE SAFEGUARD OUR POTATO CROP

C. McGillivray, Pictou Co., N. S.

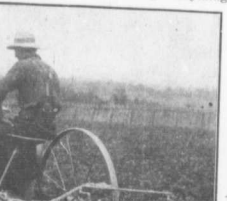
WE spray our potato crop with Bordeaux mixture just as regularly as we cultivate. We do not spray during any late a season as regularly; from four to six times a season the vines get a dose of Bordeaux. And why? Statistics prove that in four years out of every 10 we have a wet season. With the wet season comes potato blight, the cause of rot in potatoes. We know there is a prevalent idea that it is the wet soil that causes the rot, but nothing is further from the truth. The only thing that ever yet caused rot in potatoes is potato blight, and the spores that cause potatoes to rot are produced by the disease on the potato tops. Therefore we fight blight and avoid rot.

We got our first idea on the subject of potato blight on a trip that I took to the Nova Scotia Agricultural College Farm in the old days when

just how much we must dilute the concentrated solution to get the properly diluted solution for spraying.

To the Bordeaux solution we always add some form of poison to kill the potato bugs. A few years ago Paris green was the universal poison. We used one to one vine, one-half pounds to 40 gallons of water. For the last two or three years we have been using three to five pounds of arsenate of lead dissolved in 40 gallons of water. The arsenate of lead remains in solution much longer than does Paris green, does not scald the leaves if they get too strong an application and adheres to the foliage more tenaciously than the old poison. Likewise it has a white appearance, showing plainly where we have sprayed and where not. It is slightly more expensive than Paris green.

When we come to choose a machine we found that we could get anything



Equipment Such as This Makes the Bug and Blight Fight Easy

Night causes more loss to potato growers than all other causes combined. It is the time when the potato bugs also do their share of damage. Both bugs and blight can be controlled by proper spraying. The horse power outfit here illustrated is suitable for the grower with a fairly large acre.

Our courtesy The Canadian Potato Machinery Company.

Professor Smith was in charge. It was then well on in September and the potato vines at home were completely destroyed by a combination of bugs and blight. What was my surprise to find that the vines at the College were still green and growing. I was not the only one surprised. Others along the same day started to ask questions, and seeing that we were interested Professor Smith gave us complete instructions for spraying potatoes so that we could keep our crops growing just as he did his.

PREPARATION OF BORDEAUX
In the preparation of the Bordeaux formula that we use in making our mixture is what we call a 5-4-40 of the very best unsifted lime, slack it in a bucket of water and dilute in a barrel to 20 gallons. In preparing the copper sulphate solution our method is decided by the amount of time we have. If we are in a hurry the four pounds of copper sulphate is dissolved in hot water and then diluted to the 20 gallons. If we have lots of time we would start a day or so ahead, and dissolve it by suspending in a large sack in 20 gallons of water. Into one barrel at one time, thus insuring their being thoroughly mixed. This combined mixture we strain through a fine brass sieve into our sprayer tank. A time-saving method is to dissolve as much bluestone (copper sulphate) as is needed for the season's operations at one time in a concentrated solution. By keeping track of the number of pounds of bluestone dissolved and the number of gallons of water used in dissolving it we know

to buy a knapsack sprayer worked by hand and costing \$6 to \$10 to a four-row horse power machine costing \$100. The first required too much hard work and the latter we considered too expensive. What we did do finally was to buy a barrel sprayer costing \$25, take a couple of buggy wheels, erect a platform on it with shafts attached, and from the same company we secured a brass pipe with four nozzles so located on the pipe that they were 27 inches apart. We prefer to have the nozzles located to throw the spray ahead a little rather than directly down on top of the vines, as it is on the under portion of the leaves that the bugs get in the most of their work. One man can operate this outfit. The horse knows the way and the man operates the pump.

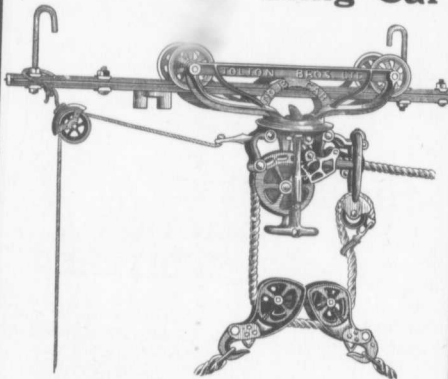
We make our first application when the tops are about six inches high and continue every 10 days or two weeks thereafter. We do not believe in prevention is better than cure. We find that it takes from 35 to 50 gallons of the mixture to the acre, depending upon the size of the tops. And does it pay? Two years ago we had a splendid crop of potatoes harvested in excellent condition. Our neighbor just across the way had six acres that were most promising in the early part of the season. The final yield was 100 bushels an acre of marketable potatoes. He lost at least 100 bushels an acre by rot. They were early potatoes and would have sold at 50 cents a bushel. His loss was \$300, or enough to buy three of the most up-to-date spraying outfits.



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The Tolton Sling Car



With the Tolton Car it is only necessary to raise the bundle up to the level of the mow, or high enough to clear the beams. Then, by means of a special trip you release the car from the stop block when the bundle is at any elevation. The special trip operates a rope grip which holds the load securely after the car leaves the stop block. In this way the Tolton Car saves all the time and work required to raise the load away up to the car.

Works Easily

The Draft Wheel on this car is twice the diameter of any other. For this reason the Tolton Car will lift as big loads with Double power as other cars will lift with single power. There are no springs in this car.

Built To Last

The Tolton Car has a one-piece malleable truck frame, and heaviest working parts throughout. Frame is strongly ribbed to prevent spreading on the track with heavy loads. Car weighs 60 lbs. and will carry a tonload.

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