

The potato is the most extensively cultivated plant in the world. A native of the mountainous

regions of the tropics, it has been taken out to every corner of the earth, and thrives under conditions ranging from equatorial heat, almost to polar cold. Potatoes, on this continent, have been grown beyond the arctic circle. In South America they are cultivated beyond the climatic limits of the cereal and most other crops. Bushel for bushel there are more potatoes grown each year, than any other crop cultivated, of which statistics of acreage and yield are estimated. The uses to which the potato may be put are nearly as wide as the climatic conditions under which it may be grown. One thinks of the potato as a human food, but less than half the total crop each year goes into consumption as a food for man. In Europe, millions of bushels are converted into alcohol, millions of bushels more are used in the manufacture of starch, they are dried and used in breakfast foods, fed to live-stock and used for as many purposes as wheat or our cereal grains, unless perhaps, corn.

In the Dominion of Canada, the potato does not rank very high in importance in agriculture, manufacturing or commerce, generally. Our market is almost entirely a home one, there is small demand for alcohol for use in the production of heat, power or light and little market for starch. Hence most of the potatoes grown on our farms and entering trade pass into human consumption as food. In the United States, the crop is more extensively grown, in comparison with the other crops cultivated, than it is here, and some years a large proportion of it is used in manufacturing. But despite this, the demand for the potato as a food, and the supply of the commodity, not the extent to which it is required as a raw material in manufacturing, determines the price at which potatoes shall be sold. The supply of potatoes, it must be remembered, fluctuates more widely perhaps than any other crop. It is one of these crops that cannot be carried over one year from another, so that the size of the crop each year determines the price that will be paid for it. There are never any potato reserves as there are reserves of corn, wheat, oats, pork and other non-perishable commodities. Therefore, potato prices fluctuate within wider limits in a country that depends entirely upon its home market, and the human food demand, than does any other crop grown. It is not unusual to see potatoes three times the price one year that they were the year before. This present winter we had an example of the way values jump just as soon as supplies are touched. Frost was said to have damaged seriously the potatoes stored in Alberta and British Columbia. There was a small quantity in store in Winnipeg, and about the usual quantity in dealers' and farmers' hands in the country. Prices simply advanced from about 40 cents a bushel one week to 80 or 90 cents per bushel the next. No one ever saw wheat move up the scale of value at such speed as that, or any other commodity almost that men trade in.

In this country we have not gone into the potato growing business very extensively yet. Down in Eastern Canada where population is more dense and agriculture more intensively carried on, the potato is, in some districts, a crop of some importance. In the Maritime provinces, certain districts favorably situated as regards soil, and markets are noted more for their growing of this crop than they are for anything else. In Ontario, of late years, potatoes have increased in importance as a farm crop, chiefly because of the difficulty of procuring help, one of the most serious difficulties farmers have had to contend with in recent years. In this country, we mean the prairie West, we have not yet gone much into the growing of any field crops save the cereal grains, for the reason that for them only, of farm crop, is there an export market. We had to have something that could be turned into money regularly, or fairly so each year, and something that could be produced at a minimum labor cost.

As a general rule, potatoes are grown in this country on land that is not much use for anything else. They are put in without much preparation, given little attention during the growing season, harvested, if there is anything to harvest and the deal closed. Grown in this manner there is little money to be made in the potato business, but grown in such a soil as would be prepared for any ordinary crop, and given the required amount of attention during growth, there are possibilities

## THE POTATO AS A FARM CROP

in potato growing that figure into money more rapidly than it may be made in most farm crops. Following are some experiences in potato growing contributed by prominent growers in various parts, though mostly from Manitoba, where marketing facilities are better than in the far West, and farmers apparently, less inclined in the desire to occupy all the land in sight at one cropping. The districts adjacent to Winnipeg have been heavy potato producers for many years; now, however, the potato growing territory is spreading out, until the province is fairly uniform,



W. A. A. ROWE.

Member of Canadian Seed Growers' Association, and Prominent Grain Grower of Neepawa District.

district by district, in its output of this crop. In Saskatchewan and Alberta, the potato is grown chiefly for local consumption, though some years, considerable quantities of Alberta potatoes enter the general trade. British Columbia, is a potato growing province with many possibilities.

To such difficulties in the way of growing, as are incident to the shortness of the season, scarcity of help and pressure of other work, must be added some difficulties in the way of marketing. If one reviews the development of any department of agriculture or live-stock rearing, in any section of the world, he is impressed at once with the importance of every producer of whatever commodity it may be that section is producing, specializing in the production of one particular kind of that commodity. A section of country that breeds nothing but Clydesdale horses is a better place for a Clydesdale breeder to live in than any other. He can sell his stock more readily and at better prices. The same principle operates with all breeds of live-stock, and with all classes of farm products. If the farmers of Western Canada were producing as many distinct varieties and types of wheat as they are of potatoes, wheat would not be as saleable a commodity, as it is now. Because nearly all of us are producing one kind of wheat, and trainloads of the one kind, whole shiploads of one variety in fact, are available for export, is one reason that our wheat market is as satisfactorily established as it is, is the reason largely, we are able to sell wheat under the selling system in vogue.

Now the potato buyer requires a product graded as closely as to type and variety as the wheat buyer does. He wants to buy stock by the carload, every tuber of which will cook out exactly the same. And as a general rule, he fails to get them. Mixed potatoes are about the only kind that may be purchased in our Western markets. Nothing is more rarely seen in the wholesale produce trade of Winnipeg, than a carload of potatoes of one variety and of one size. They come in every size from marbles up, and of varieties, samples of everything grown within the province.

Now, establishing one variety of potato in a district and inducing every potato grower to raise it, is very nearly impossible. But one farmer raising five, ten or twenty acres can just as easily keep within one variety as he can attempt to grow every kind he hears about. The man who grows potatoes in quantities should grow one variety alone, unless, of course, he is situated near a city market and a portion of his crop is intended for early use.

In the letters which follow most of practical points of potato cultivation are discussed, but for brevity and by way of summarizing the ideas expressed it may be said that the potato thrives best in a cool rich soil, plentifully supplied with moisture. The seed should be planted sometime between the 10th and 25th of May, in rows from 30 inches to 3 feet apart, and covered 4 inches at least with soil. The sets or seed should be about 16 inches apart in the rows, and each set of sufficient size to nourish two eyes. Preparation of the land previous to seeding should consist of good deep plowing in the fall, the application of well rotted manure if the soil requires it, plowing again in the spring. Planting, if any quantity is grown, is most economically done by use of the planter. After seeding cultivation consists of thorough harrowing of the surface after the potatoes are planted, and harrowing once or twice a week afterwards until the plants show through the surface. As soon as the rows may be seen, the scuffler, or two horse cultivator, may be started, and this will provide all the cultivation necessary during the season.

If bugs are numerous it is necessary to spray the patch once or twice during the summer, adding somewhat to the cost of growing, and if blight appears it may become necessary to treat the crop with Bordeaux mixture, but blight has not yet appeared to any extent in this country, or bugs either for that matter, and the bulk of our potato crop is raised without treatment with either insecticide or fungicide. How long we may remain in this fortunate condition is difficult to forecast. In Ontario, fifteen years ago, potato diseases were unknown, but now some seasons and in some sections they destroy the entire crop.

In harvesting the potato crop, if one has any considerable acreage, a digger is a necessity. A digging machine may be purchased for a hundred dollars or less, and saves its cost in manual labor in a short time. The machine lifts the tubers, shakes the soil from them and leaves the crop in a row on the surface, cleaned of earth, and easily picked up. As to selling it is probably as well for the average farm grower to sell directly from the field, unless he has convenient facilities for storing. If he has it pays to carry the crop over till spring, or on into the winter at least.

There is considerable difference of opinion among our correspondents as to the cost per acre of raising potatoes. Some estimate the cost as over \$40.00 per acre, and some as low as \$17.00. It is probable that the average cost one year with another does not exceed \$35.00 per acre, including rental of the land as well as the necessary labor cost for preparing the soil, for planting and handling the crop all through the season. The average yield runs about 200 bushels per acre. At the Brandon Experimental Farm the best yielding variety last year produced at the rate of 597 bushels per acre; at Indian Head the highest yielder was 486 bushels per acre. The grower who gives attention to the details of cultivation, planting and management of the crop generally, will have no difficulty in raising from 200 to 400 bushels per acre. There are farmers in this country who are doing it year after year. And it costs no more to raise a three hundred bushel crop than one yielding a hundred or less.

### SUCCESSFUL POTATO GROWING

Before planting the seed for a profitable crop of potatoes the two most important points to consider are the selection and preparation of the soil and seed.

In selecting the plot, any old place where the soil is not good enough for anything else, will certainly do. It is a very good idea to clean land by putting in potatoes, but not with the idea of a profitable crop. Select the highest laying land you have and the cleanest if you expect to make money from the crop.

I find that one has to be very particular in selecting seed, selecting the best tubers of the previous season, being careful to select those that have not sprouted at all. It is not necessary to cut the seed each season—every other year will do.

Doubtless the best method of planting is with the planter. It puts the potatoes in a warm soft bed. With the plough the seed is put in a hard bottom, but with ploughing and good cultivating the bed is made warm and soft for the planter to work in. After the potatoes are planted, however clean the land is, have them harrowed in the

first week, and every and every way. Har I grow about twenty year and advise grow than one can reasona I like best for an ear Eureka and Drew Sta MacGregor is coming many varieties of pot if we had one or two would be better.

As I have said I h tops are showing 9 inc and as soon as the row and go through the fi I follow the hilling sys dry season, hill twice

Potatoes should be few early frosts and dead. I prefer hauli field to the root house if left out in the fi guided by the market. If one has a good reli advise holding the cr turn them into money. For harvesting I ca It does good work, esp

I should estimate t potatoes as follows:

Plowing	.....
Cultivating	.....
Planting	.....
Harrowing	.....
Scuffling	.....
Hoeing	.....
Harvesting, with	.....
Seed, 15 bushels	.....

Undoubtedly ther opinion as to cost of an acre a liberal esti

One may expect a per acre, and 50 cent crop.

I have always four from the middle of Oc early ones come in at per bushel in Novembe June.

The trouble amo growing potatoes is to put in the seed bushels per acre cro planted or looked at. If a small crop res they grumble at the but themselves. Pe care in growing as n Man.

### GROWS ON A

I consider the pot crops, the best for are more bushels gro crop unless it be tu there is no market. potato crop is bette clean the land, and shape for wheat with

I have five or six the land now for t seed I find the Wee I can get and is a keeps well and cann I am trying a varie this year. They McGregor. The on McGregor, is that i which is a very gre

Now I have been glowing sides of the many drawbacks t other crop. I will 1st.—It is sometime 2nd.—The season planting is very planted between t very much the b getting help for the the other work don in hand-cutting th last year and I bel and it takes four planter going stea machine one man w drawback is the becoming a hard all right as the sno