

Producing Potatoes Profitably

By paying attention to seed selection and proper cultural methods the quality and yield of the potato crop can be considerably improved

By Seager Wheeler

Practically every farmer plants some potatoes either for home use or for commercial purposes. I shall deal only with the general methods of planting by hand labor. Where this crop is grown on a large scale it may be more economical to use the planter and digger, but as the general practice is to plow the seed under, I shall confine this article to this method. Seed selection plays an important part if the best results are to be expected.

Choice of Variety

The choice of variety is largely controlled by local conditions. There are a great number of varieties grown today that are closely related to each other. For a main crop, Wee Mc Gregor will be found a good reliable sort to grow. This variety is a good yielder and has good eating and cooking qualities. Another main crop variety is the Beauty of Hebron, altho not very well known or grown in the West. It is one of the older varieties that has been grown for many years and is a high yielding sort, possessing good cooking qualities and a fine flavor. In the early varieties Early Ohio is one of the best with respect to earliness, good flavor and is a good keeper. Early Six Weeks is another good sort of good cooking and eating qualities, but is not as early as its name would indicate. Early varieties do not usually yield as high as the later sorts. There are several other equally good varieties, but those mentioned I know personally, having grown them for some years in comparison with many other kinds, most of which I have discarded. It must be left to the individual grower to determine which variety best suits his locality.

Use Seed from Best Hills

A great many experiments are being carried out to determine which is the best kind of seed to use. On the whole it has been found that it makes little difference as to the size of the seed, providing there is sufficient food stored up in each piece of seed until the plant is established. Nothing should be left to chance, however. It is advisable under all circumstances to plant good sized seed, with two or more eyes, to ensure safe and sound rooting of the seed. Large potatoes planted will not produce large tubers, while small tubers will, if from good selected stock, produce good, profitable yields. The size of the seed is not so important as the using seed of good stock. Seed selection in the hill, to eliminate inferior yielding type, will be found profitable to practice wherever this crop is grown.

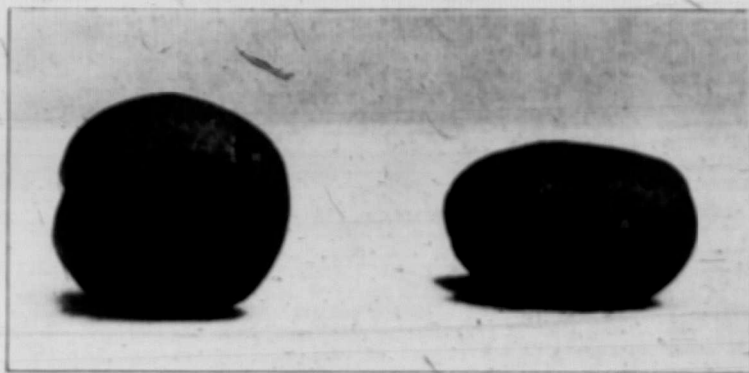
In all cases it will be advisable to use good sized seed tubers of a diameter of two inches planted whole, or if the seed is larger, cut lengthwise in two pieces. The important point to observe is that the seed is of sufficient size to guarantee against any possibility of its rotting or drying out in the soil before it is well rooted.

The size of the tuber and weight of the crop is also largely determined by the condition of the soil the seed is planted in, the cultivation of the growing crop, and the season. We often hear of this crop or varieties degenerating or running out where no form of selection is made and where the seed is planted in an improperly fitted soil the yield will be reduced, the tubers will be small and the quality affected. The same seed by selection can be brought back to its former high standard. Where varieties are what is commonly termed run out or degenerated, it is due to indiscriminate planting. The environment influences this crop. Where the seed is taken indiscriminately from the field or bin there will be a multitude of types. If the seed is a mixture of good and bad types, the progeny will be the same. The best method to select the best type is when the tubers are lifted in the field at the time of harvesting the crop.

Seed Selection from the Hill

Selection is a simple operation and calls for little extra effort, but the time spent will be amply repaid in increased yields. The beginner taking up

For the purpose of assisting Seager Wheeler with his correspondence, The Guide has made arrangements to have all inquiries concerning the treatment of the soil or the seed forwarded to him from this office. Inquiries or criticisms of these articles will be welcomed. All questions of general interest will be forwarded to Seager Wheeler, and his replies will be published in The Guide. By this arrangement not only will Mr. Wheeler be saved the work of repeatedly giving the same advice to different enquirers, but the readers of The Guide will have the opportunity of getting advice from a practical farmer on any problem they may encounter in their field work. All enquirers desiring advice from Seager Wheeler should address their letters to Seager Wheeler, c/o Grain Growers' Guide, Winnipeg, Man.



This is a good type of seed potato with respect to shape, size, smoothness and few eyes. Photo shows face side and thickness of tuber.

this work may make his first start when the crop is ready to harvest. The hills that produce the most uniform marketable tubers of greatest number per plant may be placed on one side for seed purposes. This seed when planted the next season should be planted in rows that contain an equal number of hills to each row. About eight hills per row is probably sufficient, as any hills that do not produce this number of marketable tubers should not be considered. If they contain more than this number it will not be necessary to use more than sufficient for the eight hills. Not less than twenty-five hills should be selected, and the number may be increased to suit the convenience of the grower, but it would be well not to have too many rows under selection. By this method each row is the progeny of a single hill selection or single plant.



Crop of potatoes grown as described in the article. Only three inches of rain fell during growing season, but yield was the heaviest ever harvested.

At the time the rows are dug the product of each hill should be placed together by the side of the hill it was taken from. When all the rows are dug it can then be readily determined which is the best hill in the row. Count should be made of the marketable tubers in each hill, and those that contain the highest number of good sized marketable tubers should be set aside for seed for the following season. This is for high yield. There are other characters to be considered. The eight tubers selected for seed may be placed in small bags and used to plant a similar plot the following season. This method would be best for the beginner. After a few seasons, when more uniformity of the tubers is secured, it would not be necessary to do this. Instead, all the tubers that are selected from the hill may be massed together for the next season's plot and planted the same way, using the same number of hills to the single row.

After the hills are selected the rest of the hills may be gathered up, selecting the best tubers which

may be used for seed for the general crop. By this method all the inferior types are eliminated and only the better types are grown.

In planting it is advisable to select the tubers that average about two inches in diameter. These can be planted whole. If larger they may be cut in two lengthwise, but only a uniform number should be used in each row. Where one wishes to do accurate work the rows or the product of each row may be weighed and the exact yield determined. Other considerations than yield may be paid attention to in selection, but the matter of desirable types will be dealt with more fully in another article in the fall just before potato harvesting begins. The crop should always be grown on fresh soil each season, and where the common scab is prevalent it would be well to cover the seed for two hours in a solution of one pint formalin to 30 gallons of water. The seed should not be cut before it is put in the solution, but put in whole. When taken out it should be dried quickly and then cut and planted as soon as possible.

Well Prepared Land

The seed is often sown on the bottom of a hard, shallow furrow and another furrow crumpled over to cover the seed. Under these conditions the crop cannot be expected to develop normally. If the season happens to be dry it aggravates these conditions, more especially where weeds are allowed to get the upper hand. Planting on stubble by plowing in the seed is not advisable, for several reasons. The stubble draws on the moisture in the soil, and where the stubble is turned down on the seed it allows of too great an air space around the seed. Unless it is unavoidable and no other prepared land is provided, no planting should be done on stubble land without some previous preparation. Whenever it is necessary to plant on stubble land the field should be plowed shallow in the previous fall and packed. This will start weed seeds and volunteer grass in the spring previous to plowing in the crop. Failing this method, it should be well double disced in the fall or early spring and the planting of the crop done later. This allows of the germination of weed seeds, etc., and makes better continuity when the crop is planted. New soil such as breaking or backsetting well worked down the previous season and plowed two or three inches deeper at the time of planting gives good results and will produce a fine crop.

Summerfallow Best

The best soil to plant in is a good summerfallow. This will usually give best results. There is nothing more objectionable than weeds or volunteer grain growing in the crop and it should be provided against at all times. Should the crop lack moisture at the time the tubers are small it hinders their proper development, and if they do not receive a full supply of moisture at this time they will ripen or mature whether they are small or not and consequently affect the yield. It is necessary to firstly provide a proper root bed of sufficient depth, clean and free of weeds, and a full supply of moisture. If the seed is planted in a shallow furrow and the soil is hard and dry the tubers cannot develop normally but are cramped for room to expand and will become malformed in shape and small in size.

Planting with Cultivator

Where large areas are to be planted and no planter is available a good method is to provide a good deep summerfallow the previous season and at the time of planting use a cultivator that is equipped with irrigating shovels. These shovels may be spaced at right distance apart for the rows, preferably four feet, and two or more rows opened at one time. These shovels will open up a V-shaped furrow, throwing out the soil to both sides. The seed is dropped to the bottom of the furrow, which should be about four inches deep. When the field is planted the plank drag on edge may be used to cover in the seed. When this is done in this way

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