

Potatoes succeed admirably on new land providing it is well drained and not too stiff, as the soil is filled with decayed vegetable matter and humus which help to make it loose. Such soil retains moisture well, and furnishes nitrogen in a very available form. They succeed well after sod also, as the decaying sod gives somewhat the same conditions as new land. Clay and clay loams are not so suitable to the potato crop as the warmer sandy loams and gravelly soils as they are usually colder and being, as a rule, stiffer, the tubers are not as even in shape nor as smooth. The quality of the potatoes grown in sandy or gravelly soils is better than that of those grown in clay or clay loams.

PLANT FOOD REQUIREMENTS AND FERTILIZERS.

Potatoes usually succeed well when grown after clover sod. In an experiment at the Central Experimental Farm, covering three years, there was an average increase of thirty-seven bushels per acre of potatoes where clover had been sown with grain and ploughed under, over the plot where no clover was grown. Experiments have shown that the crop of grain is not lessened by sowing clover.

It will be readily seen that clover and barnyard manure are two very important and cheap fertilizers for the potato. The former obtains nitrogen from the air and brings up phosphoric acid and potash from great depths of the soil to be available for succeeding crops and in adding humus to the soil by its decay it makes the soil hold moisture better and renders it looser. Barnyard manure adds nitrogen, phosphoric acid and potash to the soil and increases the supply of humus in it, making the soil more retentive of moisture and looser.

From the information obtained from experiments at the Central Experimental Farm and elsewhere, the writer would recommend growing potatoes after clover which had been top dressed with from ten to twelve tons of barnyard manure per acre. If the clover is ploughed under in the autumn, green manure would be the best; if ploughed under in the spring, which is the better time, rotted manure is preferable, as it will become incorporated with the soil better than green manure and is not so likely to favour development of scab. The clover may be top dressed with green manure in late summer or autumn, even though the clover is not ploughed under until spring, in which case the manure increases the crop of clover for turning under and is sufficiently broken up and mixed into the surface soil to be in good condition for mixing with it when ploughed under. Potatoes succeed well after corn which has been given a heavy application of barnyard manure. It is better to manure heavily for the preceding crop than for the potato crop.

PREPARATION OF THE LAND.

The soil for potatoes should be well prepared before planting. Unlike some crops which succeed best when the soil is moderately firm when ready for seeding the potato succeeds best in soil which is loose. In loose soil the tubers will be smooth and shapely; in soil which is firm or stiff the potatoes are usually misshapen and not nearly so attractive. The ploughing under of barnyard manure and clover makes the soil looser and this, added to their value in furnishing plant food, makes them particularly desirable. Soils which are very light and loose may be made too loose by the turning under of manure, especially when it is green and strawy, and while it is not the best practice to plough under green manure immediately before planting, especially on light soils, if it is done the soil should be given extra tillage so as to incorporate the manure with it thoroughly and keep the first few inches of soil from drying out and preventing the satisfactory sprouting of the potato sets.

Spring ploughing for the potato crop is usually best. Where rather stiff soil has to be used, fall ploughing may be preferable as the action of the frost upon it will help