

Darkness and cool temperature are primary requisites in the successful storing of potatoes through the winter. In harvesting, as well as in storage, the tubers should be exposed to the light as little as possible. When potatoes are allowed to green they become useless for culinary purposes, and, some authorities say, poisonous. Warmth encourages sprouting, which reduces the value of potatoes both for planting and eating. For storage the temperature should be an even one of 35° F. and not more than 40° F. The freezing-point of potatoes is 30° F. In countries where low temperatures are experienced during winter, pitting potatoes above ground in the manner described is the cheapest and most satisfactory. It is not claimed, however, that this method is suitable for the warmer parts of New Zealand.

If the water-level does not rise too near the surface during winter an inexpensive potato-cellar may be made by merely excavating a trench 5 ft. or 6 ft. deep and 8 ft. wide, and as long as is needed. When the crop is harvested the cart or dray is tipped on the side of the cellar. Never pile potatoes more than 5 ft. deep. Always make a cellar in a line with the prevailing air-currents. The roof should be given a pitch just sufficient to shoot water and afford sufficient strength. A small gutter or ditch should be dug along either side to carry away water shed by the roof. Up-to-date cellars or underground pits are constructed so that air may pass through at night, and, if the weather is hot, be closed up during the day. I have heard of an instance where potatoes were stored in an old mine-tunnel and remained good for two years. A current of air passed through the tunnel and the temperature remained about 40° F.

The method of storing seed-potatoes at Moumahaki Experimental Farm is to place them on wire-netting benches under pine-trees as soon as they are lifted. (See *Journal* for July, 1916.) When potatoes are exposed in this manner all winter it is necessary to see from time to time whether the larva of the potato-moth is doing any damage. If so, it may be necessary to dip or spray the tubers with arsenate of lead, using 1 lb. to 50 gallons of water.

For storing small quantities of potatoes kerosene-tins can be used—three sides being cut at the top to form a lid. A tin holds about 28 lb. when full. Dig a trench about 3 ft. deep and 15 in. wide, so that a tin will lie lengthwise. Place the lid close up to the bank-side, so that the lid may be kept closed, and this will prevent rats doing damage. Cover the top with a sheet of galvanized-iron sheeting. This is a very convenient method of storing a few special potatoes, or where there are several varieties which have to be kept separate for seed purposes.

#### SELECTION AND HANDLING OF SEED.

When the potatoes are ripe enough to keep, but before they are dug, and when the haulm is still green and in good condition, is the time to select potatoes to be saved for seed. Go into the potato-field and look for strong, healthy tops, and see if the soil is being well raised up by the growing tubers. If a stake is placed at each root selected, the lifting can be done later or as soon as sufficient selected roots have been secured. There is no better way of selecting potatoes than by taking seed from perfect roots. Seed should be selected only from