Squash and pumpkin should be gathered before frost, cut with a small piece of vine attached. Handle them as carefully as you would eggs, as the slightest bruise will soon spoil them. Store in a sunny dry place where frost can be kept out. Later store in a dark, dry place, with the temperature as near forty degrees as possible.

HOW TO TREAT TOMATOES

Just before frost, pick the best of the unripened tomatoes and place them on some clean straw in a cold frame or greenhouse. Others may be put on straw in the cellar. In this way you may prolong your supply of tomatoes until nearly Christmas.

Put a few plants of parsley in a pot or box and place them in the kitchen window for use during the winter months. Clean up the rhubarb and asparagus beds and put on a good dressing of coarse stable manure. If you have a greenhouse, and would like to utilize some of the space under the benches, lift a few roots of rhubarb for forcing. Tender young stalks of it are sure to be appreciated in mid-winter. In lifting, dig round the four sides with a spade, being careful not to damage the crowns. Turn the root upside down and let it lie on the ground to freeze well. Then place them under the bench where you intend to force them. Work soil well round and between the roots, so that the crowns are just peeping out; water thoroughly. Spray them occasionally with lukewarm water until the growth has started, and maintain as even a temperature as possible.

Potato Scab

Prof. E. M. Straight

POTATO scab should not be confused with the potato canker or wart disease, sometimes called the black scab. This latter disease is established in Newfoundland but is not found in Canada so far as we are aware of.

The roughened, scabby, pitted surface of potato tubers affected with scab is too well known to require description. It is probable that no other potato disease has a wider distribution. In addition to being disseminated throughout this country, it occurs in various parts of Europe, South Africa and New Zealand. In all probability scab occurs wherever potatoes are grown. In addition to the potato, turnips, carrots and beets may be attacked.

Many practical growers are of the opinion that lime, ashes, chipdirt, and other substances, cause the disease. The nature of the fertilizer used, the alkalinity of the soil may and do influence the amount of scab present on a given crop, but such agencies are incapable of producing life.

The cause of potato scab is a parasitic plant, to which the name of Oospora Scabies has been given. This plant is as dependent on certain conditions for its rapid development as the potato or root crop upon which it grows; but cannot grow in a soil unless seed of the fungus has first been deposited there. The old idea of spontaneous generation has long been exploded. We have grown beyond the thought that chipdirt can give rise to life! Experiments have shown repeatedly that scab does not develop on new land unless it is affected from some outside agency. If clean seed potatoes are used on clean land, a clean crop is sure to result. All or nearly all of the infection of new areas may be traced to diseased seed.

SOURCES OF INFECTION

When the soil once becomes infected there are two possible sources of infection in future crops, viz., the seed and the soil itself. It follows then that some soils may give scabby potatoes even when clean seed is used.

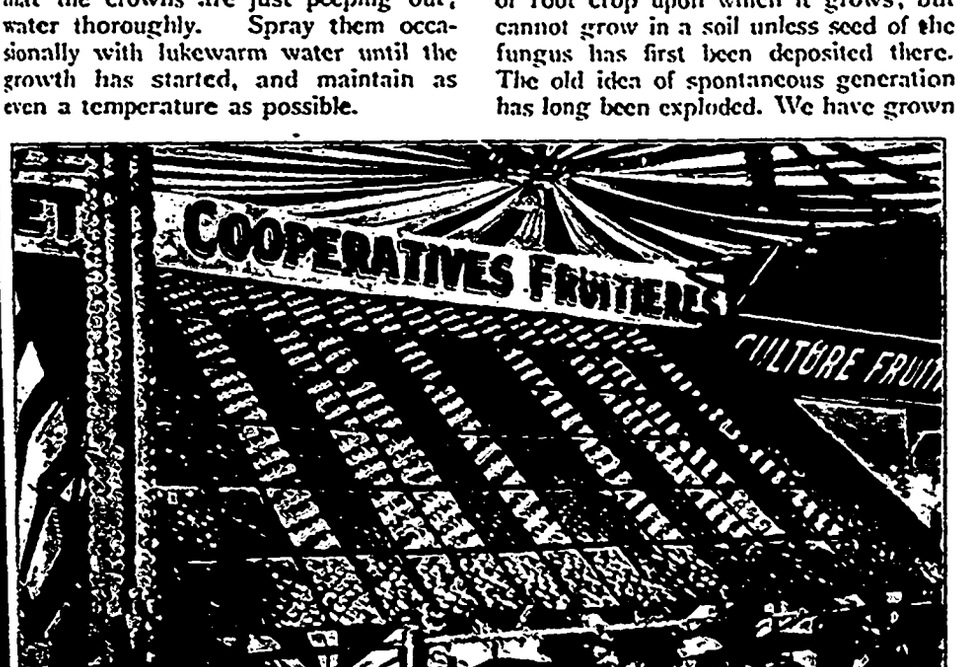
Scab thrives best on an alkaline soil. Dr. Wheeler, who has made an extensive study of the disease, summarizes his conclusions as follows: "The materials which favor scab and which are at times applied to land are: Stable manure, wood ashes, lime, magnesia and soda-ash. The materials which do not tend to make the scab worse, and which may tend to decrease it, are: Most commercial fertilizers, sea-weed, potash salts, land plaster, common salt and ammonium sulphate."

As has been pointed out, potato scab does best on an alkaline soil, that is to say it makes its most vigorous growth there. Unfortunately, potatoes also do best on a like soil; but potatoes are not so susceptible to soil conditions as the fungus. It is quite possible to grow potatoes on a soil slightly acid without materially affecting the yield, and at the same time discourage the growth of the parasite.

SULPHUR MAY BE USED

Sulphur applied to the soil gradually oxidizes with the consequent production of acid. Sulphur has been used on some soils with much success, especially on soils naturally neutral or only slightly alkaline. The process is expensive and hardly practical on large areas.

Similar acid soil conditions may be obtained by turning under some green crop, such as buckwheat. In the breaking down of this green manure, acid is formed often quite sufficient for the purpose. This system would produce best results on a neutral or slightly alkaline soil, and would not be entirely successful on a soil strongly alkaline, as the decaying crop would not produce acid enough to leave an excess in the soil. By making choice of fertilizers which do not encourage scab, by proper rotation and by turning under a green crop, a badly affected field is often cleared in a few years. Without such treatment, the fungus would remain active in the soil, without the presence of a susceptible crop for indefinite periods.



An Attractive Exhibit at the Exhibition of the Sherbrooke, Que., Agricultural Society

The exhibit was arranged by the Oka Agricultural College, La Trappe, Que. It included a few boxes of apples that had been grown in the provincial demonstration orchards.