

appearance of which is known to all growers. They all know the damage which the adult does in eating the leaves but few are aware that the small creamy larvae do even more damage to the roots and stems. The plants should be sprayed with arsenate of lead and lime sulphur before they are removed from the hotbed, but it rarely pays to spray the plants when in the field.

The chief disease is that fungus which so often attacks the seedlings in the beds, which is known as "damping off". In order if possible to devise a remedy for this, and to prevent the destruction of whole beds of plants in a few days, an experiment was conducted, in which the surface of the soil in one bed was covered with one half inch of mill shavings, that of another with rather heavy soil, and that of another with beach sand. Each bed contained five hundred and forty plants and all were kept under similar conditions. The plants in the bed covered with clay loam soil were badly affected, while those in the other two suffered to some extent. The mill shavings were very awkward and not very satisfactory, but the beach sand was productive of fairly good results. Check beds, however, in which were used only common potting soils, proved that the control of this disease rests in the proper control of the heat and moisture of the beds. Good bottom heat, a sunny location, ventilation, and the stirring of the surface soil are all that can at present be recommended.

The worst disease of the mature plants is bacterial wilt. This disease will cause the death of healthy plants in two days or less, and is absolutely uncontrollable when it has gained entrance to a plant. The micro-organisms plug up the conducting tubes of the stem, and so cause death. A test for this disease is to cut a stem near

to the ground, and, rubbing the cut surfaces together, to draw them apart slowly. If it is this disease, a white gummy substance will string out. All diseased plants should be promptly burned.

While most growers are able to produce a good crop, and to care for it in such a way that the fruit is in good condition when fully grown, very few men give much thought to the course which they must pursue after the melon becomes ready for market. It has been well said that an article is only produced when it reaches the consumer, and so it seems.

In almost every case, the grower ships his product to Commission Merchants in Toronto and Montreal, and it is in his methods of marketing that the grower makes his greatest mistakes. It is natural that the Commission Merchant, standing as he does midway between producer and consumer, should know both the requirements of the latter, and the ability of the former to comply with them.

When arranging the plan of this thesis, it was thought necessary that first-hand information should be obtained upon certain points, and to obtain this, the following method was adopted.

Many of the largest and most reliable Commission Merchants in Toronto and Montreal were communicated with, and certain direct questions were asked them. In every case, a detailed reply was received, and the value of such material, when collected and compared, is self evident.

Some of the questions asked were as follows:—

- 1 What is the most desirable variety?
- 2 In what stage of ripeness do the melons reach you?