

## Ontario Agricultural College and Experimental Farm

A Bacterial Disease of Cauliflower (*Brassica oleracea*)  
and Allied Plants.

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In the summer of 1901, a market gardener, in the vicinity of Guelph, who made a specialty of growing cauliflowers, complained of a disease which was affecting his plants. Shortly afterwards the cauliflowers in the garden department of the College were also found to be infected, while further investigation in the neighborhood showed that a disease, or rot, of cauliflowers, cabbages and white turnips was quite general and had done considerable damage to these crops.

In the case of the market gardener referred to, more than half of his plants were affected, while in the College garden, about 5 per cent. of the plants were diseased.

Some 40 varieties of white turnips were tested on the trial grounds at Guelph, and most of them were more or less affected with the rot, the percentage of decayed roots varying with the variety, in some cases reaching as high as 64 per cent. The few farmers in the Province, who experimented with the varieties of white turnips that were sent out from this Experiment Station, reported a considerable amount of soft rot.

Later in the same summer I visited a number of farms in the vicinity of Woodstock, and found a varying percentage of white turnips rotting in the fields, although the Swede turnips were not affected, and from conversation with a number of farmers who visited us during the past season, I also gathered that wherever white turnips were grown there was considerable rot during the season of 1901.

## PATHOGENESIS.

In order to positively demonstrate that the organism isolated from the cauliflower and turnip was the cause of the rotting, the usual requirements were worked out.

1. *Constant association of the Bacillus with the Disease (named Bacillus oleraceae and subsequently described).*

The same bacillus was isolated from diseased cauliflowers from the vicinity of Guelph, and from the garden department of the