

BULLETIN LXIII

EFFECTS OF PITTING ON SUGAR BEETS FOR SUGAR MANUFACTURE AND FOR FEEDING.

The report upon our investigations in regard to the growing of sugar beets for sugar production has been given in the lately published report of the Ontario Agricultural College and Experimental Farm for 1890, pp. 66 to 75 and 96 to 98, to which the attention of the reader is directed in connection with this bulletin.

PRESERVATION OF BEETS. The preservation of the sugar beet between the time of its removal from the ground until it can be worked over in the factory will be a matter of very great importance in this province where the winters are severe and sometimes quite changeable. When the growth of the beet has stopped and the products of the leaves have been transferred to the root, the beet is said to be "ripe," and is ready to be harvested. The signs of this condition in the leaves are the color and the drooping of the leaves; the color changes to a yellowish green and the outer leaves droop or wither and fall as though showing that their season is done. If the beets are to be taken straight to the factory the green heads or collars as well as the leaves may be cut off and left upon the field, but if they must be preserved for some time it is customary not to cut them down too much. "Generally the beets that have been cut close show no tendency whatever to sprout, that is to show leaves in the silo. But their sprouting is a sign of the cessation of all vegetable life, and is generally accompanied by an undesirable change known as 'hardening' in the juice, which is more injurious in the manufacture than the development of sprouts, and which latter, if it has not progressed too far, is preferred by the manufacturer." (*Report by L. S. Ware, 1889.*)

In the preservation of the beets, whether in cellar or in pit, four conditions are to be avoided, viz., excessive cold, as freezing and thawing inverts the sugar and causes loss in the factory; excessive