



The Prize Winning Half Car Load of Boxed Apples Shown at the recent Ontario Horticultural Exhibition by the Norfolk Fruit Growers' Association

Winter injuries may result from improper ripening of the wood or it may be due to improper nourishment. Instances of the latter are found in cases where there has been heavy fruitage which drains the tree of its vitality unless there is sufficient food available to supply the growing tissue as well as the fruit. Nature directs all her effort first to the development of seed to perpetuate the species, and the tissues of the plant are supplied only after this want has been met. Were we to place within the reach of our trees food as required I think we should hear less about the winter killing of our bearing trees. The improper ripening of the tissues of a tree may be due to an excessive food supply, or excessive moisture conditions in the soil, or to a continued high temperature. The temperature and food supply are largely influenced by the moisture conditions, although a combination of these factors is responsible for late growth.

The moisture conditions are in a measure within our control by the use of cover crops. In irrigated districts the grower has absolute control of this factor and can ripen off his trees when he wishes by the withholding of water. We have no such absolute control in the use of cover crops, for excessive rains at a certain period may largely counteract any drying effect we wished to produce through the use of a cover crop that tends to dry out the soil.

EFFECTS OF COVER CROPS

The following table will give some idea of the relative drying effect of various cover crops. These experiments were conducted in our young orchard and show the percentage of moisture in the soil in the middle of September: Millet, 7.24; Oats, 10.; Rape, 10.1; Winter Rye, 11.6; Crimson Clover, 11.8; Buckwheat, 11.8; Red Clover, 12.3; Vetch, 12.8; No Cover Crop, 14.9.

It will be noticed that the strong growing cereal crops and rape will run down the moisture contents of the soil very rapidly, and for this reason they may be advisable in some cases. The oat crop had four per cent. less moisture than the check plot growing no cover crop. Crops

that form a dense mat prevent evaporation from the soil and this is one reason probably why the clovers and vetch do not so materially reduce the moisture contents. It was found also that the

quick growing cereal crops reduced the moisture of the soil earlier in the season than the clovers, especially than the Red Clover, which requires a longer period to form much leaf area.

An Over Production of Apples Improbable*

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A LARGE majority of those present have heard the statement made, possibly some of you have made it yourselves, that the time was near when there would be so many apples grown that no market for them could be found and that the orchards, which cost large sums of money and much time and hard labor to bring to a bearing age, would be hewn down and cast into the fire. If this doctrine of over-production has not reached New Brunswick you are fortunate.

It might be possible to produce more apples than could be profitably marketed, but judging from the history of apple production and consumption in the past it is not likely to transpire.

Let us look back over the past thirty years and see what has taken place. In the year 1880-1881, the United States exported apples as follows:

From New York600,000 barrels
From Boston510,000 barrels
From Portland 40,000 barrels
From Philadelphia 10,000 barrels

Total from American

ports1,160,00 barrels

In 1908-1909 the figures are as follows:

From New York363,000 barrels
From Boston189,000 barrels
From Portland 89,000 barrels

Total641,000 barrels

By these figures we find that the export of apples from the United States has decreased over 500,000 barrels dur-

*A paper read at the annual convention in November of the New Brunswick Fruit Growers' Association, at St. John's, N. B.

ing a period of thirty years. Yet all this is no evidence that our neighbors across the border are less active or producing less apples than they did in the year 1880. Just the opposite is the case. More and better apples are produced than formerly, but the demand is far greater in their own country.

Perhaps it would not be an exaggerated statement to make if I should say that not more than ten per cent. of all the apples grown in the United States find their way into any export market, and I think it would not be going too far afield to say that judging from the increase in the population for the last ten years that at the end of the next ten our neighbors will be importing apples to be consumed by their own people. Now let us look at the condition of things in Canada.

CANADIAN CONDITIONS

In the year 1880-1 the number of barrels of apples exported from Montreal was 145,276. In the year 1903 the export had gone up to 732,000 barrels. But since 1903 it has dropped to 353,000 barrels. Is this because the fruit growers of the great provinces of Ontario and Quebec are giving less attention to the growing of apples? Not by any means; more apples of higher quality are produced, but the demand is so steadily and rapidly increasing in Western Canada, where thousands upon thousands of settlers are taking up farms and where larger towns and even cities are springing up almost in a day, that the time is not far distant when the old provinces of Ontario and Quebec will be exporting few, if any, apples.

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