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Choosing Varieties of Apples for British Columbia*

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THE commercial apple industry of British Columbia is a development of the last decade. The census of 1890 showed about six thousand acres of fruit in the province, and the census of 1900 showed an increase to only eight thousand acres. At the time of the 1910 census, however, the acreage had increased to thirty-three thousand six hundred and six, and the Provincial Government's Agricultural Survey of 1913 showed this further increased to thirty-eight thousand one hundred and ninety-six acres. The development was, therefore, a rapid one, following a period of inertia. The new development is largely in the interior. In 1900, interior districts had only about one thousand acres and now have thirty thousand acres; while in the coast sections, in the same period, the acreage has increased only about one thousand acres. In fact, the seat of the industry was almost entirely changed, for our interior districts are very different from the coast sections.

The great demand for information on varieties of apples to plant came largely, therefore, from these new interior areas, which were almost entirely lacking in old apple orchards; even further, the interior sections, looking to the Canadian prairies for their markets were

without information as to what those markets desired. The situation has, therefore, thrown a great responsibility on the Provincial Government's Department of Agriculture, which had been active in promoting the fruit industry and was then called on for technical information on varieties and on cultural methods.

Much of the planting had already been done when I came to the province as provincial horticulturist in the spring of 1909, but there was still a large demand for information and the demand continued strong until two years ago. With so little local information to draw upon, it was necessary to secure the most reliable information from other districts of similar character; we were fortunate in having weather records for considerable periods for typical points in many of our new districts, and with these in hand, we set out to compare climatic conditions with already successful fruit districts.

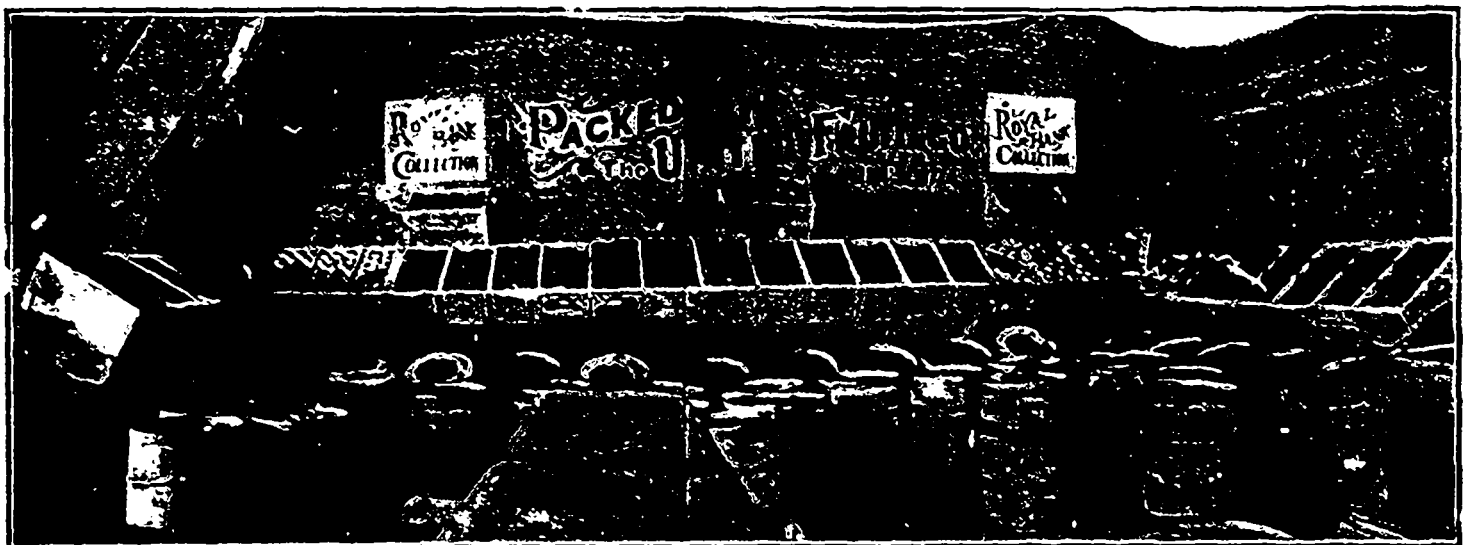
Comparisons of climate, as to precipitation, are simple, but as to temperatures the matter is hedged with difficulties. In this respect we found the method of utilizing temperature records worked out by the U.S. Biological Survey of the greatest value. Their investigations show the marked relation between the character of the growth period and the vegetation. Knowing that

all the principal commercial varieties of apples had distinct climatic preferences, the problem was to determine what they were.

The most important temperature conditions influencing the success of any variety of apples are as follow: First, the length of the growing season: While this is usually gauged from the length of season between killing frosts, the more exact way is to determine the period during which the mean temperature is over forty-three degrees F. This period for Hood River, for instance, averages two hundred and forty days, from March 17th to November 12th; and for Vancouver, B.C., it is two hundred and thirty days from March 25th to November 12th. The growing season in the various agricultural districts of British Columbia is usually between one hundred and seventy-five and two hundred and forty days.

The second consideration is the number of heat units. The amount of warmth as well as the growing season is important. The sum total of heat during the season is expressed in heat units, and a heat unit is taken to be one degree F. for one day for each day of the growing season. In this way, the total heat units for the growing season are determined. Hood River has an average of 15,315 heat units; Vancouver, B.C., has 12,667. The total heat units vary wide-

*Extracts from an address delivered before the Pacific Coast Nurserymen's Association, at the twelfth annual meeting held at Vancouver, B.C., June 16th to 18th, 1914.



During the Past Two Years the Fruit Growers of Nova Scotia Have Built Up a Splendid Reputation For Their Fruit, on Both the Home and Foreign Markets, Through the Work of their Big Fruit Company. The Illustration Shows Some of Their Fruit Ready for Market.