



A Well Loaded Pear Tree

This Souvenir d'Congress pear tree on the farm of W. Palmer, Victoria, B.C., was so heavily loaded, the boughs had to be propped up to prevent breakage.

ly in British Columbia horticultural districts, but are usually between ten thousand and thirteen thousand.

Also important is the average temperature at the height of the growing season. Where the average temperature for the hottest six weeks is below sixty-two degrees F., sweet corn and tomatoes are ripened with difficulty; where the temperature averages sixty-six degrees F. for the same period, these same crops are grown in large commercial areas.

Having collected such data for all the principal apple growing areas on the continent, but especially those of the Pacific North-west, we set out to determine the range of particular varieties, especially the Yellow Newtown, Spitzenberg, Winesap, Jonathan, Wagener, McIntosh and Northern Spy, which varieties seem to suit our markets and are among the most popular of boxed apples.

The Yellow Newtown is notably a variety of limited adaptabilities. We found that Hood River, Rogue River, and the Albemarle country of West Virginia, in which areas this variety reaches its greatest perfection, have a growing season of two hundred and forty to two hundred and seventy days, with a total number of heat units of from thirteen thousand seven hundred and fifty to fifteen thousand seven hundred, and a temperature over the six hottest weeks of sixty-seven decimal five to seventy decimal seven degrees F., all of these, furthermore, are humid areas.

The districts with most nearly similar conditions to British Columbia are still very far from having the same conditions. We, therefore, counselled against heavy plantings of Yellow Newtown, and actual experience has since confirmed our opinion.

A similar investigation of the Spitzenberg, and other sectional varieties, showed that it required somewhat similar climatic conditions, save that it is doing well in some western irrigated districts with similar temperatures. In districts, such as Spokane, with two hundred and sixteen growing days twelve thousand six hundred and twenty heat units, and a temperature for the six hottest weeks of sixty-eight decimal six degrees F., the trees are not so productive, the fruit is not so large, nor so well colored, nor of such high quality. Our principal interior districts, which have temperatures much like that of Spokane, are finding similar results, and these results have justified our expectations.

The common or old Winesap is one of the most popular of western apples and has been widely favored in British Columbia on that account. We found, however, that it apparently requires a growing season of around two hundred and twenty-five days, a total of not less than thirteen thousand four hundred heat units, and temperatures for the six hottest weeks of seventy to seventy-two degrees F. With shorter or cooler seasons, the fruit lacks in size, color and quality.

The most favorable recorded points in this province, such as Lower Okanagan Lake, with a growing season of about two hundred and three days, heat units eleven thousand seven hundred and seventy-five, and six hottest weeks' temperature of sixty-seven decimal three degrees F. are obviously lacking. The Kamloops district is much more nearly suitable, having an average of two hundred and fourteen growing days, twelve thousand six hundred and eighty-three heat units, and a six weeks' hottest temperature of sixty-nine decimal three degrees F. The Similkameen Valley, of which, unfortunately, we have no temperature records, but which is believed to have the longest and hottest growing season in the province, comes even nearer than Kamloops to meeting the requirements. We have accordingly advised fruit growers to avoid the Winesap, except for these hottest localities. In the last two years the Winesaps produced in various districts have borne out our expectations, and I believe that in the most favored districts mentioned the variety will succeed commercially. On our recommendations these districts have planted largely of it, and other districts have largely avoided it.

The Wagener has been much favored for planting in the interior of the province, largely because of early bearing and productiveness. Wagener requires apparently just about the very conditions found largely through our interior sections. It is the most largely planted variety in the interior next to Jonathan. In the cooler and less sunny districts, it is not doing as well as in more favored ones. Water core has given considerable difficulty, and its control by cultural methods is not yet attained. It seems well suited to the dry belt areas in which the Jonathan is succeeding, and I think will justify the large plantings which have been made.

The McIntosh Red is not so well known south of the line as in British Columbia. It is, as you know, of Canadian origin, though a very popular apple now in Vermont and in the Bitter Root Valley, Montana. In its native home it thrives excellently with a growing season of one hundred and ninety days, with eleven thousand and fifty-two heat units, and a temperature for the six hottest weeks of sixty-eight decimal two degrees F., and in the Bitter Root Valley, with a slightly longer season, eleven thousand six hundred heat units and a six hottest weeks' temperature of sixty-five decimal eight degrees F. We find these conditions very closely duplicated in both the irrigated and non-irrigated fruit districts of the interior. No other well-known variety seems to be so admirably adapted in this respect as the McIntosh. This variety has strongly justified our recommendations for it and may yet become our premier apple.

Similar studies made with a large range of varieties have given us most valuable suggestions. We now feel inclined to lay even more stress than before on temperature requirements, as our previous conclusions have become justified by experience.

The great unsolved problem in British Columbia apple culture is to find a suitable, long-keeping apple. The tree must be hardy, vigorous and productive; the fruit must be of medium or larger size, red, of high dessert quality, and of long-keeping quality. We have not yet found all these requirements in one single variety. It is true that the same problem faces apple culture throughout Canada. In the search for this variety we have examined the requirements of practically every variety grown on the continent, and are even now testing a number of varieties grown successfully in Great Britain and Australia. The successful conclusion of the search for the desired variety will mean millions of dollars to Canadian fruit growers. There is still much room for improvement in varieties.