Tree Planting in Southern Alberta.

By A. Mitchell.

Of all the prairie provinces, Alberta has the greatest variety of climate; and it is well worth the while of anyone who contemplates planting to endeavor to get a thorough understanding of the particular set of conditions which will apply to his locality. The thorough preparation of the land previous to planting is necessary everywhere, as in the other prairie provinces, and so, too, is the after cultivation; only, in southern Alberta, with a somewhat lesser rainfall and more dry winds, there is a greater need to conserve the moisture, and consequently the value of cultivation at the right time is more apparent. The kinds of trees suitable vary in the several districts, and when a man is planting it will pay him well to plant only what is likely to succeed.

The 'Chinooks.'

The warm Chinook winds coming over the mountains from British Columbia are the cause of many a pleasant gap amid the rigors of winter, and they have been blamed for a great deal of tree-killing they never were guilty of. The trouble usually arises from faulty cultivation. The influence of the Chinooks is usually considered to extend from the boundary line to a distance of about fifty miles north of Calgary. North of this, the winters are steady and differ little, if at all, from those of the other prairie provinces.

The rainfall in the Chinook country is, as a rule, a good deal less than it is in the north, and ranges from about thirteen and a half to nearly eighteen inches. North of the Chinook belt the precipitation runs from eighteen inches up to as high as twenty-seven inches in some years, and, as a great part of the country is bush, a set of conditions prevails which differs very much from that met with in the south.

The Chinooks have been blamed for doing damage to trees in this part of the country by inducing an untimely flow of sap in the late winter or early spring, which, when followed by a sudden drop of the temperature immediately afterwards, ends in disaster to the trees. This may be true, but the writer has never seen it. What looks like it, and is often mistaken for it, is the fact that sometimes the buds swell toward spring, but advance no further, and the branches bearing them die, because there was not, at the roots of the tree, moisture enough to enable them to supply what was necessary to keep up the growth. It is only a question of moisture, and where trees are irrigated properly or cultivated thoroughly, there is never any trouble from this source, and in the Chinook country, as in all the rest of the prairie, it will be found that the man who cultivates best in the summer is the one whose trees best survive the winter. This has been proved over and over again.

The 'Higher District.'

But the Chinook is not the only thing that influences the climate of southern Alberta. Another feature bears very materially on this subject, especially in relation to tree-growing, and that is the rapid slope upward as you approach the mountains. From Medicine Hat, at a height of about 2,171 feet above sea level, to Calgary (only about 150 miles west) there is a rise of 1,257 ft., and from Macleod westward the rise is even more rapid, for the altitude of that town is about 3,208 feet, while Pincher Creek (only thirty miles further west) is some 600 feet higher. Conditions like these cannot fail to have an influence on the climate, and not infrequently these higher regions are visited by a touch of frost several weeks earlier than the country further east.

This 'higher district' of the province may be defined as lying from the boundary line north to about Olds, a distance of some 200 miles; and includes all the country west and south of Spring Coulee, Pincher Creek district, west and south of the Piegan reserve, the Porcupine Hills, and west of a line from Staveley on the Calgary-Macleod line, running NNE, to Namaka on the main line of the C.P.R.; thence west of a line between ranges twenty-three and twenty-four till the bush country is reached.

All the country included in this area may be classed as the 'high country' from an arboricultural point of view, and it will be found that trees which do quite well further east do not always succeed here.

The sudden rise from the Pacific, as is well known, causes the moisture-laden breezes from the ocean to lose their moisture almost entirely as they come over the mountains; so that the western slope is very wet, while east of the Rockies the rainfall is very small. Not all of the rain-clouds are deposited on the western slope, however, for frequently during the summer the skirt of a cloud may be seen coming over the summit to fall in rain on the higher prairie and the foothills, which are in this way usually blessed with a considerably better rainfall than the flat country further east. (The prairie