
APPENDICES.

APPENDIX A.

CLIMATE AND AGRICULTURE.

Peace River is generally credited with an early spring, at least as early as the wheat-growing areas of Manitoba and Saskatchewan. The late Dr. G. M. Dawson, at one time Director of the Geological Survey of Canada, gives an average date for the opening and closing of the river by floating ice. These dates are April 21st and November 7th, between the years 1866 and 1875. It is unlikely that these events have undergone much change in the matter of time or that the climate has changed; there are, however, apparently considerable variations in the warmth and rainfall of the summer seasons.

Last year (1919) had a late spring all over Canada. The growth of vegetation at Hudson Hope early in July did not indicate an early spring, and I am inclined to think, from information, that spring, though early, does not bring summer and growth as soon as in the wheat districts of Manitoba and Saskatchewan.

Within the area north and south of Hudson Hope the growth after July 10th was very rapid and reached astonishing developments in the way of weeds, such as wild parsnips 10 feet high, fireweed 7 feet, and peavine as much or more. This was a tribute not only to the weather, showers, and very heavy dews, but to the soil of some of the valleys. The rainfall for July was $3\frac{1}{4}$ inches; for August, 3 $\frac{3}{4}$ inches; and on September 4th to 5th, 1.42 inches, as recorded at Hudson Hope. It seems to be usual that July and August have much rain, while early summer is dry. The whole country, mostly wooded, bears tribute to a sufficiency of precipitation or such a conservation of it as keeps vegetation abundant.

Concerning summer frosts, these occur at irregular times, but do not appear to affect the crops as much as in the early days of Manitoba. Wheat ripens yearly in the main valley of the Peace. None was seen on the uplands or upper valley-levels, excepting a late-sown patch on Lone Prairie, which is about 1,000 feet higher than Hudson Hope.

The first severe fall frost occurred on the night of August 31st-September 1st. This frost from experience in Manitoba was not, I think, severe enough to injure nearly ripe wheat. The potato-tops at Middle Pine, 1,750 feet altitude, and at Hudson Hope, 1,500 feet, were only partly cut down. Below Hudson Hope, in the Peace Valley, for the 240 miles to Peace River Crossing, there had been no dangerous frost up to September 12th.

Tomato-plants were untouched at Harmer's ranch, Flat River, on August 26th. This place is 2,300 feet above sea-level; nor were tomatoes injured at Cadenhead's ranch at Halfway River, on the Peace River, on September 7th. On the line of the Dunvegan and Peace River Railway there was more evidence of severe frost a little north of Edmonton on September 12th than at any point seen on Upper Peace River up to September 7th.

Concerning agricultural land, there are within the limits of British Columbia, north and south of Hudson Hope, a few partly wooded prairies and some steep, grassy hillsides on the north banks of the rivers. The main country is thickly wooded with small timber, chiefly spruce, jack-pine, and poplar.

The most desirable flats or wintering-places for stock and feed are already partly taken up by squatters, as at Halfway River, Hudson Hope, Moberly Lake, Pine River and its South and East Branches, Lone Prairie between the latter, and Flat Creek, farthest south of all.

These places are all valley lands or deep depressions, mostly less than 2,000 feet above sea-level. Lone Prairie, one of the most elevated (2,400 feet), is a considerable tract of partly wooded flats nearly surrounded by mountains, an area of about thirty square miles, in which are half a dozen settlers. There are also extensive tracts of easily cleared land on the South Branch of Halfway River, forty-four miles north of Hudson Hope, and on the western side of Kiskatinaw or Cutbank River, south-west of Pouce Coupe.

The greater part of this country, if cleared of its forest-growth, which is useless as timber, would afford good grazing land, while the valley-flats would furnish hay and wintering-places, especially those which are visited by Chinook winds.