Saskatchewan

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SASKATCHEWAN
CANADA.

The Prairie Land

Would you feel the charm of the prairie land?
Then stand at the break of dawn,
Where the long, low sunrise floods with light
The plains of Saskatchewan.

Or stand again, at the set of sun,
As the light in the West grows dim;
While the blue gray clouds with crimson lined,
Lie low on the prairie's rim;

Till the coulee waters reflect at last
The clouds, and the dying light;
And the stately form of the wild duck sails
Dark over the surface bright.

Would you learn the spell of the prairie land?
Then follow the winds at play,
As the long grass waves, and the flowers toss,
In their varied colours gay.

Those prairie flowers! Where else do grow
Such hosts of anemones rare?
Such mounds of roses, interspersed
With the blue-eyed flax so fair?

The expansive green 'neath the deep blue sky,
The miles of grass with its bloom,
The horizon, dotted with settlers' shacks,
The wind with its soft perfume—

These hold the charm of the prairie land,
To all of us once and again
The winds blow over the lakes afar
The lure of the Western plain.

—*Laura E. Marshall.*

SOME FACTS ABOUT SASKATCHEWAN

The latest of a number of important changes in the confederation of provinces known as the Dominion of Canada was the admission as provinces of parts of the organised North-West Territories, which took place in 1905 when the districts of Assiniboia, Saskatchewan, Alberta, and Athabasca were constituted the provinces of Alberta and Saskatchewan and were given self-government similar to that enjoyed by the other Canadian provinces.

Avenue of Cottonwoods at Indian Head.

The remarkable progress of these provinces, which previously to September, 1905, had a common history, and the conditions that now obtain might almost lead one to regard them as having been for a long time in

the advanced state in which the visitor now finds them. The evolution of conditions has, however, been rapid. As recently as fifty years ago this vast prairie region was the home of innumerable wild animals and bands of untamed Indians. The lordly bison, the hungry wolf, the cunning fox, the skulking coyote, the treacherous lynx, the timid badger, the industrious beaver, and many other species of wild animals were found in their native haunts and supplied to the nomadic Indian tribes a means of livelihood.

The scene is changed. No longer does the bison roam the prairie. The few survivors of the countless herds whose gallop sounded like distant reverberating thunder are confined to the national parks and forest reserves protected by the government and are an object of undisguised interest to the descendants of the white man by whom so many of them were ruthlessly destroyed. The red man who regarded the broad expanse of plain and the endless winding river valleys as his by right of inheritance has been retired to the reserves where the remnant of a once numerous race follows a more prosaic existence than did his native ancestor, and now endeavours, not unsuccessfully, to imitate the customs of his pale-faced brother. The plains on which the buffalo thrived before the advent of the white man and the fatal Winchester now support herds of cattle and horses. The domain of the Sioux, the Cree, the Ojibwa, and the Chipewyan have become the home of farmers from all parts of the world; and the cosmopolitan population gathered here under the sheltering folds of the Union Jack has demonstrated the fertile broad acres to be the granary of the empire.

The province may be divided generally into four well-defined zones. In the south, and extending as far north as Saskatoon, with the exception of a considerable district north of the Qu'Appelle Valley comprising the Beaver Hills, Touchwood Hills, etc., the country consists of open rolling prairie. North of Saskatoon and extending to the southern edge of the great northern forest, which in Saskatchewan is bounded on the south by a line from Swan river north-westerly through the vicinity of Prince Albert, the country is mixed prairie and woodland, and is splendidly adapted for mixed farming and for stock raising. North of this belt of mixed prairie and woodland lies the great northern forest, the northern edge of which may be described by a line drawn from the northern part of Reindeer lake to the southern part of Lake Athabasca. This timbered belt is covered with a forest of spruce, tamarack, jack pine, poplar and birch. The remainder of the country is not thickly wooded; black spruce, banksian pine and poplar are found in the far northern part of the province.

The southern part of the province consists for the most part of a gently rolling plain dotted here and there

with placid lakes and clumps of trees with occasional open level prairie land where the plain as far as the eye can reach is unbroken by slope or declivity and the gaze is unobstructed by even a single tree.

There are, however, in different parts of the province ranges of low hills intersected by ravines, many of which are well wooded and supply considerable quantities of fuel; in a few of them the trees are large enough to make lumber. The most important are:—The Coteau, including the Dirt Hills, which extends from the international boundary west of Estevan to a point beyond the Elbow of the Saskatchewan river; Cypress Hills, south of Maple Creek; Wood Wountain, south of Moose Jaw, near the international boundary; Moose Mountain, north of Arcola; Last Mountain, Touchwood, and Beaver Hills, north of the Qu'Appelle Valley; Eagle Hills, south of Battleford; Pasquia Hills, east of Prince Albert.

Ten years' tree growth at Grenfell.

Portions of the wooded area in the park country have been reserved from settlement by the government in order to provide timber and game preserves. In Saskatchewan, the following Dominion forest reserves have been formed:—Beaver Hills, north of the Qu'Appelle; The Pines, west of Prince Albert; The Moose Mountain, north of Arcola; and the Porcupine, No. 2, in the northeast, between Canora and Erwood. Near the eastern boundary between the main line and the Reston-Wolseley branch of the Canadian Pacific Railway is a wooded area of a few hundred square miles which is covered with a scattered growth of poplar and cottonwood.

The south-western is perhaps the most suitable part of the province for ranching; and in the districts west of the Coteau and south of the South Saskatchewan

river the stockmen have until recently been allowed to pasture their herds and were but little interested in the invasion of the homesteaders.

The domain of King Wheat has, however, gradually been extended and the arable areas are being made to yield their generous tribute of golden grain. The Cypress Hills, Wood Mountain, The Coteau, and the more hilly areas intervening, however, will always be the secure retreat of the rancher where he may continue to produce some of the finest horses and beef cattle in the world.

In 1901, settlement was confined mostly to a narrow belt of territory extending about fifty miles west of the boundary of Manitoba, a strip of about the same width extending as far west of Moose Jaw furrowed by the main line of the Canadian Pacific Railway, and settlements adjacent to Prince Albert and the Saskatchewan river above that point. There was also a sparse population in Battleford, Maple Creek and a few other districts. At present the area that may be regarded as being populated, though sparsely in places it is true, is several times greater in extent than the parts that were settled in 1901.

The events of the last five or six years have demonstrated that millions of acres of land that previously were regarded as of very little value for agricultural purposes are capable of producing magnificent crops of cereals. In the earlier years, the famous Indian Head and Pheasant Plains districts were regarded as unrivalled for wheat production; and while the results achieved by them in that direction have assisted in no small measure in making the Canadian North-West justly famous, it must be conceded that successful cereal production is not by any means confined to these areas. Similarly, the future may demonstrate that those tracts of land within the provincial boundaries that by some are believed to be better fitted for grazing than for agricultural purposes are well suited to the growth and maturity of cereal crops.

BOUNDARIES AND AREA.

The province lies between the 49th and 60th parallels of north latitude, and between the meridians of 102 and of 110 degrees west from Greenwich; or, more familiarly, its southern border is the international boundary, the dividing line between Canada and the United States. South of Saskatchewan are the states of North Dakota and Montana; east of it is the province of Manitoba; west of it is the province of Alberta and on the north and north-east it is bounded by the unorganised North-West Territories.

Its greatest length is 760 miles; and its width on the south is 393 miles. At the middle it is 300 miles wide; and at the northern boundary it has a width of 277 miles. The area of this great quadrangle is 250,650 square miles of which 8,318 miles is water The land surface contains 155,092,480 acres

Prince Albert, Sask.

ALTITUDES.

The province comprises the greater part of the second prairie steppe, which in Canada extends wesward from the elevations known under the following names:—Pembina Mountain, near Morden; Tiger Hills; Beautiful Plains, near Arden and Neepawa; Riding Mountain; Duck Mountains, Porcupine Hills; and Pasquia Hills. This steppe has an average elevation of about 1,500 feet above the sea level; although a part of the province in the Cypress Hills region attains an altitude at the summit of 4,243 feet. This, however, is exceptional. The elevation of Lake Athabasca in the extreme north-east in only 690 feet above the level of the sea. The following statement gives the elevation at certain places in the province:

	Feet
Cypress Hills (the summit)	4,243
Maple Creek	2,495
Battleford	1,620
Lloydminster	2,114
Lake Athabasca	690
Wood Mountain (west summit)	3,371
Weyburn	1,847
Mortlach	1,961
Craik	1,906
Hanley	1,869
Saskatoon	1,574
Clark's Crossing	1,630
Rosthern	1,657
Prince Albert	1,398
Estevan	1,860
Arcola	1,982
Moosomin	1,884
Yorkton	1,633
Erwood	1,078
Cumberland Lake	870
Reindeer Lake	1,150
Wollaston Lake	1,300

The elevations of the eastern and western boundaries of the province at the points of intersection by the main line of the Canadian Pacific Railway are 1,794 and 2,430 feet respectively. At certain places on that line of railway the elevation is as follows:

	Feet
Fleming	1,794
Moosomin	1,884
Broadview	1,960
Grenfell	1,957
Indian Head	1,924
McLean	2,284
Regina	1,885
Moose Jaw	1,767
Swift Current	2,423
Carmichael	2,637
Walsh	2,430

RIVERS.

The province is traversed by both branches of the Saskatchewan river, one of the largest rivers in Canada. Indeed, the Province derives its name from this, its greatest river. "Saskatchewan" is an Indian word meaning "rushing water." The river has its source in the Rocky Mountains, and after winding its devious way across the plain for a distance of about 1,200 miles empties into Lake Winnipeg and the chain of lakes drained by the Nelson river into Hudson Bay. Where the South Saskatchewan river enters the Province, its height above the sea level is 1,892 feet; about 200 miles farther down the river, at the Elbow, where it turns sharply to the north-east, its elevation is 1,683 feet; at Saskatoon it is 145 feet lower; and at the confluence of the north and south branches below Prince Albert it is only about 1,250 feet above the level of the sea. The north branch of the Saskatchewan is 1,689 feet above the sea level at Fort Pitt, near its entrance to the Province; 1,500 feet at the mouth of the Battle river; and 1,360 feet at Prince Albert. Between the confluence of the two branches and where it empties into Lake Winnipeg, it falls 540 feet, or a total fall in its course from the intersection of the provincial boundary by the South Saskatchewan where it empties into Lake Winnipeg of 1,182 feet. The principal tributaries of the Saskatchewan river are in Alberta.

In the farther north, the Churchill river, 1,000 miles in length, drains an area of about 115,500 square miles, which contain many large lakes. These two rivers carry by far the greatest part of the water flowing through Saskatchewan; but there are also a number of smaller streams whose beds are eroded almost as deeply, thus showing that they have been at some time swift rushing rivers. The Qu'Appelle, 270 miles long, and the Souris, 450 miles long, both of which are tributary to the Assiniboine, are examples of the latter class.

A feature of the southern part of the province is the Coteau (Fr. slope or hill), which divides the headwaters of the Missouri, flowing south, from the streams flowing north and east. Another divide is found nearly to coincide with the 55th parallel of north latitude, about twenty-five miles north of Prince Albert, and marks the division of the feeders of the Churchill and North Saskatchewan rivers. A height of land running in a north-westerly direction across the northern part of the province from about the source of the Clearwater river forms a watershed from which a number of rivers flow north into Lake Athabsca and some others empty south into the feeders of the Churchill river.

LAKES.

Saskatchewan has some large lakes, the most important of which are found in the north and are connected with

the Churchill and other rivers. The largest is Lake Athabasca. Reindeer and Wollaston Lakes also are of considerable size. Nearly all of these, excepting Lakes Chaplin, Johnston and the Quill lakes, contain fish in abundance. The Qu'Appelle lakes, which nestle in the Qu'Appelle Valley, are becoming famed on account of the beauty of their situations, and yearly entice numbers of campers to their shores. Last Mountain lake, a short distance north-east of Regina in the famous Last Mountain Valley, and many others are becoming better known annually as places where the aesthetic tastes may be gratified.

The principal lakes in the province and their areas in square miles are as follows: Amisk, 111; Athabasca, 2,842; Buffalo, 281; Candle, 150; Chaplin, 66; Cree, 407; Cumberland, 166; Dore, 242; Ile a la Crosse, 188; Johnston, 131; Last Mountain, 98; Little Quill, 70; Lac la Plonge, 383; Manitou, 67; Montreal, 137; Namew, 66; Quill, 163; Red Deer, 86; Reindeer, 2,437; Rouge, 344; White Loon, 97; Witchikan, 70; Wollaston, 906.

CLIMATE.

Not many years ago the popular impression concerning the great plain lying west of Ontario and north of the Western States was that by reason of the climatic conditions prevailing therein it was unsuited for the growth of the ordinary crops or even for residence; but a few of the more resolute and enterprising farmers of Eastern Canada unbidden pushed their way into this country, vast as an empire, and demonstrated that the climate is suited to the production of the best grain, vegetables and live stock in the world, and that it is pre-eminently healthful and invigorating. And when we make the very interesting comparison of this country with others in the same latitude we wonder how so erroneous an impression as we have referred to could have been formed and fostered. In our perplexity, we conclude that to the lack of information and to the circulation of erroneous reports by interested persons must be attributed the former prevalence of that opinion.

The British Islands lie in the same latitude as the Province of Saskatchewan. Denmark, the Netherlands, Belgium, the greater part of Germany, and about half of Russia are as far north as Regina or Winnipeg. Edinburgh, Scotland, is farther north than any of the settled parts of Saskatchewan. Christiana, the capital of Norway, and St. Petersburg, Russia, are in the 60th parallel of north latitude,—the northern boundary of Saskatchewan.

The climate of Great Britain and of some other countries in Europe is of course influenced by the Gulf Stream, and it is recognised that the influence of the ocean in regulating climatic conditions and in preventing extremes is important. There are, however, a number of features pertaining to the climate of Saskatchewan that

combine to make it a very pleasing one. The elevation above the sea, which is from 1,500 to 3,000 feet, insuring clear and dry atmosphere; the comparatively light precipitation, adequate, however, for all practical purposes; the equable temperature during the winter months, and the light snowfall; the very large proportion of bright sunshine; the summer breeze and the clear pure air; these are features of the climate of Saskatchewan that may be emphasised. Nor is there ever such devastation by storm or flood, earthquake or cyclone as is reported with too awful frequency from other parts of the world.

Precipitation occurs principally during the period of vegetation. The total rainfall is not much greater than is required to bring the crops to maturity; and the greater part of it occurs during the months in which it is most required. June and July are the wettest months in the year, although May and August are only moderately dry. Two-thirds of the annual precipitation occurs in the form of rain between April and September.

Farm buildings of W. H. Bryce, Arcola.

The temperature during the summer season rises frequently to about 100 degrees; but the days are tempered by a never-failing breeze, and the nights are cool and pleasant after even the hottest days. The number of hours of sunlight is greater here during the summer months than in the more southern latitudes; and the clear healthful atmosphere is particulary refreshing and invigorating.

The autumn season in Saskatchewan is probably unsurpassed in any other part of the world. The rare atmosphere perhaps is never so pleasing as at that time, when the warm bright days following nights during which the theremometer dips slightly below the freezing point produces an exhilaration that makes life more than mere existence.

The winter, which usually begins about or shortly before the beginning of December and continues without interruption until the middle or end of March, is undoubtedly cold; but with the aid of comfortable houses and suitable clothing and furs it inspires no dread and, indeed, is not unpleasant. The infrequent occurrence during that time of thaws or rains, and the absence of humidity, the large proportion of bright sunshine, and the stillness of the atmosphere when the weather is coldest tend to make our winter weather healthful and even enjoyable. "Blizzards" or severe snowstorms occasionally occur; but they are not as a rule accompanied with extreme temperatures. Indeed the temperature seldom fails to rise perceptibly when winds of any considerable velocity occur. And the infrequency of thaws and the equability of the temperature cause a noticeable absence of pneumonia and those kindred troubles that are so much dreaded in more moist and changeable climates.

In an ordinary season, the winter ends about the middle or end of March, and in a few of the last twenty years the snow disappeared before the end of February. In some seasons grain has been sown about the middle of March, but usually seeding is not in full swing until April.

In the ranching district, west and south of Swift Current, the Chinook winds occur at intervals during the winter. These warm dry winds blowing from the south-west cause the snow to disappear rapidly; and as it melts under the influence of the sun and atmosphere the moisture seems to be evaporated. It is the occurence of this wind that makes the south-west part of the province such an ideal ranching district. In that vicinity the stock winters well on the range.

The subjoined tables of temperature and precipitation will assist the reader to obtain a correct impression of the climatic conditions of the province during the last ten years. In every case in which precipitation is given the amount of snowfall is reduced to "water equivalent." Ten inches of snow is regarded as being equivalent to one inch of water.

AVERAGE MONTHLY PRECIPITATION FOR THE PROVINCE.

Table of precipitation in Saskatchewan by months during the ten years, 1898-1907; also the precipitation recorded during the growing period, April-September, in each of these years. This table is a compilation, averaged, of all the available data respecting precipitation at all the meteorological stations in the province in each year since 1898; and should not be taken to mean that any meteorological station may not show a higher or a lower average than is given for the province:

MONTH	1907	1906	1905	1904	1903	1902	1901	1900	1899	1898	Average precipitation for 9 years by months
January	.96	.80	.48	.77	.50	.19	1.18	.69	1.13	.35	.68
February	.31	.26	.36	1.43	.22	1.15	.54	.75	.47	.86	.67
March	1.03	.17	.38	2.89	.69	1.41	.53	.59	1.67	1.09	1.05
April	.74	1.15	.44	.50	.76	.58	1.49	.36	.36	.57	.71
May	.91	2.21	2.58	1.62	3.44	3.97	1.03	1.34	2.82	.72	2.19
June	3.64	5.22	2.86	2.61	1.52	4.73	4.69	1.07	3.70	3.21	3.29
July	1.81	1.28	1.90	2.26	4.10	2.20	4.05	1.84	2.14	2.23	2.44
August	3.49	1.16	2.42	1.23	4.20	1.64	1.00	4.19	2.76	2.14	2.30
September	1.41	1.57	2.60	1.79	1.26	.58	3.12	2.58	1.04	1.99	1.84
October	.29	.36	.95	.52	.47	.19	.53	.87	1.42	1.34	.74
November	.12	1.52	.60	.27	.71	.88	.20	.85	.47	.70	.69
December	.29	1.38	.37	.51	.56	.78	.62	.56	.51	.15	.60
Total	15.00	17.08	15.94	16.40	18.43	18.30	18.98	15.69	18.69	15.35	17.20
April–Sept.	12.00	12.59	12.80	10.01	15.28	13.70	15.38	11.38	13.02	10.76	12.77

ANNUAL PRECIPITATION AT CERTAIN STATIONS.

This table is a compilation of the precipitation at each of the meteorological stations specified during each year since 1895. It may be noted that the records for 1907 are incomplete in the case of Prince Albert and Qu'Appelle. In the case of the former the records for January and December are omitted, and for Qu'Appelle the record since July is missing:

Year	Battleford	Indian Head	Prince Albert	Qu'Appelle	Regina	Swift Cur'nt
1895	12.01	15.12	14.14	15.29	11.29	12.33
1896	12.93	14.89	19.64	21.63	18.90	14.11
1897	16.53	16.40	18.03	12.65	9.32	16.24
1898	14.25	20.63	15.74	21.65	13.28	15.25
1899	18.42	13.34	29.88	19.27	11.59	19.38
1900	20.41	15.36	22.40	16.52	11.81	14.60
1901	16.57	23.26	19.46	26.47	18.62	18.58
1902	13.49	16.01	20.01	24.37	15.22	17.64
1903	16.06	18.95	16.87	20.09	14.54	18.38
1904	16.60	20.09	16.60	22.22	15.38	12.84
1905	10.55	22.82	19.27	24.55	18.05	15.68
1906	10.91	16.51	19.84	22.15	18.92	18.94
1907	10.11	18.13	16.22 (10mos)	12.04 (7 mos)	15.12	13.17

MEAN TEMPERATURES FOR THE PROVINCE.

The following table, which is a compilation of all available data respecting the temperature at each meteorological station in the province in each year since 1898, gives the mean temperature in Saskatchewan for each month in these years. It may be explained that the mean temperature for each month is ascertained by adding the highest and the lowest recorded temperatures of each day of the month and dividing the total by twice the number of days in the month. The monthly average for the same period, and the annual mean are also given. In the summary is included a statement of the mean temperatures during the months of April-September, which is practically the period of vegetation:

MONTH	1907	1906	1905	1904	1903	1902	1901	1900	1899	1898	9 years average
January	—14.6	6.6	—1.1	4.1	3.8	10.3	.5	11.2	—1.3	7.5	4.6
February	6.2	6.5	4.5	8.5	2.6	8.3	3.4	—3.4	—7.2	4.9	3.1
March	14.9	15.9	29.7	8.0	10.8	19.8	19.7	15.0	1.2	10.1	14.5
April	24.9	44.4	37.9	35.1	38.0	36.4	39.0	47.0	32.6	36.0	38.5
May	39.7	47.2	48.2	53.6	48.6	52.7	58.2	56.5	46.2	51.7	51.4
June	57.8	59.4	56.1	57.6	59.5	52.7	55.5	62.6	57.4	43.2	56.0
July	61.6	65.6	62.4	62.2	60.0	61.9	65.7	64.2	64.7	64.4	63.4
August	57.7	62.7	64.1	58.7	57.3	62.3	62.9	62.1	58.9	61.4	61.2
September	47.0	55.8	52.5	50.1	45.5	49.4	46.7	49.9	51.9	52.5	50.5
October	42.1	42.1	36.2	42.8	43.8	40.5	44.8	42.8	36.9	34.7	40.5
November	26.3	21.9	27.3	32.8	21.8	19.7	22.7	15.7	34.8	17.9	23.8
December	14.7	3.3	14.7	10.6	12.1	1.8	13.2	13.3	10.4	11.3	10.1
Annual mean	31.4	35.9	36.0	35.3	33.6	34.6	36.0	28.1	32.2	33.0	34.8
April-Sept.	48.1	55.8	53.5	52.9	51.5	52.6	54.7	57.0	51.9	51.5	53.5

LOWEST TEMPERATURES.

The following table shows the lowest temperature recorded at any time during each of the twelve months of the last twelve years at the meteorological stations in Saskatchewan specified herein:

STATION	Year	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Battleford	1896	—42.0	—29.0	—18.0	4.0	28.0	42.0	37.0	35.0	18.0	10.0	—40.0	—40.0
"	1897	—38.0	—27.0	—42.0	18.0	32.0	37.0	42.0	31.0	26.0	10.0	—25.0	—34.0
"	1898	—28.0	—30.0	—28.0	—10.0	26.0	28.0	38.0	38.0	26.0	14.0	—33.0	—35.0
"	1899	—40.0	—46.0	—27.0	—13.0	18.0	34.0	41.0	31.0	29.0	14.0	16.0	—32.0
"	1900	—24.0	—40.0	—36.0	25.0	29.0	31.0	42.0	42.0	24.0	18.0	—24.0	—22.0
"	1901	—37.0	—24.0	—13.0	6.0	26.0	34.0	40.0	32.0	22.0	13.0	—2.0	—31.0
"	1902	—29.0	—32.0	—19.0	11.0	23.0	31.0	43.0	40.0	24.0	16.0	—24.0	—33.0
"	1903	—41.0	—46.0	—29.0	6.0	18.0	32.0	42.0	41.0	28.0	19.0	—14.0	—26.0
"	1904	—32.0	—44.0	—19.0	12.0	29.0	38.0	39.0	32.0	26.0	18.0	—9.0	—30.0
"	1905	—36.0	—40.0	—9.5	9.0	25.0	32.0	41.0	38.0	26.0	4.0	—15.0	—6.0
"	1906	—40.0	—32.0	—15.0	15.0	24.0	39.0	40.0	36.0	24.0	14.0	—12.0	—38.0
"	1907	—50.0	—46.0	—18.0	2.0	10.0	34.0	44.0	36.0	21.0	8.0	0.0	—21.0
Indian Head	1896	—38.0	—30.0	—20.0	8.0	20.0	39.0	35.0	31.5	24.0	4.0	—38.0	—33.0
"	1897	—38.0	—34.0	—48.0	15.0	20.0	28.0	39.0	34.0	42.8	8.0	—32.0	—32.0
"	1898	—23.0	—30.0	—32.0	—10.0	20.0	27.0	35.0	32.0	25.0	16.0	—24.0	—26.0
"	1899	—35.0	—43.0	—27.0	—23.0	17.0	37.0	41.0	33.0	22.0	—1.0	16.0	—26.0
"	1900	—27.0	—37.0	—27.0	18.0	21.0	32.0	38.0	35.0	25.0	18.0	—28.0	—32.0
"	1901	—37.0	—29.0	—20.0	—9.0	24.0	31.0	44.0	36.0	22.0	15.0	—4.0	—34.0
"	1902	—35.0	—30.0	—24.0	5.0	27.0	34.0	36.0	35.0	21.0	10.0	—10.0	—34.0
"	1903	—31.0	—42.0	—25.0	10.0	21.0	30.0	35.0	40.0	24.0	11.0	—16.0	—27.0

" "	1904	—47.0	—44.0	—26.0	7.0	26.0	34.0	38.0	33.5	24.0	18.0	—13.0	—38.0
" "	1905	—34.0	—43.0	—10.0	10.0	16.0	35.0	42.0	39.0	31.0	9.0	—23.0	—22.0
" "	1906	—33.0	—38.0	—15.0	13.0	20.0	23.3	42.0	36.0	25.0	13.0	—15.0	—26.0
" "	1907	—42.0	—42.0	—10.0	—3.0	6.0	34.0	41.0	33.0	22.0	12.0	1.0	—27.0
Prince Albert	1896	—50.9	—43.1	—22.0	4.9	29.0	30.5	38.5	34.1	23.3	10.6	—34.8	—39.4
" "	1897	—40.9	—36.4	----	14.6	24.3	30.6	40.6	33.0	24.8	19.7	—23.5	—34.5
" "	1898	—31.5	—33.7	—26.5	—12.5	24.3	----	35.0	36.1	23.5	12.3	—28.7	—37.9
" "	1899	—42.0	—45.0	—33.0	—17.0	18.5	31.5	40.5	31.5	26.5	15.5	9.3	—34.5
" "	1900	—39.5	—44.5	—37.0	17.0	23.0	35.7	40.5	33.0	25.0	21.5	—27.5	—25.8
" "	1901	—46.5	—26.4	—21.2	3.0	27.5	31.5	44.5	33.7	26.5	16.5	7.5	—34.5
" "	1902	—37.5	—28.5	—29.5	8.0	28.0	30.5	39.8	43.0	24.5	16.5	—19.5	—36.0
" "	1903	—32.5	—44.5	—23.0	3.5	16.5	35.3	37.5	37.5	24.2	20.0	—17.5	—25.5
" "	1904	—42.5	—46.5	—31.5	9.5	28.5	33.0	37.0	31.5	27.5	21.0	—12.0	—36.0
" "	1905	—49.5	—39.3	—18.0	5.5	23.5	36.5	36.5	41.5	25.5	—4.5	—19.5	—14.3
" "	1906	—41.7	—42.0	—29.5	13.0	22.5	32.0	42.0	35.5	27.5	21.5	—10.0	—40.5
" "	1907	----	—48.5	—17.0	0.5	2.5	32.5	41.0	35.7	19.5	16.5	1.5	----
Qu'Appelle	1896	—40.0	—30.0	—17.0	11.0	31.6	40.5	36.8	33.0	26.0	6.0	—29.8	—29.4
" "	1897	—33.5	—28.0	----	12.8	19.5	29.0	40.0	34.0	24.6	12.0	—24.6	—30.0
" "	1898	—16.5	—27.4	—26.0	—8.0	20.5	24.7	34.4	35.4	24.8	16.0	—22.5	—28.0
" "	1899	—31.5	—42.7	—23.8	—24.0	20.6	37.0	38.0	35.0	24.0	5.2	18.4	—24.4
" "	1900	—25.5	—36.5	—26.0	17.5	20.0	34.8	39.3	38.0	24.0	20.8	—22.6	—23.3
" "	1901	—33.0	—27.0	—18.6	—4.6	25.5	30.6	44.6	38.6	25.7	16.0	—2.5	—34.4
" "	1902	—33.6	—27.2	—25.0	5.2	27.0	32.5	36.0	37.0	23.2	18.0	—9.0	—30.0
" "	1903	—24.2	—37.6	—20.0	6.0	22.0	28.8	38.3	41.8	24.5	19.0	—10.0	—27.2
" "	1904	—45.5	—37.0	—18.0	8.0	24.2	34.5	36.7	34.0	28.2	20.3	—3.0	—36.0
" "	1905	—28.5	—37.4	—10.0	9.8	20.3	34.4	40.9	44.1	30.0	8.2	—19.5	—16.4
" "	1906	—32.0	—36.2	—18.7	14.4	22.0	35.5	40.5	33.5	26.0	21.0	—12.2	—28.0
" "	1907	—39.7	—37.0	—10.0	—1.5	8.3	34.5	40.0	----	----	----	----	----

LOWEST TEMPERATURES—Continued.

STATION	Year	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Regina	1896	—38.0	—20.0	—23.0	10.0	31.5	29.5	36.0	33.0	20.5	6.5	—46.5	—35.0
"	1897	—35.0	—34.5	----	14.0	21.5	28.5	38.5	32.0	21.0	9.0	—32.0	—33.0
"	1898	—23.5	—28.5	—28.0	—7.0	23.0	25.0	----	35.0	24.0	17.0	—25.0	—28.0
"	1899	—34.0	—46.0	—30.0	—20.0	17.0	35.0	----	34.0	24.0	----	----	----
"	1900	----	----	—23.0	12.0	29.0	33.0	37.0	35.0	23.0	17.0	—32.0	—20.0
"	1901	—42.0	—25.0	—20.0	7.0	26.0	32.5	41.0	35.0	18.0	15.0	0.0	—37.0
"	1902	—28.0	—28.0	—27.0	6.0	25.0	30.0	31.0	28.0	18.0	11.0	—14.0	—39.0
"	1903	—29.0	—47.0	—27.0	5.0	20.0	23.0	40.0	39.0	21.0	15.0	—23.0	—30.0
"	1904	—40.0	—40.0	—20.0	9.0	26.0	32.0	38.0	31.0	25.0	17.0	—11.0	—34.0
"	1905	—30.0	—43.0	—8.0	7.0	12.0	30.0	41.0	40.0	29.0	3.0	—27.0	—23.0
"	1906	—35.0	—39.0	—17.0	15.0	10.0	35.0	37.0	31.0	20.5	14.5	—11.0	----
"	1907	—45.0	—46.0	—17.0	—4.0	10.0	32.5	39.0	32.4	14.7	9.5	0.3	22.5
Swift Current	1896	—32.0	—22.0	—6.0	15.6	32.0	40.0	40.0	32.0	28.0	20.9	—30.0	—20.0
"	1897	—40.0	—20.0	----	20.0	36.0	33.4	37.5	38.0	28.0	14.5	—32.0	—30.0
"	1898	—12.8	—20.0	20.0	2.0	26.0	34.0	40.8	41.3	28.0	16.0	—18.0	—19.0
"	1899	—33.5	—41.5	—22.5	—5.5	22.3	33.0	44.0	36.5	27.5	12.3	20.0	—15.0
"	1900	—16.5	—35.0	—16.0	23.5	28.0	32.0	40.0	39.0	23.0	13.0	—22.5	----
"	1901	—29.0	—18.0	—12.0	17.0	23.0	33.0	43.0	38.0	24.0	17.0	4.0	—27.0
"	1902	—23.0	—28.0	—12.0	16.0	30.0	33.0	41.0	32.0	25.0	18.0	—6.0	—22.0
"	1903	—18.0	—34.0	—20.0	15.0	13.0	35.0	43.0	44.0	28.0	19.0	—17.0	—24.0
"	1904	—12.0	—28.0	—22.0	12.0	28.0	38.0	39.0	37.0	29.0	26.0	—2.0	—25.0
"	1905	—25.0	—34.0	—2.0	8.0	26.0	32.0	48.0	40.0	32.0	4.0	—10.0	—8.0
"	1906	—32.0	—17.0	—19.0	15.0	24.0	40.0	38.0	37.0	27.0	16.0	—11.0	—21.0
"	1907	—41.0	—41.0	0.0	8.0	12.0	33.0	38.0	36.0	19.0	13.0	2.0	—12.0

HIGHEST TEMPERATURES.

The following table shows the highest temperatures recorded at any time during each of the months in the last twelve years at any of the meteorological stations specified herein. It is not the average highest but merely the highest recorded temperature during each of these months:

STATION	Year	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Battleford	1896	36.0	46.0	42.0	70.0	79.0	90.0	95.0	84.0	84.0	80.0	38.0	44.0
"	1897	36.0	27.0	40.0	74.0	84.0	82.0	87.0	89.0	84.0	75.0	63.0	38.0
"	1898	34.6	28.0	36.0	74.0	83.0	95.0	92.0	86.0	88.0	66.0	50.0	43.0
"	1899	37.0	44.0	24.0	72.0	78.0	83.0	96.0	81.0	82.0	80.0	55.0	48.0
"	1900	46.0	26.0	44.0	78.0	82.0	92.0	84.0	81.0	78.0	70.0	53.0	43.0
"	1901	30.0	48.0	42.0	75.0	89.0	77.0	87.0	88.0	82.0	74.0	43.0	48.0
"	1902	40.0	43.0	41.0	66.0	87.0	76.0	86.0	86.0	80.0	80.0	42.0	38.0
"	1903	42.0	36.0	46.0	69.0	88.0	84.0	80.0	82.0	78.0	74.0	69.0	40.0
"	1904	43.0	16.0	37.0	75.0	78.0	83.0	94.0	83.0	76.0	71.0	61.0	39.0
"	1905	36.0	48.0	60.0	81.0	79.0	88.0	87.0	86.0	76.0	68.0	60.0	42.0
"	1906	44.0	34.0	72.0	81.0	85.0	85.0	89.0	98.0	86.0	76.0	40.0	31.0
"	1907	28.0	45.0	40.0	51.0	76.0	88.0	82.0	84.0	81.0	78.0	58.0	52.0
Indian Head	1896	42.0	47.0	47.0	68.0	75.0	92.0	94.5	90.0	82.0	80.0	34.0	45.0
"	1897	34.0	30.0	38.0	82.0	91.0	92.0	91.0	92.0	75.0	79.0	66.0	42.0
"	1898	33.0	38.0	35.0	77.0	84.0	95.0	99.0	90.0	89.0	56.0	51.0	46.5
"	1899	37.0	41.0	29.0	65.0	75.0	82.0	95.0	85.0	81.0	77.0	58.0	41.0
"	1900	43.0	34.0	42.0	81.0	94.0	105.0	97.0	98.0	78.0	71.0	52.0	38.0
"	1901	35.0	40.0	42.0	79.0	94.0	80.0	89.0	91.0	81.0	75.0	52.0	43.0
"	1902	40.0	39.0	42.0	67.0	88.0	79.0	87.0	90.0	77.0	76.0	50.0	32.0
"	1903	37.0	34.0	55.0	75.0	92.0	84.0	86.0	83.0	76.0	75.0	73.0	39.0

HIGHEST TEMPERATURES—Continued.

STATION	Year	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
" --------	1904	42.0	32.0	38.0	72.0	78.0	90.5	92.0	86.0	80.0	69.0	66.0	39.0
" --------	1905	30.0	51.0	63.0	79.0	78.0	85.0	80.0	88.0	81.0	73.0	59.0	40.0
" --------	1906	40.0	40.0	57.0	84.0	87.0	78.7	92.0	99.0	91.0	75.0	49.0	33.0
" --------	1907	20.0	41.0	44.0	46.0	70.0	86.0	84.0	84.0	71.0	71.0	55.0	48.0
Prince Albert ------	1896	32.2	42.2	44.8	68.3	76.8	85.3	91.5	80.1	81.9	77.0	32.0	44.2
" --------	1897	25.0	21.9	----	81.0	83.8	79.6	88.4	86.8	83.0	74.4	63.0	38.0
" --------	1898	35.5	28.0	33.0	70.0	82.0	----	91.0	86.5	84.2	61.0	44.0	43.0
" --------	1899	36.4	45.8	26.5	67.0	88.6	80.0	86.5	77.5	81.2	80.0	52.5	48.0
" --------	1900	53.2	22.0	43.4	79.0	86.2	93.0	77.9	81.0	75.0	64.0	46.0	45.0
" --------	1901	29.0	52.0	49.0	79.0	88.5	73.5	86.0	83.8	80.0	73.0	39.5	52.0
" --------	1902	39.0	46.0	42.0	65.6	87.5	75.0	86.8	84.5	75.0	74.5	41.0	40.0
" --------	1903	45.4	39.8	49.5	68.5	90.0	84.0	81.6	76.5	70.8	67.8	65.5	43.5
" --------	1904	42.0	26.5	41.8	75.0	76.5	87.8	84.5	78.5	71.5	67.5	56.5	38.8
" --------	1905	28.0	46.0	54.0	78.0	78.5	88.4	81.9	83.0	69.8	60.0	55.0	41.5
" --------	1906	43.8	31.0	62.4	78.0	81.0	84.0	85.8	87.5	76.0	64.5	38.0	30.0
" --------	1907	----	49.0	46.0	47.0	67.0	85.0	80.0	80.0	73.4	69.0	50.5	----
Qu'Appelle --------	1896	39.4	42.8	43.4	68.0	72.0	88.7	90.8	88.4	80.8	79.5	34.0	41.0
" --------	1897	38.0	30.0	----	81.4	84.5	89.3	88.0	94.3	86.0	78.0	64.5	39.0
" --------	1898	30.6	38.0	36.7	74.8	84.6	98.0	96.7	88.7	88.8	56.7	49.6	42.2
" --------	1899	38.0	40.0	29.0	63.0	72.0	79.0	93.5	81.5	80.0	77.0	58.6	43.0
" --------	1900	42.6	32.0	42.0	79.5	92.0	100.5	93.5	94.8	80.0	70.2	50.0	38.2
" --------	1901	35.0	38.7	39.4	78.2	89.4	76.8	89.6	90.0	79.3	74.0	57.3	42.3
" --------	1902	40.1	41.2	41.5	66.2	85.5	76.5	84.5	88.3	78.0	74.5	49.8	35.2
" --------	1903	37.0	36.5	54.8	72.1	88.0	82.4	84.7	82.8	76.5	74.1	73.4	41.7

"	1904	34.8	30.4	36.6	72.2	75.4	86.0	89.4	84.4	78.8	66.5	64.7	43.0
"	1905	30.1	49.8	61.6	75.5	74.7	84.5	81.0	88.0	79.7	73.0	59.4	39.8
"	1906	40.8	39.7	55.3	82.2	85.0	79.0	94.0	97.8	90.3	77.8	49.2	33.1
"	1907	20.0	42.0	42.5	44.8	72.5	81.8	81.7	----	----	----	----	----
Regina	1896	38.0	40.0	45.0	68.0	74.0	91.0	93.5	90.0	82.0	80.3	41.5	40.5
"	1897	36.0	26.0	----	83.0	91.5	91.0	94.5	91.5	84.0	81.5	68.0	44.0
"	1898	41.0	40.5	37.5	72.5	85.0	99.0	----	91.0	90.0	52.0	46.0	42.0
"	1899	48.0	52.0	23.0	65.0	74.0	88.0	----	85.0	82.0	----	----	----
"	1900	----	----	42.0	89.0	99.0	102.0	93.0	97.0	83.0	70.0	51.0	39.0
"	1901	36.0	29.0	35.0	68.0	92.0	80.0	91.0	92.0	86.0	75.0	57.0	42.0
"	1902	41.0	39.0	38.0	65.0	88.0	78.0	89.0	90.0	81.0	75.0	53.0	33.0
"	1903	38.0	39.0	50.0	74.0	92.0	84.0	83.0	84.0	78.0	78.0	73.0	42.0
"	1904	36.0	25.0	32.0	70.0	77.0	88.0	93.0	88.0	83.0	70.0	65.0	41.0
"	1905	34.0	53.0	62.0	79.0	74.0	83.0	81.0	88.0	77.0	75.0	63.0	37.0
"	1906	38.0	38.0	57.0	82.0	87.0	81.0	92.0	98.0	92.0	77.5	48.5	----
"	1907	21.0	36.0	41.0	50.0	75.0	83.5	87.0	86.6	77.4	71.5	57.4	48.0
Swift Current	1896	50.0	50.0	52.0	63.0	77.8	94.0	97.0	88.0	82.0	81.6	44.0	48.0
"	1897	40.0	34.0	----	78.6	90.0	95.0	87.5	96.0	85.0	76.4	66.0	40.0
"	1898	33.0	41.3	41.5	73.0	79.5	95.0	98.5	93.2	84.0	68.0	48.0	48.0
"	1899	41.0	41.5	41.0	67.0	72.0	83.0	98.0	80.0	81.0	76.0	60.0	47.3
"	1900	59.0	40.0	66.0	74.5	90.0	104.0	95.0	95.0	80.0	70.0	59.0	----
"	1901	42.0	44.0	50.0	83.0	91.0	76.0	92.0	91.0	83.0	72.0	60.0	44.0
"	1902	50.0	42.0	47.0	64.0	87.0	80.0	88.0	88.0	82.0	78.0	50.0	39.0
"	1903	42.0	38.0	53.0	76.0	91.5	86 0	90.0	82.0	81.0	77.0	77.0	54.0
"	1904	40.0	35.0	39.0	77.0	77.0	93.0	93.0	88.0	84.0	70.0	64.0	46.0
"	1905	46.0	58.0	66.0	78.0	79.0	87.0	85.0	91.0	81.0	83.0	53.0	44.0
"	1906	45.0	49.0	70.0	86.0	87.0	89.0	91.0	99.0	90.0	74.0	54.0	40.0
"	1907	26.0	42.0	45.0	54.0	75.0	84.0	86.0	94.0	80.0	75.0	63.0	54.0

MEAN TEMPERATURES.

The following table gives the mean temperature at certain specified meteorological stations for each month in each of the last twelve years. The mean temperature for the month has been ascertained by adding the highest and the lowest recorded temperatures for each day of the month, and dividing the total by twice the number of days in the month. The table of mean temperatures on another page differs from this only in that it is an average of the mean temperature of all the meteorological stations in the province, while this relates only to the stations specified herein:

STATION	Year	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Battleford	1896	8.0	12.6	14.6	35.5	50.9	60.8	66.4	60.8	50.8	40.7	—1.9	7.1
"	1897	0.1	0.1	5.1	43.3	57.7	60.3	62.5	64.4	56.1	43.1	10.3	4.6
"	1898	5.1	0.1	11.0	34.9	53.6	59.7	65.2	62.6	53.5	35.4	16.4	10.8
"	1899	2.5	6.4	1.9	32.6	48.0	58.3	64.8	58.7	54.0	36.7	33.6	8.4
"	1900	6.9	4.5	10.0	45.2	56.8	60.9	62.8	60.5	50.2	41.8	15.2	13.4
"	1901	1.0	4.1	18.8	38.5	58.0	55.6	63.6	63.2	46.6	45.2	20.7	14.8
"	1902	9.5	7.0	17.8	38.2	54.4	52.1	61.7	63.3	51.2	41.8	15.3	—0.7
"	1903	2.7	5.4	8.5	36.2	49.9	61.8	60.8	58.6	46.1	43.4	19.8	13.2
"	1904	1.3	—12.9	7.5	36.6	51.3	58.6	62.7	58.9	50.8	43.6	31.6	11.2
"	1905	1.6	5.3	32.0	40.8	50.5	56.5	63.9	63.8	53.5	34.9	29.8	15.7
"	1906	6.4	7.0	17.1	47.4	49.0	60.9	67.4	63.8	55.0	43.7	22.3	1.1
"	1907	17.7	4.8	14.0	27.2	40.6	60.7	63.8	59.0	50.0	42.6	28.3	12.7
Indian Head	1896	1.3	11.5	13.1	34.6	50.7	61.1	64.1	58.9	48.5	36.6	—0.2	11.6
"	1897	1.9	1.3	5.5	38.6	54.6	59.0	63.9	62.3	58.9	40.6	11.5	5.6
"	1898	6.7	4.8	8.1	36.7	55.1	27.0	66.5	61.2	52.4	33.8	17.9	10.6
"	1899	0.2	6.0	1.3	34.6	49.2	57.4	64.3	61.5	53.9	36.0	33.6	7.4
"	1900	7.3	—3.8	11.4	47.0	56.1	63.3	64.3	64.1	50.9	43.0	13.2	12.3

"	1901	0.5	—0.6	17.0	37.3	59.7	56.2	66.2	63.0	46.4	43.7	22.0	10.6
"	1902	9.2	6.9	19.5	35.3	52.7	52.4	62.7	62.6	49.7	39.6	19.5	—0.1
"	1903	4.8	1.6	12.6	39.8	50.2	60.1	60.7	58.6	46.2	43.7	21.2	9.5
"	1904	0.4	10.5	6.4	34.0	51.6	57.9	62.1	58.0	49.3	43.0	30.8	9.1
"	1905	2.1	5.1	30.5	38.5	48.1	55.8	61.5	64.9	52.9	34.9	28.7	15.1
"	1906	7.3	6.8	17.4	44.6	48.3	56.4	66.2	62.9	55.9	42.0	21.1	4.0
"	1907	14.0	10.4	16.9	26.1	38.4	52.8	64.7	58.1	46.9	40.5	21.4	14.7
Prince Albert	1896	—10.1	7.2	11.5	32.7	49.7	58.4	63.7	58.1	48.4	37.7	1.1	8.2
"	1897	—1.0	—1.9	----	42.7	53.6	57.2	61.3	61.5	54.6	39.6	9.8	8.3
"	1898	3.4	0.5	10.2	35.7	52.1	----	63.3	60.0	50.8	33.3	16.6	8.9
"	1899	—6.5	—7.2	1.5	31.3	47.0	57.2	62.3	56.1	52.4	36.6	30.3	4.9
"	1900	3.1	—7.1	11.4	44.5	54.4	60.0	60.1	58.4	49.3	41.0	13.0	10.0
"	1901	4.2	3.4	17.8	38.0	57.7	54.8	63.1	60.7	46.2	43.8	16.3	10.3
"	1902	6.2	9.3	16.9	35.4	51.5	52.5	62.1	61.7	49.0	38.8	15.2	0.1
"	1903	2.5	3.8	9.0	33.7	47.2	59.8	58.9	56.9	44.0	41.7	19.9	8.9
"	1904	20.5	23.6	21.7	22.2	23.0	22.8	21.3	22.4	21.3	19.4	18.4	18.4
"	1905	4.3	4.0	26.3	38.7	50.2	55.3	63.4	62.3	49.4	32.3	26.9	14.5
"	1906	4.3	3.4	14.4	43.9	47.7	60.2	64.5	59.9	51.4	41.0	22.9	1.0
"	1907	----	4.2	12.9	25.0	37.9	59.5	61.8	56.8	46.0	42.1	25.8	----
Qu'Appelle	1896	—2.1	12.1	13.2	34.6	51.3	60.9	63.9	59.5	50.1	38.8	0.7	13.6
"	1897	1.6	2.7	----	39.4	54.9	58.5	63.5	62.2	59.6	41.7	11.4	6.2
"	1898	8.5	4.7	10.2	35.4	51.0	58.8	64.1	61.7	53.2	34.1	17.4	11.4
"	1899	—1.1	—7.7	1.3	32.0	45.9	57.1	64.2	58.9	53.0	36.8	35.5	8.9
"	1900	10.7	—5.0	12.4	47.8	57.7	63.1	63.8	62.5	50.7	44.3	14.7	14.2
"	1901	2.0	3.0	19.8	37.6	59.3	55.8	66.2	63.3	46.5	46.0	24.4	11.9
"	1902	11.7	9.4	20.2	36.1	53.8	53.0	62.5	62.9	51.3	42.1	22.2	33.3
"	1903	5.9	4.5	14.0	40.2	50.1	59.7	60.6	58.9	47.0	45.5	22.1	11.6
"	1904	2.1	7.6	8.3	34.2	51.6	58.1	62.3	59.0	50.5	44.5	33.8	10.7
"	1905	0.3	6.4	30.9	38.7	47.7	56.1	62.6	64.8	53.8	36.0	29.7	17.1
"	1906	9.0	7.1	17.0	45.1	48.6	59.4	66.7	63.8	57.2	43.9	23.4	5.5
"	1907	12.1	9.1	17.6	25.8	39.7	58.3	61.8	----	----	----	----	----

MEAN TEMPERATURES—Continued.

STATION	Year	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Regina	1896	—2.5	9.6	12.7	35.2	51.6	61.9	64.8	59.6	48.8	36.8	—0.3	9.4
"	1897	0.6	0.2	----	38.6	54.6	58.7	64.4	62.8	58.1	41.2	11.9	6.5
"	1898	6.2	3.2	13.2	34.2	50.3	58.9	----	63.3	53.9	35.0	20.4	11.3
"	1899	—0.2	—8.6	—0.5	30.6	47.0	57.5	----	59.1	52.2	----	----	----
"	1900	----	----	12.2	46.7	56.9	62.6	63.6	62.8	50.3	42.2	13.5	12.0
"	1901	0.6	0.2	17.4	36.3	58.8	56.5	66.0	63.1	47.1	43.7	22.5	13.1
"	1902	9.6	7.1	18.0	34.9	52.1	51.7	60.7	61.6	48.6	38.3	19.3	0.1
"	1903	27.3	28.4	26.8	29.0	33.5	30.1	23.6	19.5	21.9	26.0	21.1	21.6
"	1904	0.7	—11.5	5.6	32.0	50.4	57.4	61.7	57.9	49.4	42.3	32.1	8.6
"	1905	2.6	0.8	30.7	36.1	47.1	55.7	62.1	64.1	52.3	34.9	26.9	11.3
"	1906	3.9	4.3	12.1	42.7	47.0	58.5	64.9	62.1	55.6	41.7	22.1	27.2
"	1907	15.8	4.0	11.9	23.7	39.5	58.9	60.5	59.8	49.6	40.7	27.2	14.6
Swift Current	1896	—6.3	21.6	20.4	39.1	50.1	62.8	69.2	61.6	50.2	42.7	4.0	23.8
"	1897	9.6	10.5	----	43.3	58.5	61.2	65.5	67.2	58.1	43.7	15.2	14.7
"	1898	17.2	12.3	13.4	36.4	52.0	59.8	66.3	65.9	54.4	37.3	22.0	17.7
"	1899	7.1	—2.5	4.9	36.2	47.5	57.9	65.9	59.4	55.0	38.2	39.8	16.8
"	1900	21.7	4.2	23.1	48.7	57.5	65.8	66.6	62.9	51.4	43.6	19.8	----
"	1901	9.3	9.4	28.2	43.5	59.7	55.3	67.5	65.7	46.8	48.3	29.2	19.5
"	1902	16.9	13.0	25.4	40.0	54.8	55.2	62.7	63.1	52.2	44.1	23.3	9.9
"	1903	15.1	10.5	14.8	42.3	49.3	61.7	62.6	60.3	49.3	47.0	23.6	21.5
"	1904	17.6	18.1	16.4	20.2	24.5	27.2	29.9	28.1	24.2	23.4	23.1	17.4
"	1905	6.2	11.6	35.4	41.2	49.2	57.7	64.2	67.3	55.9	38.1	32.6	21.7
"	1906	14.4	17.2	22.9	47.7	49.9	59.8	68.0	65.0	56.9	45.0	24.8	11.8
"	1907	8.6	13.9	19.7	31.0	42.6	57.1	63.1	61.6	51.1	46.3	31.7	20.1

THE SOIL.

Geologists and scientists have been at considerable pains to explain the conditions that produce a soil which probably is unequalled in fertility in any other country of equal extent. In the report of the geological survey department for 1906, Mr. R. Chalmers, in reporting the results of his work during the summer of that year, which included a study of the surface geology of the prairies in this province and in Alberta, refers to the subject. A part of his report is appended hereto:

The plains or prairies of the Canadian Northwest are really the upper or northern extension of the great valleys of the Mississippi and Missouri rivers into Canada. As has been shown by the late Dr. G. M. Dawson, these plains rise gradually from east to west in the form of steppes, being 800 or 900 feet above sea-level at or near Winnipeg, while at the foot of the Rocky Mountains they are 4,000 feet or more. Their ascent is not regular, however, each steppe having certain features peculiar to itself. Elevations called mountains occur in a number of places. The steppes are best seen along the main line of the Canadian Pacific Railway. Though these prairies may be called plains, the term can nardly be applied stricty to the features of the second and third steppes, which in many localities have a rolling aspect and numerous inequalities of the surface.

Turning virgin soil.

The materials constituting the surface deposits of this great prairie region are of different kinds, as is shown by the following general section of the beds in descending order:

1. A dark of blackish, tough clay, cotaining some sand and silt, but nevertheless forming, when wet, a soft tenaceous mass, very sticky and coherent. In dry weather it bakes and becomes almost as hard as a brick. In the Western States this deposit is usually called "gumbo," and the name is gradually being adopted in Manitoba and the new provinces.

The thickness of this deposit is variable; sometimes it is only a few inches, while in local areas it is eight to ten feet or more . It occurs in all the hollows of the first and second steppes and occasionally on the higher grounds, though on the latter in a comparatively thin sheet and in flat, wet areas. The more elevated grounds and the ridges and hills are generally devoid of it. So far as it has been studied it seems to be a vegetable formation, which in the lower grounds grew in shallow lakes, ponds and swamps, accumulating in

situ (in its original situation) for ages. Dead and decayed water-and-marsh plants, together with peat and other vegetation growing in moist places, seems to make up the bulk of this deposit. The intermixed fine sand and silt have probably been carried into the swamps and ponds by rains, wind, etc., from the higher and drier grounds surrounding them. The occurrence of this black soil on the higher level tracts indicates that there were also marsh and swamp lands at one time. The wide horizontal areas covered by this formation shows that it must have been formed in water that was very shallow. On the first and second prairie steppes it does not seem that this black soil could have any other but a lacustrine (Latin, lacus, a lake) origin; but on the third steppe in Alberta it is possibly of sub-aerial growth in some places, unless the levels of the country have changed very considerable since its deposition or growth. In the latter district, it must be admitted that the areas occupied by this black soil are not in all places in the horizontal attitude in which they usually occur in Manitoba, where it is so widespread. This fact and its thickness in the province last-mentioned would indicate that it was a region of shallow lakes, marshes, and bogs for a long time . This black soil is the formation which makes the plains so fertile.

2. Beneath the black loam just described, a grey clay of variable thickness occurs almost everywhere on the plains. From this clay considerable quantities of common brick is manufactured. It seldom exceeds a thickness of four to five feet, and generally contains more or less sand, and frequently, a few pebbles.

3. Below this lies a harder clay, somewhat similar to No. 2, but with compact, rusty strata, often called "hardpan." These harder strata sometimes alternate with clays of a pebbly or coarse texture.

Anyone who visits Saskatchewan at the close of a favourable crop season will be impressed by the very remarkable fertility of the soil. "The proof of the pudding is in the eating," and evidence that the soil of Saskatchewan is characterised by the ability to produce a high average yield of wheat, oats, barley and potatoes for many years in succession without the application of any fertilisers or even by the growing of leguminous crops is found in the experience of a great many of the early settlers who have been for years producing these crops from the same land without any apparent diminution of the yield. Further evidence is found in the reports of The Experimental Farm, which has been maintained at Indian Head by the Dominion Government for a number of years. The average yields of wheat, oats, barley and potatoes at the Experimental Farm at Indian Head not only are maintained from year to year but are larger than at any of the other experimental farms maintained by the Dominion Government in other provinces. The records of the average yield of grain crops, as published in the reports of the department of agriculture for the province, show that during the ten years for which records are available, the average has been very satisfactory in all but two years, 1900 and 1907. But the results of even these admittedly unfavourable years compare very creditably with the records of some of the grain producing states in America and other wheat countries. For comparative purposes a statement is given herewith showing the average yields for a number of years in Saskatchewan and elsewhere.

These figures, with the exception of those for Saskatchewan, are taken from the 1906 Year Book of the United States department of agriculture.

Comparative statement of the average yield of wheat per acre, 1901-1907:

	1901	1902	1903	1904	1905	1906	1907
Saskatchewan	25.41	22.57	19.44	17.51	23.09	21.40	14.04
Kansas	18.5	10.4	14.1	12.4	13.9	15.1	-----
Minnesota	12.9	13.9	13.1	12.8	13.3	10.9	-----
North Dakota	13.1	15.9	12.7	11.8	14.0	13.6	-----
South Dakota	12.9	12.2	13.8	9.6	13.7	13.4	-----
Nebraska	17.1	20.9	15.7	13.6	19.4	22.0	-----
Iowa	16.2	12.7	12.4	11.6	14.2	15.7	-----
United States	15.0	14.5	12.9	12.5	14.5	15.5	-----
Russia	7.9	11.1	10.6	11.5	10.2	-----	-----

GRAIN CROPS.

Grain growing in Saskatchewan may be regarded as only in its beginning. When we consider how small in proportion to the whole of the province is the area now under cultivation, we may well stand amazed at the possibilities of this giant young province. The crop districts into which the province was divided for statistical purposes previously to 1908 have a total area of 73,171,780 acres. The total area of the grain crops in 1907 was 3,058,638 acres, or 4.18 per cent. of the area of the crop districts at present outlined.

We have not, however, taken into consideration the large area in the middle of the province between the North Saskatchewan and Churchill rivers. An extensive belt, lying in that latitude and extending in a northwesterly direction, is at present covered with heavy spruce forest; but it is regarded by men who have passed over parts of its as being valuable not only for the forest wealth that is found there and for the coal and iron that may be found in it, but also for its soil, which we are told is in many places extremely fertile. Mr. J. Burr Tyrell, M.A., F.G.S., who spent several seasons in that region while acting under instructions of the Geological Survey, states that that area is essentially suited for agricultural purposes, and that it is for the most part excellent agricultural land. He gave as his opinion that that tract of land in the forest belt will yet be as fine an agricultural land as any in the whole of the Canadian North-West; as he saw abundant evidence of rich vegetation. Fine gardens were found in places, horticulture being eminently successful wherever attempted. Mr. Tyrell regards the land as being similar to the Ontario soil, and

states that in north central Saskatchewan the soil will produce everything found in Ontario except in the southern peninsula. He saw potatoes, carrots, cabbage, turnips, cauliflower, and all the ordinary garden produce growing there. The summers are warm; and the rainfall is sufficient. The number of hours of sunshine is greater in that latitude than farther south. Mr. Tyrell believes that the country will support a thick population.

Archdeacon J. McKay, superintendent of Anglican missions, has had a long and varied experience in that large district north and east of Prince Albert. For ten years he was located at Stanley mission on the Churchill river and thus spent considerable time in the vicinity of Lac la Ronge. According to Archdeacon McKay, the forest belt extends from about twenty miles north of Prince Albert. On the south shore of Lac la Ronge limestone rock is found; but at Ile a la Crosse there is no rock. All kinds of wild fruits,—blackberries, raspberries, gooseberries, Saskatoons and wild currants,—are found in abundance. Archdeacon McKay grew wheat for seven years in the vicinity of Lac la Ronge without having once had it frozen. On one occasion a frost was experienced in August at Prince Albert but the garden products at Lac la Ronge were not affected by frost until several days later.

In 1875, in the course of his explorations in that year, Professor John Macoun came from the Athabasca river via Methy Portage and thence by a chain of lakes and rivers to the Saskatchewan river near Prince Albert. His impression of the soil and the climate was that they are suited to the production of cereal and other crops. He noticed that in that year the potatoes were frozen in Manitoba several days earlier than at places north of the North Saskatchewan river.

The extensive areas of arable land, unsurpassed for fertility, that are found in the southern half have hitherto tempted the earlier settler from locating in the other more wooded parts of the province. Now, however, settlement is pressing onward towards the forest belt; but until a railway be constructed northward from Prince Albert or from some other point, no very great population of that part of the province may be expected, as it is a region of immense distances and without transportation facilities settlers are not likely to be attracted beyond a reasonable distance from places where supplies are obtainable and markets available.

A matter of very great importance in connection with successful agriculture is the amount of the annual precipitation. A pleasing feature of the climate of Saskatchewan is that the rainfall occurs during the months in which it is required for the successful growth of the crops. The snowfall is comparatively light, and the aggregate precipitation for the year is less than in many other countries. But when we compare the yields of the crops with those of other localities we are led to the

A good plowing outfit. (Courtesy of C.N.R.)

conclusion that not only is the precipitation adequate, but that other essentials, warm summer days filled with sunshine, and an extremely fertile soil, are present in sufficient degree to insure the results that have made the Canadian West famous. The months of May, June, July and August usually witness the seeding, growth and maturity of the grain crops. The earliest recorded date of the beginning of seeding is March 22nd, in 1894, and the latest was May 11th, 1907. The earliest harvest was that of 1894, when cutting of oats began on July 24th. The average date since 1899 of the beginning of harvest at Indian Head in the case of barley is August 17th; of oats, August 20th; and of wheat, August 21st. The average length of time from seeding until harvest for the four grain crops at Indian Head is as follows: Barley, 98 days; oats, 110 days; wheat, 129 days; peas, 116 days.

Investigation will confirm the statement that, taking one year with another and comparing the average results for a number of years with those of other countries, the record of Saskatchewan in the matter of grain production in respect of quality and also of yield is second to none. The large number of farmers that have attained a competency and are independent as a result of their success in agriculture, although many of them came to the province almost penniless, proves the correctness of the statement.

Appended hereto are statements of the grain production of the province by districts during the last three years, and the totals since 1898 for the territory now included in the province.

On another page will be found a map which outlines the crop districts.

WHEAT.

Showing by crop districts the area and production of the crop of wheat for each of the years 1905, 1906, and 1907, together with the totals for the province since 1898; also the average yield per acre:

District No.	1907			1906			1905		
	Crop area acres	Total yield bushels	Yield per acre	Crop area acres	Total yield bushels	Yield per acre	Crop area acres	Total yield bushels	Yield per acre
1	236,663	2,331,613	9.85	258,747	4,213,415	16.27	177,904	3,532,329	19.85
2	284,040	4,078,993	14.36	216,491	4,108,996	18.97	133,702	3,208,396	23.99

3	160,650	2,079,774	12.94	161,479	3,444,622	21.33	129,658	2,714,118	20.93
4	183,560	2,381,710	12.97	211,137	5,158,737	24.43	182,816	4,502,784	24.63
5	152,740	2,378,881	15.57	165,686	3,788,069	22.86	134,996	3,692,386	27.35
6	154,933	1,670,700	10.78	134,724	2,866,267	21.27	92,113	1,734,343	18.82
7	63,948	851,182	13.31	83,697	2,128,807	25.43	52,250	1,291,395	24.71
8	66,501	901,317	13.55	44,783	969,122	21.64	31,870	807,547	25.33
9	14,512	182,865	12.60	5,633	155,808	27.65	2,449	87,660	35.79
10	173,254	2,597,296	14.99	131,911	2,856,385	21.65	86,140	1,828,097	21.22
11	159,180	2,512,970	15.78	91,893	2,172,958	23.64	20,398	558,737	27.39
12	108,327	1,898,093	17.52	94,738	2,302,606	24.30	51,384	1,416,646	27.56
13	44,607	964,714	21.62	31,946	752,157	23.54	9,897	251,511	25.41
14	57,386	828,279	14.43	38,544	958,319	24.86	13,002	275,588	21.19
15	15,193	258,110	16.98	12,547	262,758	20.94	5,909	85,079	14.39
16	50,118	955,478	19.06	27,589	518,105	18.77	4,070	78,274	19.23
17	26,047	474,085	18.20	8,884	193,236	21.75	-------	---------	-----
18	19,151	341,466	17.83	9,444	173,956	18.41	655	17,061	26.04
19	67	836	12.47	53	1,359	25.64	6	164	27.33
20	-------	---------	-----	-------	---------	-----	-------	---------	-----
21	222	3,239	17.07	660	14,416	21.84	865	25,171	29.09

Year	Total acreage	Total yield	Average yield	Year	Total acreage	Total yield	Average yield
1907	1,971,099	27,691,601	14.04	1902	580,860	13,110,330	22.57
1906	1,730,586	37,040,098	21.40	1901	469,953	11,956,069	25.41
1905	1,130,084	26,107,286	23.09	1900	382,540	3,443,671	9.00
1904	910,359	15,944,730	17.51	1899	328,459	6,083,508	18.49
1903	777,822	15,121,015	19.44	1898	276,253	4,780,440	17.30

OATS.

Showing by crop districts the area and production of the crop of oats for each of the years 1905, 1906, and 1907, together with the totals for the province since 1898; also the average yield per acre:

District No.	1907			1906			1905		
	Crop area acres	Total yield bushels	Yield per acre	Crop area acres	Total yield bushels	Yield per acre	Crop area acres	Total yield bushels	Yield per acre
1	60,459	1,495,774	24.74	54,835	1,768,920	32.25	45,915	1,986,404	43.26
2	94,530	3,059,957	32.37	75,774	2,501,834	33.01	61,738	2,816,806	45.62
3	46,068	1,385,755	30.08	48,548	1,779,826	36.66	39,825	1,418,628	35.62
4	42,436	1,366,248	32.19	54,801	2,048,246	37.37	48,797	1,674,359	34.31
5	47,553	2,124,458	44.67	58,363	2,568,947	44.01	50,646	2,729,462	53.89
6	50,984	1,329,260	26.07	41,714	1,576,283	37.78	28,114	1,196,828	42.57
7	104,314	3,474,115	33.30	96,772	4,295,331	44.38	65,552	2,994,079	45.67
8	20,975	605,308	29.10	12,017	450,414	37.48	9,141	384,187	42.02
9	16,620	497,364	29.92	10,140	399,484	39.39	2,017	99,400	49.28
10	56,728	1,606,436	28.31	47,044	1,577,813	33.53	37,221	1,312,650	35.23
11	53,199	1,621,788	30.48	35,394	1,002,167	28.31	10,263	406,997	39.65
12	28,443	1,007,029	35.40	26,014	1,130,372	43.45	19,964	1,159,742	58.09
13	18,429	609,696	33.08	12,634	411,661	24.66	4,436	174,281	39.28
14	38,711	1,160,459	29.97	28,094	1,289,415	45.89	12,804	452,746	35.35
15	11,231	323,202	28.77	10,607	386,208	36.41	5,760	148,300	25.74
16	30,545	955,532	31.28	14,082	396,380	28.14	5,958	194,854	32.70

17	12,485	406,779	32.58	4,944	136,705	27.65	-------	----------	-----
18	8,737	233,713	26.74	6,985	210,541	30.14	1,345	47,738	35.49
19	487	17,424	35.77	383	13,581	35.45	110	5,375	48.86
20	122	4,051	33.20	-------	---------	-----	-------	---------	-----
21	1,311	40,555	30.93	728	21,400	29.39	340	10,219	30.05

Year	Total acreage	Total yield	Average yield	Year	Total acreage	Total yield	Average yield
1907	744,187	23,324,903	31.34	1902	193,200	6,975,796	30.93
1906	639,873	23,965,528	37.45	1901	123,251	5,517,866	44.76
1905	449,936	19,213,055	42.70	1900	96,173	1,604,561	16.68
1904	346,530	10,756,350	31.04	1899	83,465	2,518,248	30.17
1903	280,096	9,164,007	32.71	1898	66,356	1,589,412	23.95

BARLEY.

Showing by crop districts the area and production the crop of barley for each of the years 1905, 1906, and 1907, together with the totals for the province since 1898; also the average yield per acre:

District No.	1907			1906			1905		
	Crop area acres	Total yield bushels	Yield per acre	Crop area acres	Total yield bushels	Yield per acre	Crop area acres	Total yield bushels	Yield per acre
1	6,477	75,347	11.63	4,363	164,487	37.70	3,252	98,541	30.30
2	8,960	131,773	14.70	4,949	77,694	15.69	1,945	52,483	26.98
3	6,026	141,066	23.40	5,079	142,500	28.05	4,528	119,999	26.50
4	2,506	54,331	21.68	2,462	61,631	25.03	1,800	58,817	32.67
5	1,868	37,164	19.89	1,938	54,921	28.33	1,554	49,691	31.97
6	5,905	94,353	15.97	4,725	127,865	27.06	2,688	79,973	29.75
7	10,410	145,719	13.99	8,252	224,567	27.21	3,927	137,420	34.99
8	2,295	51,953	22.63	609	16,968	27.86	505	17,584	34.81
9	2,698	54,925	20.35	1,131	34,459	30.46	278	6,661	23.96
10	8,180	157,695	19.27	6,954	97,836	14.06	5,716	137,533	24.06
11	4,544	67,028	14.75	2,769	38,775	14.00	712	14,637	20.55
12	2,422	32,677	13.49	867	13,554	15.64	497	11,849	23.84
13	1,089	19,965	18.33	728	15,149	20.80	98	2,396	24.44
14	6,660	138,371	20.77	4,825	146,780	30.62	4,081	77,067	18.88
15	2,462	55,019	22.34	1,631	53,962	33.08	1,033	20,303	19.65
16	3,196	65,785	20.58	1,678	32,686	19.47	264	6,641	25.16

17	585	13,108	22.40	40	2,616	65.40	-------	---------	-----
18	673	10,625	15.78	550	9,570	17.40	65	1,721	26.47
19	15	423	28.20	3	115	38.33	1	30	30.00
20	-------	---------	-----	-------	---------	-----	-------	---------	-----
21	149	2,938	19.71	12	280	23.33	2	50	25.00

Year	Total acreage	Total yield	Average yield	Year	Total acreage	Total yield	Average yield
1907	77,120	1,350,265	17.50	1902	14,275	298,632	20.91
1906	53,565	1,316,415	24.57	1901	11,267	354,703	31.48
1905	32,946	893,396	27.11	1900	8,303	150,822	18.16
1904	24,650	598,336	24.27	1899	7,656	160,604	20.97
1903	27,679	665,593	24.94	1898	8,381	182,859	21.81

FLAX.

Showing by crop districts the area and production of the crop of flax for each of the years 1905, 1906, and 1907, together with the totals for the province since 1898; also the average yield per acre:

District No.	1907			1906			1905		
	Crop area acres	Total yield bushels	Yield per acre	Crop area acres	Total yield bushels	Yield per acre	Crop area acres	Total yield bushels	Yield per acre
1	9,042	50,020	5.53	4,919	35,913	7.30	4,469	60,698	13.58
2	65,292	733,229	11.24	41,169	388,523	9.43	14,585	238,340	16.34
3	844	10,094	11.95	216	2,634	11.26	255	3,550	13.92
4	1,686	11,595	6.87	1,179	10,149	8.60	307	3,523	11.47
5	12,150	215,274	17.71	5,301	76,415	14.41	787	13,725	17.43
6	4,266	32,074	7.62	888	8,559	9.63	673	9,833	14.61
7	400	7,696	19.24	621	6,050	9.74	349	7,574	21.70
8	1,436	13,788	9.60	76	611	8.03	9	140	15.55
9	967	10,044	10.38	601	5,529	9.19	28	343	12.29
10	2,045	17,070	8.34	1,476	17,853	12.09	1,037	13,285	12.81
11	10,952	109,964	10.03	10,301	75,027	7.28	1,647	21,132	12.83
12	8,946	91,740	10.25	5,905	54,813	9.28	917	22,041	24.03
13	1,568	12,875	8.27	984	8,491	8.62	68	1,694	24.91
14	1,621	16,063	9.90	960	9,674	10.74	23	428	18.60
15	274	2,758	10.06	22	125	5.68	3	24	8.00
16	954	7,577	7.94	312	1,702	5.45	15	211	14.06

17	1,591	14,503	9.10	-------	---------	-----	-------	---------	-----
18	1,029	8,203	7.97	1,135	8,621	7.59	143	1,858	12.99
19	1	9	9.00	-------	---------	-----	-------	---------	-----
20	-------	---------	-----	-------	---------	-----	-------	---------	-----
21	25	140	5.60	-------	---------	-----	-------	---------	-----

Year	Total acreage	Total yield	Average yield	Year	Total acreage	Total yield	Average yield
1907	125,029	1,364,716	10.91	1904	15,917	166,434	10.45
1906	76,005	710,689	9.35	1903	31,644	285,697	9.02
1905	25,315	398,399	15.73	1902	16,694	153,709	9.80

MARKETING GRAIN.

The grain trade in the province is regulated by The Manitoba Grain Act, 1900, which, however, has been amended in a number of important particulars since its enactment. Each change has secured for the farmers some concession to which they seemed to be entitled; and by it they now have secured, if they choose to take advantage of it, the greatest possible immunity from abuses that may arise in connection with the marketing of the crops.

In Canada, all grain is sold according to the grades established by law. The inspectors, who are government appointees, decide the grade of all grain passing out of the country.

The fact that they are able to determine the grade of the grain to the satisfaction, on the whole, of both the buyer and the seller, is evidence that the system is an excellent one.

Noon hour at some of the "granaries of the Empire."

The warehouse commissioner, whose office is at Winnipeg, also is a government official. He is not allowed to have any pecuniary interest in the grain trade. In the performance of his duties under the Act he is required to have complete oversight of the grain trade generally, in order that it may be conducted rightly.

Nearly all of the grain of Saskatchewan is handled through the interior elevators. Some of these are owned by the farmers; but the most of them are owned by grain dealers and by milling companies All grain dealers in the province must be licensed and bonded, thus securing to the farmer immunity from loss either through dishonest intentions or financial embarrassment on the part of the dealer. There are few stations in Saskatchewan at which there is not one or more elevators Indian Head, on the main line of the C.P.R., has 11 elevators with a

total capacity of about 375,000 bushels. Rosthern has 10 elevators with 310,000 bushels. The farmer may deliver his wheat to the elevator and receive cash for it; or, if he prefers to hold his wheat for a time with a prospect of obtaining a better price, he may store it in the elevator and secure a storage ticket setting forth that he is entitled to a stated number of bushels of wheat of a certain grade; or, if he prefers to load his grain into a car without dealing with the elevator he may do so. Loading-platforms, on which the farmer may drive with a load of wheat and load directly into the car, have been erected at the principal grain shipping points in order to facilitate the handling of grain.

In 1901, the capacity of all elevators in the area now comprised in the province of Saskatchewan was 2,987,000 bushels. This has increased annually and with remarkable rapidity until there are at the present time 515 elevators and warehouses, having a total capacity of 15,429,500 bushels.

LIVE STOCK.

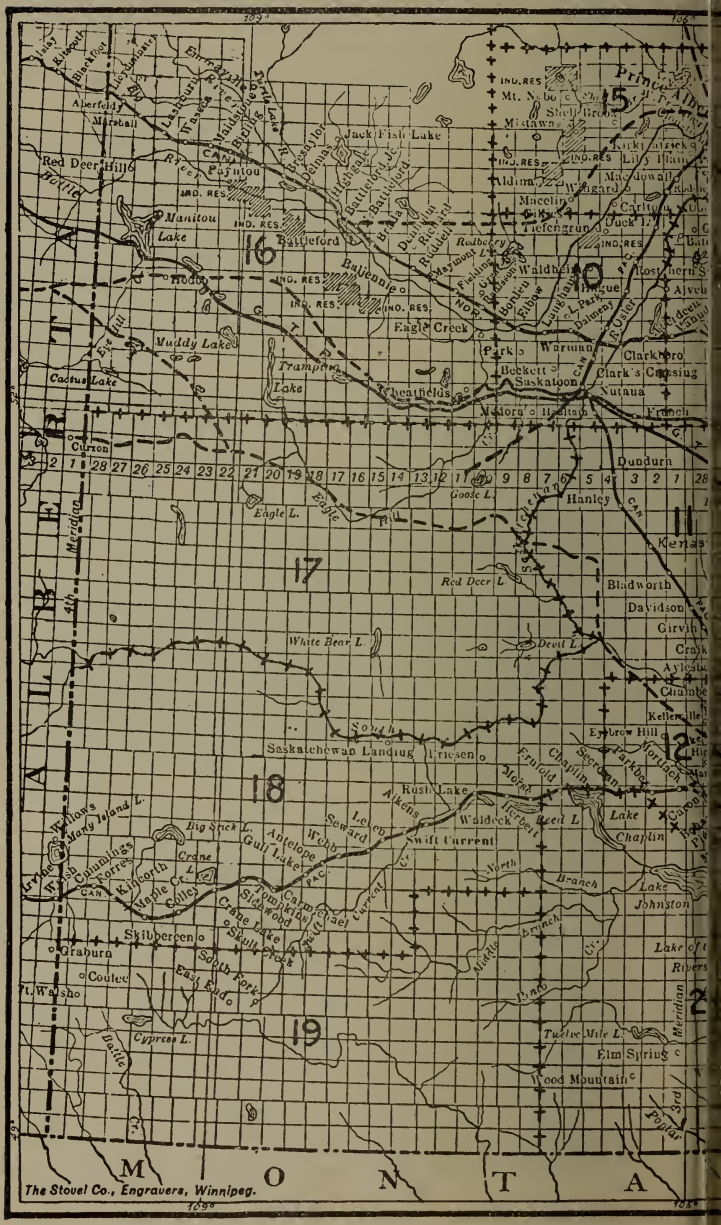
The live stock industry in Saskatchewan was until the last rush of settlement the principal industry of the province. Now, however, in all parts of the province excepting the south-west corner, a district comprising approximately 25,000 square miles, grain growing occupies the most prominent place in the farmers' operations. In that part of the province where grain growing has not yet become general, and large herds of cattle and flocks of sheep remain on the open range the year around, ranching is still of prime importance. In all the remainder of the province, south of the 54th parallel of latitude, grain growing is the preferred business of the farmers; and the live stock industry is forced to take a secondary place and becomes but a complement to the other.

There are, however, in the province some districts especially adapted to raising live stock, and these generally speaking are included in the great "park belt" or semi-woooded area north of the Yorkton branch of the C.P R. and the main line of the C N.R. Here the land is less easily broken up; and the temptation to risk all in wheat crop is thereby somewhat reduced. Large numbers of cattle are raised in this wooded belt, which runs in a north-westerly direction across the province and varies in width from 75 to 150 miles.

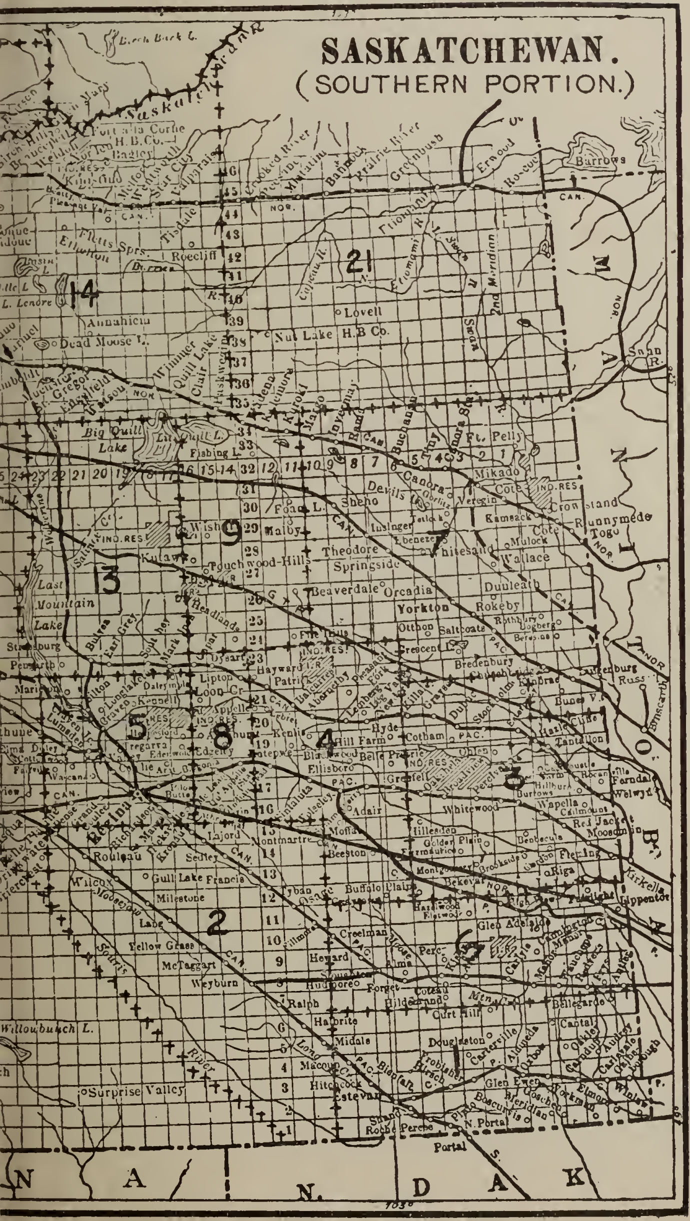
According to the Dominion census of 1901, there were in that year 217,053 cattle in the territory now comprised in the province, and, in 1906, there were 472,854, or an increase in five years of 255,801. In 1906, there were shipped east from Saskatchewan 15,812 cattle; and in 1907 the shipments aggregated 20,271.

The raising of sheep is confined to the south-western part of the province. Here, large flocks ranging from a hundred to many thousands are run on the open range

NOTE.—The railways that are being operated are shown in
The irregular lines indicate the crop districts, th
tables on other pages.



nuous lines; those under construction in broken lines.
bers of which correspond with the numbers given in the



throughout the year. In 1901, there were 73,097 sheep in the province; and in 1906 the number was 121,290. The value of the sheep and lambs exported annually from Maple Creek and adjacent stations amounts to about $100,000. About 300,000 pounds of wool is shipped annually from those stations. The value of it varies with the different seasons. In 1906 the price was about 17½ cents per pound, and in 1907 the quotations were about 2 cents less than in the previous year.

The swine industry has developed rapidly with the increase in settlement; and the number of hogs in the province has increased from 27,753 in 1901 to 123,916 in 1906. Elevator screenings and low grade grain furnish a cheap and satisfactory food for swine; and the wonderful development in grain growing will furnish a further impetus to this branch of the live stock industry.

From these figures it will be seen that while "wheat is king" the province produced considerable beef, mutton, and pork, of which considerable quantities are exported annually. The future promises a great development for this branch of agriculture. The impetus given to wheat

A corner of Miller's horse ranch near Lumsden.

growing in the last decade by continued heavy yields of No. 1 Hard has served for the time being to attract farmers from the sure and rational, if less remunerative, methods of farming, such as stock raising and mixed farming. But the pendulum should soon swing the other way; and when it does Saskatchewan will be as well known for her stock industry as she is famed at present for her large yields of wheat.

At the present time, the draft horse is one of the greatest assets of the Saskatchewan farmer. With thousands of settlers coming to our province annually, bringing few or, in many cases, no horses there has in recent years developed a great demand for farm power. Steam and gasoline engines aid the prairie farmer on all sides;

Revenue-producers on a Saskatchewan farm. (See the homesteader's shack in the right of the picture.)
(Courtesy of C.N.R.)

but the time has not yet come for these to supersede the horse in agricultural operations. Considering the circumstances the increased demand has been fairly well met by importers and breeders.

The department of agriculture of the province has not been lax in appreciating the opportunity now before it to aid in establishing in the province a foundation stock of draft horses that will in future years furnish cheap, efficient farm power. In 1903, a stallion enrolment act was passed compelling the enrolment as "purebred" or as "grades" of all horses standing for service in the then North-West Territories. This act has been operative since that time with the result that 303 purebred and 249 grades were enrolled in 1904; 88 purebreds and 71 grades in 1905; 140 purebreds and 113 grades in 1906; 153 purebreds and 124 grades in 1907 (The figures given for 1903 are for the North-West Territories, what is

A prize winning Clydesdale mare.

now the province of Saskatchewan being at that time included in the Territories).

It is proposed further to promote the breeding and importation of a high class of breeding horses by encouraging the breeding or importing of purebred draft stallions of a certain high standard of quality. By this means it is hoped to aid still further in laying a foundation of quality in the horse breeding industry.

At the present time, the Clydesdales of Saskatchewan are among the foremost in America. Several large breeders and importers have at the head of their studs stallions of great individual merit, which have stood at the top in many of the leading shows in Great Britain, the United States, and Canada.

But for her horses, Saskatchewan is not yet noted specially for live stock. The adaptability of the province to an easier system of farming and one from

"Steam and gasoline engines aid the prairie farmer."

which returns may be derived more quickly, viz. wheat growing, has hitherto precluded the possibility of her winning a reputation in other lines. But the climate and the soil are favourable to live stock husbandry; this system of farming must eventually be recognised as most important; the large extent of her arable land and the skill and enterprise of her people give promise that Saskatchewan, in the not far distant future, will vie with the leading of her older sister provinces in supplying live stock to the markets of the world.

DAIRYING.

The rapid development of the province in recent years has created conditions that make dairying a profitable branch of farming. The ambition of the average farmer is to grow wheat, and, as a consequence, a good opening awaits capable dairy farmers who understand their business and endeavour to satisfy the requirements of the trade The natural conditions in certain parts of the province are eminently suitable for mixed farming and dairying. Within the province itself there is a splendid market for butter during the winter months, especially if it is fresh made. In recent years the supply has not been equal to the demand.

Co-operative dairying, although in its infancy, is gradually becoming more prominent, and the creameries now in operation are being well supported. The movement during the past two years has been decidedly in favour of co-operative dairying, and there are indications that our farmers are reverting more to this line of work. Most of the creameries are under the direct supevision of the Department of Agriculture, Regina, who supervise all business transactions relating to the operation of the creamery, with the exception of arranging for cream delivery. That is attended to by a local board of directors. Butter sales are effected by the department, and advances on cream are made direct to the patrons twice each month. These advances are based upon the wholesale price of butter at the time of payment, and are forwarded regularly, even if the butter is not sold. They constitute an advance payment only; and at the end of the summer and winter seasons, which terminate on the first of November and the first of May respectively, the season's business is closed. and after deducting the actual manufacturing cost, the balance. if any, is forwarded to the patrons. The average price realised for butter for the season of 1907 was 24.22 cents per pound.

The statutes relating to dairying enable the department to govern effectively the various phases or organisation. The aim of the officials is to establish the industry on a successful and permanent basis, and, in order to do this. legislation was passed providing for the advance of a government loan of not more than twelve hundred dollars to any creamery company or

association complying with certain regulations. The loan is repayable in five years, with interest payable annually at the rate of three per cent. per annum. In order to secure a government loan, the creamery company applying must show to the satisfaction of the commissioner of agriculture that the cream from at least four hundred cows within a radius of fifteen miles can be secured for a period of six months in each of three years without encroaching upon the territory of a creamery company already established and in operation. In addition to this, the commisisoner must approve of the plans and specifications of the creamery building, its location and site. together with the creamery equipment. These regulations assist very materially in protecting the welfare and development of the industry. The loan is given at a moderate rate of interest and on easy term payments, and in return the company must submit the above matters for the commissioner's approval.

There is every reason to believe that a live. enthusiastic interest can be developed among our farmers with respect to this branch of farming, and also that an intelligent dairyman. who will conduct his work according to modern methods, has opportunities almost unsurpassed.

MINERALS.

It is not very surprising that Saskatchewan should be regarded as an agricultural province; because in the southern half, the part through which railways have been constructed, the general character of the country so completely favours the agricultural industry. In fact the greater part of the southern half of the province is not surpassed anywhere for agricultural purposes. It is a great mistake, however, to suppose that the province is adapted to agriculture only. North of the Churchill river, the rock formations found are similar to those that occur in the northern part of Ontario, where such sensational discoveries of minerals have been made during the last two years; and it may be assumed that similar discoveries will be made in northern Saskatchewan. In fact many fairly well substantiated reports have been circulated and credence may be attached to them on account of the evidence of the Geological Survey of Canada, which in its report announces the presence of mineral bearing formations throughout that part of the province.

Mr. J. Burr Tyrell, M.A., F.G.S., stated in his evidence before the select committee appointed about two years ago by the Senate of Canada to inquire into the resources of "Canada's Fertile Northland" that no other place that he had ever visited gives better indications of the presence of minerals than a region in the vicinity of Lake Athabasca in Saskatchewan. In the report of an examination of that country in 1892 and 1893, he stated that an extensive deposit of hematite iron ore was found on the northern shore of that lake. On Camping island,

in Reindeer lake, veins of pyrites were found in beds of gneiss, which on examination disclosed a small percentage of nickel and traces of cobalt. Unconfirmed reports of the discovery of gold, silver, cobalt, copper, iron, coal, mica, and other minerals have been circulated. As some of the reports have originated from men who have lived in the country for years and are in a position to know whereof they speak, considerable importance may be attached to them.

Salt has been found in different places in the province. An exploring party under Mr. W. McInnes of the Geological Survey Department visited a small salt spring in the Pasquia hills in the country north-east of Prince Albert. At other places along the western part of the province, salt and sulphur springs have been found. Just across the boundary line in Alberta, is the great salt mine at Fort McMurray, probably second to none in any part of the world.

Peat bogs have been found in a number of places in the northern part of the province, one of which is Methy Portage, near Methy lake.

The country south of the north branch of the Saskatchewan is better known, and we can speak more definitely concerning it.

Gold is found in limited quantities in the North Saskatchewan river, a short distance above Prince Albert; and during the last few years dredging operations have been carried on there with a fair measure of success.

A very valuable deposit of pigments has been located near Luck lake, south-west of Davidson. The veins that have been discovered are on section 13 township 24 range 8 west of the third meridian. Some idea of the value may be obtained from the fact that the owner states that he has been offered $40 per ton for one thousand tons of pigments. The supply is quite large; and the veins are several times wider than are found in any of the English mines.

On the north shore of Cod lake, about one hundred miles north of Lloydminster, good samples of ochres have been found; and near Howell and in other localities deposits of the same material are present in considerable quantities.

Coal mining has perhaps attained the greatest development of all mining industries; but its progress has been possible on account of the railway facilities found in the coal bearing districts. Large quantities of lignite are found in the extreme south, in the vicinity of Estevan, Roche Percee, Pinto, Bienfait, and at points adjacent thereto In that immediate neighbourhood, the deposits have been developed and large quantities are shipped annually to stations in the south-eastern part of Saskatchewan and to Manitoba. The lignite bearing areas extend from Roche Percee in a north-westerly direction away beyond the elbow of the South Saskatchewan river. This Coteau, which is a distinctive feature of that part

of the province, is the eastern escarpment or boundary of the third prairie steppe; and, while the deposits of lignite may not be general throughout its extensive range of hills, the fact that it is found as an outcrop in so many places is pretty conclusive evidence that it occurs in considerable quantities. At any rate, sufficient indications of coal have been noted to warrant further examination of that area. Within the last few years, traces of lignite have been found in various places in the great central plain, bounded in this province by the north and south branches of the Saskatchewan river; and a mine is being opened at Swift Current. It is believed that seams of bituminous coal underlie the country adjacent to Maple Creek. Coal seams have been found in the Eagle Hills, south of Battleford; they have not, however, been proved to be extensive. There is little doubt that the country westward from the localties in Saskatchewan in which coal has been found belongs to coal-bearing regions; but whether the amount has been sufficient to supply the requirements of a considerable settlement is a matter of conjecture, although no reason has been given that will explain why there should not be lignite beds over the great central plain in Saskatchewan. Traces of coal have been found along the North Saskatchewan river; but no systematic effort has been made to develop them or even to ascertain by boring whether they are extensive. The evidence so far adduced would indicate that the country has a coal supply. Geologists also give it as their opinion that coal will be discovered in the country between the North Saskatchewan and Churchill rivers.

Many other reports have been received indicating the presence of minerals in the province; but the location of them has not been described in sufficient detail to warrant their insertion here. Sufficient has been learned, however, to assure us of the fact that any careful examination of the northern parts of the province will reveal the presence of a large variety of minerals. In fact it cannot well be otherwise; as the geological formations extending in a north-westerly direction south and west of Hudson's Bay from New Ontario to Yukon insure the presence there of many valuable minerals.

NATURAL GAS.

Natural gas, which has been found in large quantities at Medicine Hat and at other places in Alberta, is present also in parts of Saskatchewan. At different places on the South Saskatchewan river between the Elbow and the western boundary of the province, the gas escapes through the water, seemingly by means of natural fissures in the underlying rocks.

While engaged in boring at a point south of Regina for water, a supply of gas was tapped; but as the water was not shut off no use could be made of the gas.

Petroleum was found, it is stated, on the Thunder creek west of Moose Jaw.

Wells bored at Maple Creek gave off small quantities of gas; and a test will shortly be made to determine the extent of the supply in that vicinity. It was reported in 1907 that gas had been discovered at Grenfell; but no confirmation of the report appears to have been made.

LUMBERING.

North of Prince Albert, which is the centre at present of the lumber industry, and east of that city, lumbering is extensively carried on. In the northern forest the timber is spruce, both white and black, larch or tamarack, jack pine, among the coniferous trees; and aspen or white poplar, balsam or black poplar, and white birch, among the deciduous trees. The white spruce grows to a large size and is the principal tree used in the manu-

A lumber mill in Northern Saskatchewan.
(Courtesy of C.N.R.)

facture of lumber at mills in Saskatchewan. It is found growing to a size of two feet to thirty inches in diameter at the stump but generally ranges below that. The black spruce does not grow to a large size as a rule; seven or eight inches might be considered as an average tree. The jack pine is found on the light sandy lands, and in the older forests the trees would run from twelve to eighteen inches in diameter at the stump. It has up to the present time been cut principally for the purpose of making railway ties.

There are four lumber mills at Prince Albert. Two of them are owned and operated by the Prince Albert Lumber Company, one by William Cowan & Co., and the fourth by the Carrot River Lumber Company. The larger of the two mills of the Prince Albert Lumber Company, which has a capacity of about 50,000,000 feet

Spruce forest in Northern Saskatchewan.

per annum, is perhaps the best equipped lumber mill between the Ottawa river and British Columbia; their planing mill, it is claimed, is the largest in Canada.

Another mill is established at Sturgeon lake, about twenty miles north of Prince Albert. The lumber is cut on the premises, and during the winter is conveyed along an ice road by means of a specially constructed engine to the company's yards at Prince Albert, from whence it is shipped to all parts of the province. Other lumber mills in the northern part of the province are the Great West Lumber Co., Greenbush; the Saskatchewan Lumber Co., Crooked river; Dart Bros., Etoimami. Timber to supply the mills at Prince Albert is brought down to the city by way of the Shell and Red rivers, tributaries of the Saskatchewan.

The forest belt, to which reference has been made elsewhere, contains an abundant supply of excellent timber

Load of logs, Prince Albert.

that, with proper fireguarding, should supply an immense quantity of lumber for many years to come.

There were in Saskatchewan at the end of 1907, 113 timber berths under license or under permit. The total area of timber berths set aside in this way was 2,950 square miles. Six mills are operated under Government license; three at Prince Albert, one at Sturgeon lake, one at Crooked river, and another a number of miles west of Prince Albert. To meet the demand for lumber, which has been greatly increased as a result of the development of the province during the last few years, the firms engaged in the manufacture of lumber have enlarged the capacity of their plants; but a great deal of the building material used in Saskatchewan is still brought from British Columbia. A glance at the map will show the advantageous position of the lumber manufacturer in Saskatchewan in comparison with the British Columbia mills as regards the Saskatchewan market. Freight rates

are of very great importance in determining the cost to the producer; and in shipping lumber from British Columbia to Saskatchewan the transportation cost is a very considerable part of the total cost to the consumer. It must be seen therefore that the lumbermen of Northern Saskatchewan are convenienty situated; as they have right at their door a market capable of consuming all that they can produce.

The value to the province of enterprises of this nature, having in mind the amount of cash circulated in wages, is very considerable, and the more industries of this nature the province can support the greater the assurance of our future prosperity and development.

GAME AND FISH.

Since the days of the early explorers. the plains of Saskatchewan have been a field full of interest to the sportsman, hunter, trapper, and naturalist. Once the home of the mighty herds of bison, the wide stretches of prairie are now rapidly being converted into culti-

Eight years' growth of blue spruce at Indian Head.

vated fields by the rush of immigrants from all parts of the world. Notwithstanding the rapid increase of population. there are yet vast areas to the north-west in our province where wild game of the larger species may be hunted and where sportsmen may have most enjoyable outings amongst the lakes and the timber. Moose, elk or wapiti, caribou. blacktail. and whitetail may be found; and good heads for trophies are there for the skilful hunter. The graceful pronghorn buck is still to be seen on the open prairies in scattered herds bounding away in the distance or slowly approaching with head erect and eyes blazing with curiosity while gazing at some unusual object which may have attracted his atten-

tion. but all the while ready to spring rapidly away at the first appearance of danger.

Waterfowl in immense numbers breed about the prairie lakes, the effect of the prohibition of spring shooting being quite apparent in the increase of nesting birds in comparatively settled districts. In addition to the birds that have been hatched here, we have the migrants from the north with their broods about our lakes and fields in the fall furnishing the best of shooting for the sportsman and birds fit for the table of an epicure. The grouse shooting has not been so good during the last year, owing to an unfavourable season; but we may expect that these birds will soon again increase. It has been noticed that the pinnated grouse is to some extent replacing our prairie sharp-tail in some of the settled sections of the country. The ruffed grouse and the ptarmigan are found in our northern woods where also in the proper seasons the varying hare darts amongst the bushes in unnumbered plentitude. On the plains, the jack rabbit gives an opportunity for good sport with dogs or gun; and in the fall and winter the hunting of coyotes with horse and dogs provides many an exciting chase. The gray wolf is found in some numbers on the southern cattle ranges doing damage to such an extent that bounty is offered which should make hunting and trapping of these animals profitable to those qualified for the work. The wolves have also been reported as more numerous than usual in the far north recently where many of the more valuable fur bearing animals furnish a living to Indian and Halfbreed although pursued and trapped for centuries for trading with companies whose servants had penetrated the wilderness.

The value of the furs exported during these centuries must represent many millions of dollars; but no species of these animals has become extinct although they have their years of scarcity and of plenty. The beaver seemed years ago to be destined to early disappearance; but although there are many stretches of country where deserted beaver meadows may be found, these interesting animals have under the protection afforded them by a few close seasons again become numerous in some suitable parts of the country.

Nowhere can better fish be found than in the waters of Saskatchewan; and there is quantity enough to furnish food for millions of people. The whitefish, trout, and some of the coarser fishes are even now being exported to some extent and no doubt the fishing industry will ere long play a very important part in the commerce of the province. Trout of over sixty younds weight have been taken in the northern lakes, while pike three feet in length may be taken even in Qu'Appelle where also whitefish, tullibee, pike perch, yellow perch, buffalo fish, red horse and white suckers abound. While it is doubtful whether trout come so far down the rivers, gold eyes may be taken in plenty by the angler, and sturgeon of large size also occur.

RAILWAYS.

Saskatchewan relies upon three of the greatest railway companies in the world to solve her transportation problems. The Canadian Pacific Railway was built across the southern part of the province in the early '80's, and since then a number of important branch lines have been built by that company in different parts of the province. This pioneer railway company in the West has now almost completed another line that traverses the prairie provinces from Winnipeg to Edmonton, and has in Saskatchewan about 1,700 miles of railway, nearly all of which is under operation. All of it will be completed and operated before the end of 1908. They have also under construction the proposed line from Moose Jaw to Lacombe, which runs in a westerly direction and after crossing the South Saskatchewan river between The Elbow and Rudy will traverse an important part of the province to its junction with the part of the line that has already been built from Lacombe. From Regina, a short line will be built in a north-easterly direction to connect their Pheasant Hills branch with their main line. Westward from Weyburn, a line will probably be built shortly, to furnish direct communication with southern Alberta and Lethbridge, incidentally opening up a large and important country of which a considerable area is regarded as being suitable for agricultural purposes.

The Canadian Northern Railway Company, which in 1901 had not a mile of railway in operation in the province, now has a main line connecting Winnipeg and Edmonton. Its line through the Swan river country in Manitoba has been completed to Prince Albert and will be extended shortly across the North Saskatchewan river in a south-westerly direction to Battleford. A little more than a year ago, that company purchased the line of the Qu'Appelle, Long Lake, and Saskatchewan R. & S. Co., extending from Regina to Prince Albert, and has now completed a line connecting Regina and Brandon on which a passenger service will shortly be instituted. This company is first in the field in the race for Hudson's Bay, and has constructed 88 miles of track from Etiomami to The Pas. The construction of the line in a north-easterly direction will likely be resumed just as soon as possible with a view to its completion to Fort Churchhill, the Hudson Bay harbour. From Saskatoon, they are building in a south-westerly direction into the heart of the Goose Lake country, and will doubtless continue the line to Calgary. A gap will then remain to be filled in between Saskatoon and Etiomami, which when completed will furnish a very direct route across the prairies to the new outlet via Hundson Bay for the cattle and grain of the west.

The Grand Trunk Pacific, the youngest of the giant continentals, will be completed from Winnipeg to Edmonton by the end of the season of 1908. Within the

borders of Saskatchewan lie about 415 miles of that company's road. With the completion of the main line, branch lines will be constructed in this province to enable the company to draw traffic from the fertile Saskatchewan plains.

These three companies will have at the close of 1908 a total of about 3,250 miles of railway operated in Saskatchewan as compared with a total of 1,019 miles operated in the same area in 1901, an increase of more than 200 per cent in mileage.

The service rendered by the railway companies in Canada while often criticised is perhaps unsurpassed in any country in the world. Throughout the province, a first-class passenger service is maintained at a tariff of three cents per mile going one way, or regular return fare at the rate of five cents per mile. During certain seasons of the year special excursion rates are in force on the different lines of railway, such as the home-seekers excursions conducted during the summer months. Excursions are conducted during the harvest season, also to enable persons desirous of obtaining employment in harvesting the crops to secure transportation at reduced rates. The cost is only nominal, and the reduced rates are usually in force on the C.P.R. lines in Eastern Canada during certain dates in August and September. During the winter months, a cheap rate of transportation is in force, to enable persons to visit the eastern provinces during the time when agricultural work in the West is lightest. These excursions usually begin in December and are good for return until the end of February.

Nearly all the grain and exportable produce of the West passes through Winnipeg on its way to the Atlantic seaboard. The great storehouses for the grain of the West are at Fort William and Port Arthur, where terminals are established and large elevators are found The elevators at Fort William have a capacity of 11,860,000 bushels; and, at Port Arthur, the accommodation is 800,000 bushels. All quotations for wheat and oats are based on its value in store at Fort William or Port Arthur. The average cost of transportation of grain from points in Saskatchewan to Fort William would be about twenty cents per hundred pounds, or about twelve cents per bushel of wheat. The rate from Regina to Fort William is eighteen cents per hundred pounds, or ten and four-fifths cents per bushel. Proportionate rates are in force for transportation from other stations in the province to Fort William or to other points.

The railway companies in Canada endeavour first to perform the functions of a railway; and no one will state seriously that they do not succeed. In order to prevent any dereliction of duty toward the public whose representatives granted charters to them, an independent commission has been appointed with jurisdiction over all the railways in the Dominion; and all matters

A prosperous prairie town. Before the Pheasant Hills branch of the C.P.R. was built through the districts north of this point, Indian Head was the largest initial wheat shipping point in the world.

affecting transportation come under their supervision. The dealings of the commission with the railways have been characterised by a spirit of fairness and moderation which, while having due regard for the interests of the people, have not encroached on the actual rights of the railway corporations, and as a result there is in the Dominion the unusual and gratifying fact of agreement between the corporations and their masters, which in other countries has not yet been accomplished.

POLITICAL CONSTITUTION.

Saskatchewan dates as a province from September 1, 1905; but the territory comprised in it has a history coeval with the Hudson's Bay Company, which was chartered in 1670 by Charles II of England. The country in which the company secured exclusive rights to trade was known as Rupert's Land, in honour of its first governor, Prince Rupert, cousin of King Charles. Previous to that time, explorers sailed into Hudson's Bay and explored parts of the coast line; but it was not until the latter half of the eighteenth century that trading posts, or forts, were established by the fur traders at points now included in this province.

During the seventeenth century the question of the ownership of this vast area was disputed by the French and English; but in 1713 by the treaty of Utrecht, France ceded the territory to Great Britain.

When Confederation was being planned by the statesmen of the eastern colonies, they recognised that both from a Canadian and from an Imperial point of view it was expedient that the Dominion should be extended to the shores of the Pacific, and one of the matters that early engaged the attention of the first parliament of the newly-formed Dominion was the passing of an address to the Imperial authorities praying that Her Majesty might be pleased "to unite Rupert's Land and the North-West Territory with this Dominion, and to grant to the parliament of Canada authority to legislate for their future welfare and good government."

As a result of the negotiations thus begun, the rights of the Hudson's Bay Company in Rupert's Land were purchased by the Dominion, which agreed to pay the Hudson's Bay Company the sum of three hundred thousand pounds sterling, or about one million, four hundred and sixty thousand dollars. The company also was allowed to retain one-twentieth of all the land in the fertile belt south of the North Saskatchewan river, as well as a small area of land around each of their trading posts, amounting in all to fifty thousand acres. It was stipulated in addition that no exceptional taxes should be imposed upon the company, and their trade in furs was in no wise to be restrained.

Pursuant to legislation passed by the parliament of Canada in 1869, and afterwards amended in the following

year, an order was made in council on June 23, 1870, which proclaimed the North-West Territory and Rupert's Land a part of the Dominion of Canada, the union to take place on July 15, 1870. After the union and until autonomy was granted in 1905, the legislative authority over the North-West Territory was exercisable by the parliament of Canada; but by virtue of the legislation providing for its admission into the Dominion the Lieutenant Governor of Manitoba was empowered to act for the North-West Territory in certain matters, which were to be designated by the Governor General in Council.

Another milestone was passed in 1875, when "The North-West Territories Act, 1875," was passed. Under it the first resident Lieutenant Governor was appointed, and the first legislative session took place in the Territory. The Act came into force in 1876 when by its provisions the Territory was separated into two divisions. The easterly division, under the name of Keewatin, was placed under the jurisdiction of the Governor of Manitoba. The westerly and more important division, retaining the name North-West Territory, was organised under a government of its own. The government as at first formed consisted of a Lieutenant Governor and a council appointed by him. This body was endowed with both executive and legislative powers. Provision was made for the enlargement of the council from time to time as the population increased, by the addition of members chosen by the inhabitants of the electoral districts, which the Lieutenant Governor was empowered to establish; and it was provided that as soon as the number of elected members of the council should reach 21 the council should cease to exist and a legislative assembly take its place. The council held its first meeting at Livingstone; but Battleford, on the Saskatchewan, was shortly after made the seat of the government. In 1882 the North-West Territory was again divided, and the provisional districts of Assiniboia, Saskatchewan, and Alberta were formed. In 1888 the council was replaced by a legislative assembly; and in 1905 that portion of the Territories now known as Saskatchewan was constituted a province under The Saskatchewan Act. The legislature now consists of a Lieutenant Governor and one House styled the Legislative Assembly, the latter being composed of 25 members; and the provisions of The British North America Act, 1867, with its several amendments apply to the new province in the same way and to like extent as they apply to the older provinces comprised in the Dominion. Annual subsidies payable by the government of Canada are allowed to the province, and at present are as follows:

For support of the government and Legislature	$180,000.00
On population, 257,763 at 80 cents per head	206,210.00

For proportion on public debt account, computed at five per cent on $8,107,500 $405,375.00
For compensation in lieu of public lands as a source of revenue, on the present population 375,000.00

The grant in support of the government and legislature is based upon population, as ascertained from time to time by the quinquennial census; and is payable annually. When the population is 200,000, but does not exceed 400,000, the sum payable yearly is $180,000; thereafter, until the population exceeds 800,000, the sum payable is $190,000; thereafter, until the population exceeds 1,500,000, the sum payable is $220,000; thereafter the sum payable is $240,000. The per capita grant of 80 cents per head is to continue until the population has reached 2,500,000 souls. Thereafter, the per capita grant of 80 cents per head will be payable on that population, and at the rate of 60 cents per head for so much of said population as may exceed 2,500,000. The province has no debt; but as under the terms of confederation it would be entitled to enter the union with a debt of $8,107,500, it is allowed an annual sum equivalent to interest on that amount at the rate of five per cent. The public lands are retained by the government of Canada; and in place of these as a source of revenue the province receives an annual sum based upon the population as from time to time ascertained by the quinquennial census. Until the population has reached 400,000, the annual sum payable is $375,000; thereafter until the population has reached 800,000 it is $562,500; thereafter, until the population has reached 1,200,000, it is $750,000; and thereafter the annual sum payable is $1,125,000. A further additional allowance of $93,750 is payable by Canada to the province for five years, to provide for the construction of necessary public buildings. A little calculation will show that when the population of the province reaches two and a half millions, the subsidies payable annually by the Government of Canada to Saskatchewan will reach the sum of $3,770,375; and will be still further increased as the population passes the two and a half million mark.

The system of government in the Canadian provinces is the freest and most modern in the world. In them, the government is conducted by the people, who through their representatives determine what action shall be taken in matters affecting the progress and welfare of the province. The several constituencies into which Saskatchewan is divided each elect a representative to the legislature, which unless previously dissolved may hold office for a term of five years, and must during that time meet at intervals of not more than twelve months.

At its third session the legislature of Saskatchewan amended The Representation Act in order to provide for an increase in the membership of the legislative assembly of from 25 to 41.

The Territories were first represented in the federal parliament in 1887, when they were given two senators and four elected representatives. At present this province, exclusive of Alberta, the other portion of the old North-West Territories, is represented in the Commons by six members and in the Senate by three. Based on the quinquennial census of 1906, Saskatchewan will be represented in the House of Commons after the next election by ten members.

After the formation of the province, much legislation of a constructive nature was necessary; but at present the most urgent matters have received attention. At the second session of the legislature an Act was passed providing for a complete judicial system. Provision was made at the same session for the formation of a university and a system of secondary education. During the

Ornamntal hedges at the experimental farm, Indian Head.

session of 1908 the government introduced a bill providing for a complete municipal system to replace the system of local improvement districts at present in vogue, and to enable the municipalities to exercise a larger measure of local self-government; settlement of the question has, however, been deferred until the next session. The legislature during the last session added to the administrative departments by constituting the department of railways and telephones, and the department of the municipal commissioner. The departments of government previously formed, each of which is presided over by a member of the executive council, are the department of the attorney general, department of education, department of public works, department of agri-

culture, department of the provincial secretary, and the department of the provincial treasurer.

Providing free school books, government telephones, and public works of all kinds, including a system of main roads, are some of the directions in which the activities of the government find expression.

EDUCATIONAL SYSTEM.

It cannot be gainsaid that the educational system of the Province of Saskatchewan is well adapted to the requirements of a new and growing country. The school laws and regulations in force in the North-West Territories at the time of the organisation into provinces have been continued without change. Every effort has been made by the department not only to keep up the standing of schools and professional qualifications of teachers, but also to grant every assistance to districts struggling with the problems incidental to a new country.

In its organisation the department of education resembles the other departments of the provincial government. It is a distinct and separate branch of the public service and is presided over by one of the members of the executive council.

School districts are established in the province by the government, but are controlled, maintained, and managed by the resident ratepayers of the district. The maximum size of rural districts is limited to 25 square miles, but the majority of districts at present being formed comprise an area of from 16 to 20 square miles. In order that a dictrict be established it must have four persons actually resident therein, who on the erection of the district would be liable to assessment, and at least 12 children between the ages of 5 and 16 years inclusive. The schools are sustained by provincial aid and also by local rates.

The work to be taken in the schools is divided among eight standards. That of the three highest standards is largely devoted to preparing candidates for diplomas entitling them to take a course of training at the normal school. On completion of a course of training in the normal school, the student is granted an interim certificate, which is made professional after a year's successful teaching.

Provincial aid is distributed as follows:

The primary grant is based on the assessable acreage in the district and runs from 90 cents to $1.50 per day according to the assessment. A second grant gives an additional 10 cents per day to schools employing a teacher holding a first class certificate. A third grant adds from 5 to 25 cents per day according to the percentage the average daily attendance bears to the enrolment.

In addition to these grants, which are paid at the end of the school term, that is to say half-yearly, a yearly grant of from 5 to 15 cents per day is paid to

schools receiving a satisfactory report from the government inspector as to the condition of building and grounds, equipment, government, teaching, and progress of the pupils. At least one-half of this grant must be spent by the board of trustees of the district in purchasing books for the school library, which must be selected from a catalogue furnished by the department.

Some of the advantages of the public school system are:

The poorer or small school districts draw larger grants from the government, and thus taxation in the several school districts is equalised. It encourages the employment of high grade teachers. It encourages the trustees to take an interest in their school and to see that the pupils attend regularly; as irregularity in attendance means a loss in the amount of the government grant. It encourages the trustees to look after the grounds, buildings, etc., etc., and by the establishment and maintenance of a school library forms a desire for reading among the children.

All schools are inspected and graded on a common standard exception being made of course as to the "progress of pupils" in the case of schools where the children are not born of English-speaking parents. As far as the inspection grant is concerned, however, all schools, whether in Canadian or foreign settlements, must be up to the standard with respect to buildings, grounds, equipment, government, and teaching.

Every effort is made by the department to keep up the standing of teachers in the province, and, except in special cases where qualified teachers cannot be obtained, every teacher must hold a certificate of qualification granted by the department of eduation Provision is made by which teachers holding a certain standing in other parts of Canada and Great Britain are granted valid certificates to teach in the province. Sessions of the Provincial Normal School are held in Regina, for the training of teachers for second and first class certificates, and also additional sessions at local centres throughout the province for the training of teachers for third class certificates.

At a session of the legislature held in 1907, a step forward was made by the government in passing two Acts for the furtherance of higher education, namely: "The Secondary Education Act," and "The University Act." As a result of the former, a number of high schools and collegiate institutes have already been established in the province; and the number will likely be materially increased within the next few years. Following the passing of The University Act, the various preliminary steps toward the formation of a provincial university have been taken in the way of the election of a chancellor, senate, and a university council. The appointment of a president has not yet been made; but as soon as this is done the machinery required for

the active operation of a university will be complete. Taking everything into consideration, the educational facilities in the province are all that could be desired or expected.

POPULATION.

The population of Saskatchewan was 257,763 when the census was taken on June 24th, 1906, and probably would not be found to be less than 325,000 at present. As our northern climate produces the best and hardiest grasses and grains so does it also give us the hardiest and most virile manhood found anywhere. One-half of the population, according to the latest census figures, was born in Canada. The remainder has immigrated to the provinces from other countries. Great Britain gave us 35,518 of the population in the province in 1906; and an equal number of our people came originally from the United States. Austria-Hungary is represented by 21,865 persons; and Russia has contributed 16,551 souls to our cosmopolitan population. From Scandinavia, Germany, France, Belgium, Holland, and other countries our population has been recruited.

While we may congratulate ourselves on the fact that so many English speakng people are moulding our civilisation, we are also gratified by the fact that the settlers from continental Europe are rapidly becoming Canadianised, are learning to speak our language and to patronise our institutions; while they have demonstrated their adaptability to our climate and their capability of doing well not only for themselves but for the country. In some parts of the province the foreign-speaking population has settled up whole districts; but in others they are to be found side by side with the English-speaking settlers, and are thus the more rapidly becoming Canadianised.

EVIDENCES OF PROGRESS.

A comparison of the census figures of 1906 with those of the census of 1901 indicates how remarkable has been the progress of Saskatchewan during those five years. During that time, the increase in population was 182.39 per cent.; and the total population in 1906 at the time of the taking of the census was 257,763, as compared with 91,279 in 1901. It is a pleasing fact that the immigration to the province during the two years since the taking of the census has been larger than in any previous years. The homestead entries in Saskatchewan also were greater than in all the other provinces of the Canadian West. During the last three years, two-thirds of all the homestead entries made in Western Canada were made at land offices in this province; and further, two-thirds of the homesteaders and their families have actually settled in Saskatchewan.

In addition to the homestead entries, parcels of land amounting in the aggregate to many thousands of acres have been purchased by actual settlers; and the number

of cars of settlers' effects that were unloaded at individual stations show to a certain extent the rapidity with which settlement has taken place.

Some indication of the general progress of the country will be afforded from a consideration of the following facts: The number of farms in 1901 was 13,380 and in 1906, 54,787. The area of grain crops in 1901 was 577,393 acres and in 1907, 3,058,917. The number of grain elevators and warehouses in 1901 was 111, and in 1907, 515. The capacity of grain elevators in 1901 was 2,978,000 bushels and in 1907, 15,429,000 bushels. The number of school districts in 1901 was 453 and in 1907, 1,430. There are now upwards of one thousand post offices in the province; the newspapers number nearly one hundred; and there are more than one hundred branch banks.

OPPORTUNITIES.

No more desirable opportunities for the investment of capital could easily be found than exist in Saskatchewan at present. Thousands of acres of arable lands, the most fertile in the world, are waiting to be occupied, and are being given away to actual settlers for the insignificant sum of ten dollars per quarter section. In other words, for $10 the settler who makes farming his occupation is given a farm that will be worth at least $3,000 when it is brought under cultivation.

That the proportion of farmers in Saskatchewan is large may be learned from the fact that of every hundred persons in the province the number of rural population is 81.2; and therefore only 18.8 per cent. of the people live in the towns and cities. With such a large region as the southern half of Saskatchewan even fairly thickly settled, a great many trading points would be necessary to handle the business of the country. This season will witness the opening of new towns along the entire prairie section of the new Grand Trunk Pacific Railway from Winnipeg to Edmonton. In Saskatchewan there are on this new line 61 new towns. On the Canadian Pacific Railway Company's new lines 67 new towns have been opened during the last twelve months. The Canadian Northern Railway also has a lot of new mileage on which towns will shortly spring into being robust with the vitality native to the towns of the great central west. Thus it may be seen that in this province about 150 new trading centres are being formed, to which will gather business and professional men sufficient to supply the requirements of the different districts. All this suggests that there may be opportunities for business men of all kinds; and there are. For merchants, for carpenters and masons, for doctors, for druggists, for dentists, for veterinary surgeons, for lawyers, for school teachers, for tailors, for harness makers, and for blacksmiths, there are opportunities. Let it not be thought that settlement

will have to be encouraged before successful business can be undertaken. These districts were clamouring for railways before the construction work recently undertaken was begun. The colonisation work performed during the last few years was of such magnitude that the railways have ever since been unable to follow the settlers with the degree of promptness that was desired; and when they do push their way into a tract of land in which the neigh of the iron horse has not hitherto been heard, they find broad acres tilled and business to be cared for both in the import of commercial commodities and in the export of their agricultural products. The towns have only begun their usefulness. The country has only begun to be settled. As the population increases and the area of cultivated land becomes greater the produce to be handled will be greatly increased. More banks will be established and modern institutions will be found in places where but a few short years ago there was nothing but the broad expanse of prairie.

Railway construction has been so seldom undertaken by small companies that we have become accustomed to regard it as being the province of the larger railway companies to build branch lines wherever they may be required. No reason can be assigned for the absence of the small companies from the field of railway construction, unless it be the scarcity of capital and the many opportunities in other directions for the profitable investment of all the money that is available. Considerable sums of money have, however, been found to meet the demands of ordinary business; but these may have been so great that for other purposes sufficient funds were not always available, and so these enterprises may have been left to the larger companies, who have for so long had a monopoly of transportation matters in this country. Capital wisely invested in this way would yield a satisfactory dividend.

A great deal of material must be provided for the construction of the required buildings. Timber in plenty is found in Saskatchewan's forests; but lumber must be manufactured from the logs, and to do so requires capital. Many thousand square miles of good spruce timber are found in Saskatchewan's fertile northland. Millions of feet are cut annually; and soon the output will be doubled and trebled, and then again doubled and trebled. Good mills, well equipped with modern machinery, are found at Prince Albert and elsewhere; but before long others will be needed. The finished product, dressed lumber, must be made into sashes, doors, and frames. Twenty-four establishments are now engaged in this enterprise, some of them conducting work on a considerable scale; but the country is large enough for others.

Clays suitable for the manufacture of pottery, tiles, fire brick, etc., as well as the different grades of building brick are found in all parts of Saskatchewan. From the

extreme south to the farthest northern settlement is a good many miles; but in the north, south, east and west brick clay is found and bricks are being manufactured to meet the present requirements of the province. Millions are made now; but the demand is increasing rapidly. There are now about twenty-five establishments in which bricks are being manufactured from clay or cement. Capital will find opportunities along this line for a profitable investment. The manufacture of tile and of some grades of pottery will no doubt be undertaken in due time. At Roche Percee, a clay suitable for this purpose occurs; and in other places the necessary materials no doubt will be found. It is reported that a large company will operate at Yellow Grass in manufacturing tile and drain pipes from the clays that are found there in such great profusion.

As might be expected in a province whose agricultural resources show greater development than the other natural resources, the flour milling industry has received more attention than many others. There are at present thirty-four flour mills in Saskatchewan, with a total cap-

Part of a herd of 500 Herefords,—Boyd's Ranch Prince Albert.

acity of 3,700 barrels per day. The opportunities for the establishment of additional mills are not limited; and the industry will expand greatly in such a hard-wheat district as Saskatchewan.

Where cattle are kept, dairying should be a profitable branch of agriculture. There are in the province at present only seven creameries in operation. The supply of dairy and creamery butter has not been sufficient during recent years for local requirement. Nor is the supply of poultry adequate to supply the local markets. Large quantities are imported from the eastern provinces annually.

The manufacture of pulp is an industry for which abundant supplies of raw material occur in the northern part of the province within a convenient distance of railways. All paper used in the province must at present be imported. Capital should investigate this opportunity.

Every year large quantities of flax straw are destroyed in Saskatchewan. The fibre from this straw might be utilised in a number of ways,—in the manufacture of binder twine, for insulating walls in cold storage plants and in other kinds of buildings, or in the manufacture of upholstered furniture.

Coal mining is carried on principally in the southern part of the province. At other places,—Wood Mountain, Cypress Hills, and at different places in the districts intervening,—there are deposits of lignite that could be worked profitably if transportation facilities were available. The Canadian Pacific Railway Company is now planning the construction of a line of railway west from Weyburn to Lethbridge, which will traverse the districts mentioned and will simplify the question of transportation of fuel from that part of the province.

LAND VALUES.

An inquiry was instituted about a year ago by the department of agriculture for Saskatchewan concerning the values of farm lands, both improved and unimproved; and the results are given herewith, compiled according to the crop statistical districts, which are shown on the accompanying map. The figures were obtained from the councillors of the local improvement districts and may therefore be taken as authoritative. It is true that prices may have been advanced since that date; but it will no doubt be found that a considerable part of the land that is for sale in the several districts may be purchased for very little more than the price named herein. The accompanying figures do not fully indicate the range of values. Both the highest and the lowest prices for land, whether improved or unimproved, are average prices; and the figures comprised in these averages contain prices both higher and lower than the average. For instance, the lowest price given for improved lands in crop district No. 5 is $22.20 per acre, and the highest $41.00 per acre. It will be found that the lowest price in some townships in that crop district is about $15.00, and the highest about $50.00, although the average of the figures given to the department indicates that good improved lands may be bought in that vicinity for from $22.50 to $41.00 per acre. The same explanation applies to the land values given for the other crop districts.

A comparison of the prices appended hereto with those asked by the Canadian Pacific Railway Company for their lands will show that the prices given in the statement are not very different from the company's figures for unimproved land. In all parts of Saskatchewan where the company owns land, except along their main line in the south-western corner, the range of prices is from $10.00 to $25.00 per acre. In that vicinity, the price is about $8.00 per acre.

The following statement shows approximately the value per acre of both improved and unimproved farm land in the several crop statistical divisions in the province:

Crop district	Improved lands		Unimproved land	
	From	To	From	To
No. 1	$17.90	$23.55	$12.00	$15.75
2	20.90	26.00	14.25	19.35
3	16.30	22.20	10.00	13.30
4	21.65	29.15	12.55	16.55
5	22.20	41.00	13.25	16.90
6	10.50	22.60	11.20	15.00
7	19.25	13.85	8.20	14.65
8	18.00	30.00	10.00	21.00
9	14.55	17.75	10.00	12.60
10	17.00	23.85	11.40	15.00
11	16.70	22.15	11.80	15.60
12	21.35	28.25	13.10	16.00
13	17.60	22.00	11.80	17.00
14	13.60	21.90	9.75	14.20
15	10.80	17.00	7.65	8.00
16	13.80	20.40	9.75	14.65
17	14.95	20.00	11.45	13.80
18	15.60	21.00	8.40	18.00
19	18.00	-----	14.00	-----
21	11.65	18.75	9.45	12.40

The value of farm property has increased very rapidly since 1902. The remarkable crops of the last seven years and the impetus given thereby to immigration have been the prime factors in promoting an upward trend of values. But no one will admit that the prices asked at present for good agricultural land are too high. In fact those who are competent to judge of land values say that the crops produced on the cultivated lands of Western Canada will make farming on land at $100.00 per acre a profitable undertaking. Thus it will be seen that the value attached to property here at present is remarkably low considering the productive capacity of our soil. In 1901, the department of agriculture for the North-West Territories published a pamphlet in which it was stated that lands were for sale by the different railway companies at prices from $3.00 to $4.00 per acre. It is not improbable that prices in 1915 will be advanced as much beyond present values as the prices at present quoted are in excess of the figures of seven years ago.

There are many land companies at present engaged in the sale of farm lands in the West; and it is not difficult

for the would-be purchaser to find one willing to sell to him. To the person desirous of investing we would say, investigate thoroughly before you buy. There is so much good land for sale, and so many good companies through whom to do business that there is no necessity for any person being duped in a transaction of this nature. The land departments of the different railway companies that have lands for sale will be pleased to supply prices and terms to prospective purchasers.

FARM LAND, AND HOW TO GET IT.

All lands in Saskatchewan belonged originally to the Crown. The policy of settling the lands by granting them to actual settlers in lots of 160 acres to each person entitled to obtain homestead entry was adopted many years ago. The homesteader of course is required to fulfil certain conditions required by the homestead law, which are referred to on another page.

Starting for the homestead.

When railway construction through the North-West Territories was undertaken, a large grant of land amounting to twenty-five million acres was made by the Dominion Government to the Canadian Pacific Railway Company. From time to time the government assisted other railway companies by granting land subsidies to them as the country through which their lines were projected was at that time unable to afford any immediate revenue to the transportation companies. In that way a very considerable portion of the agricultural land in Saskatchewan passed into the hands of the railway companies, principally the Canadian Pacific Railway Company and the Canadian Northern Railway Company. The Hudson's Bay Co. received one-twentieth of all the land south of the North Saskatchewan river when in 1868 they transferred their interest in the Canadian North-West to the Dominion Government. Their land consists of section 8 and three-quarters of section 26 in

each township. Other companies have valuable land holdings and are disposing of them rapidly.

At present in Saskatchewan several millions of acres have been taken up as homesteads. The title for other millions has passed from the railway companies to actual settlers; but there still remain millions of acres of Crown lands available as homesteads. All even numbered sections of surveyed Dominion lands, not reserved, being agricultural land, and unoccupied, are open for homestead entry.

SUMMARY OF LATEST HOMESTEAD REGULATIONS.

Every person, the sole head of a family, and every male person that has attained the age of eighteen years, is entitled to obtain entry for a homestead to the extent of one quarter section, on payment of an entry fee of ten dollars.

Application for homestead entry must be made in person by the applicant at a Dominion Lands agency or subagency. Entry by proxy may, however, be made at any agency on certain conditions by the father, mother, son, daughter, brother, or sister of an intending homesteader.

An application for entry or cancellation made personally at any subagent's office may be wired to the agent by the subagent, at the expense of the applicant, and if the land applied for is vacant on receipt of the telegram such application is to have priority, and the land will be held until the necessary papers to complete the transaction are received by mail.

In case of "personation" or fraud the applicant will forfeit all priority of claim, or if entry has been granted it will be summarily cancelled.

An application for cancellation must be made in person. The applicant must be eligible for homestead entry; and only one application for cancellation will be received from an individual until that application has been disposed of. Application for cancellation must state in what particulars the homesteader is in default.

Where an entry is cancelled subsequent to institution of cancellation proceedings, the applicant for cancellation will be entitled to prior right of entry.

A homesteader whose entry is not the subject of cancellation proceedings may, subject to the approval of the department, relinquish it in favour of father, mother, son, daughter, brother or sister if eligible, but, to no one else, on filing the declaration of abandonment.

HOMESTEAD DUTIES.

A settler is required to perform the duties under one of the following plans:

(1) At least six months' residence upon and cultivation of the land in each year during the term of three years.

(2) A homesteader may, if he so desires, perform the required residence duties by living on farming land owned solely by him, not less than eighty (80) acres in extent, in the vicinity of his homestead. Joint ownership in land will not meet this requirement.

(3) If the father (or mother, if the father is deceased) of a homesteader has permanent residence on farming land owned solely by him, not less than eighty (80) acres in extent, in the vicinity of the homestead, or upon a homestead entered for by him in the vicinity, such homesteader may perform his own residence duties by living with the father (or mother).

(4) The term "vicinity" in the two preceding paragraphs is defined as meaning not more than nine miles in a direct line, exclusive of the width of the road allowances crossed in the measurement.

(5) A homesteader intending to perform his residence duties in accordance with the above while living with parents or on farming land owned by himself must notify the agent for the district of such intention.

Before making application for patent the settler must give six months notice in writing to the Commissioner of Dominion Lands at Ottawa, of his intention to do so.

SYNOPSIS OF REGULATIONS CONCERNING MINERAL LANDS.

Coal—Coal mining rights which are the property of the Crown may be leased for a term of 21 years, at an annual rental of $1.00 an acre. Not more than 2,560 acres shall be leased to one applicant, which in surveyed territory must be contiguous and must be described by section, township, and range, and in unsurveyed territory must be staked out

All applications should be submitted to the agent of Dominion lands for the district in which the rights applied for are situated, and should be accompanied by a fee of $5.00 in each case. The lease shall include the coal mining rights only, but the lessee may be permitted to purchase a certain area of surface at $10.00 an acre. A royalty at the rate of five cents per ton shall be collected on the merchantable coal mined.

Permits to mine coal for domestic purposes may be issued on application to the agent of Dominion lands for the district in which the lands are situated for an area not exceeding three acres which area must previously have been staked out by planting a post at each corner. The frontage must not exceed three chains or the length ten chains. Rental $5.00 an acre per annum, and royalty 15 cents per ton for bituminous coal and 10 cents for lignite coal. Sworn returns of the quantity mined under a permit to be made monthly. No rental to be charged if the permittee is the owner of the surface.

Quartz—Any person eighteen years of age or over, having discovered mineral in place, may locate a claim 1,500x1,500 feet. The fee for recording a claim is $5.00.

At least $100 must be expended on the claim each year or paid to the mining recorder in lieu thereof. When $500 has been expended or paid, the locator may, upon having a survey made, and upon complying with other requirements, purchase the land at $1 per acre.

The patent provides for the payment of a royalty of 2½ per cent. on the sales.

Placer mining claims generally are 100 feet square; entry fee $5, renewable yearly .

An applicant may obtain two leases to dredge for gold of five miles each for a term of twenty years, renewable at the discretion of the minister of the interior.

The lessee shall have a dredge in operation within one season from the date of the lease for each five miles Rental $10 per annum for each mile of river leased. Royalty at the rate of 2½ per cent collected on the output after it exceeds $10,000.

INFORMATION FOR SETTLERS.

Newly arrived immigrants will receive at any Dominion lands office in Saskatchewan information as to the lands that are open for entry in that district, and from the officers in charge, free of expense, advice and assistance in securing lands to suit them. Full information respecting the land, timber, coal and mineral laws may be obtained on application to the Superintendent of Immigration, Department of the Interior, Ottawa; the Commissioner of Immigration, Winnipeg, Manitoba; the

Deputy Commissioner of Agriculture, Regina, Saskatchewan. The Dominion lands agents can furnish information only regarding land in their respective districts.

For disposal of the public lands by free-grant the Dominion has established the following agencies, at which all the business in relation to lands within the district of each must be transacted:

District	Agent	Address
Battleford	L. P. O. Noel	Battleford
Estevan	R. C. Kisbey	Estevan
Humboldt	George L. Dempster	Humboldt
Moose Jaw	John Rutherford	Moose Jaw
Prince Albert	R. S. Cook	Prince Albert
Regina	L. Rankin	Regina
Yorkton	James Peaker	Yorkton

The lands comprised in these districts are as follows, (figures are inclusive):

Battleford District.—Townships north of and including townships 31 ranges 11 to 29 west of the third meridian.

Estevan District.—Townships 1 to 9 ranges 1 to 18 west of the second meridian.

Humboldt District.—Townships 24 to 42 ranges 13 to 20; townships 30 to 42 ranges 21 to 29, all west of the second meridian; townships 30 to 42 range 1 west of the third meridian.

Moose Jaw District.—Townships 1 to 14 range 19, 20, 21; townships 1 to 16 ranges 22 and 23; townships 1 to 18 ranges 24 and 25; townships 1 to 19 range 26; townships 1 to 20 range 27; townships 1 to 21 ranges 28, 29 and 30, all west of the second meridian; townships 1 to 22 ranges 1 and 2; townships 1 to 25 ranges 3 to 7; townships 1 to 30 ranges 8 to 30, all west of the third meridian.

Prince Albert District.—Townships north of and including township 39 ranges 1 to 12; townships north of and including township 43 ranges 13 to 28, all west of the second meridian; townships north of and including township 43 range 1; townships north of and including township 39 ranges 2 to 10, all west of the third meridian.

Regina District.—Townships 10 to 18 ranges 1 to 6; townships 10 to 21 ranges 7 to 9; townships 10 to 23 ranges 10 to 18; townships 15 to 23 ranges 19 and 20; townships 15 to 29 range 21; townships 17 to 29 ranges 22 and 23; townships 19 to 29 ranges 24 and 25; townships 20 to 29 range 26; townships 21 to 29 range 27; townships 22 to 29 ranges 28 and 29, all west of the second meridian; townships 23 to 29 range 1; townships 23 to 38 range 2; townships 26 to 38 ranges 3 to 7;

townships 31 to 38 ranges 8 to 10, all west of the third meridian.

Yorkton District.—Townships 17 to 38 inclusive ranges 30 to 34, all west of the first meridian; townships 19 to 38 inclusive ranges 1 to 6; townships 22 to 38 inclusive ranges 7 to 9; townships 24 to 38 inclusive ranges 10 to 12, all west of the second meridian.

CUSTOMS REGULATIONS RELATING TO SETTLERS' EFFECTS.

The following is an extract from the Canadian Customs tariff specifying what articles may be admitted free of duty as settlers' effects:

Settlers' effects, viz:—Wearing apparel, books, usual and reasonable household furniture and other household effects; instruments and tools of trade, occupation, or employment; guns, musical instruments, domestic sewing machines, typewriters, bicycles, carts, wagons, and other highway vehicles, agricultural implements and live stock for the farm, not to include live stock or articles for sale, or for use as a contractor's outfit, nor vehicles nor implements moved by mechanical power, nor machinery for use in any manufacturing establishment; all the foregoing if actually owned abroad by the settler for at least six months before his removal to Canada and subject to regulations by the Minister of Customs; Provided that any dutiable articles entered as settlers' effects may not be so entered unless brought by the settler on his first arrival, and shall not be sold or otherwise disposed of without payment of duty until after twelve months' actual use in Canada.

Settlers arriving from the United States are allowed to enter duty free stock in the following proportions: One animal of neat stock or horse, for each ten acres of land purchased or otherwise secured under homestead entry, up to 160 acres, or on sheep for each acre so secured.

The settler will be required to fill up a form (which will be supplied him by the customs officer on application) giving description, value, etc., of the goods and articles he wishes to be allowed to bring in free of duty. He will also be required to take the following oath:

I, ...; do hereby solemnly make oath and say that all the goods and articles hereinbefore mentioned are, to the best of my knowledge and belief, entitled to free entry as settlers' effects, under the tariff of duties of Customs now in force, and that all of them have been actually owned by myself for at least six months before my removal to Canada; and that none of the goods or articles shown in this entry have been imported as merchandise or for use in any manufacturig establishment, or as a contractor's outfit, or for sale, and that I intend becoming a permanent settler within the Dominion of Canada, and that the "Live Stock" enumerated and described in the entry hereunto attached is intended for my own use on the farm which I am about to occupy (or cultivate), and not for sale or speculative purposes, nor for the use of any other person or persons.

ANIMAL QUARANTINE.

All animals imported into the Dominion of Canada from the United States must be accompanied by a statutory declaration or affidavit made by the owner or importer stating clearly the purpose for which said animals are imported, viz.: Whether for breeding purposes, for milk production, for work, for grazing, feeding, or slaughter, or whether they form part

of settlers' effects, or whether they are entered for temporary stay, as provided by these regulations.

Said declaration or affidavit must be presented to the Collector of Customs at the port of entry, who will decide whether the animals are entitled to entry under these regulations, and who will notify the Veterinary Inspector of the Department of Agriculture in all cases where the regulations require an inspection to be made.

Horses, mules, or asses forming part of settlers' effects shall be inspected and should be accompanied by:

(a) A satisfactory certificate of mallein test dated not more than thirty days prior to the date of entry, and signed by an inspector of the United States Bureau of Animal Industry; or

(b) A similar certificate from a reputable veterinarian provided such certificate is indorsed by an inspector of the said Bureau of Animal Industry ;or,

(c) A similar certificate from an inspector of the Canadian Department of Agriculture .

If not so accompanied, such horses, mules, or asses may be submitted to the mallein test by an inspector of the Canadian Department of Agriculture at any time after their arrival in Canada. If found to react within a period of six months of date of entry they will be destroyed without compensation .

If on inspection at the boundary, glanders is found in any consignment, all animals comprising it shall be returned to the United States, but nonreactors may be again presented for entry and further test after the lapse of a period of not less than fifteen days from the date of the first test, provided that satisfactory evidence is produced to the effect that they have not, during the said period, been in contact with affected animals.

Horses, mules, and asses found to be, or suspected of being affected with any contagious disease may be returned to the United States or otherwise dealt with as the Veterinary Director General may order.

NOTE.—Settlers should load their effects in such a way as will permit the removal of their horses from the car at any time while in transit in order that any animals that react may be returned to the point of shipment. If they should be brought into Canada and upon being subjected to the mallein test within six months of their arrival are found to react they must be destroyed, and no compensation will be allowed for animals so destroyed.

All cattle shall be inspected, and if so ordered by the Minister, may be detained, isolated, submitted to the tuberculin test, dipped, or otherwise treated, or, in default of such order, where the inspector has reason to believe or suspect that animals are affected with or have been exposed to contagious or infectious disease.

Cattle found to be diseased or suspected of being diseased may be returned to the United States or otherwise dealt with as the Veterinary Director General may order.

Cattle for breeding purposes and milk production six months old or over, if unaccompanied by a satisfactory tuberculin test chart signed by a veterinarian of the United States Bureau of Animal Industry, must be detained in quarantine for one week or such further period as may be deemed necessary and subjected to the tuberculin test; cattle reacting thereto must be returned to the United States or salughtered without compensation.

Importers may be required to furnish a statutory declaration that the chart produced applies to the cattle it purports to describe and no other.

All swine must be accompanied by a certificate signed by a veterinarian of the United States Bureau of Animal Industry stating that neither swine plague or hog cholera has existed within a radius of five miles of the premises in which they have been kept for a period of six months immediately preceding the date of shipment, but such swine shall nevertheless be inspected, and shall be subjected to a quarantine of

thirty days before being allowed to come in contact with Canadian animals.

Swine found to be suffering from contagious disease may be slaughtered without compensation, returned to the United States, or otherwise dealt with as the Veterinary Director General may order.

All sheep and goats shall be inspected, and, if so ordered by the Minister, may be detained, isolated, dipped, or otherwise treated, or, in default of such order, where the inspector has reason to believe or suspect that the animals are affected with or have been exposed to contagious or infectious disease.

Sheep or goats found to be diseased or suspected of being diseased may be returned to the United States or otherwise dealt with as the Veterinary Director General may order.

FREIGHT REGULATIONS RESPECTING SETTLERS' EFFECTS.

1. **Carloads** of settlers' effects, within the meaning of the settlers' tariff, may be made up of the following described property for the benefit of the actual settlers, viz: Live stock, any number up to but not exceeding ten (10) head, all told, viz: Cattle, calves, sheep, hogs, mules or horses; household goods and personal property **(second hand)**; wagons or other vehicles for personal use **(second-hand)**; farm machinery, implements and tools **(all second-hand)**; softwood lumber (pine, hemlock or spruce only), and shingles, which must not exceed 2,000 feet in all, or the equivalent thereof; or in lieu of, not in addition to the lumber and shingles, a portable house may be shipped; seed grain; small quantity of trees or shrubbery; small lot live poultry or pet animals, and sufficient feed for the live stock while on the journey. Settlers' effects rates, however, will not apply on shipments of second-hand wagons, buggies, farm machinery, implements or tools, unless accompanied by household goods; and will not apply on automobiles, hearses, omnibuses, or similar articles, under any circumstances.

2. **Merchandise,** such as groceries, provisions, hardware, etc., if new, will not be regarded as settlers' effects, and, if shipped, must be charged the regular classified tariff rates. Agents both at loading and delivering stations must personally satisfy themselves that contraband articles are not loaded, and see that actual weight is charged when carloads exceed 24,000 pounds.

3. **Top loads will not be permitted.**—Agents must see that nothing is loaded on top of box or stock cars. This manner of loading is dangerous and is absolutely forbidden.

4. **Passes.**—One man will be passed free in charge of full carloads of settlers' effects when containing live stock, to feed, water, and care for them in transit. Agents must fill out the usual live stock form of contract.

5. **Settlers' effects,** to be entitled to carload rates, must consist of a carload from one point of shipment to one point of destination. Carload shipments will not be stopped in transit for completion or partial unloading.

6. **The minimum carload weight** of 24,000 pounds is applicable only to cars not exceeding 36 feet in length; larger cars must not be used for this business. If the actual weight of the carload exceeds 24,000 pounds the additional weight will be charged for at carload rate.

7. **The minimum charge** for less than carload shipments will be 100 pounds at regular first-class rates.

8. **Should a settler wish to ship more than ten head** of live stock as per clause 1, agent will apply to his general freight agent for rate.

9. **Less than carload shipments** will be understood to mean only household goods (**second-hand**), wagons, or other vehicles for personal use (**second-hand**), and second-hand farm machinery, implements and tools. Settlers' effects rates, however, will not apply on shipments of second-hand wagons, buggies, farm machinery, implements or tools, unless accompanied by household goods. Less than carload lots must be plainly addressed.

10. **Car Rental and Storage of Freight in Cars.**— Under this tariff, when freight is to be loaded by consignor, or unloaded by consignee, one dollar ($1.00) per car per day or fraction thereof, for delay beyond forty-eight hours in loading or unloading, will be added to the rates named herein, and constitute a part of the total charges to be collected by the carriers on the property.

Consignees are allowed twenty-four hours after notice of arrival of shipments in which to give orders for placing or delivery of cars before the forty-eight hours free time mentioned herein begins.

A WORD IN CONCLUSION.

The department of agriculture maintains an office for the purpose of issuing free information to any person desiring to obtain a better knowledge of Saskatchewan. The latest crop bulletins and statistical reports will be sent to any person inquiring for them. Maps of the province will also be distributed upon request. If the reader, or his friends, desires to increase his knowledge of any subject pertaining to the growth, development, resources, and possibilities of Saskatchewan, the department will be only too pleased to provide the desired information.

Address all inquiries to —

Bureau of Information and Statistics,
Department of Agriculture,
Regina, Saskatchewan.