

SEVENTH REPORT

—OF THE—

DEPARTMENT OF AGRICULTURE

—OF THE PROVINCE OF—

BRITISH COLUMBIA.

1902.



THE GOVERNMENT OF
THE PROVINCE OF BRITISH COLUMBIA

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*The Hon. R. G. Taitton,
Minister of Agriculture,
Victoria, B. C.*

SIR,—I have the honour to present the Seventh Report of the Department of Agriculture. Since the issue of my last report, agricultural and horticultural products and prices have been most satisfactory, the area under cultivation being greatly extended, with a consequent increase in production.

CEREALS.

Wheat in the Okanagan gave large returns, but the production of this cereal is discouraged in most sections, as the land is susceptible of being put to more profitable uses. Oats are being produced in increased quantities, and are probably the most remunerative of all cereal crops; the yield is large and the quality of the grain unsurpassed in excellence. Barley is being produced for feeding purposes alone; the coarser, heavy-bearing varieties are mostly cultivated. The varieties suitable for malting are not produced to any extent, as there is no demand for barley for such a purpose. Of late some inquiries have been made as to the production of malting barley, and if sufficient inducements are offered we may look for an increase of this cereal in the near future. I may add that the quality of our barley for malting purposes has been pronounced by experts to be of the very best. Rye is grown principally to be cut green for hay in the dry regions of the Upper Mainland, where little or no water for irrigation is available; but little is grown for the grain.

LEGUMES.

Peas are produced in considerable quantities on the Islands, the Upper Mainland and the higher parts of the Lower Mainland, principally for fattening pigs. The low lands of the Lower Fraser are unsuitable for peas. Beans are only grown in considerable quantities in the valleys of the Fraser and Thompson, in the vicinity of Lytton, Ashcroft, Spence's Bridge and Savona; the soil and climate in that region are particularly well adapted for the cultivation of beans.

ROOTS.

Potatoes have been a profitable crop and gave good returns; those produced in the neighbourhood of Ashcroft deservedly hold a high place in the public estimation. The quality of the potatoes in the Upper Country and the high parts in the Islands is, beyond all, excellent. They should not be grown on any low, dyked lands; such lands can be put to better use. Swedish turnips were again very badly infected with the turnip aphid in most parts of the country; other turnips escaped infection. Other root crops, including sugar beets, are grown

indignant protests, especially as it is realised that the change is made in consequence of matters in connection with the Government creameries in the North-West Territories. This nursing of the North-West Territories has always been a sore subject with our farmers, and the feeling is now aggravated. I am, however, doing my best to allay the feeling of irritation by pointing out your intention of carrying out your promised programme later on, and that you are sending out two lecturers later on. I feel, however, that I have uphill work to satisfy our people, as I had previously promised in most positive terms that there would be no doubt as to the carrying out of your programme in March and April."

In September, another set of classes was arranged; commencing in Victoria on the 23rd, and ending at Enderby on the 2nd November. From five to ten-day classes were held at Victoria, Courtenay, New Westminster and Enderby; and the number of students were 15, 27, 21 and 23, respectively; in all, 96. Mr. J. E. Hopkins, the superintendent in charge, in his report remarks:--

"I also visited four creameries in British Columbia--Victoria, Courtenay, New Westminster and Ladner; also judged the dairy products at the Provincial Exhibition at Victoria and the district show at Saanich. There seems to be a new era in dairying in B. C., as well as agriculture generally; and, from the interest I saw manifested, I gather that the day is not far distant when dairying will be carried on more largely than it is at present."

HORNED CATTLE.

Horned cattle, until the late cold snap of last winter, have fared exceedingly well. The importance of pure bred sires is being recognised in a much greater degree than ever before; and, consequently, numbers of pure-bred animals have of late been imported through the Dairyman's and Live Stock Association and the Dominion Live Stock Association. Adequate protection by Legislative enactment of the interests of those who, recognising the importance of it, go to the expense of importing pure-bred bulls, is urgently demanded, and I trust it will be taken up in the near future. I refer to this matter further on.

HORSES.

Horses have been much more profitable of late; especially good heavy horses for draught purposes. During the Boer war, horses for military purposes were in demand, and probably this demand will continue in a less extent. A considerable number are bred on the ranges of the Upper Country, and horses of a lighter type, hackneys and racing stock, at points on the Fraser and in the vicinity of Victoria.

SHEEP.

Sheep are not produced in any great numbers. There are several reasons for this. The cattle men of the Upper Country object to sheep being depastured on the ranges, and, under an Act, they have the right of excluding them. Then the coyotes are so bad that the profit is at the vanishing point when small flocks are kept in that part. The Lower Mainland is not suitable for sheep-raising on a large scale; the Gulf Islands are suitable, but the area is circumscribed. Some are produced on Vancouver Island, where the conditions are favourable as regards pasture; but here again predatory animals are bad--the panther or cougar being specially mischievous.

SWINE.

The raising of swine is nowhere entered into as the case seems to warrant. By the last available statistics, there were imported into the Province of the pig and his products over a million of dollars worth. With a market at our doors, therefore, and the facilities afforded by the climate and feeding, it is inexplicable why the industry is not prosecuted to its fullest extent. I believe that at Grand Prairie and Kelowna only can the raising of pigs be said to be carried on to any extent and with any degree of system.

ANGORA GOATS.

Angora goats, found so profitable in the neighbouring States for their use in clearing bush lands, are being bred in increased numbers in the Province. For some unaccountable reason these useful animals were not included in the free list of animals imported for breeding purposes. I called the attention of the Ministers when in Ottawa to this singular omission, and the promise has been made that it will be remedied at the first opportunity. Inasmuch as none are bred in any other part of Canada all animals for breeding purposes have to be imported from the United States.

EXPERIMENTAL STATION. I am strongly of the opinion that an Experimental Farm established in the Dry Belt would be of incalculable benefit, and advantageous to the interior of this Province. The Dominion Experimental Farm at Agassiz is doing excellent work, but it must be remembered that both the soil and conditions there are entirely dissimilar to that of the interior, that being in the wet section, where crops are grown without irrigation, while in the interior irrigation is needed. Therefore, I think an Experimental Farm somewhere in the Dry Belt would be of great benefit in disseminating agricultural information. I think the results would amply justify the expenditure.

FARMERS' INSTITUTES.—The Farmers' Institute is doing good work here. We have one in this district, and those connected with it are pleased with the work it is doing. It is a medium through which much knowledge flows to the farmer, on matters directly affecting his interests, which would otherwise have been overlooked.

IRRIGATION.—Confining myself to the Louis Creek section, irrigation is carried on to some extent, but in many years crops are raised without irrigation. Nearly all the occupied land has sufficient water for present use.

TIMBER.—The principal trees in this section are fir, bull pine, jack pine, birch, cottonwood, poplar, willow, spruce, cedar, hemlock and balsam. These are found on both wet, dry, high and low land.

FOREST FIRES. The best means for preventing forest fires is in the appointment of forest-fire rangers, whose duty it would be to protect the forest from fire, by prosecuting offenders, as forest fires are most generally caused by carelessness, sometimes by Indians, and again by prospectors. The "Bush Fire Act," without someone to enforce its provisions, like the "Game Protection Act," is all waste paper, so far as its effectiveness is concerned.

LAND.—There is over 50,000 acres of excellent arable land that are available for pre-emption in this section. It is outside of the Railroad Belt, and is all good bottom land on both sides of the North Thompson River, lightly timbered with some fir, poplar, cottonwood, willows and such like, extending for eighty miles up the river.

LABOUR.—Labourers can be obtained: Whites, from \$25 to \$35; Chinese, \$25 per month; and Indians \$1.50 per day.

Nicola,

In which is included Upper, Central and Lower Nicola, is a fine pastoral country, with extensive valleys of good land for general agriculture. A waggon road, some 110 miles in length, having its termini at Spence's Bridge and Kamloops, gives access to the Canadian Pacific Railway. The Douglas Lake Cattle Company and the British Columbia Cattle Company have extensive cattle ranges in this section, where a large number of beef cattle are produced for the coast markets. General crops of grain, grasses and roots are successfully produced with irrigation, the soil being very productive, and available water is to be had in most parts. Large fruits are not generally successful, but are produced in some favoured spots, such as Quilchena, on Nicola Lake. The altitude of the lake is variously given at from 1,920 to 2,120 feet, that of Spence's Bridge being 996 feet, and of Kamloops, 1,193 feet.

Highest temperature at Nicola Lake in 1902	87.5°	in August.
Lowest	-15.5°	in February.
Average	42.2°	
Rainfall,	8.73	inches.
Snowfall,	46.5	inches.
Latitude, 50.9° N.; Longitude, 120.9° W.		

Public schools are situated at Nicola and Lower Nicola.

The ground intended to be covered by this chapter extends from Campbell Creek to Lower Nicola, including Douglas lake, Mamnette Lake and the Triangle Ranch on Hamilton Creek. A look at the map will give the reader an idea of the extent of this territory. The direct road from Kamloops leads over the high lands immediately to the south, and descends into the valley formed by Campbell and other creeks at a point some 10 miles from Kamloops, where it joins the mail road, which follows the valley, increasing the distance by some 12 miles. On the high lands spoken of, there are a few farms where water can be obtained; much of the

water, however, is highly impregnated with alkali and unfit for consumption, so that comparatively only a small proportion of the land is utilised for agricultural purposes, the majority being given over for range purposes. Along the valley followed by the mail road there are many good farms, where all ordinary crops are successfully grown; water is also in abundance for all purposes. Douglas Lake is considerably higher than Nicola Lake, and, therefore, the principal industry in that section is the rearing of beef cattle and horses. The same may be said of Hamilton Creek and Mammette Lake. In the lower parts about Stump Lake and Nicola Lake and River, grain and root crops are produced. Fruit does well in most places, but it is not cultivated to any extent. The shooting and fishing all through this section is excellent, the lakes and ponds abounding in wild fowl and the streams with trout. The scenery is indescribably beautiful in the vicinity of Nicola Lake. The Messrs. Moore's farms, at the head of that sheet of water, are situated most charmingly in a flat, which resembles a park, being lightly wooded with the tropical-looking yellow pine (*Pinus ponderosa*) and belts of deciduous trees fringing the streams and lake shores. Quilchena is situated about half-way down the lake. Here Mr. O'Rourke has quite a large flock of sheep and raises some fine fruit and vegetables, as well as carrying on a first-class stopping house and general farming.

REPORT OF MR. JOHN CLAPPERTON, CORRESPONDENT, NICOLA.

GENERAL DESCRIPTION.—In the Nicola Division of Yale District all Crown lands suitable for agricultural purposes have long ago been taken up, and now there is very little mountain pasturage that is not owned by stock-raisers.

NUMBER OF RANCHERS.—The tax-roll for 1902 counts 161 settlers.

AREA OF CULTIVATED LAND.—About 1,000 acres under cultivation; some 7,000 are irrigated and treated as meadows bearing artificial grasses.

WHEAT.—Hardly any grown; nearly all flour used in this section is imported. Very little more spring wheat is grown than poultry consumes. Ruling prices during the year 1902, \$1.50 per 100 lbs.

OATS.—The harvesting weather was all that could be wished for. Few people raise more oats than supply their own wants. Ruling prices, \$1.25 to \$1.50 per 100 lbs.

BARLEY.—Very little barley grown.

RYE.—Only grown in late and high locations to be cut for hay.

PEAS.—Acreage very limited; only grown for pig feed.

BEANS.—No field beans grown that I know of.

POTATOES.—Potatoes only grown for home use. Yield large where land and cultivation is right. Ruling prices, $\frac{3}{4}$ to 1c. per lb.

MANGOLDS.—Very few grown.

CARROTS.—Cultivation very limited; only a few people grow them for horse feed.

TURNIPS.—Acreage very limited; very few grow any for stock feeding.

OTHER ROOTS AND VEGETABLES.—Grown on every farm to supply house wants; all roots such as onions, beets, parsnips and cabbages do very well.

GRASSES AND CLOVERS.—English Red Clover, Alsike, Sainfoin, Timothy, Orchard, Perennial Rye, Kentucky Blue and Red Top are principal grasses grown.

NATIVE GRASSES.—On dry soils the bunch-grass is the chief fodder plant. Have seen *Bromus inermis* in swampy land. I know it is indigenous in moist places. I consider it a coarse grass and prefer the tall alkali grass, when cut before ripening. (The correspondent is in error regarding *Bromus inermis*. It is not a native grass; moreover, it does not grow in swampy land.—J. R. A.)

INDIAN CORN.—Not grown in any quantity.

ENSILAGE.—Ensilage has, I believe, been tried by one farmer at Lower Nicola, and results to him were satisfactory.

APPLES.—Nearly everyone grows apples enough for own use. Cannot tell best varieties. Know very little about fruit culture.

PLUMS, PRUNES AND CHERRIES.—These appear to do very well but I am not certain.

SMALL FRUITS.—As far as I know, all kinds, save gooseberries of the large varieties, do very well.

DAIRYING.—No dairying worth enumerating; most people buy their butter.

FEEDING.—So far, but one system of winter feeding range or breeding stock has been followed, viz.: feeding out the hay on the top of the snow in some field close to water and

shelter of sheds. Last winter the writer had some 20 pole cribs built, from which 200 or 250 head of cattle could feed. The idea was to keep hay clean and from being trampled under foot. The cribs unquestionably keep the food clean, especially in soft weather; but in hard, cold weather I prefer the old way of feeding on the ground, as the stock don't crowd each other, as they do round cribs.

SUMMER FEED FOR DAIRY CATTLE.—Only the second crop or aftermath of meadows sown down with clover and grasses.

HORNED CATTLE.—The stock-breeding and feeding in this section is fairly remunerative to those engaged in the business. I think sheep-raising quite as paying as cattle, if you have a run to suit them, and can keep from 2,000 to 3,000 in a flock, as less will not pay to herd properly. Shorthorn, Hereford and Polled Angus are the chief kinds of cattle raised in this section. Ruling prices, 3c. for cows; 3½c. per lb., live weight, for steers.

HORSES.—The horse industry has been fairly profitable during the year. Good horses, of their respective classes, brought fair prices, and demand fully up to supply. The general purpose horse is to me a nondescript. I believe in breeding draught horses from Clyde, Percheron or Suffolk stock, and light horses for saddle, etc., from thoroughbred stallions; carriage horses from Cleveland or hackneys. Ruling prices for good draught horses, from \$100 to \$150 and \$175 each.

SHEEP.—Sheep are not kept in large flocks.

SWINE.—Few pigs are kept. Keep enough for home use.

POULTRY.—Cost of transportation and distance to where eggs or poultry could be sold for cash forbids many going into the business extensively. All settlers keep enough fowls to supply home wants.

AGRICULTURAL EDUCATION.—Agricultural instruction is all right to any pupil who desires it, and should say that in our large schools in Coast cities a qualified agriculturist should form one of the teaching staff.

FARMERS' INSTITUTES.—In my opinion the Institute system should be encouraged.

SOILS.—Analysis of soils is all right. When extensive continuous cultivation is followed in this division pastoral pursuits are predominant.

IRRIGATION.—In this section of the Dry Belt it is "no water, no ranch." The husbanding of water in early summer will have to be resorted to. In every district requiring artificial irrigation the Government should appoint a Water Commissioner, who would oversee all existing water rights, settle disputes, prevent waste in ditches, etc., etc.

WEEDS.—The Canadian thistle is very much in evidence, and is increasing all over. With much cultivation, its presence would be severely felt, but as we are nearly all graziers, its presence on some ranches is got over.

NOXIOUS ANIMALS AND PESTS.—I consider the bounty quite enough.

FOREST FIRES.—This last summer we, fortunately, escaped forest fires.

LANDS.—All Crown lands are occupied.

LABOUR.—There are none too many labourers. Whites, \$1.25 to \$1.75 per day, and board; Chinese and Japanese, \$1 per day; Indians, \$1.25 and \$1.50. In the hay and harvest season it is very difficult to get good farm hands. Novices are really of little use in hay or harvest fields.

The town of Nicola, where there are stores, a good hotel, Government Office, the usual trades, and a number of private residences at the lower end of the lake, is most beautifully situated near the river, amidst scattered yellow pines. Mr. John Clapperton, the hospitable correspondent of this Department, has a fine ranch at this point. He goes in quite extensively for cattle and horse-raising, and, to his credit be it said, he has only thoroughbred sires, the effect of which is very apparent in the excellence of his stock. Some sheep are reared, but the presence of the coyote is a serious drawback to the successful prosecution of the industry. The following report of Mr. H. S. Cleasby, correspondent, Lower Nicola, is reproduced:—

This district forms part of the well-known Nicola Valley, being, in fact, the lower end of that fertile trough in British Columbia's sea of mountains. The valley, as a rule, is not more than three-quarters of a mile wide, through which the Nicola River meanders with many a turn and twist. In what is locally known as the Forks, being the land at the junction of the Nicola and Coldwater Rivers, is a triangle of level land, containing about 1,000 acres of very fertile land. The alluvial soil along the banks of the rivers, originally covered with a heavy

growth of poplars, willows and alders, is, when cleared, very productive, producing immense crops of hay and grain. The bench lands, when sufficient water can be procured, are capable of growing almost anything which can be produced in the temperate zone. The principal industry is cattle-raising. Some cattle are winter-fed for the spring market, affording an outlet for surplus hay. There is a local market with teamsters and the neighbouring mining camps of Aspen Grove, Granite Creek and Similkameen for a certain amount of grain and garden produce. The population is scattered. There is one school at Lower Nicola. Fish abound in the rivers and streams, and there is no lack of shooting in the proper season.

WHEAT is not much grown, owing to lack of milling facilities. Golden Drop is the principal fall wheat grown: average crop, 2,000 pounds. Campbell's White Chaff and White Australian are the principal spring wheats: average yield, 1,500 pounds. Prices, \$30 for new and \$35 for old.

OATS. --Improved Ligowo and White Maine are grown. The first-named gave a crop with myself of 76 bushels per acre, weighing 44 pounds per bushel. Average yield, 1,500 pounds per acre. I practise bluestoning oats, as advised by Dominion Experimental Farms Report, about every second year.

BARLEY. --Only common, six-rowed variety grown here, and not much of that. Yield, about 2,000 pounds per acre.

RYE. --Fall rye is the only kind grown: only grown by myself in this district for seed. Many people at higher altitudes grow it to cut for hay. Yield, 1,100 pounds per acre; price, \$30 per ton. Not a very profitable crop.

PEAS. --Varieties: Alaska, Mummy, Shropshire, Hero, Victoria, Golden Vine, principally. Yield, 2,000 pounds per acre: price \$25 per ton. More might be grown to advantage, as their effect in increasing the fertility of the land is most marked in succeeding crops.

POTATOES. --Early Rose, principally; also American Wonder, Green Mountain and Late Puritan. Yield, 6 to 7 tons per acre; price, \$10 to \$15 per ton.

MANGOLDS. --Golden Tankard has done best with me so far: keeps well and is easily harvested. Long Reds give largest crop, but do not keep so well and cost more to harvest. None other grown, to my knowledge. Yield, 14 tons per acre. Grow them only for own use; feed them to fatten cattle.

TURNIPS. --Very few grown. Yield at the rate of 20 to 25 tons per acre. Purple Top Swede seems to do best.

GRASSES AND CLOVERS. --Timothy, Red and Alsike Clover, Sainfoin, a little Alfalfa, and some Cocksfoot. Timothy and a mixture of the clovers is the favourite here, and seems likely to remain so. Timothy is not a pasture grass, but it is not pasture but hay that we are after. Average yield, about 2,500 pounds per acre: price, from \$6 to \$10, loose; about \$2.50 per ton extra for baling.

AUSTRIAN BROME GRASS. --It has not done well with me: has not been tried to any extent. I found that Volunteer Timothy among my Brome Grass was much the heavier yield.

NATIVE GRASSES. --My experience in feeding leads me to believe that some of the native grasses of the country are most nutritious.

INDIAN CORN. --Sweet corn for table use does well enough some seasons: have seen ensilage corn here 11 feet high.

RAPE. --Tried it this year as a soiling crop. For pigs am well satisfied with it; shall sow it again.

APPLES. --Only the hardiest varieties of apples are a success here. Crabs of different kinds are grown. Crop small on account of late spring frosts.

OTHER FRUITS. --Pears a precarious crop. Plums, the same. Cherries do well.

SMALL FRUITS do splendidly. All kinds of currants, raspberries and strawberries produce abundantly. Gooseberries are subject, more or less, to mildew.

DAIRYING. --Some parties on outlying places milk several cows. In the Nicola Valley itself, pasturage is too scarce and scant. People won't milk after they get a good band of cattle around them. Probably about 1,000 pounds of butter produced, which does not sell well at all, in competition with creamery butter.

FEEDING. --Have fed cattle for beef for some winters past: until last winter have fed hay alone. Last winter fed 15 to 20 pounds per head each day of pulped mangolds, mixed with clover chaff, with satisfactory results. Feed twice a day with hay in cribs, at the rate of from 40 to 50 pounds per day per head. About one-fourth of this is left, and periodically the cribs are cleaned out and the refuse hay given to stock cattle. Roots are given in middle of the day.

HORNED CATTLE.—The principal industry, and at present in a thriving condition, because of high prices. The cattle and sheep industries will not thrive alongside of each other. Cattle will not graze after sheep. Prices—Fat steers, 3½ cents per pound, live weight, \$40 per head; fat cows, 3 cents per pound, live weight, \$30 per head. Prefer Shorthorns.

HORSES.—Profitable, if good ones are bred; not an over-production of good horses. A great scarcity of suitable saddle horses, which are in constant demand. Heavy team horses find a ready sale in the Coast towns; also light horses, suitable for express and other light waggons. The great bulk of the horses here are neither one nor the other.

SWINE.—Some people make it the principal part of their business. Pigs on foot are worth 5½ to 6½ cents per pound; dressed pork, 8 to 9 cents; bacon and hams, 12 to 18 cents.

DISEASES OF ANIMALS.—Epizootic has been noticed among horses, but we are singularly free from disease. Lupus-jaw is considered to be on the decrease.

EXPERIMENTAL STATIONS.—Could not this be done better by co-operation between the two Governments, and something on the lines of Prof. Robertson's scheme of "Illustration Stations"? Let the seed be supplied from the Dominion Experimental Farms, and the grower be allowed so much by the Provincial Government for his trouble, etc., in keeping records and showing people around, the grower to be allowed to keep the crop. Experimental stations need to be plentiful in this Province, on account of the great difference in climate experienced. As to its being the duty of the Dominion, I think not in the small way that I have outlined it. The County Councils are doing this work in Great Britain.

AGRICULTURAL EDUCATION.—I doubt if a mere smattering of the subject, such as would be taught in a public school, will be of much benefit. A few scholarships to the Guelph Agricultural College, or some similar institution, offered for competition among farmers' sons—at least one scholarship for each electoral district embracing agricultural land—would, I think, be of more lasting benefit. Thus many who now despise "book-farming" would be able to see from results what practical scientific farming can do.

SOILS.—There is a deficiency of lime, in my opinion. Plenty of limestone in vicinity, not worked as yet.

IRRIGATION is necessary in most cases; along the river bottoms, however, the high water in summer, caused by melting snow in the mountains, moistens the low land sufficiently. In this district there is an abundance of water.

TIMBER.—The timber trees are: Yellow pine, dry lands; fir, damp and rocky lands; poplar, semi-damp lands; cottonwood, alder, black and silver birch, damp lands; black pine, dry mountains; spruce, wet mountains.

WEEDS.—We have plenty of Canadian thistles, which are on the increase. What seems likely to prove a worse weed is the perennial sow thistle, which is spreading badly in this neighbourhood. Other bad weeds are wild oats—one farmer (?) cultivates them for hay—false flax, wild turnip and wild buckwheat.

NOXIOUS ANIMALS AND ANIMAL PESTS.—Complaints have been made of coyotes killing calves and foals on the mountains. Present bounty (\$2) sufficient. Panthers seem to be becoming more abundant; cause unknown.

LANDS.—No Government land left worth taking up; no railway land. Improved farms, from \$10 per acre up.

LABOUR.—Whites, \$25 to \$30 per month, good men; Chinese, \$15 to \$25, summer months; Indians, \$1 to \$1.50 per day. Indians in the preponderance; supply about equal to the demand; slight scarcity sometimes for a few weeks in harvest time.

A Farmers' Institute has lately been organised in the district of Lillooet, which embraces Nicola, of which Mr. H. S. Cleasby, Coutlee, is president, and Mr. G. B. Armstrong, Lower Nicola, secretary-treasurer. This new departure has already shown good results, as will be seen by the following remarks of the secretary in reference to a meeting lately held:—

"It is the wish of the people of this part of the district that the Hon. C. L. Smith should return to our valley. His remarks on building up a herd and the vitriolic manner in which he scored the breeders of scrub cattle, especially scrub bulls, pleased even those who are somewhat careless, and I am satisfied his lecture has done a power of good, for after the meeting each and every farmer present who was not a member immediately joined the Institute, though, I am sorry to say, the audience was largely made up of those engaged in other pursuits. I may further say that you came in for just worthy praise for your energy in helping so ably the good cause of agriculture."

Mr. David Dodding, lately from England, has entered into dairying and the raising and curing of swine at Lower Nicola, with every prospect of success. Thus far, all the products of this useful animal have been imported, and since a large quantity is consumed throughout the valley, it can easily be seen that the transportation charges alone should give a handsome profit.

The valley of the Nicola toward Spence's Bridge is circumscribed, so that the area of arable land is small. There are some good places, however, notably that of Mr. Alex. Gordon, where, amongst other garden products, potatoes as good, if not the best in the world, are raised.

Mr. T. R. Hardiman kindly furnishes the following information:—

As a matter of economic interest to the Province, I would like to inform the Department of Agriculture of the following facts relative to certain tests made by myself within the past three months connected with the cultivation of roots, cereals, vegetables, etc., on the above property, situated in the valley of the Nicola, some 30 miles from Spence's Bridge and at an altitude of something over 1,400 feet above sea level. The first week in June last, I commenced breaking up the ground for the purpose of conducting a series of small tests as a guide to future work and to prove the quality of and adaptability to soil and climate of certain seeds, especially tomatoes, celery, beets, etc., among the vegetables; alfalfa as a feed for cattle, horses, etc.; and wheat as a cereal; all put in a month to six weeks later than they should have been. The result being highly satisfactory, I herewith append time of growth from seed in all cases. The tomatoes were sown from the seed in the natural soil, without preparation or artificial help, in the first week of July last, and not transplanted, the test being purposely a crude one, so that results should be gauged on the most indifferent basis. At the time of writing (Aug. 31st), the average size of tomatoes in circumference is some 7 inches, some being over 9 inches, in clusters of 5 in most cases; and this is the outcome of a 7 weeks' growth; and I may say I expect to ripen them, as they are already turning colour—no nursing whatever. Beets, roots and vegetables generally were a foregone conclusion as to success, and have both surprised and delighted me. Wheat was equally satisfactory; alfalfa eminently so; both of which were planted the third week in June on the highest part of the land, without the facilities of the usual irrigation; wheat being 5 feet 6 inches in the stalk. Indian corn, sown last week in July, in some instances, is 10 feet in height—a really prodigious growth for British Columbia—and the corn large in proportion. Some sunflower seed was also sown with remarkable results, for the seed as poultry feed. The growth was really astonishing; some reaching a height of 9 feet, with flowers 13 inches in diameter—not measuring the petals. The rapidity of growth, under drawback of proper irrigation, is simply remarkable; and being my first cultivation here, under difficulties and lateness of planting, speaks volumes for the fertility of the soil and suitability of the climate. Next season I trust to make further tests for the cultivation of tobacco plant, fruit etc., and I trust the Department will find my experience, in every instance, of value to the Province and this locality, and will, moreover, extend any reasonable assistance to such developments, in the interest of those who may make this section their future place of residence, and be an additional source of wealth and revenue to our Province.

Retail prices of ordinary necessities for farmers at Nicola Lake, furnished by Mr. A. E. Howse:—

Flour, \$1.75 to \$2 per 50-lb. sack; beef, 8c. to 10c. a lb.; bacon, 20c. to 22c. a lb.; hams, 20c. to 22c. a lb.; butter, 30c. to 40c. a lb.; lard, 18c. to 20c. a lb.; tea, 40c. to 60c. a lb.; sugar, \$6.50 per 100 lbs.; overalls, \$1 to \$1.50; shirts, 75c. to \$1.50 each; boots, \$3 to \$6 a pair; ploughs, \$12 to \$25; harrows, \$10 to \$18; waggons, \$85 to \$130; hay rakes, \$25 to \$35; binders, \$190 to \$220; mowers, \$50 to \$65; binder twine, 12c. to 14c. per lb.; sleighs, \$30 to \$40; cutters, \$25 to \$50; buggies, \$75 to \$125; harness, \$30 to \$50; saddles, \$15 to \$40; nails, 6c. to 8c. per lb.

Lower Thompson River Valley.

Including Ashcroft, Spence's Bridge, Lytton and Savona.

I group these all together inasmuch as they are all on the main line of the Canadian Pacific Railway, and being under the same climatic and other conditions, the excellent report of the Hon. C. F. Cornwall, correspondent at Ashcroft, answers for the whole region.