

INSPECTOR ARCHIBALD TELLS OF GOOD WORK BEING DONE AT EXPERIMENTAL STATION

Following is the annual report of Mr. E. S. Archibald, inspector of Experimental Farms on the Fredericton Experimental Station:

The Season.

Although the fields were bare a large part of the winter, there was very little winterkilling in either the orchards or the hay lands. The spring was earlier than usual. Ploughing was begun on April 21 as compared with May 10 the previous year. May was wet and cold, and seeding was not general until June. Rains were timely during June, July and August and hay, grain, and all fodder crops except corn, made splendid growth. Pastures were good until late in the fall. Hay was a good crop but the wet weather retarded harvest and a large part of the crop was too mature when cut. Grain was late ripening and badly filled. Harvest was difficult as the straw was heavy and lodged badly and the weather was so unsettled that it dried slowly. Roots were a good crop but corn was rather immature when cut. The warm wet weather during August and September favored the spread of potato blight and some fields blighted badly. Apples were a light crop. The fall was wet and open and it was possible to plough nearly all November. The weather during December and January was mild and although considerable snow fell, each snow-fall was followed by a thaw.

Animal Husbandry.

The work under this division consisted of breedings and feeding experiments, keeping cost of production and maintenance records and demonstration work.

Dairy Cattle.—The herd consists of Ayrshire, Holstein, Shorthorn and eleven grades. The pure-breds are being gradually improved by breeding. Records were kept of the cost of milk production and cost of rearing young cattle. Bull calves from cows with creditable milk records, were sold to farmers for breeding purposes and heifer calves were retained in the herd. The grades are being used in a feeding experiment comparing the effects of a scanty ration versus a liberal ration to growing heifers on the cost of rearing, the size of maturity and the value as milk producers. A series of experiments have been begun comparing heavy versus light feeding of swedes.

Horses.—The horses at the station include five pure-bred Clydesdale mares and two French Canadian mares. Records are kept of the cost of horse labour and the cost of raising young horses.

Sheep.—There is an exceptionally fine flock of pure-bred Shropshire sheep. The best of the ram lambs were sold for breeding purposes. Records are kept of the cost of maintaining pure-bred ewes and the cost of wintering ewe lambs. An experiment is being carried on testing the value of iodine for pregnant ewes. The results to date indicate that iodine is not necessary in this district.

Swine.—A breeding herd of pure-bred Yorkshires is maintained. Choice young breeding stock is shipped to all parts of the province. Poorer quality stock is retained for feeding trials.

Field Husbandry.

Yield and cost of production records were kept of various field crops. A comprehensive series of experiments including three, four, five and six year rotations, also different treatments with manure and fertilizer, have been carried on the past four years. An experiment to determine the relative cost of production and the yields per acre of corn, sunflowers, oats and peas, and turnips, when grown under the same conditions, has been conducted for the past six years. Experiments were also carried on testing rates and dates of sowing oats, rates of sowing wheat and planting corn in hills versus drills.

Horticulture.

Orchard.—The orchard came through the winter in good condition but the crop was considerably smaller than in 1926. Cultural, spraying, new variety and fertilizer experiments, begun in previous years, were continued. About three thousand seeds of McIntosh, Golden Russet and Northern Spy seedlings were planted in the autumn for the experiment begun the previous year to obtain a desirable winter apple for New Brunswick conditions.

Vegetables.—Variety tests were suspended during the year and experiments were begun to determine the feasibility of growing canning crop in New Brunswick. One acre of beans, one acre of corn and one-eighth acre of spinach were grown for canning purposes. Data on cost of production were obtained on these crops but no data were obtained on the canning industry of the corn.

Three varieties of beans were grown, viz., Masterpiece, Hodson Wax and Refugee. The latter two varieties were rather late developing.

Three varieties of corn were grown viz., Golden Bantam, Early Malcolm and Whipples Golden Yellow. This crop did not mature until the canning factory had closed for vegetable canning work. Whipples Golden Yellow was decidedly too late for a canning variety.

Six varieties of Spinach were grown. The canned product was of poor quality. This was probably due to the heating of the crop while in transit to the canning factory and a mildew infection of the growing crop.

Small Fruits.—Variety tests were carried on with strawberries and experiments were begun to determine the cost of producing strawberries and raspberries for canning purposes.

Potatoes.—Potato work during the year was largely confined to the production of disease free stock. A tuber unit planter was tested and suggestions made for improvement.

Cereals.

Row tests on varieties and strains of cereals, begun in 1924, were continued this year. These now include wheat, oats, barley, peas and buckwheat. A number of varieties of wheat, oats and beans were tested in larger plots. A number of varieties of oats was grown for classification work.

Co-operative Seed Growers' Association.

This Association with headquarters at the Fredericton Experimental Station, is serving agriculture in two ways, viz., (1) distributing clean home-grown registered seed, (2) functioning as a cleaning plant providing accommodation for local farmers who wish to have their seed cleaned. The association and custom cleaning plant are both well patronized by the public.

Fertilizer.

As commercial fertilizers are so extensively used in the province, problems relating thereto are receiving special attention. The work now includes an experiment testing ten different formulae applied at three different rates to the potato crop in a three-year rotation of potatoes, grain, and hay; an experiment comparing the value of different sources of phosphoric acid when used alone and when used with nitrogen and potash on a hay and grain rotation; an experiment testing the value of basic slag, superphosphate, lime and nitrate of soda for improving pastures; experiments testing different formulae and rates of application to a growing orchard; experiments with commercial fertilizer on a bearing orchard; a series of experiments testing cyanamide and urea as sources of nitrogen and ammo-phos as a source of both nitrogen and phosphoric acid on a potato, grain, and hay rotation; and an experiment testing different sources of nitrogen for a grain crop.

Poultry.

Feeding experiments included a comparison of beef scrap versus fish meal versus skim-milk; buckwheat replacing corn in the ration; potatoes replacing corn meal in the mash; swedes versus mangels versus potatoes as green feed; epsom salts as a substitute for green feed. Cod liver oil, bone meal and liver and combinations of these were fed to breeding hens to determine the influence of these feeds upon fertility, hatchability and viability.

Pedigree breeding work was continued and experiments carried on to determine the results of breeding upon the size of eggs.

In the seventh New Brunswick Egg Laying Contest forty-eight birds qualified for registration. The average production per bird was 171.54 eggs and 176.85 points.

Forage Crops.

Variety tests were conducted with corn, sunflowers, turnips, mangels,

rots, sugar beets, rape and kale. Breeding work was continued in Twitchell's Pride corn—a flint variety—in order to secure a strain that would retain its present early maturing qualities, and yield a higher percentage of silage. Tests are also being made of the value of this corn for feeding. Each year since 1924 Twitchell's Pride grown at this Station has been shipped to Harrow Experimental Station and crossed with Wisconsin No. 7—a dent variety. The hybrids, when grown at Fredericton the past three years, gave practically the same yield as Wisconsin No. 7 and was decidedly earlier.

Clover seed from different sources has been tested for hardness during the past six years. The results indicate that southern European clover seed is not suitable for New Brunswick. Farmers should endeavour to purchase Canadian clover seed. The alfalfa experiments seem to indicate that this crop can be grown successfully in New Brunswick. Several acres which were sown under field conditions in 1925 came through the winter in fair condition and gave fair yields this year.

Apiary.

Experiments were carried on with package bees in comparison with overwintered colonies. The results to date indicate that when packages are received the last of April they will build up sufficiently to produce an average crop of honey.

In experiments on swarm control the best results were obtained from dequeening and requeening nine days later. Experiments were also carried on with different sizes of hives, different types of packing cases, wintering in cellar versus in packing cases, methods of queen rearing and swarm detection.

Fibre Production.

The work this year included variety tests of flax, dates of seeding tests of hemp and assisting neighbouring farmers to grow flax in order to get an idea of the commercial possibilities of this crop. All the flax grown at the Station and that grown by neighbouring farmers was deseeded, retted broken and scutched at the Station. The hemp grown at the station was also broken and scutched. A number of farmers in Charlotte county grew one-quarter of an acre of flax each. This flax was shipped to the Station where it was deseeded, retted, broken and scutched.

Illustration Stations.

Eighteen Illustration Stations are supervised from the Fredericton Experimental Station. Crop rotations and better cultural methods are demonstrated. Fertilizer and lime tests are also conducted. Considerable seed grain and potatoes as well as pure-bred poultry and live stock are distributed from the Illustration Stations.

AUTUMN MISTS

(From The London Observer)

Mist in the pearly dawn
With films of gossamer on drenching leas;
Mist like a curtain drawn
To veil the shimmering murmurous seas;
Mist where the old road drops
Between the larches and the cottage eaves—
Mist over glade and copse
Weaving a witchery of the yellowing leaves.
Mist that is like a breath
Blurring the surface of some secret pool,
Or stream that lingereth
Through tangled willow banks and rushes cool;
O tender, clinging haze
Suffused at sundown with a smoldering fire—
Mother of luring grays
And lurking blues of dreamlight and desire.

—ARTHUR L. SALMON

PARLOUS TIMES

Crabshaw—The worst of living in a small town as I remember it, is that you're apt to be talked about.

Suburbs—Its worse nowadays when you're likely to be put into a best seller.

PLAINT OF THE MODEL HUSBAND

The melancholy days are here,
The saddest that I know
Too cold by far to mow the lawn
Too warm to shovel snow.

H. O. Muir of Moncton is in the city today.

THE ASSETS OF THE CANADIAN PACIFIC RAILWAY CARRIED ON BOOKS AT SMALL FIGURE

Earnings of the Canadian Pacific Railway Co. are reflecting the general prosperity in Canada and the carrier will show record gross revenues for the year. This heavy increase in income is due to the greater mining activity, larger industrial operations and business expansion and the record grain movement as a result of the largest wheat crop in the country's history, says the Wall Street News, which adds: Earnings of the company for the full year will approximate 15 a share on the approximately 3,000,000 ordinary shares, according to estimates based on the first nine months' report and the expected gains in the final quarter of the year. It is predicted that net profits before fixed charges will approximate \$60,000,000 and that net income after all charges and preferred dividends will be better than \$45,000,000 which will rival record figures of 1917.

For 1927 the road reported a balance of \$31,407,320 after preferred dividends and all charges equal to \$12.08 a share on the 2,600,000 shares of ordinary stock. Gross income totaled \$201,146,752 in 1927. For the first nine months of this year the gross was \$156,568,183 as compared with \$144,183,933 in the same period in 1927, while net earnings for the period were \$31,225,285 compared with \$14,955,241.

The October 1927 which will be released the latter part of this month will also make an impressive addition. Gross revenues in the month were \$26,904,000 compared with \$21,083,000 in the same period in 1927 and represented the largest increase in that item in any month this year. With these figures at hand the indications are that the final quarter of the year will show an increase of about \$3,000,000 in net.

The increased earnings, however are not the only factor which makes the Canadian Pacific appear impressive for there are the huge assets of the corporation. The Canadian Pacific as is well known not only

owns a railroad stretching across the Dominion from the Atlantic to the Pacific and through subsidiaries operates 5,100 miles in the United States but also controls various commercial enterprises. The road owns great acreages of land including farm and town lands; a chain of famous hotels; 60 or more coastwise and ocean steamships operating across both the Atlantic and the Pacific; mining enterprises including 48.9 per cent of the stock of the Consolidated Mining and Smelting Co., one of whose mines contains the largest known body of zinc lead ore in the world; extensive coal, oil, gas and timber rights and lands; stock yards grain elevators; and telegraph, express and news services etc.

The management of this road carries its assets at a very small figure. For instance the company carries its Consolidated Mining and Smelting shares at their cost of about \$6,785,000 although these have a market value of over \$72,000,000; coal and petroleum rights are carried on the books at \$1 apiece although income received last year from only a part of them, which was under lease totaled \$908,907; large holdings of timberlands are carried at only \$3 an acre; town lots in Western Canada are carried on the books at about \$17,500,000 although the properties adjacent to Vancouver are alone worth over \$20,000,000; small value is assigned to the company's 16 hotels, which contributed net earnings in 1926 of \$985,000; while telegraph service which is supposed to be bringing in about \$1,800,000 a year does not appear in the balance sheet at all. It is well known that the total capitalization of the company is not over 70 per cent of the cash directly invested in railroad property.

Reports are current that the Canadian Pacific is planning a big mining program possibly through a Consolidated Mining and Smelting. This company holds ground in almost every new mining camp in the Dominion.

HARVEST

(From G. K.'s Weekly)

Go down you blackbird, into fields
Of light,
And lead the low figures of the dappled corn
Pipe out the fruits, unmute the
Barred thorn,
Concede your music to the season's
might;
The days are prouder high with
benefit
Go down, you blackbird - with a
sweet concern
But I have song stuff for a deeper
horn
To shake the spaces of the moonless
night;
To thunder blame upon miscarried
Spring;
To quaver tears sigh worlds of passion
through
Trebble the descants of a thwarted
wing;
Crying of One who lit an April dew
With love's assurance: "Where are
you now to fling
O'er these old flowers a mocking
last adieu?"
—H. WADSWORTH HAYWOOD

WOMAN SO NERVOUS COULD NOT SLEEP

Tells How Lydia E. Pinkham's Vegetable Compound Helped Her

Masson, Que.—"I was very nervous, so nervous that sleep was almost impossible and I was all run-down. I saw your ad in the paper and have taken eleven bottles of Lydia E. Pinkham's Vegetable Compound. I could not wish to feel better than I do, and I recommend it to all."—MRS. DELPHINE LAFRAMBOISE, Masson, Quebec.

New Carlisle, Que.—"I took Lydia E. Pinkham's Vegetable Compound for a run-down system and it helped me. My nerves are better and I have a good appetite now. The Vegetable Compound has been of great benefit to me and I will answer letters from women asking about it."—MRS. WILBIE BUTTLE, JR., New Carlisle, Quebec.

Photographic Hint: When placing the camera close to the fish to make it seem larger, never include the hand that is holding the fish.

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