

Aids to Agricultural Research

OUR ENGLISH CORRESPONDENCE

The meagreness of the help given by the British government to agricultural research work is strongly commented upon in a recent memorial to the Prime Minister by leading scientists and societies connected with agriculture.

The memorial strongly urges that systematic work should be done in livestock breeding, and towards more intensive methods in agriculture. The direct government grant for such investigation in the last few years has averaged only between £400 and £500 per annum, and this is a pitiful sum compared to the £750,000 of the United States; to Hungary's £55,000; to Denmark's £30,000; with other great countries in proportion.

The overseas Dominions are infinitely more liberal than the home government in providing for agricultural research. For instance, Canada provides £17,500 for experimental farms, and the Transvaal, £39,000.

It is but fair to state that the new British Development Board will be endowed with large funds, and that in future agricultural research in Britain will be endowed in better fashion than is the case now.

It is comforting to find that the memorial states that in spite of our deficiencies in investigation that the production per acre of crops and the better quality of our stock is higher than in any other country, with the possible exception of Belgium and the Netherlands. Whatever we may lack from a government standpoint the common sense of British farmers has brought agriculture to a high average standing.

CROPS AND LIVESTOCK

The autumn has been admirable from a weather standpoint, and farm work of all descriptions is well advanced, in marked contrast to the condition of affairs a year ago. The wheat is nicely above ground, and looks strong and healthy. The catch crops are flourishing.

From a livestock point of view conditions are favorable, as hay and roots are plentiful, and the open weather has enabled a long use to be made of the pastures to the great saving of fodder. One disappointment is the lower average yield of wheat from threshing than expected. The grain has not turned out so heavily as its appearance promised. The average quality, however, is good. The government estimate of this year's wheat crop is 7,064,904 qrs., an average of 31.25 bushels per acre, which is about a half a bushel below the ten years' average, and excellent, considering the kind of a season.

Barley as well is slightly below the decade average, about a third of a bushel. The yield was 7,275,191 qrs., and the average 33.67 bushels an acre.

Oats have proved the cereal crop of the year. The yield was 15,484,241 qrs., 41 bushels to the acre and one bushel above the decade average.

It was along the east coast of Britain that the conditions proved less favorable for the three great cereal crops.

Potatoes have been lifted in good shape, and disease is less prevalent than expected, though severe in places. There exists a big demand from France for potatoes, and fortunes are being made by merchants, and farmers are getting better prices. In the Fen district one man bought 12,000 tons and cleared £10,000, and in many cases a profit of a pound a ton has been made in smaller transactions.

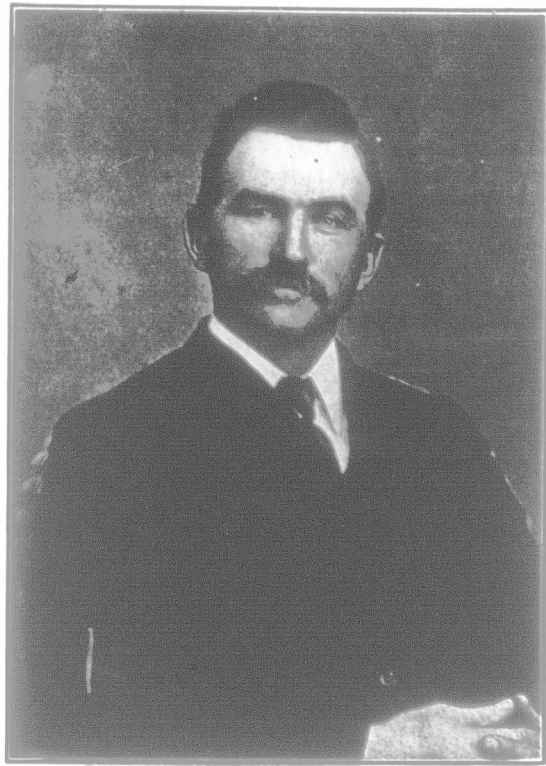
The government reports that store cattle and ewes are thriving everywhere, with disease occasionally noted.

GOOD MILK RECORDS

An instructive milk record is published each year of the Jersey and Shorthorn herds owned by Lord Rothschild, at Tring Park. In the year just ended, September 24th, the Jerseys seem to have been subject to many changes, only six continuing throughout the year. The highest individual Jersey yield was 7,821 lbs., and the average for eight which completed the lactation period at Tring, was 5,513½ lbs.

There were 62 Shorthorns in the herd for the entire year, and their average was the fine one of 5,871 lbs. The highest yield was 11,262 lbs.,

PIONEER SERIES No. 1



SAMUEL HUGHES

Born on a farm in Durham county, Ontario, in the early seventies; came to the Canadian West in 1890, with little or no cash; now a prosperous farmer and a member of the provincial legislature of Manitoba. This, in brief, shows how Samuel Hughes, of Grand View, has prospered. Common public school education and a course in business college gave him some equipment for going about his work in a businesslike way. Being born and raised on a farm he naturally turned his attentions to agriculture. For several years after arriving on the prairies he was handicapped because of lack of money. The lot of the hired man was chosen in preference to homesteading. For seven years he experienced what only hired men are acquainted with. However, he was on the Carberry plains—that helped some to make his lot easy. Besides, he was rather fortunate in being employed with men, not slave-drivers. These years found his services in demand by farmers on these well known plains. Then Neepawa farmers knew him for three years, and for a like term he did his best to raise good crops in the Arden district.

In these years of apprenticeship he learned considerable about farming in the Canadian West. More than this he had saved some money, and feeling that he could farm about as well as those who had "bossed" him, a purchase was made at Grand View. At present Mr. Hughes farms a section of land with clay subsoil and 18 to 24 inches of black loam on top. It was pretty well treed with poplar and willow scrub. In addition to the main farm he has a quarter-section of land not yet under cultivation.

What this man has done others can do. How has he done it? By honest and intelligent effort. Experiences have told him that mixed farming is what is needed—even in this country noted as being primarily a grain producer. A crop rotation, comprising wheat, oats, barley, wheat and timothy is being worked out. The summerfallow is largely discarded, more attention being paid to timothy as the seasons pass. On summerfallowed land grains are sown to give pasture in late season. No doubt lessons on timothy growing instead of summerfallows were learned in the Neepawa district.

In livestock, special attention is paid to horses and hogs. He has nine purebred Clydesdales. A start was made four years ago with four mares. On these he used the best Clydesdale stallion within reach. Now he has six brood mares, three of which are purebred. No difficulty has been experienced in getting the mares to breed, and he seldom loses a foal. In 1909 and 1910, five foals were raised, and in 1908, six. Some have been disposed of when weaned at \$200. However, he does not advise selling at this age, unless financial circumstances or lack of food supply compel it. Mixed feeds are used, and not too much grain.

Hog-raising is relied upon as a very profitable feature of farming. Speaking about hogs Mr. Hughes says there is too great a tendency for men to go out of this line when prices fall a little. They should stay with it. His experience has shown that on the average a farmer has good profit at 5½ or 6 cents a pound at point of shipment. The chief trouble is in getting satisfactory help—and it requires careful hands to look after pigs and get best results.

In recent years Mr. Hughes has been placed in public offices. In 1903 he was councillor of Langford Municipality. Grand View elected him to the council board in 1906. He has served two terms as reeve of the same municipality. Last summer when the Conservatives of Gilbert Plains wanted a man to carry their standards in the provincial contest they selected Hughes—and he won. When the house opens again, agriculturists can depend on him for support of measures that are in the interests of this great industry.

[NOTE: Next week's issue will contain a review of experiences of A. B. Bompas, of Wolsely, Sask.]

given by the 14-year-old cow, "Fuebelow Countess 2nd." She has averaged 9,104½ lbs. for six years.

The famous cow, "Dorothy," has produced 11,130 lbs. this year, and has a six-year average of 9,275 and five-sevenths lbs. As she was dry for 106 days this year her daily average of 43.13 lbs. of milk is the best in the herd. It is to be regretted that no butterfat figures are given, as they would prove most interesting.

Very great interest has been caused to farmers and fruit growers in recent years by experimental work on the influence of electricity on plant growth, and probably the most eminent scientist engaged in the work has been Sir Oliver Lodge, the principal of Birmingham University. Sir Oliver has just given his first public discourse on the investigations that he has been conducting for some years on various soil problems. He states that of the problems that are receiving, and yet await intelligence, the absorption of nitrogenous plant life is one of the chiefest. But there are other factors that are coming to the front, of probably equal importance in regard to the reclamation of barren soils; the influence of strong sunshine and of heat upon soil in preparing it for seed; and the curious effect not only of burning but of poisoning or disinfecting the soil, and thereby increasing its fertility. The last process destroys opponents and devourers of healthful bacteria so that these bacteria multiply at a prodigious rate.

In addition to all this is the problem of the electrification of the air above the growing plant. Such electrification always exists, and the pointed character of leaves show that it is made use of. By artificial means the electricity can be greatly intensified, and for years investigations have been made by various scientists. Prof. Lodge has conducted experiments on a large scale near Evesham for the last five years. Wheat has shown an increase of as much as 30 per cent. when electrical stimulus is applied. A practical apparatus has been devised, which is inexpensive. A two-horse power engine is sufficient for a 20-acre plot. Wires are stretched at a height of several feet above the ground, on which crops are grown, and these are connected with a machine producing a suitable continuous current of positive electricity.

It has been found that sugar beet seems to contain more sugar under electrical treatment, strawberries mature earlier and are sweeter. The tops of the plants rather than the roots appear to be beneficially affected, although leguminous plants are an exception. Similar apparatus has been installed in various parts of the world, some for commercial use, and the new process looks like being a great aid to agriculture and horticulture.

OVERSEAS TRADE INCREASE

British overseas trade established a new record for October, of commercial progress. The imports and exports reached the great total of £103,700,000. No other nation has a foreign trade approaching ours in magnitude. The imports reached £58,000,000, the greater part of which was made up of food and raw materials. Exports reached £45,700,000, principally manufactured goods.

It is of interest to note the direction of the British export trade. For the first nine months of 1910, exports to foreign countries were of the value of £210,842,000, and to British possessions the total was £107,735,000. While colonial trade is very satisfactory the bulk of exports still go to foreign countries. In the last ten years our population has increased by about 10 per cent., and external trade by 30 per cent. These relative figures are hardly a sign of decadence in British enterprise, and are a speaking tribute to the buoyancy of an untrammelled commerce.

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The Liverpool show of the Royal Agricultural Society resulted in a profit of £5,400, according to the figures presented at a council meeting of the society. Bristol is to have the show of 1912. At the meeting a resolution was passed after