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FOR WEEK ENDING JULY 13, 1911.

No. 28

WHAT SCIENTIFIC BUSINESS AGRICULTURE HAS DONE FOR HAWAII

an Old Peterboro Boy Pays a Visit to the Land of His Youth, and Recounts to the Editors of Farm and Dairy Some of the Wonderful Profits From Scientific Farming on Islands of the Pacific Ocean ARM land in the Hawaiian Islands sells

for \$500 to \$600 an acre. On the larger plantations annual dividends of 60 per cent. on the original capital is the common return. Science enters largely into the management of the farms and commercial fertilizers are applied in enormous quantities, such as would startle a rural Canadian. Recently the editors of Farm and Dairy were honored with a call at their office in Peterboro by Mr. Henry G. Boswell, of Honolulu, Hawaii, a former Peterboro county farm boy, who has spent the last 20 years in the Hawaiian Islands and is back in Canada to pay a visit to the place where he grew to manhood. Some facts in regard to the agricultural practice in these productive islands of the Pacific Ocean, are of special interest to Canadian farmers, and since we farmers with profit may draw many lessons from them, the facts as given by Mr. Boswell in conversation, and substantiated by the Hawaiian government literature, are here briefly reviewed for the benefit of Farm and Dairy readers.

RESULTS OF SCIENTIFIC AGRICULTURE

Science has worked wonders on the agriculture of the Hawaiian Islands. The liberal application of commercial fertilizers, crops especially adapt ed to the soil and climate, proper methods of tillage, up-to-date equipment in all departments of the farms and the placing of large areas under the management of one most capable head, have made immense profits possible, has created many millionaires, and has placed the laboring classes in receipt of good wages and comfortable living. Mr. Boswell, after 20 years away from Canada, and the conditions as he knew them on the farms in the olden days, was not given to speaking in kindly terms of any progress that had been made

during that period by our farmers. In fact, he stated it as his opinion that our farms rather than progressing had fallen backwards, our crops were inferior in yield to what they used to be-and Mr. Boswell was not slow in arriving at a conclusion as to the cause.

A REFLECTION ON US FARMERS

"Your Canadian farmers are too easily satisfied," said Mr. Boswell. "They continue to grow the crops their fathers used to grow. They take these crops without an adequate return to the soil in the way of fertilizers, and few if any of them keep accounts. This is a deplorable state of affairs, and it need not be.

"There are great possibilities in the soil if we will but grow the most profitable crops that are available and adapted to our soils, if we will ferfilize and adapt ourselves as best we can to conditions as we find them and place our farms upon a business basis, keep accounts, and know, not guess, as to the profitableness of each and every department of the farm each year."

EXPENSIVE EXPERIMENTAL WORK

According to Mr. Boswell everything about the farms or plantations on these Hawaiian Islands is reduced to a business and scientific basis. Much aoney is expended in experimental work. Individual farmers conduct experimental plots for themselves, the Planters' association expends large sums experimenting with commercial fertilizers and various methods of crop management, and the government also carries on much work of an experimental nature seeking to assist the farmers and make possible a maximum of crop production on the islands.

The main crop is sugar-the sugar cane. Pine apples and other tropical fruits also enter largely into the agricultural production. The soil is velcanic in nature, and the climate being dry, irrigation is practised. Practically all the water used for irrigation has to be pumped and at great expense, since often it has to be elevated 600 feet and more. On the large plantation with which Mr. Boswell is connected 80,000,000 gallons every 24 hours are pumped and elevated 600 feet for irrigation purposes. The pump ng machinery on this one plantation alone represents an investment of \$1,000,000.

HISTORY OF HAWAIIAN AGKICULTURE

It was interesting to hear Mr. Boswell tell the history of agriculture in these islands. Here are

Best in the Country

I receive Farm and Dairy regularly. It is a good, interesting and useful paper: the best I have had the pleasure of subscribing for, since coming to this country, some six years ago. I have had quite a number of farm papers since then. I like Farm and Dairy the best. I shall certainly renew my subscription when it is due.-John Roy, Winnipeg, Manitoba.

his words: "Sixty years ago our Islands were inhabited by a semi-barbarous people. They grew cane and produced sugar, but their methods were most crude. To-day we produce more on one acre than was formerly grown on six. In earlier days the sugar was boiled in kettles. There was a loss in sugar averaging about 40 per cent., and two tons of sugar an acre was considered a good yield. Now on our plantation our yield of sugar averages 14.9 tons per acre. No fertilizer was used in those earlier days. Now most liberal applications of commercial fertilizers form the very basis of our prosperity, and we are learning year by year that it pays to apply even more fertilizer. The fertilizer we use costs about \$40 a ton. How profitable it is when applied on our soil you may learn when I tell you that one half ton produced an extra yield in sugar worth \$80. On a plantation of 9,000 acres we apply annually \$200,000 worth of commercial fertilizer.

ACCURATE AND COMPLETE ACCOUNTING

"Of cou se in connection with our farming the most accurate account is kept of everything about the plantation. There is no growing crops that do not pay. We keep accounts to make sure they do pay, and we are constantly endeavoring to make them better. Everything is run on the strictest business principles. For a general manager we hire the most competent man available.

He is an agricultural chemist, a civil engineer, and a general all-round man of many years' experience. We pay him a salary of \$10,000 yearly, and provide him with a home and servants. Other men, heads of various departments under the general manager, receive good salaries. For instance, we pay our agricultural chemist \$3,000 our sugar boiler \$3,000; our civil engineer \$3,000, and our head overseer \$3,000; in addition these men all have free houses and other concessions that go with them. The mill on our plantation cost \$1,000,000, and we have an average annual output of 35,000 tons of sugar.

AGRICULTURE IN THE PHILIPPINES

"Before the white man took charge and began running the sugar plantations according to the most up-to-date methods, two tons of sugar per acre was considered a good crop. Last year I had occasion to visit the Philippine Islands, and I found that under the management there a yield of two tons per acre and less was the common run. In the Philippines their methods of culture and boiling the sugar are very much the same as they were in Hawaii 50 years ago. They are recovering about 55 per cent. of their sugar, and that is of a very low grade and not marketable as commercial sugar. While there I induced 17 large growers to agree to grow the cane for a mill which we would establish, and we would give them 60 per cent., and do all the work; they now get less than 55 per cent., and have all or the expense and work. These planters in the Philippines have used no fertilizers for 30 years, and there is great possibilities in improvement in the crop production as well as in their methods of finishing the product."

"This is all very interesting," we said to Mr. Boswell, "but of course our farmers do not grow sugar cane and it is the belief of our economists that we are much better off with a large number of smaller farms owned and worked by individual farmers." "Quite true," said Mr. Boswell, "but you can grow sugar beets, and I am informed that when they are grown for your sugar factories they give an average test close up to 16 per cent. Such a crop ought to prove most profitable, and if the business were conducted under a competent head there is no reason why it should not fiourish exceedingly.

WAGES OF CANADIAN PARMERS

"Many of the crops your Canadian farmers are growing are not paying them like as would other crops they might adopt. When I was home on the farm 25 years ago, we used to figure up what we made in wages over and above a fair return on our investment, and I think it was something like 121/2 cents a day we got for our hard work. How much more do your farmers make to-day after paying good interest on their investments?

"I am surprised to note that your farmers seem to be afraid to hire men. We believe in capitalizing labor, and of course growing the best money crops available and managing everything in the most economical way, such as is possible on large farms or plantations, under one capable management.

"Your Canadian farmers also do not appre ciate the value of fertilizers. Very little commercial fertilizer is used at all in Canada, and I doubt (Continued on page 6)