SUPERINTENDENT MANITOBA FARM.

Mr. S. A. Bedford, Superintendent of the Experimental Farm at Brandon, Man., is a son of Jacob and Elizabeth Bedford, both descendants of a race of English tenant farmers. He was born February 1st, 1852, in Sussex County, and emigrated to Ontario in 1863. His education was commenced at Hadlow Academy, Kent, Eng., and was continued at different schools in Ontario. Mr. Bedford removed Northwestward in 1877, and took land near Thornhill, in Southern Manitoba, the same year. In 1880 he married Minnie, daughter of J. F. Bolton, of Newboro, Ontario. From his arrival in Manitoba, Mr. Bedford's energies were directed largely towards encouraging emigration to that Province and the Northwest Territories, both personally and in the interest of colonization companies. He was instrumental in settling large numbers in the Pembina and Rock Lake districts.

He has held the position of Inspector for the Scottish Ontario, North British Canadian, and Canada Northwest Land Companies, and for some years had 400 families of different nationalities under his care; was elected by acclamation a member of the Northwest council for Moosomin district, September, 1885. Mr. Bedford followed farming on his own account in Oxford County, Ontario, and at Thornhill, Manitoba; he also managed a large farm at Fleming and Moosomin, N. W. T.

In 1888 the Dominion Government purchased what is now the Experimental Farm, lying two miles from Brandon, on the north side of the Assinaboine River, appointing Mr. Bedford Superintendent. Prior to the final selection, he went very carefully with Professor Saunders over a great portion of the Province, inspecting various locations. Besides his work as Farm Superintendent, he has rendered Manitoba agriculture great assistance by his Farmers' Institute addresses, his contribution to the agricultural press, and otherwise.

SUPERINTENDENT N. W. T. FARM.

Mr. Angus MacKay, Superintendent of the Experimental Farm for the Northwest Territories, at Indian Head, was born in the township of Pickering, Ontario, fifty-four years ago; was educated in the common and grammer schools of Ontario, and farmed in the township of Pickering until 1882, when, in company with three Ontario farmers, he went to the Northwest and purchased a large tract of land near Indian Head and worked it until 1887, when he took charge of the Northwest Experimental Farm. He married a daughter of Dr. Gunn, Whitby, Ont. In Ontario he was a Justice of the Peace, and for many years has held numerous offices in agricultural and other societies. He acted as chairman of the Executive Board of Reference in connection with the late Territorial Exhibition, and received from His Honor Lieut.-Governor Mackintosh a gold medal and address for work in connection therewith. Agriculture and stock rearing in the Territories have ever had a most trustworthy friend in Mr. MacKay.

SUPERINTENDENT MARITIME PROVINCES FARM.

Wm. M. Blair was born at Onslow, Colchester County, N. S., on the 25th of May, 1836. His forefathers were of U. E. Loyalist stock, and came to N. S. from Massachusetts in 1760, but originally from Blair Athol, Scotland. He received very little school discipline, attending only a country school previous to 1850, being largely self-instructed. He has always been a farmer, being one of the most enterprising, hard-working men in Onslow, being ever foremost in the ranks as an advocate of a higher education for those engaged in agricultural pursuits, taking an active part in any organization that attained to this end. He was president of the Agricultural Society of his native place for nine years; commissioner of the Colchester County Exhibition grounds and buildings, and president of the Exhibition Association, for twelve years; also Master of the Provincial Grange of the Patrons of Husbandry, which was organized in 1880, and master of Dominion Grange for 1881, and for years was one of the foremost men in the local Grange.

He ever has had the dairy interests of the country at heart, and was ever improving his stock with new importations. He was instrumental in organizing a company for the purpose of cheesemaking, and in 1871 started on his farm the second cheese factory in N. S.

At twenty years of age our subject joined the militia of the Province, and gradually worked his way up until he became Lieutenant-Colonel of the 78th Nova Scotia Highlanders. He was elected to Parliament at the general election held in Sept., 1878, representing Colchester county in the Local House for eight years He is a Freemason of 4th degree, and was for some years Master of the Truro Lodge. He accepted the position of Superintendent of the Maritime Experimental Farm at Nappan, N. S., in 1888. Since then much valuable work has been carried on. The Farm is constantly being improved with a view to further and extended experimental work, and the various lines of experiments as conducted are proving of great profit to the farmers of the Maritime Provinces.

SUPERINTENDENT B. C. FARM.

Mr. Thos. A. Sharpe, who took charge of the British Columbia Experimental Farm at Agassiz as Superintendent, on September 19th, 1889, was born in Frontenac County, Ontario, in 1847. He sums up his own educational advantages himself by modestly saying, "I attended school for some years, and have been trying to learn a little ever since." An indefatigable worker, he has accomplished a vast amount of work since the Farm was established, and to the agriculture to the Pacific Province it has proved a most valuable object lesson. Our illustration given elsewhere stands in evidence of this, especially when one bears in mind the condition of the Farm at the outset. It is indeed a monument to the intelligent perseverance of the Superintendent.

THE POULTRY MANAGER.

Mr. A. G. Gilbert, Poultry Manager at the Central Experimental Farm, Ottawa, was born in Georgetown, Demerara, British Guiana. When eight years of age he was taken to Glasgow, Scotland, where he was educated under the guardianship of his grandmother, who was a Grant of Cromarty and the recognized head of the clan, a fact of which she was very proud. She was highly connected, and married an English officer, to do which she had to get, as it were, special dispensation from her Highland relatives. His mother was a Fraser of Inverness. At seventeen years of age he returned to the West Indies and was an overseer on a sugar plantation for nearly eighteen months, when he was attacked with an incipient form of yellow fever and had to leave the country and come to Canada, making his home for the time being with his uncle, William Fraser, of Port Hope, who had one of the most charming residences in that pretty place. He was in the service of the Bank of Toronto for five years respectively as junior clerk, teller and accountant. At the end of that period he took to journalism, for which he had always a strong liking, and served on the staffs of several of the leading papers of the country. In 1882 ill-health compelled him to take a subordinate position in the Department of the Interior. He occupied a residence in the country and made a study of poultry. He put up his own fowl houses, got plenty of eggs in winter, and raised the finest and largest chickens in the district. He was appointed to his present position in 1887, and the work he has accomplished since is well-known to the country. Few persons fully realize the importance of the poultry interests of the country or how susceptible they are to enormous development.

Notes on the Dominion Experimental Farms Report.

With the steady development of the Dominion Experimental Farm system, and the investigations conducted in connection therewith, the comprehensiveness of the annual reports duly keeps pace. Since the first their size has more than tribled. The eighth now before us is a volume of some 420 pages, containing an immense fund of information, which the studious, practical farmer will find a valuable addition to his agricultural library.

The experiments with grains, roots and potatoes, and with different crops, under different conditions, with and without fertilizers, etc., form a prominent part of the directors' report. Some idea of the interest awakened may be seen in the fact that last year no less than 23,414 grain samples were sent out to 14,942 applicants. We are pleased to note that extensive trials have been given a large number of hedge plants, which are described and commented upon. Hints are given to hedge planting, trimming and propagating, which should be known by every one who takes any pride in a home and its surroundings.

Forest and ornamental trees and shrubs.—Under this department there were, in 1890, 1,000 packages, containing 100,000 forest trees, each variety labelled, and with each package a circular giving instructions for their planting and care. In 1891, 2,000 packages, containing 200,000 forest trees, went out; also 3,782 bags of tree seeds. This work was conducted under the direction of Prof. Craig. Most of this distribution was to Manitoba and the Northwest Territory. This is most commendable. We might add just here that from the establishment of the Manitoba and Northwest edition of the ADVOCATE, we have specially urged the advantages of this line of forestry upon the settlers of the prairie country, and gladly record the great progress that many have made. Florists will note with interest the chapter on geraniums.

The cases of tuberculosis at the branch experimental farms are reported on, and the Director adds his testimony to the value of tuberculin as an indicator of the disease. We note the following hint of value to any who may have dropped into the error alluded to:

"It is most unfortunate that so many intelligent people, including some members of the press, fail to realize that tuberculosis is a disease entirely distinct from pleuro-pneumonia. Pleuro-pneumonia is a terribly contagious disease, which, when once established in a herd, carries its victims off suddenly and rapidly; while tuberculosis, although contagious, is usually very slow in its workings, and an animal may have the disease for years without its being manifested by any external symptoms. Pleuro-pneumonia is essentially a lung disease, under the influence of which the lungs become rapidly congested and very shortly lose the power of discharging their natural functions, and the animal dies. Tuberculosis is not essentially a lung disease. Out of 74 cases of post-mortem examinations, in more than one-third of the cases no disease whatever was found in the lungs. The Director is happy to be able to say that *pleuro-pneumonia is not known to exist anywhere in Canada.*"

During the year, about 12,000 farmers and others visited the Farm, many of whom came in excursion parties. On most of such occasions, opportunities were given for some of the officers of the Farm to address the assembly.

Prof. J. W. Robertson, the Agriculturist, gives a rather brief report, principally on experiments in feeding swine, and work in the experimental dairy. He reports that "there was no constant or appreciable superiority in the breeds and breeding tested, in respect to the quantity of feed consumed per pound of increase in live weight; the difference in the thriftiness, or power to increase in live weight per pound of feed consumed, was greater between different animals in the same litter than between breeds or breeding as such, in different litters; on the whole, for fattening purposes, cross-bred swine and grades gave better results than pure-breds." From the experiments of three years with 112 hogs fattened upon grain, it appears that on an average, 4.38 pounds of grain (barley, rye, peas, wheat, frosted wheat and wheat bran) was the quantity consumed per pound of increase in the live weight. It is profitable to feed the grain ground and soaked in water for an average period of about thirty hours. It is profitable to add three or five pounds of skim milk or buttermilk per head per day to the grain fed to fattening swine.

The report of the experimental dairy department takes up comparative tests of pure cultures of bacteria in ripening cream, a summary of which has already appeared in the ADVOCATE, and churning cream at different stages of ripeness. The conclusions drawn from churing sweet cream, cream 12 hours ripened and 20 hours ripened, are: (1) A slightly greater yield of butter was obtained from cream which was ripened for 20 hours than from cream ripened for 12 hours; (2) the butter from cream ripened for 20 hours was slightly richer in flavor, but was of no higher commercial value than that from the cream ripened 12 hours; (3) the butter from the cream churned sweet was slightly less in quantity than from the other two lots; (4) the sweet cream butter was two points lower in flavor than that from the ripened cream.

In 1891, about 40 acres of land were set apart for the purpose of growing fodder crops for cattle, in order to illustrate how many cattle might be fed each year upon the products of that area. The crops grown were mixed cereals, fall rye (fed green), clover, roots, Indian corn, horse beans, and sunflowers and pasture. It was found that 37 cows were fed, and gave 59,896 pounds of milk, which, had it all been made into butter, would have yielded 2,651 pounds, from July 7th to December 31st. A larger product was expected for the next half year.

Prof. Robertson's time is so fully taken up with his duties as Dairy Commissioner that very little special attention could be devoted to the work of Agriculturist.

The report of the Horticulturist, John Craig, is interesting at this juncture. Much is being done to develop a fruit trade. Extensive experiments have been conducted with cold storage. It has been found that fruit for storage should be picked when fully grown, but before it has thoroughly matured. Early peaches, pears, and large varieties of plums, should be wrapped separately in tissue paper. Tight wooden boxes are best for storing and handling. Store fruits, such as peaches and plums, under ordinary circumstances, should not be held for a longer period than two or three weeks. The marketing season for early pears and apples may be extended from 30 to 60 days, and under favorable circumstances for a longer period.

The reports of the Botanist and Entomologist, Mr. Fletcher; the Chemist, Mr. Shutt; the Poultry Manager, Mr. Gilbert, are replete with data of special value in their respective departments, while those of the superintendents of the branch farms are exceedingly complete.

Judging from this report, sheep husbandry does not appear to be receiving attention on these farms, barring the reference to a couple of Dorsets on the B. C. Farm. In fact, speaking generally, we incline to the view that the scope of investigation along the lines of live stock husbandry, which admittedly lies at the foundation of successful Canadian agriculture, might with advantage be extended.

The volume contains numerous useful illustrations, and we can heartily commend it to the attention of our readers.

SUMMARY OF EXPENDITURES FOR YEAR ENDING JUNE 30, 1894.

Central Farm		$31,514 34
Nappan "		8,437 58
Brandon "		12,825 48
Indian Head Farm		13,211 39
Agassiz Farm		9,720 15
		$75,708 94
Seed grain distribution		3,066 08
Forest tree "		84 65
Printing reports, etc		2,939 88
Total		$81,799 55
Stock, machinery, implements, etc., on hand June 30, 1894		$38,687 68

Indispensable on the Farm.

Geo. J. McCormac, Prince Edward Island, writes: "We have been taking the ADVOCATE for a number of years. We deem it an indispensable auxiliary to our farm, and feel that we could not do without it."