

that we also have something in Canada and the Canadian West, and also that with our present rapid development we will soon reach the stage of perfection, and, in all probability, surpass the present livestock status in the United States.

M.A.C.

A. J. McMILLAN.

Winter Work at Brandon Farm

Few farmers think of visiting any of the Dominion experimental farms during the fall or winter seasons. Perhaps many imagine there is little to see, but those who think thus are mistaken. While the principal function of those farms situated in Western Canada may be the experimental work carried on in the fields, plots and gardens, yet none the less important is the livestock and feeding experiments conducted in the stall or in the corral.

A visitor to the Brandon Experimental Farm at this season of the year is met with the complete arrangements that have been made to insure comfort and a subsistence for all stock throughout the winter months. James Murray, the superintendent of the farm, is a popular agriculturalist, and even a few minutes conversation with him in his office will convince you with the fact that quite as important as the field experiments are those found about the animal dormitories. While Western Canada is a wheat-producing country yet a certain and sure diversification is already pressing its importance upon the tillers of the soil; thus the need and value of practical information coming from demonstration work along diversified agricultural lines.

At the Brandon farm is found many interesting items that should appeal to every husbandman possessing ideas of progressiveness. Prominent among them is the experiment regarding steer feeding. Fourteen steers, averaging about 1,100 pounds each, are being stall-fed. These animals are two-year-olds that were purchased on the ranges. Eight others of similar weight are enclosed in a large corral and sheltered only from the blasts of winter by the shaggy coats with which nature has so beneficently provided them. The animals that run in the open are fed three pounds of meal each per day on a broad elevated table. Their roughage, such as straw and coarse hay, is provided them in loose form. This they leisurely eat, and from every appearance they are thriving well. It is the intention to steadily increase their concentrated feed supply, giving them more meal as the season advances.

The fourteen animals fed in the stall are provided for somewhat differently. They are given roots and silage. At the beginning their meal ration was a light one, being started off with but three pounds of meal per day. Part of the lot of the fourteen stall-fed steers were given 2 or 3 pounds of alfalfa to take the place of part of the meal ration. It will be interesting to note the final results of these steer-feeding experiments.

In the stables is found the herd of utility Short-horns and they are being bred with the purpose of establishing a dual-purpose herd. Some of these animals come from high record milking strains.

In the piggery several lots of hogs are seen. A number of crossbreds fed for pork purposes present a favorable appearance. Those, a cross of the Yorkshire and Berkshire breeds, were reported to show favorable gains and quick development on an average amount of feed.

A new line of livestock on the Brandon farm is a flock of sheep. A small bunch of grade range-bred ewes were purchased, similar to what an ordinary farmer would buy and keep on his farm. These were running outside in late November, although a large and spacious sheep barn is being built for their accommodation. These ewes are grade Oxfords and they are being bred to a purebred Oxford ram, with the object of improving the flock. The purpose is to demonstrate what improvement can be made on an ordinary flock by the careful selection of purebred sires. The sheep are fed only on clover hay at present, little grain being given them. Some sixty acres of the farm is being set apart for the keep of the sheep. Much of this land is

scrubby and rather rough, and it is thought best adapted for sheep rearing.

There are many notable features of the work on the Brandon farm that should commend itself to many of our Western farmers. The experiments carried on are of a very practical nature, and all interested agriculturists should carefully watch the tabulated results when published of the winter's work at the Brandon farm.

Farm

Topics for Discussion

In recognition of the fact that valuable hints always are obtained from men engaged in actual farm work THE FARMER'S ADVOCATE has adopted the "Topics for Discussion" column, in order that our readers may see an open channel through which they may inform their brother farmers as to practices that are worth adopting and warn them against methods that prove unprofitable. Not only do we wish our readers to discuss the topics announced for the various issues, but also we desire that they suggest practical subjects on which it would be well to have discussion.

This notice appears under the "Farm" department, but the questions dealt with cover all branches of the farming industry. Letters should not exceed 600 words and should reach this office 10 days previous to the date of issue. They are read carefully and a first prize of \$3.00 and a second prize of \$2.00 awarded each week. Other letters used will be paid for at regular rates to contributors.

December 28.—*Should the boy who proposes to be a farmer be trained as an up-to-date farmer capable of taking part in discussions at public meetings and holding positions in public life? What can be done to overcome the scarcity of labor on the farm that makes it necessary for him to work from early morning until late night when he is too tired to read or study, or do anything to remove the picture of hard work to get more land and make more money. Too many farm boys are "old men" at 18 or 20 years.*

January 4.—*What should be the attitude of the farmer toward farmers' organizations? To how many can he afford to lend his best services and how can he be of greatest service to his fellow farmers and the industry at large?*

January 11.—*What feed and exercise do you give the stallion in winter, and what preparations do you make for the breeding season? Kindly discuss this question fully, especially the relation between winter exercise and feed and his use in the breeding season.*

January 18.—*Why is it that so many young men whose fathers are interested in purebred livestock seem to have a wholesome distaste for the business, and will have nothing to do with it? What's the matter with livestock, or the boys we are raising, that it is hard to keep stock and boys on the same farm?*

Farmers' Blacksmith Shop

EDITOR FARMER'S ADVOCATE:

It is practically impossible to blacksmith successfully in the open, so I built a 12 x 12 shop with 6 foot walls and pitch roof. The smoke finds its way out through the roof pipe easier with this kind of roof than with a car roof, and prevents the objectionable feeling of being nearly choked. The walls are shiplap, the roof one ply of half-inch boards laid crossways with a two-inch lap. This is a good, cheap roof. There's a small window in the north. In the summer I use a storm window in front of the bench, which gives in enough lights on the east side. Then the door is south. The cost of the building was about \$20.

The tools comprise forge, anvil, vise, drill, stock and dies, hammers, tongs, chisels, etc. A useful outfit can be bought in Winnipeg for about \$40. In buying a forge it is necessary to have a wide pan, which is a saving in coal, and is more convenient to work on. My forge is homemade and works on the fan principle. It cost me \$1.50 to make, and is second to none. The stocks and dies are of good service for re-

threading old bolts or making new ones. During seeding or cutting time something small breaks on the seeder or binder. With the tools a person can nearly always fix the breakdown at home, thus saving a trip to town, the cost of repairing, and is often able to get back on the land in less time.

Sharpening plow shares is the item which is most important. Consider the time wasted by hundreds taking plowshares to town, when with very little practice the work can be done at home. There are always old shares lying around to practice on. When tempering shares, it is advisable not to harden them too much, especially if in stony land, as they chip so easily. Beginners should temper a little on the soft side. All I know of this work I learned by experience, but am now able to sharpen and point shares and also weld.

I used to pay 70 cents for sharpening a pair of 12 inch shares, and 75 cents each for pointing. As I use a sharp pair every day, it would keep a horse running to town often. In place of this I can keep that horse on the plow, as I always sharpen up when the team is feeding.

The tools come in handy for repairs of every implement on the farm. So, an outfit earns its price and compensates the owner the first summer. I reckon a person can save from \$50 to \$75 in plow shares and sundry work, and then be ahead in his work, having lost no time running for repairs, which are often not ready.

When the thresher is around, the shop saves part of the board bill, because when a small part breaks the men are generally able to fix it up on the farm, and get to work again sooner.

All the tools mentioned are of great service, but in any case every farmer ought to have a forge and anvil. The buggy often needs a little smith work. A stitch in time would often save a lot of wear, but as town prices for repairing are so high, the farmers' buggy is generally left until it is completely spoiled. Bolts and clamps of any size can be made at home for hay racks, floats, stone boats, etc. The amount of coal I've used has cost me only \$1.00 for the year.

J. N. WALTERS.

Cost of Experimental Farms

From the report of the auditor-general for Canada for the fiscal year, ending March 31, 1910, the following data is taken relative to the cost for maintenance and operation of Canada's nine experimental farms. Included in the charges is an item of \$7,184.05 for new farms to be established, which is not chargeable to the farms in operation:

Farm.	Expenditure.
Central Experimental Farm, Ottawa.	\$53,785.63
Branch Experimental Farm, Nappan, Nova Scotia.	8,572.98
Branch Experimental Farm, Brandon, Manitoba.	12,473.73
Branch Experimental Farm, Indian Head, Sask.	10,314.79
Branch Experimental Farm, Agassiz, British Columbia.	6,917.17
Branch Experimental Farm, Lacombe, Alta.	6,993.72
Branch Experimental Farm, Lethbridge, Alta.	9,821.76
Branch Experimental Farm, Rosthern, Sask.	14,934.57
Branch Experimental Farm, Charlottetown, P. E. I.	10,552.85
New farms.	7,184.05
Detailed in 1908-9.	8,671.56

Total. \$150,222.81

The new branch stations are located at the following points: Fort Vermilion, Alta.; Kamloops, B. C.; Abitibi, Ont., and Scott, Sask.

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One of the best sales of Hereford cattle of late years was that of the well known herd of Jas. Edwards, Leominster, Eng. The two-year-old bull, Broadwood Gambler, was sold for 230 gs., the purchaser being the King, for the Windsor herd. His Majesty also bought the heifer, Broadwood Gem, for 130 gs. Seventy-four head averaged £51.