

weakness of the flock. When one realizes the force of balanced breeding, and acts on it in the selection of sires, it is wonderful what strides may be made toward perfection in a few years. With this sire we correct a deficiency of the fleece, and yet retain the good qualities of form; with another, we add a little more bone; another deepens the flesh on the valuable parts, and so on, each marking a new advance; while closer discrimination and riper judgment keep disclosing new features to be attained in each additional effort.

Crop Yields in the West

Dr. Saunders, Director of the Dominion Experimental Farms, has recently returned from Manitoba and the North-West Territories and reports large yields of grain in the west. The crops throughout Manitoba are very good, and from returns already received from the threshings it is generally believed that the wheat crop will average 22 bushels per acre. In Eastern Assiniboia crops are also very good and will probably give an average quite as heavy as that obtained in Manitoba. There has been very little injury from frost. In the Indian Head district there is an unusually large acreage under wheat, and it is believed the crop in that section will average 25 bushels per acre. In the Prince Albert and Edmonton districts the rain-fall during the latter part of the summer was exceptionally great and the excessive moisture produced a rank growth of straw: hence the grain was late in ripening, and in some localities frosts occurred before it was fully matured. Many of these green crops have been cut for fodder, and will furnish a large supply of nutritious food for stock. The feeding of beef cattle and the manufacture of dairy products have for some years past been important branches of farm industry throughout this part of the North West country.

At the branch Experimental Farms at Brandon, Indian Head and Agassiz, B.C., which Dr. Saunders visited, good progress is being made. At Brandon some of the most productive varieties of oats have yielded from 100 to 112 bushels per acre; the best varieties of barley from 40 to 45 bushels, and wheat from 30 to 45 bushels per acre. Most of the best yielding varieties of wheat at Indian Head have given 30 to 38 bushels; oats, 80 to 97 bushels, and barley from 55 to 69 bushels per acre. Peas have not yielded so well, the crops ranging from 25 to 35 bushels per acre. At Agassiz about 400 acres are under cultivation, about one-half of which is planted to fruit. A large number of varieties are being tested in order to find out the kind best suited to the district and the most profitable to the grower. Last spring was very wet and the rain was almost constant throughout the blossoming period, which prevented the fruit from setting, and hence the fruit crop was small. The crops of hay and oats, which are the leading ones in the Province, were good. The quantity of wheat sown is small and the crop is about an average one. The season has been cool as well as wet, which has been unfavorable for corn, but field roots promise well.

The Breeding and Care of Horses

By I. P. Roberts, Professor of Agriculture, Cornell University.

"In breeding horses, don't try to breed the largest—their limbs give out and they go all wrong. Exceptions, draft horses, and in smallest ponies. A 2,000 pound draft horse will bring twice as much as one of 1,300 pounds; but is very hard to breed. Never get overstocked with horses, keeping twenty to forty, where eight to ten are enough for your land. Remember that half the success of farming lies in the business part of it. If you lack in the business sense, you will probably be a financial failure. Have a plan in your breeding. There is as much in having the right kind of a horse in the right place as in the

hired man. If you love horses, breed coach horses. If not, breed draft horses, which are easy to break and train. Roadsters come from the trotting class of horses. The hackney naturally belongs to the truck farm, and every farmer ought in a way to be a trucker. Low horses, and even ponies, are good for orchard cultivation.

"It is quite possible, by scientific feeding, to make horses grow large and tall, or the reverse. One successful horse-raiser I know feeds plenty of bone meal to give his horses fine, bony structure. The land has much to do with their quality. The little city of Lexington, Ky., sells annually in her streets \$2,000,000 worth of horses. The blue grass country produces horses because of the phosphates in the soil. In caring for horses, remember that the farm horse does not want his skin made too sensitive by over-currying. He perspires freely. What he does need is to have his feet and legs taken care of. Put your chief care upon him at night, after his day's work is done. Clean out his feet thoroughly, leaving no mud to dry in. He gets rheumatism from it. You only need simple tools to work with; first, an old broom, and finish off with a wisp of straw, rubbing legs and feet well, hard and quick. Cut off the fetlock if you like; the feet, without it, dry off more quickly. To keep the horse clean and free from dust, a light blanket of cotton or jute costs less than the time for cleaning. Then, too, the blanket keeps the hair straight, and helps to keep it from growing. Never blanket a horse in the stable while he is warm, unless you give him a dry blanket shortly after.

"The driving horse must not be fat, but lean and hard, be well curried, sensitive in mouth and skin. . . . The first great mistake in caring for horses is feeding too much hay; the second is not feeding often enough. A horse should be fed four times daily, and half the day's feed should come after 6 o'clock at night. More horses are hurt by overfeeding of hay than grain. A horse should not work over five hours without feed, and different horses require different food. Some horses do better on straw than hay."

Experiment Station Hogs

Eighty Head Fed in Four Lots for Forty-two Days

The hogs were just common, every-day stock, bought of farmers in the vicinity of Manhattan, and averaged about 125 lbs. each. The lots were as even as weighing and selecting could make them. The feeding was done twice a day, a feed being all that the hogs would eat up well in an hour or so after feeding. The two lots receiving skim-milk received the same amount all the time, but the Kafir corn was varied with the appetite of the hogs.

The alfalfa pasture made but slight difference in the gain, but made a strong difference in the slaughter test as well as in the looks of the hogs. However, hogs on full feed do not make the use of alfalfa that hogs not on full feed do.

The four lots of twenty hogs each were fed from May 30th to July 11th, and consumed grain as follows:

Lot 1—Kafir, whole,	6,736 lbs.	Gained 1,411 lbs.
Skim-milk,	4,200 lbs.	
Alfalfa pasture.		
Lot 2—Kafir, whole,	6,601 lbs.	Gained 1,319 lbs.
Skim-milk,	4,200 lbs.	
Lot 3—Kafir, whole, alone,	5,321 lbs.	Gained 834 lbs.
Lot 4—Kafir, whole,	4,931 lbs.	Gained 890 lbs.
Alfalfa pasture.		

At the close of the experiment the hogs were weighed on the college scales and shipped to Kansas City, without feed in the car or after reaching the yards, and the shrinkage on eighty head was but 230 lbs.

Each lot was sold on its own merits July 13th, and brought as follows:

Lot 1—Kafir, skim-milk, and alfalfa pasture,	\$4.10.
Lot 2—Kafir and skim-milk,	\$4.075.