

Breeders' Directory

CARDS under this head inserted at the rate of \$6.00 a line a year. No card accepted under two lines, nor for less than six months.

SHEEP

FORSTER FARM, Oakville, Ont., breeders of Dorset Horn Sheep. Registered Stock for sale. Correspondence cheerfully answered. See large ad. 0-8-1

J. C. ROSS, Jarvis, Ont., Cotswold Sheep Priests, winners at Homebred. Also some good Clydesdale Horses. 0-8-1

JNO. COUSINS & SONS, Hamilton, Ont., C.P.R. and O.T.R. Oxford Down Sheep, Shorthorn Cattle, Yorkshire Swine. Stock for sale. 0-8-1

GEO. B. ARMSTRONG, Howhill Stock Farm, Teeswater, Ont., Leicester Breeding Ewes. 0-8-1

PETER ARKELL, C.S., Teeswater, P.O. and Station, C.P.R., Midway, O.T.R., Oxford Down Sheep, showing and breeding stock, imported and home-bred. 0-8-1

THOS. ARKELL, Teeswater, Ont., sta. C.P.R., Midway, O.T.R., Choice breeding stock, Oxford Down Sheep. 0-8-1

JAS. TOLTON & SONS, Walkerton, Ont., breeders of Oxford Down Sheep and Shorthorn Cattle, young breeding stock for sale. 0-8-1

JNO. AYER & SON, "Bellevue Farm," Bowmanville, Ont., breeders of Southdowns. Stock for sale. 0-8-1

SAMUEL CUMMORIE, Harenda, Ont., importer and breeder of Dorset shires. E-10-1

SWINE

CHAS. CURRIE, Morrison, Ont., breeder of choice Tamworth Swine. Stock for sale. 0-8-1

JOS. FEATHERSTONE & SON, Streetsville, Ont., Large Yorkshire and Essex hogs for sale. E-11-09

LOMBE FOSTER, "Glenhead Stock Farm," Myrtle, G.T.R., and C.P.R., breeder of Yorkshire Swine. Young stock for sale. 0-8-1

D. DOUGLAS & SONS, Mitchell, Ont., breeders of Tamworth Swine, Yorks, Poles, and Coes, Pekin, Ducks and B. C. W. Large hogs. Correspondence invited. 0-8-1

KELLY BROS., Hagersville, Ont., breeders of Improved Yorkshire Swine. Stock of all ages for sale. Write them. 0-8-1

J. W. YODD, Corbin, Ont., breeder of English Berkshires and Tamworths. Breeding stock for sale. 0-8-1

A. A. COLWILL, Newmarket, Ont., importer to Colwell Bros., Shorthorns and Tamworth Swine. Choice young stock for sale. 0-7-1

S. SNOWDEN, Bowmanville, Ont., Box 20, breeder of Large English Berkshires, H. Rocks, Light Brahmas, W. and B. Leghorns, Borden Ducks, W. Holland Turkeys. 0-11-1

AYRSHIRES

Of the Highest Dairy Type and of the Choicest Milking Strains.

FOR SALE—At all times young stock of both sexes. Enquiries by mail promptly answered. H. C. CLARK, Hammond, Ont. 0-8-2

STONE HOUSE STOCK FARM, Importer and Breeder of Clydesdale horses and Ayrshire cattle. Stock of all ages for sale, including choice young bulls. Enquiries promptly answered and satisfaction guaranteed. Hector Gordon, Howick, Quebec. 0-8-1

THE STEVENS DAIRY FARM, Breeder and Importer of High-class Holsteins. FOR SALE—Bull calves, ready for service.

Also by Sir Alta Fosh Beets, also a number of young cows. Wm. C. Stevens, Phillipsburg, P. O. Leeds Co., Ontario. 0-8-1

Woodstock Herd of Large English Berkshires

I HAVE FOR SALE Pigs of all ages, both sexes, from eight weeks to eight months old, sired by such Stock Boars as Woodstock Laddie and Polgate Doctor's Rival. All true to type and prize-winning stock. Call and see or write for prices.

DOUGLAS THOMSON, Woodstock, Ont. C.P.R. & G.T.R. 0-4-0

SPRINGHURST FARM BERKSHIRES

Pigs of all ages from imported stock of the choicest breeding and individual excellence. Satisfaction guaranteed.

JOHN ELLENTON & SON, Hornby, P.O. Milton Stn., G.T.R. and C.P.R. 0-10-20

FAIRVIEW BERKSHIRES

Young stock for sale from Imp. and Canadian bred stock, bred on prize winning Irish or in choice individuals, come and see them or write to HENRY A. MASON, Fairview, Ont.

Street cars from Toronto pass the door. 0-4-20-09

CATTLE

FITZGERALD BROS., Mount St. Louis, Ont., breeders of Shorthorn Cattle and Shropshire Swine. Offering great bargains now. Long distance telephone. 0-5-1

CHAS. GROAT, Brooklin, Ont., breeder of Clydesdales and Shorthorns, Glaser, Mead-owflower families. 0-8-1

A. J. WATSON, Castlegore, Ont., breeder of Scotch Short Horns. 9 young bulls for sale. 0-8-1

A. P. POLLARD, Shadaland Stock Farm, Canton, Ont., breeder of Shorthorns and Berkshire Swine. Choice stock always for sale. Rural phone. 0-10-1

BERTMAN HOSKIN, Mt. Pleasant Farm, The Valley, Ont., breeder of Holstein Cattle, Tamworth Swine. High-class young stock for sale. Long distance phone. 0-11-1

L. O. CLIFFORD, "The Maples," Oakawa, Ont., breeder of Herefords. Stock for sale. Long distance phone. 0-10-1

A. E. MEADOWS, Port Hope, Ont., Short-horns, Melbines, Jacobines, Gloucester, Lady Ann families. Choice young stock for sale. 0-8-1

JOHN FLY-COON, Milverton, Ont., G.T.R. breeder of Shorthorns. 0-8-1

JAS. ROBERTSON & SONS, Willow Bank Farm, Milton, Ont., breeders of Shorthorn Cattle, Dorset Sheep and Berkshire Swine. 0-10-1

GEO. B. ARMSTRONG, Howhill Stock Farm, Teeswater, Ont., imported and homebred Shorthorns for sale. 0-8-1

JOHN GARDHOUSE & SONS, Highfield, Ont. See large ad. 0-8-1

MISCELLANEOUS

J. T. GIBSON, Denfield, Ont., Station G.T.R. Imported and Home bred Scotch Shorthorns. Choice breeding stock in Lincoln Shires. 0-8-1

H. BARTLETT, Kilmco, P.O., Lincoln Co., Riverview Stock Farm. Shorthorns and Dorset Sheep. 0-8-1

JAS. BOWMAN, "Elm Park," Gravel, Ont., importer and breeder of Aberdeen Angus Cattle, Clydesdale Horses and Suffolk Sheep. Correspondence invited. 0-8-1

Feeding Steers on the Brandon Experimental Farm

The feeding of cattle outside for the production of beef has been receiving considerable attention of late at the hands of Manitoba cattlemen. The strongest advocates of this method of producing beef are men who have been successfully practicing it for a number of years and those who have seen it in operation. The conditions of outdoor feeding are so radically different from those that have been generally considered essential, that the majority of cattlemen are sceptical about it, while many others look upon the practice as ludicrous, and say that it must involve a wanton waste of feed.

Last fall some work was started to get definite information on the comparative economy of making beef in a comfortable stable and in the open with comparatively little shelter. The first lot of steers, thirteen head, has just been marketed and the results are available.

The thirteen steers were purchased late in November and divided into two groups as nearly alike as possible in size and quality, eight being deteriorated and put outside, and five (as many as we had) in commodious feeding in the stable. The steers were domestic purchased in the neighborhood of Oak River, and cost 35¢/shunk. The inside group were started on December 3rd, on a standard ration that has given good results here for a number of years for beef production. This consisted of silage, straw, hay, a few roots and grain. The grain ration at the start consisted of 2 lbs of a mixture of oats, barley, and feed wheat, and 2 lbs of bran per steer. This was increased from time to time until by the 1st of April each steer was receiving daily 10 lbs of grain and 2 lbs of bran. The steers were not out of the stable after being tied up until they were sold.

The eight steers outside had a range of about 100 acres of rough rolling land some of which was well sheltered with shrub. Water was available in one of the coulees, the ice being cut every day. No shelter by way of sheds was provided. Grain was fed in a trough about 3 feet wide and high enough off the ground to prevent the steers getting in it. Straw was always kept before them in an enclosure of stakes that would hold about a load, arranged so that the straw could not be wasted by tramping over it. On December 3rd they were started on a ration consisting of 2 lbs of grain and 2 lbs of bran, then increased from time to time until by April 1st each steer was getting 10 lbs of grain and 2 lbs of bran. About six weeks rough hay was fed instead of straw. This is charged for at the rate of \$2 per ton which is its full value.

Both lots of steers were sold on April 22nd for \$4.25 per hundred with a per cent. discount. Following is a statement of the transaction:

No. of steers in lot	Outside	Inside
	8	5
First weight gross	8854	5995
First weight average	1100	1190
Finished weight gross	10630	6950
Finished weight average	1328	1390
Total gain in 318 days	1776	1255
Average gain per steer	234	251
Daily gain per steer	1.6	1.81
Daily gain per lot	12.8	9.05
	\$ 8	\$ 8
Gross cost of feed	100.76	77.95
Cost of 100 lbs grain	5.67	6.20
Cost of steers	884 lbs. at 35¢	276.50
	599 lbs. at 35¢	177.97
Total cost to produce beef	327.26	355.92

Sold 14,135 lbs. at 4½¢	
less 4 per cent.	435.71
6,950 lbs. at 4½¢	
less 4 per cent.	283.96
Profit on lot	50.45
Net profit per steer	7.05
Average buying price per steer	34.56
Average selling price per steer	42.21
Average increase in value	10.65
Average cost of feed per steer	12.59
	15.59
Amount of meal eaten by lot of steers	8892-530
Amount of straw	8 tons
Amount of hay	6 tons
Amount of millet	1 ton
Amount of ensilage and roots	2850
Amount of corn fodder 1 ton	

INVESTMENT AND LABOR

The net profit as shown here, \$5.52 on those fed inside, and \$7.05 on those fed outside make no allowance for interest on investment or labor involved in tending the cattle. For the outside lot the only investment was the price of the steers and the value of the lumber for troughing, a total of \$236.00. The labor involved in attending this lot, including the drawing of straw, feeding grain and cutting ice, would at the outside not amount to more than the time of one man for one hour per day. The extra expense in attending 50 head would have been not more than the time required to draw the additional straw, a small item.

In feeding inside the investment is necessarily very much greater no matter how economically the building be done. Provided a building suitable for stabling 30 steers could be erected for \$1,000, an additional gross profit of \$200 would be required to meet interest on the investment. The labor required to attend to the cattle fed inside was fully four times as much as that required when the feeding was done outside.

The point has been raised in discussions on this subject that a large part of the food consumed by the cattle fed outside must be utilized to keep up the animal heat, and that since those fed in a comfortable stable do not have the same waste of heat to provide for in the food consumed, they should on that account lay on fat more economically. It must be borne in mind however, that cattle that are not stabled grow a coat of hair more resembling in its density that of a heavier than a steer, and that this provision aids greatly in conserving the animal heat. During the coldest weather that we had this winter, when for a week the temperature averaged below zero, the steers did not seem to suffer in the least, and were not standing around the straw pile with humped backs as one might imagine. The cattle were always ready for their feed and none of them went off feed during the winter. The abundance of fresh air has no doubt a salutary effect in keeping the digestive system in tone.

The work carried on this winter is intended as introductory to more extensive trials. Experiments of the sort above outlined must be continued for a number of years, when different kinds of seasons are encountered before the results can be considered of any great value. The past winter's results may be taken as representing what may be expected in an unusually mild winter free from severe storms or prolonged cold spells. How these results will compare with what may be obtained in a more severe winter remains still to be seen.—James Murray, Supt.