



1st Prize Ham at Vancouver, Helena, Spokane, Yakima and Salem. Sold to Don E. Farm, Agassiz, B.C.

OXFORDS for SALE

I have for immediate sale a number of high-class-bred Ewes, different ages; also some Ewe Lambs and Shearling Rams. These will be sold at reasonable prices.

H.S. CURRIE, Willow Ridge Farm
CASTOR, ALBERTA.

SUNNY SLOPE SHORTHORNS

Herd Headed by the Two Great Bulls:—

"OAK BLUFF HERO," by Imp. "Oakland Star," and "WILLOW RIDGE MARQUIS," by Imp. "Gainsford Marquis."

Bulls, Cows, and Heifers always for sale at most reasonable prices. Special offering at present in bulls from nine months to two years old. Pay the farm a visit. Farm ten miles south-west Calgary, on Priddis' trail. Stock shipped from Calgary, C.P.R., C.N.R., or G.T.P.

NORMAN HARRISON - Priddis, Alta.



"Gay Lad 16th,"
Champion Bull at Calgary,
1918.

Willow Springs Ranch

Canada's Premier Hereford Herd

700 Head of Pure-breds, headed by "Gay Lad 16th," "Gay Lad 40th," "Fairfax Perfection," and other noted herd leaders.

Special Offering

A number of one and two-year-old Bulls and Heifers. Come and look them over. Prices Reasonable.

FRANK COLLICUT, 836 11th Ave. W, CALGARY, Alta.

Ranch at Crossfield, Alta.

JOHN BLISS, Herdsman.

40 Head SHORTHORNS for Sale

We have for immediate sale 40 Head of Choice Registered Shorthorns—young cows and heifers, bred to good bulls, and all in splendid condition—mostly due to calves in March. Reason for sale, disposed of my present ranch, moving to new location with less range.

Will be sold in numbers to suit purchaser. Priced right.

Phone 313

W. C. RICHARD, Airdrie, Alta.

100 PERCHERONS 100

Herd headed by the Champion "LORD NELSON," 118170. Mares and Young Stallions always for sale, many of show-yard calibre. Shorthorns too.

A. H. WHITE, Address either **BOTTINEAU, N. Dak., or KRAMER, N. Dak.**

VANSTONE & ROGERS

Importers and Breeders of Pure-Bred Clydesdales, Percherons and Belgians. We always have some good stallions on hand and our prices are reasonable. We sell more than twice as many stallions as any other dealer in Canada and our customers do our advertising.

VANSTONE & ROGERS - NORTH BATTLEFORD, SASK.

J. W. DURNO, Livestock Auctioneer

MIDWAY SALES STABLES, CALGARY, ALTA.

Have a wide connection among breeders throughout Western Canada. Specialize in selling pure-bred stock. If you are arranging a sale write me early for dates, as I sell nearly every day in the year. Rates reasonable. Satisfaction assured. Horses for sale privately, or by auction. Sales: MONDAYS AND THURSDAYS.

Choice Aberdeen-Angus FOR SALE

Fourteen head of Aberdeen-Angus of the choicest breeding, comprising Cows, Calves, Heifers, and Stock Bull. Write for further particulars or come and see this stock for yourself.

D. RUSE

Grandview Farm



Bradwardine, Man.

pounds. Though the percentage of pigs raised fell to 76.92 per cent. it would be considered one of the most successful lots in the experiment when the number farrowed is considered: the two sows raising ten pigs each. The grain requirement of 1,068 pounds per cwt. per day shows that old sows require less feed in proportion to weight than gilts, though the average gain per sow was less. This ration proved quite economical and insures excellent results.

Barley

That barley should be properly supplemented by a protein rich feed was clearly shown by results obtained from Lots 3, 5 and 11. In the former two lots a ration of straight barley was fed, while in the latter, the barley was supplemented by ten per cent. meat meal tankage. In Lot 3 the barley was fed under the very best conditions possible—it was crushed and scalded for the morning feed, scattered on the ground whole in the afternoon to insure exercise, and the amount limited so that the sows were always kept a trifle

The Grain Growers' Guide

Lot 5 was due entirely to a lighter feeding of barley, or to the mineral matter provided in the form of coal, or to both, we cannot definitely state. Results obtained in lots fed frozen wheat, under identical conditions, seem to indicate that the heavy feeding is especially dangerous. It is evident that barley alone, even when fed under the very best of conditions, should be avoided as a ration for pregnant sows, but if properly supplemented with a protein rich feed, such as meat meal tankage, it can be fed not only safely but successfully.

Frozen Wheat

To answer definitely the question as to whether frozen wheat contained certain poisonous properties which made it responsible for the large number of hairless pigs following seasons of early frosts, three lots were devoted to this part of the work. Lot 4 was fed straight frozen wheat under the very best of conditions: crushed and fed as a warm slop in the morning, scattered whole on the ground for the evening



Upper Illustration—Sow Fed Barley plus Ten Per cent. Meat-meal Tankage.
Lower Illustration—Result of adding Ten Per Cent. Meat-meal Tankage to Frozen Wheat Ration.

Note thrifty condition of Sow and uniformity of litters in both cases.

hungry. They were given constant access to water, coal and salt. Lot 4 was allowed just about what they would clean up of straight, whole barley without preparation. Furthermore, coal was withheld from this group of sows. Lot 11 was fed under exactly the same conditions as Lot 3 with the exception that ten per cent. meat meal tankage was added. This tankage was fed with the barley slop in the morning and in the afternoon fed separately in a little warm water. Results are striking. Sows in Lot 3 made an average gain in 111 days of 82.83 pounds; in Lot 5, 70.33 pounds; and in Lot 11, the remarkably high gain of 105.66 pounds. A point worthy of note in this connection is that the gain in weight in Lot 3 was to a large extent due to fat rather than body growth, while the sows in the latter lot developed strong, rugged frames along with reasonable condition. These gains were made on an average daily grain consumption per 100 pounds live weight of 1.461 pounds in Lot 3, 1.788 pounds in Lot 5, and 1.723 pounds in Lot 11. Lot 3 farrowed 27 pigs, weighing at birth an average of 2.37 pounds and raised 23 or 85.18 per cent. These litters were uneven and a trifle undersized, showing that sufficient protein was lacking to properly develop strong, vigorous pigs. Lot 5 farrowed 28 pigs and raised but 16 or 57.14 per cent., average birth weight being 1.723 pounds. In this lot two pigs were born totally hairless, five with scanty covering, while others were decidedly lacking in vitality. The hairless condition of these pigs, low average birth weight, and unthrifty condition of the sows, gives every evidence that whole barley is unsuited to the proper nourishment of either the young growing sow or her unborn litter. The barley tankage Lot 11 farrowed 23 strong, vigorous pigs, weighing the high average of 2.587 pounds, and raised the entire number or 100 per cent. This proved to be the highest percentage of pigs raised of any lot in the experiment. These figures are all worth a little consideration. Whether the advantage of Lot 3 over

meal, and in addition, salt, coal and water were available at all times. The three sows in this lot made an average gain of 81.66 pounds, but their cost was harsh and wirey, showing that the feed was lacking in certain constituents for proper nourishment. Of the 29 pigs farrowed, but 14 were raised, or 48.27 per cent. Their average birth weight was 2.086 pounds. These pigs lacked vitality; one was practically hairless and several others were scantily clothed.

Lot 6 was fed whole frozen wheat, without preparation and without the addition of mineral matter in the form of coal. The amount fed was regulated entirely by the appetite of the sows; they were allowed just what they could clean up handily. These gilts made the lowest average gain of any in the experiment, with but 58.66 pounds to their credit. They lacked thrift throughout pregnancy and farrowed a large number of hairless pigs, one litter being entirely hairless. Of the 30 pigs farrowed, with the low average birth weight of 1.792 pounds but 15 were raised, or 50 per cent.

Lot 10 was fed frozen wheat under the same conditions as Lot 4, with the addition of ten per cent. meat meal tankage. These gilts made an average gain of 87.33 pounds and were sleek and thrifty at all times. Twenty-two pigs were farrowed, averaging 2.5 pounds at birth, and 21 or 95.45 per cent. were raised. All pigs were strong and active and gave every evidence of sufficient pre-natal nourishment.

The grain requirement per 100 pounds live weight throughout the experiment was 1.508 pounds for Lot 4, 1.880 pounds for Lot 6, and 1.866 pounds for Lot 10. With weak hairless pigs in both Lots 4 and 6 it seems that the difficulty is due more to a lack of proper constituents in the frozen wheat itself, than to the lack of added mineral matter in the form of coal. At any rate hairless pigs appeared in Lot 4 where the frozen wheat was fed under the best of conditions, the amount limited, and the sows given free access

to coal. Results from wheat do not show properties result but if fed as a ration are to be expected deficiency in protein of a proper protein meal tankage, with every animal.

Lot 9 was the ground feeding feeds and coal, salt and a rather low pounds and thrifty appearance tankage, and



Hairless Pig

the gain in growth rather large and strong of 2.56 pounds farrowed, 21 v. In this case, hundred pound the period was more feed weight and larger gain had been in a warm of animals, Oats prove to for pregnant a large part so well adapted

Many swine bred hairless sufficient exercise is common losses follow the sows spend time in the protection. Three gilts were frame house 4 ft. x 14 ft. fed the same amount with the exercise of oats form of slop eral hog me the experie results from very little excessively large gains pounds per all, 26 pig weight of in this lot, raised. All normal in e borne in m come excess tend to cru young, whi test and h from this confined in subject to The import exercise for thumps and all. It sho department exercise for we insist on all breedin however, le lack of ex hairlessness

Forc

Quite a lowed the eat snow during times thes from hair