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First of all there is a clear saving of at least 25% in time and money, compared with lumber and sheathing paper.

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Bishopric Stucco Board makes a warmer and dryer barn than you can possibly get with ordinary boards, because it is made of asphalt mastic, reinforced with kiln-dried laths. This gives a surface absolutely proof against wind and dampness, rats and vermin.

Bishopric Stucco Board makes the ideal Barn, Stable, Poultry House and Grain Storage. It costs less, gives better service, and is so much easier to put up.

Write for our booklet, describing it in detail, with many illustrations showing Bishopric Products in actual use.

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SHEEP

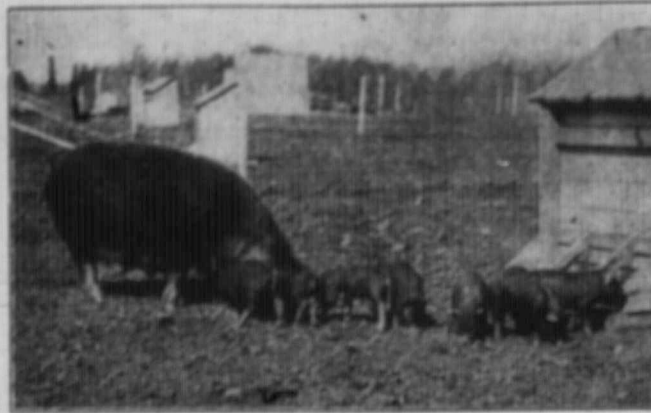
Good Young Grade Shropshire, Oxford, Suffolk and White-faced Breeding Ewes for Sale, in lots to suit. These Sheep are in fine condition and will make good money. Phone, write or call.

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A splendid lot of Registered Oxford Down Ram Lambs. Also Rams, one and two shears.

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Sow fed a Mixture of Oats, Barley and Bean in Morning, and Whole Oats in Evening. Note size and uniformity of Litter.



Result of feeding Straight Barley. Note dead pigs in front of Sow and lack of uniformity in those living.

Wintering Pregnant Sows

Results of Experiments carried on at the University of Alberta to Determine Cause of Hairless Pigs

By A. A. Dowell, Professor of Animal Husbandry

LEADING swine authorities have estimated that 40 out of every 100 pigs farrowed in Western Canada are either still-born or die shortly after birth. Many of these pigs appear to be perfectly normal but lack sufficient vitality to withstand the difficulties of young pig life. By far the greatest mortality, however, is due to the appearance of the dreaded hairless pig. One man came to this office last spring with a statement something like this: "I bred 100 gilts last fall with the idea of raising my feeder pigs this year instead of buying them at the stockyards. The first 18 gilts have already farrowed and practically every litter has been hairless. What can I do to save the other 82 litters?" He had been feeding a ration consisting largely of shorts and the gilts were over fat. Was the difficulty due to the feed, to the gilts being too fat, or both? Another breeder states: "I am going out of the hog business this fall for the simple reason that pig losses at time of farrowing have ruined my profits for the last three years." A 40 per cent. loss is certainly a handicap in the production of any class of livestock at any time, but more particularly just now with the success of the greatest war in all history depending on an adequate food supply.

Experienced breeders agree that heavy losses follow years of early frosts where large quantities of frozen grain are fed to the pregnant sows. For this reason many have been firm in the belief that frozen wheat contains certain poisonous properties that make it unsuited to the brood sow ration. Other contend that the greatest difficulties follow long, severe

winters, where sows have a tendency to remain in their sleeping quarters rather than rustle for a living. This has led them to the conclusion that lack of exercise, insufficient water, too little fresh air and lack of sunlight are all important factors. Still others lay the blame to a too heavy feeding of barley, lack of protein, a scanty supply of mineral matter, sows becoming too fat and numerous other causes. Practically every hog raiser has had his own theory as to the actual causes of the losses, but when the ideas of these different men were brought together in an attempt to make their results of service to the beginner, it soon became evident that they differed so widely in their conclusions that the only safe method of procedure was elimination through careful experimentation. The Animal Husbandry Department of this institution believing that the question had a direct bearing on the campaign for greater pork production, has been devoting considerable time and experimental space to this work during the year just passed.

Many experiments require years of careful repetition before results are of any considerable value. Certain phases of this work are far from settled at this time, but it is felt that many of the results are definite and can be put to immediate use by the practical breeder. We are prepared to go on record as to the suitability of frozen wheat in a ration for pregnant sows; the effects of excessive barley feeding; and as to whether lack of exercise, too little fresh air, and a total absence of sunlight will or will not result in hairless pigs. In outlining this experiment no attempt was made to select feeds

that would make the most economical rations under existing conditions. It was deemed more important to begin at the bottom and determine whether feeds that are available on most prairie farms could be fed with safety to pregnant brood sows. Economical rations can be dealt with after the suitability of the different feeds is determined. However, all feed, both morning and evening, was carefully weighed, so that we have definite figures as to the cost of the different rations.

Objects of the Experiment

1. To determine the suitability of frozen wheat as a feed for pregnant sows.
2. Same for a ration consisting entirely of whole oats.
3. Same for a ration of straight barley, and barley supplemented with a protein rich feed.
4. Importance of sunlight, fresh air, and exercise.
5. Value of mineral matter in the ration.
6. Should brood sows be given constant access to water, or will good results follow eating snow.

Breeds Used

- 5 Berkshires—two two-year-old sows and three gilts.
- 19 Duroc-Jerseys—four two-year-old sows and 15 gilts.
- 12 Tamworths—two two-year-old sows and ten gilts.

All 36 sows were pure-bred; the aged sows having been purchased from leading Alberta breeders, while the gilts were raised on the University farm. In each case the aged sows were half sisters and as they were the dams of

Table Showing in Detail Results of Feeding Various Rations to Pregnant Sows

Lot Number	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Breed and age	Duroc G. Gilt.	Duroc G. Gilt.	Duroc G. Gilt.	Duroc G. Gilt.	Duroc G. Gilt.	Duroc G. Gilt.	Duroc G. Gilt.	Duroc G. Gilt.	Duroc G. Gilt.	Duroc G. Gilt.	Duroc G. Gilt.	Duroc G. Gilt.
Size of litter	8	14	11	11	9	12	6	8	7	7	6	8
Total pigs at birth	22	26	27	29	28	30	26	29	25	22	23	29
Number died	3	6	4	15	12	15	6	10	4	1	0	4
Total pigs raised	19	20	23	14	16	15	20	19	21	21	23	25
Percentage raised	86.36%	76.92%	85.18%	48.27%	57.14%	50.00%	76.92%	65.51%	84.00%	95.45%	100.00%	86.29%
Ave. birth weight of pigs	2.579 lbs.	2.288 lbs.	2.370 lbs.	2.086 lbs.	1.723 lbs.	1.792 lbs.	2.43 lbs.	2.15 lbs.	2.56 lbs.	2.50 lbs.	2.587 lbs.	2.62 lbs.
Condition of pigs	Excellent	Very good	Fair	Poor	Poor	Poor	Good	Fair	Very good	Excellent	Excellent	Very good
Condition of sows	Excellent	Very good	Fair	Poor	Poor	Poor	Too fat	Fair	Good	Excellent	Excellent	Good
Ave. gain per sow 111 days	87.00 lbs.	66.00 lbs.	82.83 lbs.	81.66 lbs.	70.33 lbs.	58.66 lbs.	120.00 lbs.	76.33 lbs.	59.66 lbs.	87.33 lbs.	105.66 lbs.	96.33 lbs.
Feed consumed per 100 lbs. live weight—Grain	.971 lbs.	1.068 lbs.	1.461 lbs.	1.508 lbs.	1.788 lbs.	1.880 lbs.	1.097 lbs.	1.468 lbs.	1.559 lbs.	1.866 lbs.	1.724 lbs.	.775 lbs.
Garbage	2.63 lbs.						2.65 lbs.					2.181 lbs.

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