

The Head Indicates Breeding and Quality in All Classes of Stock.

buying country is Denmark, and its representatives are not averse to paying 1,000 guineas for Shorthorn bulls of real beef merit and ancestry.

At home an extraordinary development in stock breeding is taking place. New men with fresh ideas are entering this branch of agriculture, and are running it on commercial lines. Sky-high have they sent the prices of foundation breeding stock; and here I quote some of the existing record prices (in guineas) recently paid in Britain for individual animals: Herefords, 9,000; beef Shorthorns, 4,200; Friesians, 4,500; Aberdeen-Angus, 2,800; dairy Shorthorns, 2,000; Red Polls, 450; South Devons, 310; Devons, 350; Lincolnshire Reds, 700; Jerseys, 415; Guernseys, 280; Welsh, 210; Kerries, 115; Highlanders, 200; Ayrshires, 550; Galloways, 140; Lincoln Longwools, 700; Dorset Horns, 72; Suffolks, 300; Oxford Downs, 185; Romney Marsh, 1,000; Hampshire Downs, 300; Leicesters, 71; Blackfaced Rams, £395; Border Leicesters, 250; Cheviots, 205; Wensleydales, 87. Large Black pigs, 445 guineas, 300 guineas and 250 guineas; Berkshires, 320 guineas and 225 guineas; Middle Whites, 210 guineas; Large Whites, 105 guineas.

The country is, despite the drain constantly made upon it, still replete with potential breeding stock. Official statistics will prove that we are this year carrying more pedigree herds and flocks than ever. Propaganda work and publicity are being indulged in by the majority of our breed societies, and the result is noticeable in the number of fresh countries sending over buyers. How prices have risen may be gleaned from the following comparative table of average values obtained at some leading sales in 1914 and 1919:

Breed	Average value, 1914			Average value, 1919		
	£	s.	d.	£	s.	d.
Shorthorns	38	9	72	24	0	10
Herefords	37	7	02	06	10	0
Devons	35	3	2	59	12	0
Sussex	33	5	6	45	13	4
Red Polls	40	0	01	17	12	3
Lincoln Reds	30	3	5	61	19	11
South Devons	26	10	3	73	13	0
Jerseys	37	11	61	72	6	4
Guernseys	30	0	01	37	17	2
Aberdeen-Angus	44	13	21	08	12	4
Highlanders	30	0	0	48	14	6
Ayrshires	35	0	01	04	14	7
Holsteins	39	5	21	41	1	8
Blackfaced rams	29	0	0	73	7	8
Border Leicesters	39	8	6	65	4	0
Cheviots	14	7	6	47	17	6
Southdowns	11	9	8	14	0	0
Hampshire Downs	20	7	61	57	10	0
Oxford Downs	10	10	0	39	0	0
Shropshires	19	6	0	50	14	0
Suffolks	17	0	2	16	0	10
Leicesters	17	0	0	40	8	6
Lincolns	20	5	3	33	14	3
Romneys	11	0	92	49	15	9
Large White pigs	10	19	8	47	9	6
Berkshires	19	1	6	61	12	4
Curly-coated	5	16	11	30	0	0
Middle Whites	7	9	0	59	2	6
Large Blacks	10	0	0	42	15	0
Gloucester Old Spots	5	0	0	42	12	0

ALBION.

Value of Skim-Milk in the Hog's Ration.

Throughout the Province there are vast quantities of skim-milk and buttermilk available for feeding purposes. Both these by-products of the dairy are valuable feeds, the former particularly so for calves and the latter equally good for pigs and poultry. Live-stock men who have these by-products available are very often inclined to figure them below their real market value, and so make a wrong comparison between the value received for cream at our creameries and that

paid for whole milk. In estimating the returns from the herd, credit should be given for the by-products. Just what they are worth will depend upon a number of factors, such as varieties and proportions of other feeds used, the age of the animals to which they are fed, and the price of other feeds. H. W. Norton Jr., of the Michigan Agricultural College, discusses the feeding value of skim-milk for swine in Bulletin No. 92. The analysis of whole milk, skim-milk and buttermilk go to show that they differ only in the removal of the fat content. Both skim-milk and buttermilk are highly nitrogenous feeds, having a nutritive ratio of 1:1.5 as compared with whole milk 1:4.4. Using feed such as corn, rye wheat or barley, which furnish an abundance of carbohydrates and fat will materially aid in balancing the ration when the skim-milk is used. As skim-milk is easily digested it is particularly well adapted to young animals. It is claimed that the dry matter of skim-milk is practically one hundred per cent. digestible. Tests were carried on at the Michigan College to determine the effect the condition of the milk would have on the animals to which it was fed. With young calves it was found to be highly important to feed the milk sweet at body temperature. There was also a favorable showing for sweet milk when fed to hogs. It was found that 98 pounds less milk and 15 pounds less grain were required than when sour skim-milk was fed. The grain mixture contained equal parts cornmeal and ground wheat, fed in the proportion of 7½ pounds of milk to one pound of grain. It is doubtful if any other grain combines with milk as well as corn and gives as satisfactory results. A large number of tests were conducted with several hundreds of hogs, in order to estimate the value of skim-milk as a supplement to corn and other cereals. The following table shows the value of 100 pounds of skim-milk with cereal grains at a given price:

When price of Grain per cwt. is	100 lbs. of skim-milk as a supplement is worth	When price of Grain per cwt. is	100 lbs. of skim-milk as a supplement is worth
\$1.00	\$0.28	\$2.75	\$0.77
1.25	.35	3.00	.84
1.50	.42	3.25	.91
1.75	.49	3.50	.98
2.00	.56	3.75	1.05
2.25	.63	4.00	1.12
2.50	.70	4.25	1.19



No Scrub About This Steer.

This table shows that when cereal grains range in price from fifty to eighty dollars per ton skim-milk ranged from 70 cents to \$1.20 per cwt. in value as a supplementary feed. If dairymen and stockmen placed this value on the skim-milk it would considerably enhance the returns from the herd. Further tests were conducted to see what difference age made in the relative returns from skim-milk. Pigs under 100 pounds weight, fed cereal grains alone, required 468.9 pounds of grain per 100 pounds of gain, but when on a ration of skim-milk and grain 257 pounds of grain and 750.4 pounds of skim-milk produced 100 pounds of gain, or, in other words, 100 pounds of skim-milk replaced 28.2 pounds of grain. With older and heavier pigs the amount of grain replaced was less. In these comparisons skim-milk showed 13.2 per cent. greater value when used to supplement grain in the ration of young growing pigs than with the more mature and heavier hogs. Mr. Norton publishes another table in this Bulletin showing comparative values of skim-milk and other supplements to the cereal grains for pig feed. This table shows the relative values of different nitrogenous supplements commonly used with farm-grown grains and should enable the feeder to decide which of these feeds would be the most profitable at prevailing prices.

The feeding trials with buttermilk showed that it had feeding value practically equal to skim-milk. A number of tests were made with whey and it was found that for pig-feeding purposes it had about fifty per cent. of the value of skim-milk. As it is lower in protein than skim-milk, it requires a little different combination of other feeds to give maximum returns. Whey deteriorates in quality very rapidly, especially when held in storage tanks which are not properly cleaned. Where whey and skim-milk are returned from the creamery or cheese factory to the farm, it is advisable that these products be pasteurized to prevent the spreading of

disease. It is possible that milk from a tuberculous herd going into a creamery or cheese factory, and the by-products taken back to the farm, might spread infection to all the herds of pigs in the community. Next to whole milk comes skim-milk for the feeding of calves and pigs. By exercising care and using the right cereals with the skim-milk, exceptionally good results are obtained from skim-milk as a feed for both calves and pigs.

When 100 lbs. tankage costs	100 lbs. skim-milk is worth	When 100 lbs. mid-dlings costs	100 lbs. skim-milk is worth	When 100 lbs. oil meal costs	100 lbs. skim-milk is worth
\$2.00	\$0.22	\$1.00	\$0.27	\$1.50	\$0.46
2.25	.25	1.25	.33	1.75	.19
2.50	.28	1.50	.40	2.00	.21
2.75	.31	1.75	.47	2.25	.24
3.00	.33	2.00	.54	2.50	.27
3.25	.36	2.25	.61	2.75	.29
3.50	.39	2.50	.67	3.00	.32
3.75	.42	2.75	.74	3.25	.34
4.00	.44	3.00	.81	3.50	.37

One Pound of Gain on Less Than Four Pounds of Grain.

EDITOR "THE FARMER'S ADVOCATE":

I have just read, in one of the farm papers, a reader's experience with a litter of pigs where he said that he sold a load of hogs for \$150, but when he came to settle his feed bill he had to pay out \$160. My experience has been considerably different, especially from the financial point of view. A litter of ten hogs were fed mixed barley and oats, with a little wheat mixed in. All the meal was ground at home with our own outfit. The following is the feed bill for the litter of ten pigs:

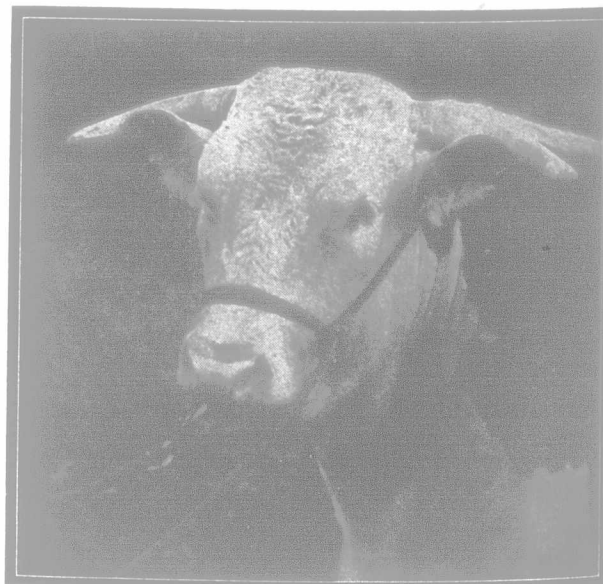
100 lbs. shorts at \$2.20	\$ 2.20
1,037 lbs. meal at \$2.50	25.93
5,374 lbs. meal at \$2.00	107.48
Total	\$135.61

On March 7 one of the pigs was killed for our own use and dressed 113 pounds, at \$23 per cwt. \$25.99; on April 23 four hogs were sold which weighed 870 pounds, at \$21 per cwt., making \$182.70. Four more were sold in May, weighing 880 pounds, at \$22.15 per cwt., making \$194.90. One out of this litter was kept for breeding purposes and was worth \$50, making a total of \$453.59 for the litter of ten. The feed cost \$135.61, leaving \$317.98 for labor, interest on investment, etc. These hogs received kitchen waste, milk and mangels, which are not reckoned in the above report. However, putting a fair value on these feeds, I consider that I have good wages for my six months' work.

Halton Co., Ontario.

W. J. C.

(NOTE.—The above shows exceptionally good returns from a litter of pigs. However, there are several things which should be taken into consideration. At time of weaning, the pigs would bring at least \$10 a piece on the market, which would mean an investment of \$100 to start with. In figuring profits on any kind of live stock, the first cost must be considered, and W. J. C. should either have figured what it cost to keep his sow and raise the pigs to weaning age, or else have charged market price for the young pigs. The milk, mangels and kitchen waste would add materially to the ration. The returns from the grain feeds no doubt being materially increased by their use. In order to get the net profit, labor should also be charged at a fixed amount, interest be allowed on investment, and a certain sum credited to the use of the buildings. The gain was made on a comparatively small amount of grain, but this might be accounted for by the liberal use of the mangels and milk. In this district barley and oat chop could not be purchased at the price which W. J. C. has stated. When figuring the cost of feed it is well to charge market prices.—EDITOR.)



A Face Which Indicates Pride of Ancestry.