

SOME ECONOMIC PHASES OF THE PUREBRED LIVESTOCK INDUSTRY

by

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THE PUREBRED ANIMAL

Purebred livestock, and especially purebred sires, have come to occupy such an important place in the livestock business of the United States that they are accepted as a matter of course. In years past some producers of market animals viewed the purebred more or less askance, but such an attitude among market producers in general no longer exists. The production of purebred animals has become so wide spread and general, and has fallen into the hands of so many men, both fit and unfit to carry on the work, that purebreds may again acquire disfavor unless the breeders keep the function of the purebred firmly fixed in their minds and make it the basis on which they operate.

Shorthorn cattle and Shropshire sheep offer good examples of what may happen to any or all of the pure breeds of livestock. Both of these breeds lead animals of their respective classes in popularity. Breeders of these breeds out number breeders of other breeds. As compared with other breeds, the herds and flocks of these two are far more numerous but not as large in size of the individual herd or flock. So many breeders, working with the same breed, using different methods of breeding to produce different ideals and incorporating fads and fancies to a greater or less extent, would naturally go to making a

lack of uniformity within the breed, as well as losing sight of the function of the breed.

The Function of the Purebred Animal

The function of purebred livestock is not, as some might assume from an observation of present day methods, to grace the tan bark of our modern show ring. Nor is the function of the purebred to beautify the lawns and occupy the paddocks of country estates. The real function of the purebred nowadays is to improve market animals and make them more desirable from the standpoint of the long list of processors and consumers, as well as more efficient from the standpoint of the producer and feeder. For want of a better definition the function of a purebred animal may be said to be "to fulfill the purpose for which it is intended more efficiently than can be done by any other animal kept under the same conditions."

To bring about a clearer conception and a fuller realization of the importance of the function of a purebred animal, the foregoing definition will permit some discussion.

What Brought About the Purebred

Purebred livestock were brought about, not to fulfill the whims nor fads nor fancies of the founders of the several breeds, but by economic necessity. The early founders and improvers had a definite purpose in improving their animals. The animals had a function. The function was to produce beef, milk, mutton, wool, lard, bacon, draft, speed, or other necessities which may be produced by animals. The animals of the early breeders were unprofitable because they did not perform their function well. These men did the most logical thing for them to do under their conditions and set about to improve their animals and change them so that they would meet their requirements and be profitable. Necessity demanded these changes. All changes and improvement of any lasting nature in any breed have been brought about by necessity. Any improvement that is to come in the future will be caused by necessity. When any one or all of the breeds of purebred livestock fail to meet the demands made of them, they will be changed as they have been in the past to types that will be efficient in meeting those demands.

When the early breeders set about to change their animals so that they would be profitable and meet requirements they started the breeds which we know today, or at

least the forerunners of these breeds. Their means of bringing about improvement and changes were not as easily managed nor were they as efficient as the means we have available today. They had no purebreds. The early breeder could not go to another, select a wonderful sire, and have most of his breeding problems solved. All breeders were in the same situation and it was only by constant selection, culling their herds and flocks, and exchanging successful sires and dams with one another that they could make progress in the development of a desirable type and strain that would breed true. Throughout the development of each breed these methods have been used. The good purebred animals we have today are the results of such methods of breeding. None of our present day breeds are perfect, nor do they make claims to perfection. Any improvement that is to come in them in the future will be the result of a continuation of these methods, after necessity has demanded the improvement and changes.

Leading breeders of purebred livestock must of necessity be far sighted men. Otherwise they would not be among the leaders. They can see and recognize the weak points and characteristics peculiar to their breed. They are constantly striving to correct these deficiencies and improve their animals. The present day breeder and improver of any of the breeds of livestock has just as much

opportunity, just as virgin a field in which to work, and just as little real competition in such work, as the early breeder.

The definition that has been given of the function of the purebred animal points out first, the necessity of specialization, and second, the necessity of adaptability. Specialization in the production of some given commodity is necessary if the animal is to "excel all other animals in fulfilling the purpose for which it is intended." Breeds and types adapted to a variety of conditions are necessary if purebred animals are to perform their function under various conditions. In a way this answers in the affirmative the often asked question, "Is it necessary to have so many breeds in the different classes of livestock?"

In this day and age of specialization the purebred animal is just as highly specialized as anything else. The function of purebred cattle may be either to produce beef, or milk, or both beef and milk. The latter cannot produce both as efficiently and economically as an animal that is specialized in the production of one of these commodities.

This point may be made more clear by using the Shorthorn breed of cattle as an example. Some breeders of Shorthorns prefer to recognize them as a dual purpose breed. Others insist that their beef producing proclivities

should come in the first rank. Yet the Angus and Hereford each excel the Shorthorn in general in the production of beef. Both of these breeds are more or less deficient in the production of milk. Breeders of Angus and Hereford cattle have stressed beef production to the detriment of milk production. Those strains of Shorthorns in which beef production has been paramount with the breeders rank with Angus and Hereford cattle as beef producing animals. On the other hand, the world's record for the production of milk is held or for a time was held by a Shorthorn cow. When this announcement was made some Shorthorn breeders seized on it for propaganda for the advancement of their breed. The record holding cow however, resembled a Shorthorn only in color. Men who knew her stated that she could have been colored black and white and have made a creditable showing in a Holstein exhibition.

Such a situation has been brought about by reason of the breeders and improvers having selected animals for generation after generation with characteristics which would make them proficient in the production of one particular commodity. The selection of these characteristics has been done at the sacrifice of those characteristics which would go for the efficient production of another commodity.

Feedlot tests have shown that steers of dairy breeding

will make gains which compare favorably with the gains made by beef steers. Slaughter tests show that the gains of the dairy steer have been made by laying on internal fat. The carcass is no more desirable than at the start of the feeding period. The beef bred steers' gains were also in fat but the fat was being distributed and striated among the muscle fibers. The beef steer was performing his function, the dairy steer was out of place and being asked to do something which no breeder had ever intended him to do. The situation could be reversed and the beef cow could no more be expected to efficiently produce milk than the dairy steer can be expected to produce beef.

Similar examples prevail in sheep with respect to mutton and wool. Our most efficient wool producing sheep, the Merino, is worthless for mutton production. The Southdown, which is most ideal in mutton type, and most efficient in producing a high quality of mutton, ranks below all other breeds in the production of wool.

Lard hogs do not produce bacon as well as can be done by bacon hogs. Bacon hogs offer a poor method of producing lard. A cross of these two types is inefficient in the production of either commodity. The crossbred grows rough and lumpy on feeds adapted to the production of lard and is incapable of producing the smooth, fine grained meat of the bacon hog, on the feeds adapted to the production of bacon.

Perhaps the equine world offers the greatest contrast in specialization. Mechanical devices have been perfected which conclusively show that speed and power in horses increase and decrease in inverse proportion to the other.

The necessity of having so many breeds of beef cattle, dairy cattle, mutton sheep, wool sheep, lard hogs, and bacon hogs is traceable to adaptability. The specialization process has not limited itself to the efficient production of some commodities in the making of these breeds. Each breed, aside from being noted for its special production proclivities, is also noted for its limitations and adaptability.

The majority of our pure breeds of livestock came originally from the British Isles and Continental Europe. These countries, even though comparatively small in area, offer a variety of topographical, geographical, climatic, and agricultural conditions. In most cases each breed has been developed under a specific set of these conditions. Consequently that breed is well adapted to those conditions and thrives when kept under them. In many cases successful handling of a breed is limited to the conditions under which it was developed. Where one breed might thrive under certain conditions it is possible that it would prove wholly inapt under other conditions. Under other conditions another breed would be more advisable. In the United States

we are fortunate in that the adaptability and limitations of the several breeds peculiarly fits them for handling under the various conditions that exist in our country.

The superior grazing qualities and hardiness of the Hereford, the characteristics which make this breed so admirably adapted to our range sections, are traceable to the fact that their native home, Herefordshire, in England is primarily a grazing country and animals are grazed there twelve months of the year. The Angus and the Shorthorn, on the other hand, were developed under a more intensive system of agriculture and as a consequence are more adapted to intensive farming areas of this country than they are to the ranges. Breeds of dairy cattle offer similar comparisons.

The gregariousness, hardiness, and ability to subsist on a scanty diet so evident in fine wool sheep are traceable to the methods and conditions under which they were handled in Spain. All breeds of mutton sheep having been developed in countries where they have been used primarily for converting the more concentrated feeds and better roughages into a desirable quality of meat, are not well adapted to range conditions. They are well suited to a variety of conditions in the farming regions.

Draft breeds of horses from the north country are not as well adapted to American conditions as the clean legged

draft breeds of continental Europe. This fact is borne out by the distribution and popularity of these breeds in the United States.

In considering the lard breeds of hogs it is doubtful if all the breeds are necessary. All lard breeds have been developed in the United States. The object of the improvers of the several breeds has been to produce an animal which would efficiently turn corn into pork. Adaptability does not enter into pork production to the extent it does with other animals. Lard hogs are produced under similar conditions from Maine to California and from Florida to Washington. The only difference is usually confined to the different feeds fed. All breeds of lard hogs lay claim to the same desirable characteristics. The only difference in Poland China hogs and Spotted Poland China hogs is that the latter breed is spotted, and with a few minor qualifications the same can be said of all lard breeds of hogs.

There is however, a psychological reason for having the breeds. Pork production is more widely spread than any other phase of the livestock industry. The men engaged in it favor this breed or that breed. If they handle the breed they favor, they will be more successful than they would if they handled a breed for which they had no respect, even though that breed were equal in all

respects to the favored breed.

Trend of Type in Purebred Animals

Type in purebred animals has been constantly changing since the breeds were started, in order that the purebred might efficiently meet the demands made of it. Market demands of block and draft animals have gradually changed. Type in purebreds has undergone an evolution to keep pace with market demands.

If the purebred animal is the efficient improver of market animals, and is worthy of the place it occupies in our livestock industry, changes in type within the classes and breeds of purebred livestock should anticipate and precede changes in market demands. In the past all breeders of purebreds have not anticipated these demands, nor have they appreciated the importance of developing an animal that would make market animals fill such demands. The "giantess" craze in the Poland China breed is a striking example of breeders losing sight of the desirability of developing an animal that would aid the producer of market animals. The "giantess" craze has been excused on the grounds that the "fatback" Poland was so lacking in fecundity and rustling ability that it was no longer profitable to the farmer. The "giantess" overcame these two deficiencies but went to such an extreme that all

other desirable characteristics were overlooked, resulting in an animal unacceptable to either the packer or the producer. The Berkshire breed of hogs offers an example of breeders being blinded by packer demands, pedigrees, and fancy points to such an extent that they overlooked the necessity of an animal being efficient from a producer's standpoint.

Both of these breeds have staged phenomenal "combacks" once the situation into which they had fallen was realized. But how much better it would have been for both the breeds and the breeders had they considered the demands that are made of purebred animals before going off at a tangent and disregarding essential characteristics.

Transportation facilities, the nature of the feeds produced in any given area, method of care and management, and consumer demands, have been indirectly important factors in fixing type in purebred animals, by reason of their direct influence on market animals.

In the earlier days of the livestock industry in this country, so far as concerns meat producing animals, the demand was for big, coarse, rough, rugged animals. Animals capable of consuming large quantities of cheap coarse roughages and then be able to stand long hard drives to market. The cattle trails from Texas into Kansas, and from points in the Ohio valley to eastern cities, show the

necessity of having an animal adapted to trailing. Concentrates were not produced in such quantities that their consumption by animals was advisable. Concentrates produced at that time could be used by humans. The animal was used to process the roughages which came with the production of concentrates, and the wealth of natural grasses and pastures which could be had for the taking.

The more general production of concentrates has brought about a demand for an animal which can efficiently consume them. It has been possible to cater to this demand because of the development of transportation facilities. No longer is it necessary to drive feeders or finished animals great distances. Either may be rushed to their destination with comparatively little shrink.

More intensive and specialized systems of farming permit more care and attention to be given the young animals, and make possible the finishing of animals at a much earlier age than was formerly the case. Early maturity has been the aim of all breeds in the changes that have taken place. Consumer demands have also had considerable influence on type. The decreasing size of families and the ease of obtaining supplies, coupled with the idea that small cuts are from young animals and that such meat is more tender, have brought about a great demand

for smaller carcasses. The producer, realizing the importance of size in his breeding herds and flocks, has met the situation or is trying to meet it by developing an early maturing, thick fleshed type, capable of attaining a marketable finish before maturity. Baby beef, lamb, and two-hundred-pound hogs have usurped the position formerly held on the market by heavy finished steers, mutton, and three-hundred-and-fifty-pound hogs.

The Uses of Purebred Animals

The purebred animal is the most logical means and practically the only means available to the producer of market livestock by which he can make his operations efficient and profitable. The success attained by the different breeds of purebreds in the past is traceable to their ability to do what is needed by the producer of market animals. In other words, their ability to perform their function. The past of the purebred is history. Its path is blazed with glory. The future is bright and assured. The future, however, offers no hope for the purebred scrub with a beautiful pedigree. The potential buyer of purebreds wants one that can perform its function. He will be interested in the animal's ancestors only in knowing that they too could perform their function so that he may reasonably expect his animals to do likewise.

The breeder of purebred livestock then, is confronted with the task of producing an animal which will meet the demands made of it by the producers of market livestock. This function must be kept uppermost in his mind during his breeding operations if success is to be attained. It is doubtful if the type of purebred animals of the future will be any more fixed than that of purebreds of the past. Constantly changing methods of management, areas of production, packer and consumer demands, and future discoveries in animal nutrition will in all probability demand changes in type. These changes must be accomplished and specialized production maintained. The breeder of purebred animals has made such changes possible in the past. The success of the purebred will depend on the breeder's ability and accomplishments in the future.

A STATISTICAL STUDY OF THE PUREBRED LIVESTOCK INDUSTRY

A study of purebred livestock statistics, with a clear conception of the function of a purebred animal, brings a fuller realization of the fact that the popularity of the several breeds is due to their ability to perform their function. Such a study shows also that the market for any breed is dependent on their ability to so function and that the location of the breed is dependent on their ability to function under the various conditions.

The figures used in this study are not in all cases comparable. Conditions have changed and present figures would not be as those presented here.

The 1920 United States Census shows that 11.3 per cent of the farms in the United States which reported domestic animals reported some purebreds. In Kansas, 16.2 per cent of the farms reporting domestic animals reported some purebreds. In the United States, 11.2 per cent of such farms reported purebred beef cattle, 7 per cent reported purebred swine, 5.9 per cent reported purebred sheep, and 1 per cent reported purebred horses.

Horses

In the United States 0.6 per cent of the total number of horses are purebred, according to the 1920 census. Thirty-five and three-tenths per cent of all breeding stallions are purebreds. The decrease in horse breeding operations in this country, accompanied by the weeding out of grade and scrub sires, due to the enactment of state stallion licensing laws, has in all probability increased the percentage of purebred stallions. Two-thirds of the purebred horses in this country are Friesians and Belgians, showing the popularity of these clean legged breeds over the island breeds of draft horses. Few light horses are purebred. The breeder of light horses is more interested

in what his horse can do than in having him recorded.

Motor cars have made the light horse a luxury. The increasing interest shown in racing since 1920 has no doubt made considerable change in the figures regarding light horses.

The tables showing numbers of purebred horses in the United States and Kansas, point to many interesting facts. They show conclusively that Kansas, a farming state, is chiefly interested in draft horses.

The American Saddler, the most beautiful horse that ever poked its head through a bridle, is, as a breed, small in numbers. Kansas has not taken kindly to the saddle horse. The topography of Kansas is such that it has not been as necessary to resort to horseback riding for transportation purposes as it has in more mountainous countries. Most parts of Kansas are and always have been accessible to vehicles. The principal use for saddle horses in Kansas has been and is, herding cattle. The American saddle horse has not the stamina, the speed, and the endurance for such arduous work. He is a model, a thing of beauty and a joy forever. His job is to carry his rider at an easy gait. His native home and place of origin is Missouri, Kentucky, and Tennessee. At present most saddle horse breeding operations are conducted in these three states and in the studs of wealthy men in a few other places. The greatest outlet and market is for

Table I

Distribution by breeds of purebred horses in the
United States in 1920

Breed	Total purebreds in the United States	Percent of total purebreds	Males	Per- cent of all males	Females	Percent of all females	Percent of all United States purebreds in Kansas
American Saddler	1,459	1.21	400	.87	1,059	1.42	2.16
Belgian	10,838	8.99	5,077	11.10	5,761	7.70	2.93
Clydes- dale	4,248	3.52	1,488	3.25	2,760	3.69	1.13
French Draft	2,964	2.45	1,187	2.59	1,777	2.37	25.27
German Coach	697	.58	417	.91	280	.37	17.52
Hackney	564	.47	173	.38	391	.52	1.42
Percher- on	70,613	58.58	27,669	60.53	42,944	57.38	8.69
Shire	5,617	4.66	2,632	5.76	2,985	3.99	2.47
Standard Bred	4,021	3.33	1,085	2.31	2,966	3.96	5.49
Thorough- bred	3,801	3.15	694	1.52	3,107	4.15	2.47
All others	15,718	13.04	4,912	10.74	10,806	14.44	3.18
Totals	120,540	99.98	45,704	99.95	74,836	99.99	

Source, 1920 Census Report

Table II

Distribution by breeds of purebred horses in Kansas in 1920

Breed	Total	Percent of total Kansas Purebreds	Purebred males	Percent of purebred males	Purebred females	Percent of purebred females
American Saddler	32	.38	12	.34	20	.41
Belgian	318	3.79	189	5.42	129	2.64
Clydesdale	48	.57	24	.68	24	.49
French Draft	749	8.95	161	4.61	588	12.05
German Coach	122	1.46	45	1.29	77	1.58
Hackney	8	.10	2	.06	6	.12
Percheron	6,137	73.33	2,685	76.95	3,452	70.74
Shire	139	1.66	69	1.98	70	1.43
Standardbred	221	2.64	84	2.41	137	2.81
Thoroughbred	94	1.12	9	.26	85	1.74
All others	501	5.99	209	5.99	292	5.98
Totals	8,369	100.00	3,489	99.99	4,880	100.00

Source, 1920 Census Report

high class show horses and good riding horses for use on city bridle paths.

The Belgian ranks second in popularity in both the United States and Kansas. His popularity dates back less than twenty years. His size, muscling, and temperament have made him very acceptable on cornbelt farms, city streets, and logging camps. Kansas has been a good market for Belgian horses in years past and the success of the Belgian in Kansas points to the possibility of a continued good market. The same is true of that part of the cornbelt where farm work is done with draft horses. In Missouri, southern Illinois, and other places where the mule is depended upon for power, the Belgian is practically unknown. He finds a good market in the cities where his varied coats make him a desirable advertising means for firms using horse drawn vehicles. City markets demand heavy horses and the Belgian fills this demand nicely. Iowa seems to be the center of Belgian production in the United States.

The Clydesdale, developed in Scotland to fit prevailing conditions, has not found a place in the United States and especially not in Kansas. The Clydesdale is not capable of doing anything of importance that cannot be done by other draft breeds. In the United States he is largely confined to the northern and eastern sections.

Western and southern horsemen are firm in their belief that the Clydesdale is shortwinded and hard, if not impossible, to acclimate to their conditions. Wealthy hobbyists have been enthusiastic in their support of the Clydesdale but there is no ready market for them.

The French Draft, considered by many to be nothing more nor less than a grade Percheron, has trailed and made its way on Percheron popularity. The fact that there are as many of them as there are bespeaks the gullibility of the American farmer, their lack of knowledge regarding breeds, and an inability to distinguish between a good breed of horses built on sound breeding principles and one "just as good" but perhaps cheaper.

The German Coach as a breed in this country is practically extinct. The fact that this breed even obtained a foothold in the United States at all points again to the work of hobbyists and promoters, and the fertile field in which they once worked. Time was when the German Coach horse's size commended him as a "using" horse, but his lack of stamina, his unsoundness, and his inability to do the job have ruled him out.

The Hackney is a plaything of the rich. He has no place in Kansas. His principal use is for crossing on standardbred horses for the production of show horses with great speed and action. The good ones that are produced

find ready sale. The poor ones and misfits are relegated to the discard. The Hackney can step as can no other horse, but a breed of horses needs something besides action to commend it to present day users of horses. The Hackney is found principally in the east in the stables of the wealthy. He is a luxury and is handled as such.

The Percheron is the most popular breed in the United States and also in Kansas. He has won his place by his ability to do what was wanted of him. The fact that there are two-thirds as many purebred Percheron stallions in the United States as there are purebred mares, shows the great general use made of the Percheron for the siring of draft colts. The increasing popularity of the Belgian has not encroached on that of the Percheron. Anywhere in the United States where there is a market for draft horses the Percheron will be found to be holding his own. Kansas ranks third in number of Percherons, Illinois and Iowa excelling her in this respect.

The great size of the Shire has made it useful in crossing on other horses to increase the size of their progeny. This is borne out by the fact that almost half of the purebred Shires in the United States are stallions. The Shire himself is not regarded with favor by American horsemen because, like the Clydesdale, he is possessed of feathered legs. American farmers are not much given to

the use of brushes and combs and feathered legs and corn-belt mud require great use of both. The Shire has no special market as a purebred proposition.

The Standardbred horse is a distinctly American product. He is perhaps, the American breeder's greatest contribution to the breeds of live stock. Reformers have frowned on him because he has necessarily been the chief factor in racing in this country. He has suffered at the hands of both the racing fraternity and the makers of blue laws. The fact that he has survived the treatment which he has received indicates the real worth of the breeds. The market for Standardbreds is nation wide and has been rejuvenated with the increased interest in racing which has taken place since 1920. Laws favorable to horse racing have helped materially in returning the Standardbred to favor. Racing men in foreign countries, particularly the northern European countries, have drawn on American stables for their racing stock. Eastern Kansas is showing considerable interest in the Standardbred and with the establishment of tracks at Smithville and the Speedway, under Missouri's new racing regulations, eastern Kansas will become a still greater market. Like other light breeds, however, there is a market only for the good ones and those that cannot do the job will always go wanting.

The Thoroughbred was the foundation of all light American breeds. Like the Standardbred he has suffered at the hands of reformers and for the same reason. His principal use at the present time is for sport. The Army is making wide use of Thoroughbred stallions for the siring of remounts. The revival of racing, "the sport of Kings," has had a great influence on the breeding of Thoroughbreds. The rich purses and prizes offered on eastern and southern tracks have brought about the investment of millions and millions of dollars in Thoroughbred studs and breeding farms. Kansas has several good Thoroughbred stallions owned by the Army, enjoying good service. The use of Thoroughbreds for siring hunters and polo ponies is general. With the Thoroughbred the market may be considered as limited and only for the good ones.

Cattle

In the United States, 3 per cent of all the beef cattle reported by the 1920 census are purebred. Kansas, a typical cattle state had over two million cattle January 1, 1920, 3.9 per cent of which were purebred. At that time Kansas was using 44,575 beef bulls over one year old, 57.68 per cent of which were purebred.

Table III

Distribution by breeds of purebred beef cattle in the
United States in 1920

Breed	Total	Percent of all purebreds	Males	Percent of all purebred males	Females	Percent of all purebred females
Angus	108,524	10.19	31,914	8.24	76,610	11.30
Galloway	7,225	.68	2,349	.61	4,876	.72
Hereford	405,482	38.09	159,126	41.09	246,456	36.37
Polled Shorthorns	61,764	5.80	30,785	7.95	30,979	4.56
Shorthorn	416,995	39.16	139,865	36.12	277,130	40.89
All others	64,822	6.08	23,153	5.98	41,669	6.15
Total	1,064,912	100.00	387,192	100.00	677,720	100.00

Source, Census Report, 1920

Table IV

Distribution by breeds of purebred beef cattle in Kansas
in 1920

Breed	Total	Percent of Kansas purebreds	Bulls	Percent of Kansas purebred bulls	Cows	Percent of Kansas purebred cows	Percent of United States purebreds in Kansas
Angus	4,700	5.83	1,237	4.81	3,463	6.3	4.33
Galloway	2,457	3.05	808	3.14	1,649	3.0	34.00
Hereford	38,695	47.97	12,102	47.07	26,593	48.39	9.54
Polled Shorthorn	2,348	2.91	1,149	4.47	1,199	2.17	3.8
Shorthorn	27,404	33.97	8,862	34.47	18,542	33.74	6.57
All others	5,061	6.27	1,555	6.05	3,506	6.38	7.81
Total	80,665	100.00	25,713	100.00	54,952	100.00	(All) 7.57

Source, U. S. Census Report, 1920

Angus cattle rank third in popularity in the United States. Fifty-eight and two-tenths per cent of all the purebred Angus cattle in the United States, or 63,023 are in the west north central states. The Angus is not adapted to as wide a range of conditions as the Hereford and the Shorthorn and the conditions to which the Angus is particularly adapted are limited when compared to the conditions to which the Shorthorn is adapted.

Iowa leads in Angus with 27,457; Missouri has 12,916; Illinois 10,106; Minnesota 5,398; Indiana 4,807; South Dakota 4,788; Kansas 4,700; Nebraska 4,640; Tennessee 3,799; and North Dakota 3,124. In recent years the Angus has attained considerable popularity in the south, which accounts for Tennessee's place in the leading ten Angus producing states.

Purebred beef production has about centered on Herefords, Shorthorns and Angus in this country. There has always been a market for good Angus. Internal strife in the breed association has handicapped the breed in the past, but since the trouble has been corrected the future looks bright. Throughout the country the demand for Angus for breeding herds, boys' and girls' club projects, and show steers is good, and no good Angus beast should want for an owner. In Kansas a healthy demand has existed for several years and bids fair to continue.

The Galloway is rapidly becoming a breed of the past in the United States. While the Galloway is particularly well adapted to certain conditions, those conditions prevail in a very limited area in this country. The great popularity of the Galloway in its native country, Scotland, no doubt accounts for the foothold that it obtained in the United States.

Kansas, in 1920, had over one-third of the purebred Galloways in the United States. Since that time several large herds in the state have been dispersed and Kansas has considerable less of this breed at present than she had in 1920. The Galloway has nothing to commend it over other breeds to Kansas cattlemen. Galloway production is at present centered in Nebraska and the Dakotas. There is practically no market for surplus breeding animals.

The Hereford, while ranking second in total purebreds in the United States, has assumed full leadership in the western states and particularly the range states. The Herefords' grazing ability and hardiness have won it its place in range cattle production. Cornbelt states in an economical scheme of production are engaged in supplying Hereford bulls for range herds. The Hereford business is on a firm footing, backed by a strong breeders' association and limited only by the trends in market cattle. Future markets for Herefords will consequently depend on range production.

Hereford production is centered in the west north central states, which include the cornbelt states west of the Mississippi river and the Dakotas. This area has 179,155 of the 405,580 purebred Herefords in the United States, as shown by the 1920 census. The ten high Hereford states are: Texas, with 70,021; Iowa, 40,894; Kansas, 38,695; Missouri, 32,609; Nebraska, 27,418; South Dakota, 21,663; Colorado, 17,270; New Mexico 14,563; Illinois, 16,370; and Wyoming, 11,845.

The east is not much concerned with beef production on a scale that would merit the use of the Hereford. In the south where beef production is practiced, the Hereford is more than holding his own. The west however, is the Hereford stronghold, with the west depending largely on cornbelt breeders for sires and cows capable of producing the sires which they need in such great numbers. Hereford bulls are almost exclusively used on the range. Consequently it is to the cornbelt and western states that the Hereford breeder should logically look for his market.

In justice to the Hereford, it must be said that while the census figures show the breed to be second in numbers, there are thousands and thousands of purebred Herefords on the ranges that are not recorded nor regarded as purebreds. If these were so regarded the Hereford would undoubtedly rank first among the beef cattle in the United States.

The Polled Shorthorn is nothing more nor less than a Shorthorn without horns. Wherever the Shorthorn is favorably known in the United States there will be found farmers and breeders who favor Polled cattle. While Polled cattle breed true with respect to the Polled characteristic, many of them have been kept with nothing else to commend them. Such popularity as the Polls enjoy comes from the few who want Polled cattle. They have obtained most of their popularity from that of the Shorthorn. The market is limited. Northern Kansas has certain communities that are going in strong for them, and Omaha, Nebraska is also a Polled Shorthorn center.

The Shorthorn, shown by the census figures to be the most popular is also the most widely spread beef breed in the United States. The Shorthorn's great size and milking qualities have appealed to the small farmer. Where the Hereford is kept in large herds, the Shorthorn is maintained in many small herds. While there is not a great deal of difference in numbers of animals in the two breeds, Shorthorn breeders far outnumber Hereford breeders. The Shorthorn Association has made legitimate and ethical use of the Shorthorns' milking qualities in their propaganda with the small farmer.

Beef production in the United States is confined largely to the Angus, Hereford, and Shorthorn, and like the

first two breeds, Shorthorn production is centered in the west north central states. The Shorthorn enjoys a wider distribution, especially in eastern central states, than do the other two leading beef breeds.

Iowa leads in Shorthorns with 69,560; Illinois 39,093; Nebraska 32,777; Minnesota 32,419; Missouri 30,517; Kansas 27,404; South Dakota 23,293; Oklahoma 22,019; Ohio 17,324; and Indiana 16,147. Any where that there are small farms and beef cattle are kept, the Shorthorn will be found. The Shorthorn is known throughout the country as "the farmer's cow."

The market for purebred Shorthorns is of course influenced greatly by trends in market cattle. Shorthorns are not sold in such large lots as Herefords, but there are more prospective buyers for small numbers.

Hogs

The market for purebred hogs is the most fickle and most susceptible to market trends. The market for purebred hogs fluctuates right along with that of market hogs, the latter running in a fairly well defined cycle. This in itself offers the breeder of purebred hogs an excellent opportunity to so gauge his production that he will have plenty to sell when there is a good demand, and ease up on his production when the demand lets up. The breeders

of purebred hogs have not however, taken advantage of this opportunity. They too have run production right along with market production.

The market for purebred hogs is also subject to the likes and dislikes of prospective purchasers. The breeders of one breed of hogs may take a fancy to a certain line of breeding to the exclusion for a time of all other lines of breeding. At present breeds of hogs embrace such numbers that different families may properly be considered breeds within a breed. A community may go in strongly for a certain breed for a time and then with a falling market, drop entirely out of the hog business. When the market becomes good again this same community may start with an entirely different breed of hogs. Breeders of market hogs have in the past been very susceptible to the propaganda and promotion work of the several swine record associations. These associations have of course, done all that they could to expand the market for their breed and further their best interests. They have been limited in this work only by their finances.

As has been said in the foregoing chapter, hogs are in general, produced under similar conditions all over the United States. With hogs then, breed preferences, are determined not so much by adaptability and other characteristics which place one breed over another in economical

Table V

Distribution by breeds of purebred hogs in the United States and Kansas in 1920

Breed	Total in United States	Percent of United States purebreds	Total in Kansas	Percent of Kansas purebreds	Percent of United States purebreds in Kansas
Berkshire	86,676	4.26	492	.75	.57
Chester White	191,207	9.33	4,927	7.46	2.57
Duroc	819,117	39.96	22,972	34.87	2.80
Essex	1,771	.09			
Hampshires	108,782	5.30	1,804	2.74	1.66
Polands	726,504	35.44	31,583	47.95	4.35
Spotted Polands	47,703	2.33	2,297	3.49	4.83
Tamworths	5,639	.28	5	.008	.09
Yorkshires	6,353	.31	8	.01	.13
All others	56,148	2.74	1,782	2.71	3.17
Total	2,049,900	100.00	65,870	100.00	

Source, U. S. Census Report 1920

production, as by likes and dislikes of the producer and the effectiveness of breed propaganda.

Taking up the breeds of hogs separately and considering their popularity and distribution with reference to the market for breeding animals, it is noticeable that the Berkshire does not enjoy in any wise the popularity it formerly did. Time was when the Berkshire was the most popular breed in the United States. Berkshire breeders apparently forgot the real purpose of a hog in the heyday of their popularity and directed their breeding operations to the perfection of a dished face, a stiff ear, and a "purple" pedigree, to the utter disregard of the important and vital characteristics. Hogs bred under such conditions had no appeal to the practical producer of pork. During the hog boom which accompanied the world war, the Berkshire was surpassed in popularity by all other breeds. Wealthy hobbyists and a few southern breeders kept faith with the Berkshire, earning him the title of "the lapdog of hog aristocracy." The Berkshire has always merited favor in the south where his high quality of meat and grazing ability permits the production of a high grade of pork on waste. In recent years there has been a renewed interest in Berkshires but it is doubtful if they ever attain the place they formerly held. There are a few high class herds of Berkshires in Kansas.

The Chester White has enjoyed a steady increase in popularity during the last twenty years. The Association fostering this breed has been in good financial condition at a time when other breeds were practically bankrupt. This Association has taken advantage of this situation and used it to the best interests of their breed.

The Chester White's popularity is confined largely to the northern part of the cornbelt and the eastern United States. The Chester White has never and probably never will be popular in the southern states because white hogs do not withstand extreme heat as well as dark hogs. The breed has enjoyed an increasing popularity in Kansas due to the work of several very progressive breeders. The unethical if not illegitimate methods employed by certain associations for selling Chester Whites in Kansas, resulted in the distribution of a great many white hogs throughout the state. Any favor which the hogs have gained has been due to the hogs rather than to the men who sold them or the methods which they employed.

The Duroc enjoys the greatest popularity of any breed of hogs in the United States. In all probability he also enjoys the widest distribution. New Englanders do not take kindly to the Duroc, only 6 per cent of the purebred swine in New England being Durocs. But New England does not rate very high as a pork producing area.

In the middle Atlantic states, the Duroc makes up 25 per cent of the purebred swine. This section is nearer the cornbelt and hogs are fed under similar conditions.

In the cornbelt proper the Duroc runs around 33 to 35 per cent of the purebreds. The Poland China runs about an equal amount, leaving the other third to the other breeds. This balance of breeds in the cornbelt seems to be both natural and desirable. It makes for breed rivalry and brings out the best that is possible in each breed. In Minnesota, Nebraska, and the Dakotas, the per cent of Durocs is especially high, running from 45 to 48 per cent of all purebred hogs.

The south is outstanding in its devotion to the Duroc. In many southern states over half of all purebred swine are Durocs, showing that where the Berkshire once ruled the Duroc now holds sway. The Duroc is well adapted to southern conditions. In the mountain states the Duroc leads in popularity but gradually decrease in popularity toward the Pacific coast.

Kansas is some distance behind other cornbelt states in numbers of swine. Kansas is primarily a cattle state. There are enough Durocs in the state to testify to the popularity of the breed. The popularity of the breed in adjoining states makes a good market for Kansas breeders who grow the good ones.

The Essex, as a factor in American hog production, is not worthy of discussion.

The Hampshire garnered most of its popularity during the hog boom that accompanied the world war. The Hampshire's grazing qualities, coupled with its high dressing ability gave excellent talking points for Hampshire propagandists. The breed association also had at that time a secretary who was unsurpassed in spreading the gospel of his breed. The Hampshire, under his guidance, grew by leaps and bounds. Unfortunately for the breed when the hog boom collapsed, the breed association was in such a financial condition that they were unable to carry on the work that had been started. The Hampshire breed has been at a standstill for a few years, barely holding its own. The breed association has been reorganized but so far has been unable to do much in the way of promotion work. Such popularity as the breed now has is due to the individual efforts of the leading breeders. A few good herds in Kansas are apparently able to supply the existing market in the state for Hampshire hogs.

One writer has described the Poland China as an "American hog, developed on American ideals, for the American farmer." The breed associations advertise the Poland China as "The Great American Breed." In the United

States the Poland China is second to the Duroc in popularity but in Kansas the Poland China leads.

The Poland China has suffered considerably through internal strife and mismanagement in breed associations but more perhaps at the hands of faddists, faddists who come into the ranks in times of booms, rather than breeders who are faddists. It is a common saying among hog men that "the Poland China goes from one extreme to the other." It is possible that the experience which Poland China breeders have had with fads and fancies has taught them to avoid them. Certainly the present day breeder of Poland Chinas comes nearer recognizing the real function of a hog than breeders of other breeds of swine. The present day Poland Chinas is regarded as ideal in lard type, and by many is considered as "the standard of comparison." There is a good market for Poland Chinas and so long as the Poland continues to deliver the goods and do the job this market will continue. Unless the Duroc undergoes considerable change in keeping pace with the type demanded by farmers and feeders, the Poland China bids fair to surpass the Duroc.

The Spotted Poland has nothing to commend it over the Black Poland except its spots and the fact that the breed has not gone to the extremes of the Poland China in the past. The popularity has been gradual and general

in its increase. Everywhere that hogs are found there are farmers and breeders who will favor Spotted hogs, due perhaps to the "hybrid vigor" which generally accompanies Spotted swine.

The Tamworth and the Yorkshire, both bacon breeds, are not popular in the United States and certainly not in Kansas. In Canada both breeds are popular. Canada has a good market for bacon hogs which the United States does not have. Furthermore bacon hogs do not finish smoothly on corn and corn is the principal pork producing feed in this country. At one time when the export trade on lard amounted to very little on account of depleted foreign exchange, many hog men had the idea that America should go in strongly for bacon production and not so strongly for lard production. Accordingly a change in hog type was undergone to the betterment of some breeds and detriment to others. The country now is firmly on a lard production basis and as long as corn continues to be the principal pork producing feed, such a policy is economically sound.

Table VI

Distribution by breeds of purebred sheep in the United States and Kansas in 1920

Breed	Total purebreds in the United States	Percent of total in the United States	Total purebreds in Kansas	Percent of Kansas purebreds	Percent of United States purebreds in Kansas
Cheviot	3,000	.65			
Dorset	8,458	1.82	101	2.21	1.19
Hampshire	51,813	11.18	251	5.5	.48
Leicester	767	.17			
Lincoln	13,903	3.00	61	1.34	.44
Merino	59,920	12.93	26	.57	.04
Oxford	16,601	3.58	53	1.16	.32
Rambouillet	106,849	23.05	24	.53	.02
Shropshire	124,454	26.85	3,560	77.98	2.86
Southdown	8,451	1.82	1	.02	.01
Suffolk	805	.17			
All others	68,483	14.78	488	10.60	.71
Total	463,504		4,565		

Source, U. S. Census report 1920

Sheep

One and three-tenths per cent of the sheep in the United States are purebred. The same percentage of Kansas sheep are purebred, and .98 of the purebred sheep in the United States are in Kansas. Kansas is not a sheep state but the rapid increase in farm flocks in the state makes sheep raising a growing industry.

The demand for purebred sheep is, and has been, good for all breeds. Of course with some breeds the demand is much greater than for others. In Kansas at present the demand is almost wholly for Shropshires and Hampshires and the Kansas demand is at a price. For that matter exorbitant prices are not paid for sheep. Sheep men have kept their heads with regard to values and have benefitted materially by so doing. So long as the market demand for sheep permits sheep raising at a profit, the demand for purebred sheep will continue strong.

Fine wool sheep predominate on account of the great number of purebred finewools used in the stud flocks on the range. The Rambouillet has been gaining in popularity by leaps and bounds. Fine wools must necessarily be used on range flocks to maintain gregariousness, hardiness, and wool qualities. Greater prices are paid for Rambouillets than for sheep of other breeds. The great

demand for them is in the west although scattering breeders in the eastern part of the cornbelt find a good outlet for their surplus. There is little demand for them in Kansas.

The Merino is centered chiefly in Ohio and Texas. It has nothing to commend it over the Rambouillet in economic production and the Rambouillet has size and mutton qualities that the Merino does not possess.

The long wools are not in great favor in the United States. Like bacon hogs, Canada is their stronghold on this continent. American markets do not care for heavy carcasses and long wools when finished will have attained such a weight that they will be undesirable on our markets. Time was when long wools were used considerably on the range to bring about more size. The general use of Rambouillets and Hampshires has practically stopped their use. Purebred long wool flocks are confined largely to the northern part of the cornbelt. There is little demand for them in the United States and no demand for them in Kansas.

The middle wool breeds are in demand wherever sheep are raised in the United States. The demand for some of the minor breeds is limited however, to certain localities. The Cheviot's popularity is centered in certain hilly sections of Kentucky, Tennessee and a few eastern states.

The Dorset is rapidly growing in popularity, particularly in the east where Dorset hothouse lambs command very high prices. The Oxford enjoys a good distribution in the northern and eastern part of the cornbelt. The Southdown is widely distributed but exists in small numbers. He is used mostly for crossing. The Suffolk is limited to certain parts of the northern range states. Backers of the Suffolk breed offer him as a contender for Hampshire honors on the range. With the exception of the Dorset none of these breeds are popular in Kansas. None of them can apparently compete with the Shropshire and Hampshire in "doing the job" under Kansas conditions.

The Shropshire is the most popular breed in the United States and also in Kansas. With the exception of the range country the distribution of the Shropshire is nation wide. An excellent field is available to Shropshire breeders in Kansas.

The Hampshire has gained rapidly in popularity in recent years. His size, hardiness, and clean face make him an ideal sheep for crossing purposes on the range and also for farm flock use in the cornbelt. The demand for them is increasing all over the country. Kansas offers an excellent market for good Hampshires.

Breeds of sheep are crossed, one with another, far more generally than are other classes of livestock. The

trade in purebreds is limited largely to rams. Only breeders afford a market for ewes.

Aside from a study of the location and distribution of the several breeds of livestock with respect to the market for them, the place occupied by any class of livestock in its particular cycle of production will have a greater influence on the market for surplus purebreds. When market livestock are low in price the demand for purebreds is naturally dull and when the price for market animals is high a reasonable demand exists for purebreds. A purebred business which considers such cycles is more successful than one which does not.

THE PUREBRED LIVESTOCK SITUATION

The first purebred animals brought to or developed in the United States were the result of an economic need. There was a place for them to fill which other animals had not satisfactorily filled. Few animals were brought here as the result of a fad or fancy.

Any expansion in a breed which was imported as a fad or fancy came from the ability of that breed to fill an economic need. Necessity has been the cause of all expansion. It has been the cause of the actual founding of the breeds.

Hampshire hogs attained their greatest popularity

when cost of pork production demanded a hog which could utilize pasture. Rambouillet and Hampshire sheep are enjoying the greatest popularity they have known because of their ability to fill an important place in range sheep production. Herefords reached their greatest popularity only when western grazing grounds were fully used. Angus cattle have not attained the popularity of the Shorthorn and Hereford because the need which they have filled has been more limited than that filled by the latter breeds. The recent growth of Angus popularity in the south, particularly in Tennessee, has been due to the Angus ability to meet prevailing conditions.

Necessity is going to be responsible for the future market for purebred animals. Necessity has caused all changes in type, both of purebreds and market animals. Farmers use purebreds to sire market animals because they do it better than the scrub. Necessity is going to demand more perfected, more efficient, and more capable animals and not so much pedigree as in the past. Strains and family blood lines have been popular in the past because a great many animals of that strain or family have been good individuals. Entirely too many ordinary individuals have been used simply because they had good relations. Necessity is going to demand that animals be used on their individual merits and abilities.

When the purebreds demonstrated their ability to improve livestock, thereby performing their function and filling a long felt want, they grew in numbers and sold at gradually increasing prices. The onward march of the purebred was steady and was justified by the results obtained. A few booms, such as that at the time of the New York Mills Shorthorn Sale, and the Merino craze, occurred. High prices caused by such booms must necessarily collapse and collapse quickly. Panics, causing general trends downward have occurred and temporarily affected purebred prices, but this cannot be attributed to any mismanagement in the purebred ranks. Barring these few incidents all went smoothly and merrily along, when observed from the time of their inception to the start of the world war.

The trend toward high prices that accompanied the world war brought many newcomers into the purebred ranks. Unlimited credit was available. The entrance of these newcomers into the purebred business and their methods, and the methods of many established breeders in handling their credit, proved the contention of many business men that the livestock industry is a very poorly organized business, backed by few sound business principles. It is natural that the livestock business should be so regarded. A great deal of honor has been involved in the conduct of

the industry. Contracts, written agreements and the like have been practically unknown in the livestock business. A man's word has been sufficient to close deals involving thousands and thousands of dollars. A business conducted along such lines would naturally fall easy prey to many unscrupulous men who came into the game at the time of the war.

Not all of the newcomers were dishonest by any means. The most noteworthy of the newcomers were wealthy men, wholly unfamiliar with the business, its ways, and its methods. Many farmers were enticed into the business, who saw high prices obtainable for purebred livestock. The fieldman and kindred agencies who used their abilities and opportunities to very poor advantage as far as purebred livestock and breeders were concerned. The speculator also was attracted by high prices and he perhaps hurt the business more than any other.

To the wealthy, in the stress of war times, money came easily. It was quite the thing to be a farmer and raise foodstuffs to feed the soldiers and save Belgium and humanity in general from starvation. So the rich man bought a farm. The purebred livestock business is certainly the most attractive of all farming enterprises so his next move was to enter the purebred game. Aply assisted by fieldmen, auctioneers, and speculators, he

became the owner of a number of purebred animals. Rarely were they purchased worth the money and rarely was any consideration given to their blood lines, their breeding ability, or any of the characteristics that go to making a purebred business successful. Numerous examples could be cited of wealthy men entering the purebred ranks in just such a manner as has been described. Few if any, had at heart a desire to improve animals. None recognized the importance of a purebred animal. Their animals were bought at fabulous prices and their equipment was extravagant. Had they remained in the business it is doubtful if they would have been an asset to it. With them purebred livestock was not a business. It was a hobby. When times got hard and money was tight, needing ready cash, they sold those things least necessary to their major business. Their livestock was unloaded on an overstocked and rapidly declining market. All they did was to enjoy themselves for a short time, lose considerable money, and give the purebred business a black eye.

The farmer, enjoying high prices for other of his produce, and attracted by purebred prices, also bought heavily. He too, was assisted by the obliging and always handy back slapping fieldman. One instance is recalled where a fieldman purchased a Duroc boar for \$200 and then sold the boar to a young farmer for \$5000.00. The field-

man promised that the boar would put the young man high in the ranks as a Duroc breeder. The boar proved worthless both as a show boar and a breeder. The farmer lost his farm in settling the note which he had given in payment on the hog. Another instance which may be cited is that of a young man who worked for his father on a small farm. He purchased a good boar pig of excellent and popular blood lines for \$700. He exhibited the boar at his state fair and won the championship. No sooner had the ribbons been awarded than he was offered \$4000.00 for the boar. Old heads at the game advised him to hold out for \$10,000.00, which he did. He next exhibited the boar at the National Swine Show where he won the junior championship. This boar's sire won the senior and grand championship. Such a remarkable winning brought a great deal of publicity and an offer of \$50,000.00. Cash was refused for this pig. The young man's bank foolishly extended unlimited credit to him. The boar was practically the only good hog he had so he set out to buy high class sows to breed to him. He purchased a great many sows all the way from \$500 to \$3,500.00. Many breeders would gladly have paid \$500 for a service from this boar but the owner decided that to secure the blood of this great boar it would be necessary to come to his sales and purchase his high priced bred sows. A bred sow sale was finally arranged but by

that time the bottom was dropping out of the inflated purebreds. The great array of sows was shipped forty-five miles to a town more easily accessible than his home, and the sale started. The first four sows offered for sale averaged less than \$100 each and then the bank stepped in, stopped the sale and took over the hogs. The young man lost all he had and the bank about seventy-five per cent of what they had loaned him.

Numerous and similar cases could be cited. Many such men bought purebreds because money came easy and because they were advised to do so, because the auctioneer said they were cheap, because the fieldmen had tipped them off to a sure thing. Times were too fast for them. Their heads were in a whirl. It was quite a jump from a poor farmer, scratching out a living, to a purebred livestock man with lots of credit. The attentions lavished on them were new things and they fell heavily for it. Some are still paying for livestock they bought ten years ago. Many notes are outstanding which will never be collected.

The fieldman was originally a solicitor of advertising for livestock journals and magazines. He called on breeders and farmers, became acquainted with them, their herds, their methods and their needs. He gradually developed into a sort of sales agent. If John Brown needed a bull or a boar the fieldman could advise him

whether or not a Tom Jones bull or boar would be satisfactory. The sale could be made without Mr. Brown visiting Mr. Jones' herd. The fieldman in so doing, was performing a really worthwhile service.

Such a service grew and developed until it came to be considered as a matter of course. The fieldman even sought purchasers for the livestock of his advertisers and also bought livestock for them. The situation offered many opportunities for unscrupulous fieldmen to take advantage of breeders. During war times and the numerous public sales which accompanied the war time prices, one of the fieldman's services which went free with sale advertising, was to receive mail bids and buy at sales such animals as were desired by those unable to be present. He would not buy at a sale unless the owner had advertised with him and his paper. In those times it was desirable to advertise, not so much from the good to be had from advertising as from the sales made through the fieldman. It was a seller's market, the woods were full of buyers, and the fieldman's pockets were full of bids. Everything was lovely for the fieldman.

Under such a system the advertisement in itself did little good. So when prices dropped and bids let up, at least the mail bids through fieldmen, breeders could see no good from advertising and discontinued. One firm,

which carried fourteen full pages in a certain breed journal, in announcing their summer boar sale in 1920, carried only a half page ad in 1921. Papers which maintained a staff of from twelve to fourteen fieldmen in 1920 carried only two or three on their payrolls during the ensuing years.

There was another type of fieldman who was also the outgrowth of the times - the independent fieldman. He had no paper connections. For a fee he would attend a sale, buy for some, run the price up on others, assist in the ring, and lend his jovialness to the occasion. Naturally he passed from the picture with the slump, which followed war time activities with purebred livestock.

In striking contrast to fieldmen who took advantage of their position were those who sought always to do what was right and what was best for their advertisers and customers. Many of these men are on the job today. They are trusted and respected. Their advice is sought and accepted.

Breed association field secretaries performed a worthy service. They brought the association closer to the breeder and the breeder closer to the association. They promoted consignment sales, sales in connection with the big shows, and acted as a representative of the association at the shows. Their work was to further the interest of

the breed rather than that of the individual breeder. Their work has been successful. Breeders have confidence in them. They are big men in big work. Breeders demand that these positions be filled by capable men, worthy of trust.

The speculator was anything but a breeder. He bought cheap, did considerable advertising, and sold high. He backed nothing and had nothing to back. He did the breed with which he operated far more harm than good. Much of his war time selling broke beginners and gave a black eye to the purebred business. The nearest to the speculator that we have in the purebred business today is the so-called improvement association. These associations sell gilts with a supposed guarantee that they will buy back her daughters at a certain price. The daughters must however come up to their standard. The "standard" is not specified and the guarantee will not hold water.

Salesmanagers found their place by reason of the justified assumption that the farmer is a poor business man and the breeder has specialized in production and not in selling. For a fee they took charge of everything connected with a sale. All the breeder had to do was produce the livestock. Their work consisted of compiling catalogue material, arranging dates to fit into a sale circuit, advertising, employing the auctioneer, and lending

their very wide acquaintance to the good of the sale. Some herdsmen made a speciality of going from one breeder to another and fitting animals for sale.

Some salesmanagers did a good work and some continue to do a good work along this line. Sales became so commonplace during the war that only those salesmanagers who have and can deliver the goods are functioning at the present time.

With new men starting in the purebred business and sales being held everywhere, auctioneers sprang up over the country like mushrooms. Fees doubled and redoubled. Breeders paid them gladly but when the boom ended, high fees ended with it and the mushroom auctioneer left the field to the old reliable.

From this wild period of buying followed by the necessary deflation, the purebred livestock industry emerged with its head bloody and somewhat bowed. The greatest question which confronted the purebred business was whether or not confidence in the industry was shaken. In some quarters the confidence of many was shaken. Nothing is so typical of the livestock game and particularly the purebred end of it, as the men who are engaged in it. There was no way for many of the new men to know who really belonged and who did not. The treatment which they received at the hands of misfits who were in the

purebred business only for a time, was credited to the industry and it must naturally suffer for it.

Others believe in purebreds and they are the greatest factors in the future market for purebreds. The great expansion which took place during the war placed purebreds in the hands of many who had never handled them before. If the animals which they obtained were worthy of the name purebred, these men have seen what they will do. They realize that the purebred is more efficient than the grades and scrubs which they formerly owned. They will at least continue the use of purebreds in the production of market livestock.

The backbone of the industry is the old breeder. There are many of them. They are the real breeders. The men who really appreciate the function of a purebred and realize that without a function a purebred is worthless. These men have their business on a firm footing. During the buying craze they sold. They never speculated but sat back and watched others go the limit. They played fair with their customers, produced good animals, and by so doing attained the success which they now enjoy.

Some of the old breeders who went in for speculation have taken a great loss and are barely able to keep their heads above water. Some of them have show herds but not for the advertising that accompanies winning at good shows

in stiff competition but for the money which it is possible for them to win. Some resort to rather "shady" practices to accomplish this end. But because a very small minority of breeders are this way, it is unfair to assume that the great majority is also dishonest. We perhaps hear more about the crook than we do of the honest breeder. The fact that the industry has survived bespeaks the honesty of the men back of it. No other business is conducted which so involves the honor of the men who are engaged in it.

The men who started in the purebred business during the period of high prices have been forced out, unless they had sufficient capital to tide them over. Such breed associations as took an active part in over-expansion went from bad to worse. Many were financially on the rocks. Dissention arose in several of the associations. Complete reorganization has taken place in them. The strong associations which took no part in the overexpansion, are perhaps in better financial condition than ever before.

The future of the industry is going to rest in the hands of the breeder, but it is going to depend largely on the attitude of the farmer. The American farmer is more wide awake today than he has ever been before. Necessity has made him think a great deal and exert every effort to reduce his production costs. He is doing now,

and will continue to do, things which he would not have considered under the old order, when production costs were given little consideration.

If the purebred animal is the efficient reducer of production costs that he is claimed to be, and which we have every reason to believe him to be, there will be a market for him with farmers and ranchmen - the producers of market animals. This is as it should be and as it was intended to be. His does not imply that the producer of market livestock will buy purebred animals at exorbitant prices. Some means will no doubt be devised for arriving at a real valuation of the purebred animal. The market for the purebred will be governed largely by the ability of the animal to perform its function. The purchaser will pay for the animal a price in proportion to that ability.

There is a future for the breeder who knows what a purebred animal should be and what it should be able to do. The mere mating of animals simply because they are pedigreed and recorded will not be sufficient. There is plenty of room at the top of the purebred ladder. The bottom rungs are overcrowded now. To reach the top will require a great deal of time, patience, study, and money. The goal is worthy of the effort. The market is there for those who avail themselves of it.

SYSTEMS OF PUREBRED LIVESTOCK PRODUCTION

The breeder of purebred livestock has in the past, specialized in production. His efforts have been largely confined to mastering the mysteries and complications attendant on animal breeding. Perhaps the great improvement that has been brought about in purebreds has been possible because of the breeder's concentration on production problems. On the other hand, the breeder's apparent disregard for business and selling methods has paved the way for speculators and other undesirable elements who have from time to time come into the purebred business. The marketing of his livestock has too often been left in other hands.

New breeders seldom consider the market they will attempt to supply or the method of selling that they will employ. Too often they assume that a demand exists for the quantity and quality of livestock which they will produce. Their attentions are directed solely to building up a herd or flock which will command the respect of the purebred industry. Too late they come to the realization that the market for purebred animals must be built and developed by the breeder himself. And when once built it must be taken care of, for it is the most fickle of all markets.

It can easily be seen that one can go too far either way. He can devote his efforts entirely to production and disregard his market, or he can go to the other extreme, finding quick sales for all the animals he can produce and buy, without a guarantee, just as was so often done during the boom that accompanied the world war. A happy medium between the two extremes has been well expressed by a student of the situation, in commenting on the needs of the purebred industry. He disagrees with others who have said that the industry needs a doctor or a sales agent or other aids, and states that what the purebred business really needs is men who have a love for animals, who will breed for merit, producing an animal that will do the job under conditions with which they are familiar. Such a man will know where his market is. He will not be producing animals to sell to the uninformed. Such animals will be specialized animals, adapted to special circumstances and conditions. Certainly it would be well to know where such an animal was to be placed before it is produced.

The market which breeders supply is, according to Beeler (1924) more or less definite whether he considers it or not. With or without conscious effort on his part, his business will develop along certain channels. This will depend on the location of his establishment with

respect to producing areas, breeding centers, grazing centers, feed producing sections, centers of population, the class of animals, quality of stock, blood lines, and his ability. The quality and efficiency of the animals produced and the breeder's ability will be more important than the other factors.

These factors along with the nature of the market supplied, are important enough to serve at least as the basis of a classification of purebred breeders, which, while not recognized does in reality exist. In the classification as herein presented the dividing lines are not clear cut nor are they distinct. Each class will blend more or less, one into the other.

In presenting this classification we may assume that there are four classes of breeders of purebred animals. The breeders of Class I are those who use purebreds for the production of market animals or other market commodities. Those of Class II produce and supply purebred sires and dams for the breeders of Class I. Class III produces replacements for Class I and Class II. Class IV embraces the most skilled breeders, those who produce the great sires and dams which are used in the improvement of the classes of farm animals.

One authority has stated that still another group - a non-justifiable group - should be added. This group

would include all those who, because of inabilities both personal and those which are the result of circumstances, are not successful. Such a class undoubtedly exists. There is no legal and logical means of preventing the existence of such a class. Similar situations occur in all industries and the whole thing results in a "survival of the fittest." The existence of such a class is felt more keenly in the purebred livestock industry perhaps than in other industries. Such a group does a great deal of harm but like the poor we will undoubtedly have them with us always.

A chart of this classification, expressed in terms of cattle, showing the kinds of results obtained which naturally govern the market supplied, would be about as follows:

Class IV

Using extra high class bulls on extra high class cows

:	:	:	:	:
:	:	:	:	:
5%	:	:	:	:
extra	:	:	:	:
high	:	:	:	10%
class	:	:	:	steers
bulls	20%	:	:	
	high	:	25%	
	class	:	plain	
	bulls	:	bulls	
		40%		
		good		
		bulls		

Class III

Using high class bulls on high class cows

:	:	:	:	:
1%	:	:	:	:
extra	:	:	:	:
high	:	:	:	:
class	9%	:	:	:
bulls	high	:	:	20%
	class	:	:	steers
	bulls	30%	:	
		good	40%	
		bulls	plain	
			bulls	

Class II

Using good bulls on good cows

:	:	:	:	:
:	:	:	:	:
1%	:	:	:	:
high	:	:	:	:
class	:	:	:	:
bulls	15%	:	:	:
	good	:	:	:
	bulls	35%	:	:
		plain	:	:
		bulls	49%	:
			steers	

Class I

Using plain bulls on plain cows

:
:
100%
steers

It is doubtful if any one herd would fall in any one class as herein presented. Even the best herds of the country would embrace animals which would fall into two or three of these classes. The lines between the classes are not clean cut as far as animals within the herds are concerned. In this respect all classes overlap.

Class I, from the standpoint of the good and the future of the industry is the most important. The Class I breeders are those who recognize freely the function of the purebred and the fact that with good purebred animals they can produce a superior product efficiently. However, Class I breeders are not in the purebred business. They are using purebreds for the production of market animals. Market production is their business. Any purebred breeding animals which they might produce would be in the nature of a by-product.

It would be more difficult to draw a line of distinction between Class II and Class III than between any of the other classes. It is these two classes that produce most of the sires and dams for the range and similar trade. They supply the replacements for Class I. There is also considerable trading among breeders of these two classes. Occasionally an animal is produced that will merit the consideration of Class IV.

Class IV is the aim of all worth while breeders.

Many Class IV herds are not the result of any one breeder's ability so much as they are the result of an ability to buy top animals from a number of breeders.

It would be folly to assume that Class IV produced animals of such merit and value that no one could afford to buy them. It would also be folly to assume that Class IV did not produce animals of steer quality.

The chart shows that as the quality of the herd advances, the possibility of producing animals as good or better than their parents is lessened. In Class II sixteen per cent of the offspring is as good as the parents, in Class III 10 per cent, and in Class IV only five per cent. While this chart is used merely to present a theory, the figures used in it were arrived at by submitting it to a number of prominent and successful breeders. They have agreed that these figures show about what one might expect in actual breeding operations.

It would seem that a breeder of purebred livestock would familiarize himself with the demand that exists for the quality of stock which he can produce. No successful manufacturer would continually produce goods for which he could not find a market. Many purebred men are producing animals for which there is no market and are forced to unload their surplus as market animals on

the central markets. It is admitted however, that the lack of market for purebreds is due to the breeder's lack of attention to it. The market has been exploited, it is true, but in a way that would not be expected to develop it.

Many breeders fail to recognize the extent and limitations of their abilities. For example, too many Class II breeders think they are Class IV breeders and feel that they should enjoy the trade, the winnings, and other benefits that come with the prestige accompanying Class IV success. They overestimate their animals. They are so wrapped up in them that they can see no fault in them. The situation is not unlike that of a doting grandfather and a grandson. The father can perhaps see faults in his son, but the grandfather - never.

The purebred industry is confronted with a situation. It is up to each breeder to solve his own particular problem. It is doubtful that united efforts of breeders will ever materialize or that it would be advisable. United effort along some phases has already come, but it would be impossible to bring all purebred interests together. The purebred game is individualistic in all its tendencies. That is why it has such an appeal and such a hold on those who make up the great livestock fraternity.

THE WHY OF THIS THESIS

It has been the intention in presenting this thesis from an economic point of view, to correlate what has happened in the past in the purebred livestock industry with what may be expected in the future. It has not been the intention to forecast by any means what the purebred animal of the future will be or what will be required of him. Rather, by taking advantage of and recognizing the mistakes of the past and analyzing their causes, to be better able to avoid similar and kindred mistakes in the future. Then too, certain basic economic factors which underlie successful production of purebred livestock have been wholly disregarded in the past. Certainly these factors will obtain in the future and will be recognized by successful breeders.

Perhaps the most striking thing to be learned from the study herein presented is that the purebred business is a highly specialized one. Furthermore, the successful men in the business have far more qualifications than the mere ability to breed and produce good animals. This latter ability might well be regarded more in the light of an art than as a science anyhow.

In addition to being able to produce the animal, the breeder must go deeper into the situation. As to whether or not the breed he is handling is peculiarly fitted for the conditions under which he is producing, whether or not the strain he is producing will endure, and whether or not such success and popularity as he enjoys is based on the real worth and value of his animals, or whether or not he is riding on a wave of popularity based on a fad or fancy which cannot and will not last.

Future breeders should recognize that the purebred is a specialized animal. Just as division of labor has taken place in professions and industries, so has a division of labor specialized the purebred animals. Many attempts have been made to use purebred animals in other than specialized production with little or no success. The purebred has always attained its greatest achievements under specialized production.

The purebred man must by all means, recognize that the purebred animal must have and be able to perform a function. This fact has been greatly overlooked in much of the purebred production of the past and such negligence has been the underlying cause of most of the trouble encountered by the industry. The purebred animal must, in the end, do an efficient job of improving market

animals. If he cannot do this he is not worthy of the name of purebred. Entirely too many animals have been produced and unloaded on unsuspecting buyers with nothing to commend them except purple pedigrees and the fact that they are recorded or eligible to record in this or that association. Pedigrees and registry certificates do not reproduce. The tendency among purchasers of purebred livestock is and will likely continue to be, to buy on the basis of what the animal itself can do. They will use the pedigree in its proper light, referring to it to determine what the animal can do as indicated by what its ancestors have consistently done.

A statistical review of the distribution and location of the pure breeds of livestock, both in the United States and Kansas, when coupled with a study of breed characteristics and abilities, shows that the breeds which enjoy the greatest popularity are the ones which are best able to perform their function under prevailing conditions. This study also shows that whereas in the past practically every known breed of livestock in the world had a chance to develop here in the United States, only those breeds which had economic importance and which were able to do that which was required of them have grown and expanded. We can see where a breed which at one time enjoyed a wide distribution and considerable

popularity has completely given way to other breeds because it was unable to stand against competition in an economically sound agriculture. From this we can recognize that our present day popular breeds will remain as such only so long as they hold up their end. When the time comes that they cannot do that as efficiently as other breeds, they will be sidetracked by the march of progress. Really, the purebred industry is not unlike animal life in this respect and the whole thing resolves into a matter of "the survival of the fittest."

Type in purebreds is constantly undergoing a change. We can review the changing type in purebreds from their start to the present. No doubt each type has served the purpose well but as society changes making new demands on livestock, the type must change to meet those demands. The purebred is no more static than is society for the purebred is the logical means of bringing changes about in market livestock. Perhaps these changes are impossible to predict and forecast, yet the purebred man should realize that type is not fixed, and when a change in type is inevitable due to changing demands and changing markets, he should at least try to meet it. When such a situation prevails, certainly it is no time to sit back contentedly and assume that purebred types are fixed and permanent or that they will endure. Such an attitude has lost for some

breeds a standing gained from generations of usefulness. Such may be expected in the future by those breeders who fail to recognize changing demands and in a bull headed manner continue their breeding operations along old fashioned lines.

In any industry much can be learned and a great deal of trouble avoided by reviewing the past of that industry and seeking out the causes of the many happenings that occur. The purebred livestock business is no exception in this respect.

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