

# PUREBREDS IN COMMERCIAL LIVESTOCK PRODUCTION

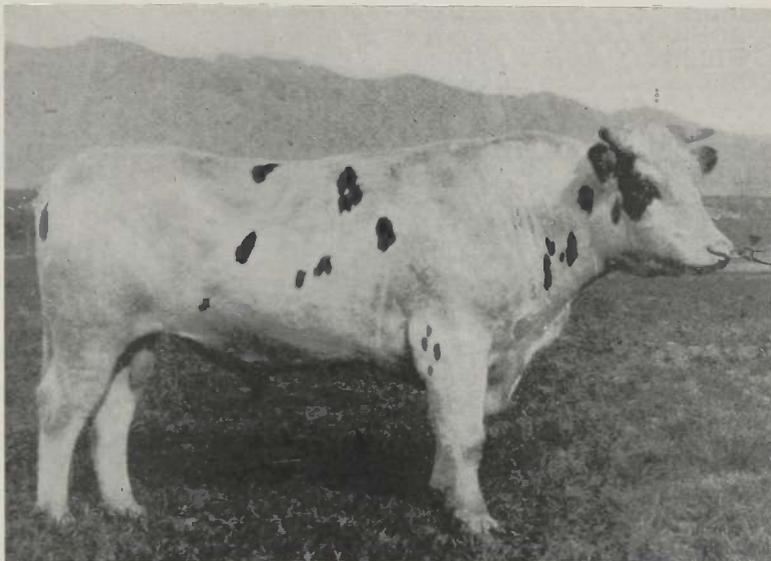
P. D. Spilsbury, '31

## Market Demand For High Quality Cattle. Points To Consider In Improving A Poor Herd.

**T**HERE are many factors that determine the place of the purebred in livestock production. Among these are a change of conditions, more exacting demands of the market, increased competition, and the achievements of the purebreds.

Let us take first a survey of the beef cattle industry. A few years ago the great ranges of Texas, Kansas, Nebraska, Colorado, Montana, Wyoming, and the Dakotas were covered with vast herds of "longhorns." Herds of cattle numbering up into the thousands were driven from the breeding grounds in Texas up to Wyoming and Montana by way of the old Cimarron trail. This was in the days of the wild west. These cattle were of an inferior quality, having very long horns, long legs, thin flesh, and narrow bodies. Their ancestors were supposed to have been the cattle introduced by the early Spanish explorers. As time passed, much of the range that was suitable for agriculture was converted into farms. The longhorn could be produced profitably only where it was possible to raise them in vast numbers, and at very little expense. As the size of the range was cut down by the establishment of the farming industry, it was found necessary to increase the quality of the cattle in order to keep up the production. This was necessary, because in the scrub cattle it was impossible to secure good weight and uniformity. The longhorns were of all colors, sizes, and classes.

Purebred sires were imported and crossed with the scrub cows. The resulting offspring showed a marked improvement over the original longhorn. More and more of the purebred sires were brought into the country, and the result has been the general improvement of all the cattle that have been raised in the West. This has been one of the greatest services rendered by the purebred. Purebred cattle are not yet so numerous as to permit their wide-spread use, so that it is not practicable to have all purebred cows in the herd that is being bred for the market, but all bulls should be registered, or eligible to registry. This fact cannot



A Purebred Bull.

be over-emphasized, because the part that the purebred bull plays in the efficiency of the herd has been figured at from 50% to as high as 90% by leading stockmen. "A stream can rise no higher than its source." The offspring can rise no higher than their sire, therefore, the sire should be of the highest quality possible. The saying, "The sire is half the herd," is followed by the equally true saying, "An inferior sire is all the herd." The qualifications of a good herd sire are few, but they are very important. (1) He must be a good individual, (2) he must be purebred, and (3) he must come from a good line of ancestry. These three points give guarantees as to his breeding quality.

Even though the purebred sire may be more expensive, he will prove to be the cheapest in the long run. Purebred beef cattle have proven to be 37% more efficient than scrubs. Purebred dairy cattle are over 40% more efficient than scrubs. The average, compiled from an experiment by the U. S. Department of Agriculture, for dairy cattle, sheep, horses, beef cattle, and goats was found to be 40.4%.

The low-grade steer does not make the same economical gains on feed that the purebred does, not the size and weight so necessary in the mar-

ket steer. He lacks the high dressing percentage, the high development of the expensive cuts over the back and loin, and that vital characteristic, quality. As a rule scrub cattle are restless and nervous, and do not respond to feeding as do the higher classes of purebreds.

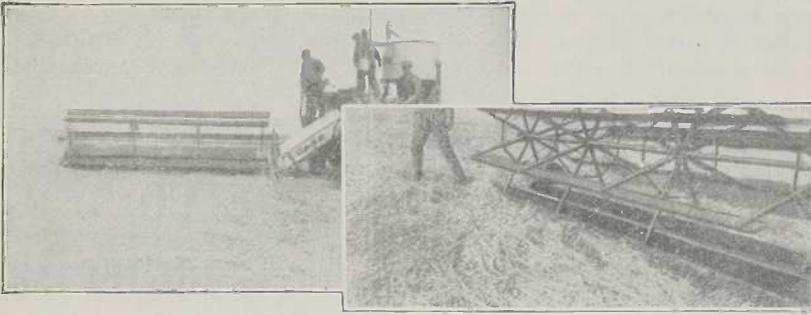
It is much easier to build up a poor herd of cattle, than to improve on a herd of purebreds, as it takes more skill, and a knowledge of heredity and other factors to so mate the animals that a definite improvement will result. The first cross gives the resulting calf crop a 50% infusion of pure breeding, while the sixth cross only gives the resulting calf crop slightly less than 2% more pure breeding. D. S. Burch has this to say regarding purebred sires: "A good pure-bred sire when used with females even of scrub or mongrel breeding improves the uniformity, quality, and general value of the offspring to a marked extent. Grading up is a systematic, interesting, and economical method of livestock improvement. Purebred sires are to be advised under all conditions."

The demand on the market today is for fat, early-maturing cattle that furnish a high dressing percentage, and a good development of the high-priced cuts of the loin, back, and

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# ALUMNI NOTES

STEWART YULL, '29



## Not Only Fair Weather Machines

**A**S a farming risk, weather loses much of its terror on farms equipped with Case machines. Take, for instance, the extreme case of Fred Stewart, of Stewart Valley, Sask.

Last year Mr. Stewart had 160 acres of wheat that he was unable to cut before winter set in. Early snows covered the uncut grain to a three-foot depth. Early spring rains completed the ruin, flattening the grain to the ground. The mess looked so hopeless that Mr. Stewart burned 80 acres of it.

In May, nearly nine months after the regular harvest time, he was inspired to try a Case Combine on the remaining 80. To his amazement and delight, the machine picked up, harvested and threshed his apparently ruined crop, giving him twenty bushels to the acre of saleable grain.

Case machines are not only fair weather machines. They perform efficiently in bad as well as good conditions. They enable their owners to overcome natural risks, do better and more timely work and make more money.

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# CASE

**QUALITY MACHINES FOR PROFITABLE FARMING**

Rube Hess, '26, is another versatile aggie. Rube is now superintendent of the City Parks in Phoenix, all of which goes to show that there is more than one way to put an agriculture education to use. Hess has an activity list while he was a student in college, that would do credit to any man. He was a member of Pi Kappa Alpha fraternity, an active member of the Aggie club, a member of the Bob Cats, a member of Lambda Alpha, and later a member of Alpha Zeta. Frosh take notice.

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Charlie Gray, '26, has strayed from the fold. He is now working for the Union Oil Company in Poenix. "Shepherd," as he was known to us, is a member of the Sigma Nu fraternity. While a student here, Gray was a most valuable varsity baseball man, and on two occasions helped the Aggie baseball team beat the Aggie Prof. Drop us a line "Shepherd."

## THE PUREBRED IN COMMERCIAL LIVESTOCK PRODUCTION

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round. The typical purebred, or offspring of a purebred sire and high-grade dam, is blocky, rectangular in shape, with hind-quarters that are well filled-out, and a broad evenly-fleshed loin. Compare this with the typical scrub, that has long horns and legs, thin flesh, and a narrow, angular body. The successful stockman is the one that is breeding the class of cattle that are in demand. Purebred cattle yield the best carcasses, and bring the best prices, because the market wants young, highly finished cattle. This means that the choice beef, and mutton must be early-maturing, and of the highest quality. Anybody can produce medium or inferior beef, mutton, and pork, but the price obtained is in proportion to the quality. Armour and Co., Chicago, states that the success of growing cattle for the market depends in a large measure on the kind of calves that are produced. Un-

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**THE PUREBRED IN COMMERCIAL LIVESTOCK PRODUCTION**

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less the right foundation, in blood and type are laid, no amount of feeding by the professional feeder, or skill in killing and cutting by the packer can make up for the original deficiency. Unless proper mating is made at the start, choice to prime steers are rarely, if ever, produced." This applies to the other branches of livestock-raising as well as to cattle. It applies especially, however, to the production of baby beef. It shows the fundamental necessity of using only purebred stock for breeding purposes.

There is an old, old story of two men who built two houses. One built on a firm foundation of granite on a hillside. The other built on a sandy foundation in a low place. When the wind, rain, and storm beat against the structure of the first man, the house stood firm. When the storm broke around the house of the other man, the foundation was washed away, and the house fell in ruins. This story can be likened to the livestock producer who builds his livestock business on the firm foundation of purebreds. When the storms of competition, exacting market demands, and economical production of high quality animals, breaks on him, he is able to meet these conditions because he is established on a firm base. The man on the other hand who builds on the insecure foundation of scrubs and low-grade breeding stock, who has to meet the same keen competition, the same market demands for quality products, and in addition has to produce these economically, is forced to drop out of the race. Only by using the best purebred sires to improve his flocks and herds, can the livestock producer of today hope to succeed.

One of the outstanding demonstrations of the superiority of the purebred over the scrub is the ton litter among hogs. The old time producer of razorbacks and scrubs when told of this possibility emphatically said, "It cannot be done." Yet it not only has been done among nearly all of the leading breeds of swine, but has actually become a rather commonplace occurrence. This is an accomplishment that has never been performed by scrub stock. It is one that probably never will be performed by scrubs.

The proper way to judge a tree is by its fruits. The same principle can

be applied to livestock. They should be judged by their records and achievements. This is easy to do, because all purebreds that are registered have their pedigrees recorded in these records. It is possible to trace their ancestry many generations back, and to know of their performances.

The achievements and performances of purebreds are the strongest reasons for determining the place of the purebred in livestock production. A general summary of these are:

1. Have graded up the quality of livestock throughout the United States, especially on the ranges of the western states.
2. Have practically eliminated the "longhorn" and "razorback" from livestock production.
3. Have increased consumption of livestock products by the improved quality of the market animals.
4. The decline of number of cattle since 1895, per capita has been partially met by the improvement of quality, due to use of purebred sires.
5. Purebreds hold all records for excellence in beef, mutton, wool, pork, and dairy products.

Perhaps the only reason that scrubs have been prevalent so long is that the price of purebreds has made many of the cattle breeders somewhat reluctant to make large purchases of them. It has been necessary to educate the stockman to the fact that while purebreds cost more, they are a profitable investment in the long run.

The following report of an experiment carried on by the U. S. Department of Agriculture, among 525 farmers and stockmen, who had used purebred sires exclusively for a number of years, shows the marked superiority of the purebred.

The advantages of purebreds over scrubs are very well shown in this arrangements of points:

Better conformation and quality	14.6
Better selling price of animals	12.8
Increased production	12.1
Stock more saleable	11.9
More product for feed	9.2
Owner's pride (results, better care and treatment)	9.2
Uniformity (factor in making sales)	8.9
Early maturity	7.8
Ease of fattening and finishing	5.7
Better prices for products	3.0
Increased vigor	2.7
Docility	2.1

Kitchen scraps should be fed to domestic animals, if they are kept. If not, the scraps should be "fed" to the garden because of their fertilizer value.

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Cheese may be made at any time of the year, and on farms where there is a surplus of milk during certain seasons cheese-making offers an exceptionally advantageous means of conserving, for later use, milk which otherwise might be wasted. The farm home could well afford to use more cheese. It provides muscle and body-making material in abundance.

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A half-acre garden, if properly cared for, will produce sufficient vegetables for the average family's use during the summer and for storing, canning and drying for winter use. It will produce a far greater return per acre than can be realized from an equal area devoted to general farm crops.

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Many troubles that poultrymen sometimes think are due to lack of minerals are usually caused by lack of sunlight or the vitamins furnished in cod liver oil.

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