Breeds of Beef Cattle for the Southwest

J. H. KNOX

Department of Animal Husbandry, New Mexico College of A. and M. A., State College

(Paper presented at annual meeting of Texas Section, American Society of Range Management, at San Antonio, Texas, on December 10, 1951.)

PERHAPS if we will start with two obvious facts, we can discuss this subject frankly without too much danger of bodily injury to the speaker. These facts are that each breed must possess advantages or it would not exist, and, secondly no breed has them all or it would be the only breed.

Usually when this subject is discussed a statement is made that runs something like this: "There are good animals in all breeds, therefore the selection of a breed is simply a matter of personal preference." If this were true, there would be no more need to discuss the selection of a breed than the selection of a necktie which is purely a matter of preference. When such statements are made they clearly apply to our European breeds only, which are of the same species and have a similar background and are therefore adapted to roughly (but only roughly) similar environmental conditions. Such statements could not apply to comparisons of the Brahman and the Hereford which belong to different species and possess numerous physical, physiological, and shall we say, psychological differences? They, also apply best when the animals are produced under nearly ideal conditions. You find such conditions in states like Missouri where you see most of the major breeds in a few miles drive. Here in the Southwest we deal with extremes: extremely wet, extremely dry, extremely hot, and even extremely cold in some of the high elevations in Arizona and New Mexico.

The conditions to which a breed must adapt itself may be classified as: natural environment, management practices, and market outlet. The first and the last of these are largely regional, while the second varies from farm to ranch and from ranch to ranch. We will try to bring these into our discussion as we go along, but we should illustrate what we have in mind by each of them. Natural environment covers such things as temperature, rainfall, topography, and presence of troublesome insect pests. Management includes farm as compared to ranch production. size of pastures, distribution of water, use of supplemental feeds, as well as equipment for handling the cattle and skill and experience of men doing the work.

Our market outlets in order of importance are:

- 1. Slaughter calves in east and south Texas, southern Arizona, and southern California.
- 2. Feeder cattle in west Texas, New Mexico, and Arizona.
- 3. Grass cattle from south Texas, southern California, and the irrigated pastures of Arizona.
- 4. Fat yearlings produced on the farms of central Texas.

In discussing the three breeds assigned for consideration, we shall be interested principally in the way they fit into these various situations rather than purely structural differences such as thickness of quarters which exist more between individuals than between breeds, anyway. In this discussion I shall have to use proven facts, general belief, and personal opinion which means that you may accept as much or as little as you choose. The three

116 J. H. KNOX

breeds assigned are Angus, Brahman, and Hereford. We shall discuss them in that order

Angus

The Angus have numerous advantages.

- 1. The first important one is that it is the only breed pure for the polled characteristic. This means that not only all Angus are polled but all polled calves may be expected when Angus bulls are used on other breeds. This is an advantage under most conditions and may be important in parts of the Southwest where screw worm trouble is serious. It not only removes the need for dehorning the steer calves but reduces injuries in the breeding herd which may lead to worm trouble and in part account for the popularity of the breed in the South.
- 2. They possess proven carcass excellence. In matters of yield, development of high priced cuts, and percentage of meat to bone they probably have no superiors. In texture of lean and ability to put on high finish evenly without waste in cutting, they excel. These qualities make them sought after by the packer and in turn by the feeder. I think it is safe to say that it is easier to produce feeders that will sell for a premium price per pound with Angus than with other breeds.
- 3. The cows are uniformily good sucklers. They have neat, well shaped udders, and small teats which reduce the trouble from milking and spoiled udders. This is fortunate for frequently the job of milking an Angus range cow is hard on man and beast. This good milking characteristic is important and when combined with the carcass excellence mentioned above, explains the growing popularity of the breed on farms that produce high quality baby beeves.
- 4. Angus are highly resistant to cancer and are generally believed to have less

- pink eye than other breeds. This is probably a leading cause for their increased popularity in some parts of the Southwest.
- 5. The cows are supposed to have less trouble calving than our other European breeds. This may be due to a slightly shorter gestation period and smaller calves at birth. This has made Angus bulls popular in our state for use on yearling heifers. It is believed that their lighter weight reduces injury at service and the smaller calves give less trouble in calving.
- 6. It is claimed that Angus live longer. In the case of cows, at least, this claim seems well supported under farm conditions. I shall have to admit that I have not been able to observe this fact under semidesert conditions, although it is true that Angus cows are plagued less by some of the unsoundness that shortens the lives of cows of some other breeds.

These are in my opinion the more important advantages of the breed, which brings us to the less pleasant task of considering their disadvantages.

- 1. An obvious disadvantage is small average size. Although it is true that types have been produced in other breeds that are smaller than the Angus, I think there can be little doubt that on the average Angus are smaller. I know of no convincing proof that Angus do not produce as much as other breeds for the amount of feed consumed but there are still clear advantages for animals of good size. It is ironic that breeders of some other breeds decided that this smaller size was a point they should copy. Small size is not the secret of Angus carcass superiority. It lies deeper than that.
- 2. The temperament of the Angus has usually been considered one of the major objections to the breed. The importance of this factor varies with the type of range. Rough, broken ranges and bushy

ranges are less suitable for breeds that are nervous than open ranges. Extra care needs to be taken in working cows to prevent doggying young calves. In general it may be said that on open ranges with well constructed working corrals and men with patience and cattle sense the temperament of the breed need be no serious handicap. Nervous cattle and nervous men never make a good team.

- 3. Under range conditions injuries to bulls are frequent. This is probably due to the pendulus type of sheath which is frequently found in Angus bulls. It has been my observation that this is likely to occur in from 3 to 5 percent of the bulls in our country which by the way is not far different than the occurrence of cancer among Hereford bulls. It is said that the trouble becomes worse on ranges with many thorns and cacti.
- 4. The question of calf crop on the range is one of the most difficult to discuss, partly because of its importance and partly because of lack of definite information. My observation of the breed on farms has caused me to think that it is excellent in this respect. But we find a common opinion among ranchers that they produce smaller calf crops on the range. I have been forced to conclude that this is true on our dry ranges with big pastures and several miles between waters. I doubt if it need be true on ranches in much of Texas. I have thought much about why this is true, if it is. It may be merely an indication of lack of adaptability to our conditions. I am not sure that this is the case, however, for in other respects Angus do not appear to lack in adaptability. I am inclined to place most of the fault with the bulls. It seems to me that keeping bulls distributed and at their work is more of a job with Angus than some of the other breeds. They seem to enjoy each other's company and late in the season you too often find

them on the range in groups. At any rate, if I were running Angus, I would try to have breeding pastures of not more than two or three sections or spend time in riding the pastures to keep the bulls distributed.

I might summarize on Angus by giving you the statement of a good friend who has run them in our part of the country for many years. He said, "I don't have the trouble and loss of weight from dehorning. I never have cancer and I think I would have very little pink eye if I didn't have some cattle of other breeds. I get at least one cent more for my steers." (This was in the days of eleven and twelve cent cattle). He hesitated a moment and added, "Perhaps they get a little better calf crop with their Herefords, however."

Brahman

When we consider Brahmans we are dealing with entirely different animals developed in an entirely different background. They belong to a different species than our other cattle and therefore differ from them in many respects. The most noticeable of these is their ability to thrive under tropical or semi-tropical conditions. They possess a tolerance for high temperatures, under humid conditions, and a resistance to insects and insect borne diseases not found in our other breeds of cattle. In fact the reason for bringing these cattle into the country in the first place was because it was difficult to take the other breeds below the tick line and they didn't do very well after they were taken there. Brahmans have proven, in the experience of practical stockmen and in controlled tests, to be more resistant to heat than other cattle. A number of traits help explain this fact. They are covered by a tight fine coat of short hair which allows heat to escape from the body more readily. This hair is 118 J. H. KNOX

neutral in color, neither absorbs the heat as do the darker colors nor reflects the sun as does the white color. The hair lies over a dark skin resistant to blistering. They possess sweat glands and have a large skin surface which aid in heat elimination. Unfortunately some of these make the breed poorly suited to resist low temperatures, although it is true that Brahmans have ability to adapt themselves to some extent to cold climates. However this ability is limited. I see no reason to deny this. I know of neither animals nor plants which are adapted to both low and high temperatures.

The cattle reach large mature size and the cows under reasonably favorable conditions raise heavy fat calves. This is said to be due to the composition of their milk rather than an unusual amount. The characteristics mentioned make the breed and its crosses unusually well suited for producing slaughter calves so popular in the South and in southern California. It is a happy coincidence that this breed is so well suited to the areas which provide the best market for these slaughter calves. Crossbred Brahman steers make excellent gains on the pastures of these regions.

Brahmans differ from other cattle in their life span. They mature more slowly than other breeds and they live longer. Their grazing habits are different. They graze more continuously throughout the day. It is not surprising that associated with this habit we find a smaller paunch, which helps explain the high dressing percentage they usually yield and may also explain why their friends are sometimes disappointed in feed lot comparisons with other breeds. Another factor about their grazing habits is their capacity to travel long distances with ease. This is important in relation to range management in the dry country where pastures are large and distances between waters are great.

Some of their more commonly recog-

nized faults have been mentioned. These include the fact that they do not stand cold weather well. The bulls are not ready for use as early as other breeds and they are hard to handle in rough country. Another handicap where feeder cattle are produced is the fact that they don't sell for top prices on the big feeder markets. To what extent this is due to prejudice and how much to actual feeder experience is hard to tell. The answer to this question may determine largely the future of the breed in west Texas and southern New Mexico. Here we have a breed which is clearly adapted to an important part of our region, probably not adapted to the colder more mountainous parts and whose place is vet to be proved in the vast semidesert country west of the Pecos.

HEREFORD

Now we come to the Hereford, which is the dominant breed in the Southwest. This in itself speaks well for its usefulness. In fairness to the other breeds it should be mentioned that they were not present in numbers when the Hereford gained its position in this part of the country. The good characteristics of the Hereford have been well publicized by their many friends and an active association.

1. Their ability to adapt themselves to a wide range in temperature has been an important factor in giving them the wide popularity they have enjoyed. Their thick hides and heavy winter coats give them unusual resistance to storms and low temperatures. Associated with the thick hide, are rapidly growing hooves which make the Hereford less likely to get foot sore on the range than most other cattle. This is an advantage on most ranges but it may require more foot trimming on farms. There is no secret about a Hereford's much publicized ability to rustle in a storm. He is like a man with a warm

coat and a good pair of boots. In this connection a person can see some reason why breeders in Montana pay a lot of attention to heavy hair coats but it is not easy to see the advantage for much of Texas. Probably the animal which has a long winter coat but a sleek summer coat is suited to warm country. The curly summer coat may be good for showing but for nothing else in this part of the world.

- 2. The temperament of the Hereford is hard to improve upon. In my experience it is the best of any of our breeds for handling in big herds. This has contributed to their popularity on the range and in the feed lot.
- 3. Calf crops in properly managed herds are good. Hereford bulls are unusually well suited for range service. With Angus we find more to admire in the cow than in the bull; with Herefords the reverse is true.
- 4. Herefords appear to be more resistant to infections and some diseases than some of our breeds but perhaps not all of them.
- 5. The steers grow well and put on flesh on grass. The Hereford is a good grazing breed.
- 6. Some other breeds may make as much or more gain in the feed lot, some may produce a carcass of more quality, but there is no breed of my experience which, on the average, will show as much finish on a medium or short feed as a Hereford.

The Hereford has obtained its present position because it found general favor with ranchmen, feeders, and packers but the breed is not without serious faults.

1. A fault is the development of im-

practical types. Herefords are not alone in this but they have probably suffered more from it than the other breeds.

- 2. Hereford cows have been known for fifty years as poor sucklers yet no concerted effort has been made to correct the fault. Individual breeders have shown that it can be corrected but many still prefer to breed for a particular shade of color.
- 3. Cancer occurs altogether too often in this breed. There is strong evidence to show that the breed lacks resistance to this trouble and that it is aggravated by the effect of the sun on the white faces and unpigmented eyelids.
- 4. Many cows especially in purebred herds have their usefulness shortened by prolapse of the vagina. Some are going to take strong exception to this statement. It is true that this condition is not limited to the Hereford but it is my personal opinion that it occurs more often in this breed.

SUMMARY

We can safely say that all these breeds possess much that is good. We are fortunate to have them because each has characteristics that cause them to fit particularly well into certain situations and because they give competition to each other. Complacency is the greatest enemy of any breed. Breeds and their position in our agriculture are not static. They are continually changing. Sometimes a breed loses a favorable position because of competition from a breed better suited to conditions or because of changing market demands. More often in my life time, it has been due to the failure of its breeders to produce really useful animals.