BEEF PROBLEMS ON KANSAS FARMS.

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As beef production is one of the most prosperous and promising industries in the state of Kansas, and as it is yet in its infancy of development, there are many problems connected with it which are very necessary for the best success and by many are not thoroughly understood. Of course beef production is a business in which no clean cut rules can be laid down for the feeder to follow in order to make a success, but much is left to the local conditions which I dare say are not the same in any two counties of the State, and also to the judgment of the feeder. It is possible, however, to give a number of the most important sonsiderations on which we may say the minor considerations hinge, as for example, Breed; Best Age to Fatten; Care When Young; Getting on Full Feed; Salt; Water; Shipping, etc. There are many local conditions which effect these but in general I think they remain quite constant over the State.

BREEDS:-The very first and most important question to be settled and upon which your success as a feeder depends is, "Which Beef Breed is the best for my conditions?" This necessarily demands a complete knowledge of your conditions.

It is generally accepted that the best beef breeds for Kansas is the Hereford and Short Horn, each of which have some important points over the other. The Hereford enthusiasts claim the majority of these points, while the Short Horn enthusiasts claim the same. It is necessary then to turn to experiments for our decision.

The Hereford cattle have from their earliest history been bred and improved strictly as a beef breed while the Short Horn breeders have been trying to develop a dual purpose breed, therefore we would naturally look to the Herefords to see the highest perfection in

in beef points. There has been considerable said as to the Herefords not giving enough milk for the best growth of the calf but the Hereford breeders claim that this is not a serious objection as the cow gives milk enough for the calf until it can eat grain.

As to the early maturity of the Herefords, Hon. T. F. B. Sotham, of Missouri says, "It has been proven that for the production of prime beef at the earliest age the Hereford bullock surpasses all others, if it be the feeder's purpose to produce profitably a ripe 1200 pound steer at 18 months old or a ripe 1500 pound steer at two years the Hereford for the purpose is unequaled and there is not a slaughterer or purveyor in this country whose testimony is worth having who will not testify to the superiority of Hereford beef when ripened between 12 and 13 months."

The Hereford is a blocky well developed in important beef parts and is set very close to the ground. They are very hardy, good grazers and of very mild temperament. They have been bred for 136 years being continually improved by Artificial Selection, goverened by the best of judgment, until practically only one point below the ideal beef Animal is the hind quarters and particularly in the twist, but this is continually being bred out until there are some who claim to have reached perfection. There is no breed which excels the Hereford in uniformity and appearance, for proof of this statement I will refer the reader to a cut published in the Report of the Kansas State Board of Argiculture for the quarter ending December, 1901, on page 157.

Short Horn Breed: - The Short Horn breed of cattle are very good for the Kansas farms, proving themselves very hardy and capable of laying on fat with a small amount of feed. They have been for a long period improved by very thoughtful breeders, and the

good Short Horn of to-day represent lots of labor in the form of Development. They have a tendency to be set up off the ground but this is gradually being bred out, they are the Hereford's closest competitors and the superiority of either of these over the other depends upon which breed meets the breeder's personal fancy.

I think for the practical feeder a good cross between these two breeds will meet his fancy, making most of the cross of the breed he prefers. In this way we get the qualities of the two breeds combined and producing an excellent feeder.

Be very careful in choosing your herd bull, get one which has sprung from very good ancestors, also have it be a good strong, robust individual of the very best prepotency. Give him particular care and spare no means for his best growth, give plenty of exercise, shelter, light and good feed. In starting out to build up your herd, be sure and have in mind an Ideal and do not stop short of that Ideal as success.

Points Essential to a Good Beef Ster: - The most important points to be considered in a good beef animal are, First, "A rugged and strong constitution" without which no permanent success can be achieved. Second, "Its depth of flesh as against deep layers of fat which may be produced by long feeding, this is not easily decided upon until the beef is on the block." Third, "Early Maturity" In most of the beef breeds the form is complete at any age after 12 months and then may be finished at any age.

Minor Points to be Considered:-Muzzle should be broad, nostrils large, indicating good lung power. The shorter from the nostril to the eye the better the animal will feed, all long nosed animals are hard to keep. Eye should be large, full and quiet Forehead, broad but not long. Horns, if any, should be small (Better be

dehorned). Jams broad, neck short and neat and well set into body, a surplus of hide about the neck is objectionable. The fore legs short and wide apart, brisket not protruding. Ribs well sprung and run well back to the hip bones, this is very important as much of the animal's strength depends upon the coupling. Hip bones not prominent but well covered with flesh, from the coupling to the root of the tail should be of good width and as level as possible. Tail strong but not prominent, a slim tail indicates a delicate constitution. Hind quarters well meated down to the hock. In fact hammed like a well formed Berkshire hog. Hind legs nearly straight and short, just large enough to carry the body. The hide should be of good thickness, mellow and well covered with soft hair. Top and bottom as nearly straight as possible. Hoof large and dark colored.

Baby Beef: - I believe that where we are in the beef business for all the money there is in it, as we most certainly are, that Baby Beef should be our chief aim. By Baby Beef I mean having an animal finished and in a good marketable condition at from 12 to 16 months old. We find that at this age it costs on \$4.05 per 100 pounds of gain while at two years of age it costs \$7.98 which is more than beef generally sells for, while at three years it costs \$12.54 per 100 pounds gain, why then had we not better sell our cattle as baby beef and realize a profit from them rather than keep them till two or three years old and loose from \$.46 to \$1.50 on each animal. Of course there are some conditions where it would pay to keep them till three years of age, as for example, where you have lots of good pasture and could not use it other than putting your cattle on it. But lots of feeders buy all their feed and still keep them till three years of age. It is seen that the cost of feed required to produce 100 pounds of gain increases as

the age increases. The following is an estimate from figures given by W. A. Henry of Wisconsin, in his book on "Feeds and Feeding", on the cost of three steers at one year, two years, and three years old, also the probable sum they would sell for when finished.

l yr. 2 yrs. 3 yrs.

Cost of calf - - - - - \$ 8.00 - - - - \$ 8.00 - - - \$ 8.00

Cost of feed - - - - - 32.24 - - - -119.70 - - -238.26

Labor - - - - - - - 6.00 - - - 8.00 - - - 10.00

Interest 8% - - - - - - 3.50 - - - -10.85 - - 20.66

Total - - - \$41.74 - - \$145.55 - - \$276.86

This shows a profit on the baby beef of \$27.26 per head and the loss on the two year old of \$48.50 per head while the three year old lost \$73.36. This is based on experiments made in Wisconsin and records of fat stock shows. All the feed is bought at market price. Of course this example is not altogether conclusive, as there is no account taken of droppings, also the older steers would not be fed grain all the time but would be running on pasture and this brings down the cost, but it shows the amount of money that it is possible to make by feeding baby beef. It is a fact in order to make a success of baby beef, we must give them much attention, but when we consider that we are in the business, we can afford to give all our time to it. The calf must not lose a pound of flesh from his birth on but must continually gain from day to day. Must first receive all the milk he can drink and be taught to eat grain early in life, must be given clean and comfortable quarters and fed a good balanced ration, feeding much

succulent food, as ensilage, milk, etc. If no pains are spared in making the calf a good one there is no reason why he should not weigh 1000 pounds at 14 or 15 months of age, and an animal finished at this age will always top the market which means \$6.50 or \$7.00 per hundred or a profit of more than \$2 or \$3 per hundred.

Getting Cattle on Full Feed: The question of getting cattle on full feed is one of much importance to the feeder. It should be done very gradual, taking from 50 to 80 days to get on full feed. The cattle should be fed some grain while on pasture in the fall, gradually increasing it until cyou have them on full ration, corn fodder is good to start on and gradually increase the grain and cut down the roughage, they should be handled carefully through the feeding period and the same person handle them at all times, after they have reached full feed, feed them regularly at least twice a day, do not vary the feeding time over five minutes and none if possible, be with your cattle every day and have them so gentle that you can rub each animal in the herd.

Shelter:-Good shelter should be provided for the steers, consisting of a shed opening to the south in front of which is the feed troughs, this shed should be proved with good bedding. The lots in front should not be large, so the steer will remain as quiet as possible and induce them to lie down as much as possible.

Water: Good, clear, fresh water is absolutely necessary and should be in front of the steers at all times, either as a running stream or in tanks, and this should be easily accessible. I believe good water piped to a tank would be preferable as you can then use a tank heater in the winter keeping the water at the right temperature (70°F). The tanks should be kept clean and so situated that they are not far from the feed troughs. Keep

the tank full by the use of a floating valve.

Salt:- Salt should always be before the cattle and I believe granualted salt is preferable as the steers may get all they want in less time than from rock salt and then go and drink and lie down. Renew the salt supply once a week. Too much salt should not be given, as this increases the consumption of water and throws extra work on the urinary system which is to be avoided, buthby having it before them at all times I do not think you will be troubled from this cause.

Shipping:- A day or two previous to shipping feed the steers hay with no grain, the object being to get them on the cars in as dry a condition as possible. Too much water is liable to scour them and give a bad appearance at the Stock Yards, they should arrive dry behind and ready to take a good fill of water, not a great deal, but a good drink. When on the road feed good sweet hay, this excels corn and is very easily digested and does not fever the animal. It is preferable that the cattle arrive at the sale yards from 5 to 8 a.m. as they look better after being fed and watered, allow 250 pounds of hay and 4 bushels of grain per car.

Observing all points mentioned in this article along with good judgment and good common sense and there is no reason why any person could not satisfy their burning ambition in the production of the finest quality of beef.