Disputed Points in Sheep Wintering.

In the care of sheep, as in that of any other stock, there are many operations of which there is a diversity of opinion even among leading shepherds. We will refer to some of these and ask our readers to discuss the points as they think well.

1. *Feeding roots.*—At this season many object to feeding roots to pregnant ewes, being fearful of causing the lambs to come large, soft and with little vitality. Others feed from 6 to 8 pounds per ewe daily and consider the practice beneficial to the health of the ewes, without fear of evil results to the lambs. What quantity of roots, if any, is it safe to feed breeding ewes before lambing?

2. *Watering.*—With sheep the normal proportion of water to dry food is about 2:1, while with cattle about 4:1. When ewes get roots to the extent of a few pounds per day, water in cold weather will not be taken, but if they are on dry feed they need a drink. Now, the question is, will snow answer as drink or is it better to give them access to fresh water?

3. *Pea straw vs. clover hay.*—We have found it quite unnecessary to feed breeding ewes a forkful of hay before lambing when we have plenty of good pea straw. This, with a small quantity of oats, bran and turnips, gives excellent results. What have others to say in this regard?

4. *Peas unthreshed.*—A horseman of our acquaintance took great credit to himself for keeping his team in good condition, while he claimed that all they got was oat straw, and that wasn't half threshed. Some of our best shepherds find good success in feeding pregnant ewes up till lambing time on unthreshed or top-threshed peas, claiming that the ewes do well, produce fine, strong lambs, and have an abundance of milk for them. We have lost sheep in this way, but they had not become accustomed to the food or had been fed too freely. In discussing this question it would be well to dwell upon the safety of gradual changes in diet.

5. *Salting.*—Sheep, above all farm stock, should have salt constantly before them. Some mix a quantity of pine tar with salt, which is considered a healthful practice. Others mix in a proportion of sulphur, both for the health of the sheep and its effects in combating ticks. What is the best practice?

6. *Dipping.*—Too few appreciate the importance of keeping sheep free of ticks and lice. Animals of any sort will waste their owner's feed if continually worried by insect pests. Our practice is to dip the entire flock, lambs and all, just after shearing and again in the fall before cold weather sets in. Some dealers when they buy tickley sheep in winter dust them with pyrethrum (insect powder) or hellebore, and secure good results; but it is quite safe and probably better for the health of the sheep to use one of the prepared dips, opening the wool at intervals and pouring from a coffee-pot. Do our reading shepherds consider this the best practice, or what changes should be adopted?

7. *Cleaning pens.*—Mr. Rennie, farm superintendent Ontario Agricultural College, places great stress upon keeping the sheep pens cleaned down to the floor, claiming that accumulations of litter and manure give off gases harmful to the sheep. In our practice we have not found cleaning twice during the winter too seldom. We feed pea straw and use the refuse for bedding the pens, which are always dry underfoot and continually sweet and fresh.

8. *Exercise.*—During the fall before snow comes it is well to allow the flock access to a pasture field, but after deep snow comes continuous access to roomy yards seems the ordinary custom. Some recommend feeding whole roots thrown about the yard as an inducement to activity and exercise. What is there to say on this point? Some sheep owners dare not allow the flock outside the fold at night for fear of dogs. What is the best dog-proof arrangement?

9. *Creep-pens for lambs.*—As soon as lambs are able to eat—about a month old—a portion of the pen should be divided off by hurdles, having a "creep" through which the lambs, but not the ewes, can enter. In our opinion the sides of the opening should consist of rollers so that the lambs when passing in and out will not scrub out their wool. In this pen a dainty ration can be kept before the lambs so they can feed at will. A good mixture for this purpose consists of cracked peas, broken oats, finely-nutted oil cake and a small proportion of wheat bran; savory clover hay should always be kept before them. Some sheep owners consider this lamb pen an unnecessary trouble, and allow the lambs to hustle for themselves along with their dams. Which is the better plan?

While we invite free and liberal discussion upon the points brought up, we do not expect the entire ground to be covered by each contributor. What seems wisest would be the securing of the greatest good to the largest number, which will result by each confining himself to two or three points and dealing with them fully, trusting to others to take up the remaining questions.

How It Helped Him.

In paying up his subscription for 1898, Mr. Jas. Dillon, Russell Co., Ont., writes that he considers it a privilege to thank the FARMER'S ADVOCATE for the service it has given him. "Since taking it," he adds, "I am in a position to make dollars where I could make cents before. Am now wintering 17 pigs where I used to have one, and keep 20 head of cattle where I had 7 or 8."

Beef Type and Its Effects Upon Economical Production.

BY C. F. CURTISS, DIRECTOR IOWA EXPERIMENT STATION.

No one is more concerned in what constitutes the essential qualities of a good beef animal than the man who breeds and feeds for the block; for it must be kept in mind that this is the ultimate end of all beef stock, and the best beef animal is the one that carries to the block the highest excellence and the most profit. This, in a word, is the keynote of the whole problem, and if we do nothing more than look squarely at this subject in the right light we will have made a good beginning. It means everything in the live stock business to begin right, to be traveling upward—headed in the right way. To be headed the opposite way is fatal. There is a well-defined beef type that admits of less flexibility than is generally appreciated. We hear much about the dairy type, and there is a dairy type, fairly clean-cut and well defined; but there is also a beef type, more rigid and less variable. All know that there are not a few cows of quite positive beef tendencies capable of making very creditable dairy records, and a great many that combine milk and beef to a profitable degree; but who can recall an instance of a good carcass of beef ever coming from a steer of a pronounced dairy type or breed? So clearly and definitely is this beef type established that to depart from it means to sacrifice beef excellence.

HIGH-GRADE SHORTHORN STEER.
Raised as a skim-milk calf by the Iowa Experiment Station. Best steer in the Chicago yards on a day when there were 26,000 cattle on the market.

The illustration of grade Shorthorn steer pretty accurately represents the ideal beef type. The steer was raised as a skim-milk calf at the Iowa Experiment Station. He was the best steer in the Chicago yards on a day when there were 26,000 cattle on the market. The first thing that should be looked to is the general beef form—low, broad, deep, smooth and even, with parallel lines. No wedge shape is wanted for the block. Next in importance is a thick, even covering of the right kind of meat in the parts that give the high-priced cuts. This is a very important factor in beef cattle that is often overlooked. Here is a drawing representing the *wholesale* method of cutting beef, showing that about 28 per cent. of a good carcass of beef sells for nearly 64 per cent. of the total value.

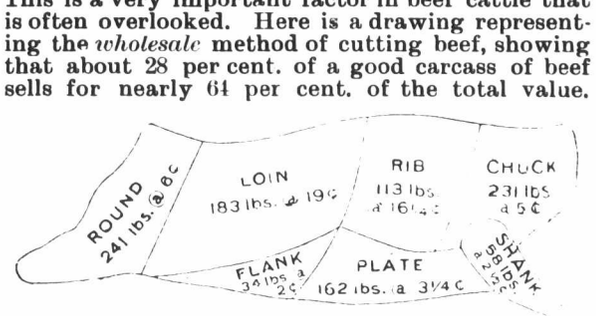


FIG. A.

The high-priced cuts are the ribs and loins. These parts on an average sell for about three times as much per pound as the others. Good, broad, well-covered backs and ribs are absolutely necessary to a good carcass of beef, and no other excellences, however great, will compensate for the lack of this essential. It is necessary to both breed and feed for thickness in these parts. And mere thickness and substance here are not all. Animals that are soft and patchy, or hard and rolled on the back, are sure to give defective and objectionable carcasses, even though they are thick; and they also cut up with correspondingly greater waste. The men who buy our cattle and fix their market value are shrewd enough to know almost at a glance how much and just what kind of meat a steer, or carload of steers, will cut out, and if the producer overlooks any of the essental points he is compelled to bear the loss. Then, in addition to securing the general beef form and make-up, together with good backs, ribs, and loins, there is a certain quality, character, style and finish that constitute an important factor in determining the value of beef cattle. One of the first indications of this is to be found in the skin and coat. A good feeding animal should have a soft, mellow touch, and a fine but thick and heavy [NOTE.—The diagram (used by Prof. Mumford, Missouri Agricultural College, before the students) represented by Fig. B represents the carcass of a well-fattened grade steer as cut up by the Chicago butchers, giving *retail* price per pound for the different cuts. A good steer dressing 800 pounds has thus 708 pounds of marketable meat. It will be noticed that all the most valuable cuts are taken from the ribs, loin, and hind quarters, and together weigh 346 pounds, and at the prices indicated on the diagram bring $44 55. The less valuable cuts from the fore quarters, belly, and flank, weigh 362 lbs. and bring only $16 48, hence the significance of feeding a good grade steer rather than a scrub.—ED.]

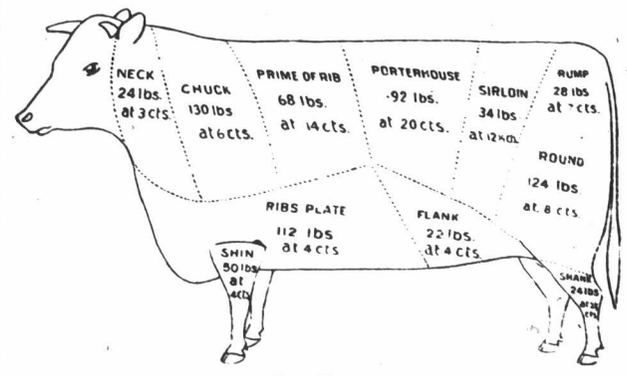
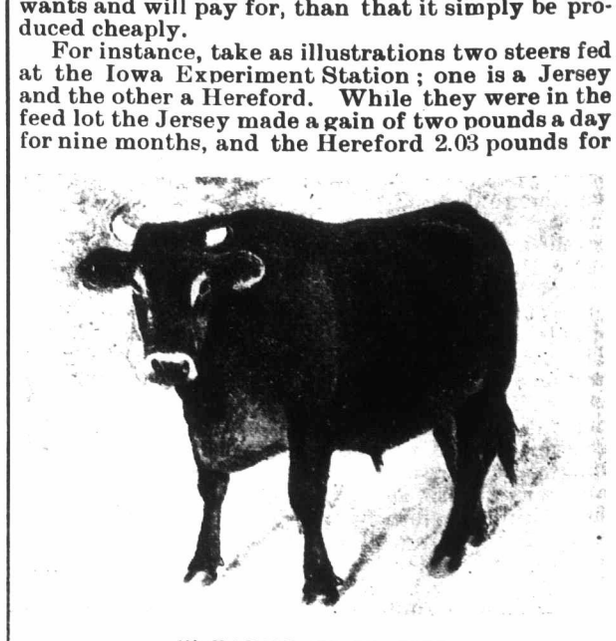


FIG. B.

coat. A harsh, unyielding skin is an indication of a sluggish circulation and low digestive powers. The character and finish exemplified by a clear, prominent yet placid eye, clean-cut features, fine horn, and clean, firm bone, all go to indicate good feeding quality and a capacity to take on a finish of the highest excellence, and consequently to command top prices. I would not tolerate too large or too coarse bone. Coarse-boned, rough animals are almost invariably slow feeders and hard to finish properly. A certain amount of size is necessary, but it should be obtained without coarseness. The present demand exacts quality and finish rather than size. Besides these qualities, and above all, it is necessary to have vigor and constitution. We find evidence of these in a wide forehead, a prominent brisket, broad chest, full heart girth, and general robust appearance; and without them other excellence will not have its highest significance.

I wish to call attention, by way of emphasis, to the necessity of having the right kind of cattle to insure a profit, or rather to avoid a loss, under present conditions. There is not a very great difference in the rate of gain, or the number of pounds of increase in weight from a given quantity of feed, that will be made by a representative of the best beef breeds and a genuine scrub, a Jersey or a Holstein steer. This is a fact that practical breeders and improvers of live stock were slow to accept at first. In fact, they did not accept it until it was repeatedly demonstrated, and some will not concede it yet, but the evidence is constantly accumulating, and it is useless to ignore facts. After all, there is no well-founded reason why a Shorthorn or a Hereford or on Angus should make more gain in weight from a bushel of corn than a Holstein, a native, or a scrub. This is governed altogether by the digestive and assimilative machinery of the steer. The Holsteins, for instance, are known to be vigorous eaters, and the despised scrub usually has a digestive system like a goat—and is always hungry. Scientists have discovered that civilized man has no greater powers of digestion than the barbarian or the Indian. Neither has the improved steer better digestion than the native. The feeder is often deceived in the belief that he has a good bunch of cattle simply because they feed well and gain rapidly. Economy of production is an important factor, but is by no means all. It is even more important to have a finished product that the market wants and will pay for, than that it simply be produced cheaply.

For instance, take as illustrations two steers fed at the Iowa Experiment Station; one is a Jersey and the other a Hereford. While they were in the feed lot the Jersey made a gain of two pounds a day for nine months, and the Hereford 2.03 pounds for



HIGH-GRADE JERSEY STEER.
Fed and marketed by the Iowa Experiment Station.

fourteen months. There was practically no difference in the rate and cost of gain. Judged by the record they made up to the time they went to market, the Jersey would take rank close to the Hereford in both rate and economy of gain. But the interesting part of the comparison came later. The Jersey took on flesh rapidly and was exceedingly fat and well finished. He was as good as it is possible to make a Jersey steer. Yet, when he went to market he had to sell $2.12½ per hundred below the top quotations, while the Hereford went ten