

## LIVE STOCK.

### Judging Beef Cattle.

BY PROF. G. E. DAY.

In judging beef cattle it makes a good deal of difference whether we are judging a class of animals which are finished for market purposes, or whether we are judging a class of animals intended for breeding purposes. It is probably safe to say that in judging fat cattle, the hand is rather more important than the eye, but in judging breeding animals, the eye is more important than the hand, though in either class both the hand and the eye must be used intelligently.

In a finished market animal, we are especially concerned as to whether the animal is well developed in those regions from which we obtain the best quality of meat, and whether it carries a deep covering of first-class quality meat over the valuable portions of the carcass. To ascertain the amount and quality of flesh the hand must be used.

In the matter of handling, the fingers should be passed along the back with sufficient firmness of pressure to ascertain whether the back is well covered, and when the loin is reached, special attention should be given to this region as it is one of the most valuable cuts in the carcass. The loin should be full and wide and deeply covered with firm flesh. Passing from the back and loin, the hand should be used upon the ribs to ascertain the depth, firmness and smoothness of covering in this region. Very often in animals which are in very high condition, a large roll of fat will be found in the region of the back rib. When this development is excessive, it is very objectionable because fat of this kind is not edible. Passing from the rib, it is a good plan to test the fullness and thickness of the flank, which is an indication of the general finish of the animal. The hand should also be passed over the shoulder blade, and the shoulder point, to make sure that these parts are nicely covered.

The quality of the skin and hair are fairly sure indications of the general quality of the flesh, and the skin in the region of the back rib should be lifted between the fingers. The skin should be fairly thick but very mellow and soft. A harsh, stiff hide indicates lack of quality in the grain and the meat, but a mellow, soft-handling hide denotes good quality of flesh. The hair should be soft, and the more nearly the hair approaches to fur in quality, the better indication it is of an animal that is a good thrifter, and also an animal which will give good quality of meat.

Having satisfied ourselves regarding the handling qualities of the animal, it is in order to take a general view to ascertain the relative development of various parts. For instance, an animal which is extremely heavy in the fore quarter, but runs shallow and light as you approach the hind quarter, is very objectionable, for the reason that the fore quarter represents cheaper meat than that found in connection with the hind quarter. Similarly, a view from the rear should show a wide spread of rib, a wide loin, and a great width over the rump and down the rear of the hind quarter.

If the animal is narrow and peaked in conformation towards the rear, it shows a very objectionable conformation, because it is over this region that we look for the more valuable meat.

A point which is always worth noticing is the width over the top of the shoulder. An animal that is narrow and sharp over the shoulder top will furnish a carcass which is deficient in lean meat. It is true that a rough shoulder is not desired, but width over the top of the shoulder, with corresponding width back of the shoulder and along the top of the animal, is very desirable. Generally speaking, we like to see a straight top line and a reasonably straight under line, because straightness of under line is associated with good depth towards the rear of the animal, which is important for reasons already stated.

To sum up, we may say that we want a deep, broad body, with the various parts blending smoothly into one another and with reasonably straight lines above and below. Coupled with this, we must have good depth of fleshing over all parts, and this flesh should be of reasonable firmness and uniformly put on. The ideal beef animal shows an entire lack of angularity and is smooth and packed with meat over all parts of its carcass. The skin should be soft and elastic, and the hair fine and abundant.

When it comes to judging breeding animals, it is also important that they should possess the qualities assigned to the market animal, but in addition to these points we must consider type, style and character, without which a breeding animal may be entirely undesirable, no matter how perfect it may be from a purely butcher's standpoint.

The type of the animal is influenced more or less by the breed to which it belongs, but all beef animals should conform, within reasonable limits, to the general conformation already described in connection with the butcher's animal; that is to say, the form should be deep, broad, and smooth with straight top line and under line, and the body should be set upon short legs. These peculiarities of conformation are characteristic of what we may call the typical beef animal and hence come under the heading of type.

The head of a butcher's bullock is not particularly important after the animal is finished for market, but in the case of the breeding animal, we attach a great deal of importance to the head. A head which shows a short face, a wide forehead, a full, bright eye, and a wide muzzle is a pretty sure indication of a vigorous

animal and an animal which will make good use of its feed.

In males, the head, of course, should be masculine in character without being coarse, and in females it should have an effeminate appearance without showing weakness or delicacy. It is the head which is the main factor in giving what we call character to the animal, and the carriage of the head combined with the general carriage of the body gives the animal what we know as style. Style and character are closely related and overlap one another more or less, but both are important in the breeding animal of any kind.

Quality in the breeding animal is indicated in the same way as it is in the butcher's animal already described.

It is important to use the hands to determine the quality and fleshing of the animal, but as indicated already, the eye is especially important in judging breeding animals. If the judge keeps too close to the animals he is judging he cannot form a correct opinion of their symmetry, or the balancing of various parts. He should take time to examine them from the side, the front and the rear, standing well back, especially from the side view, so as to form a correct opinion of the general type and character of the animal.

A side view gives him the top and bottom lines, the depth of body, length of leg, the balance of the hind and fore quarters, the development of the neck, the carriage of the head, and the blending of one part into another.

From the front view he gets the countenance of the animal, the conformation of the head, the straightness of the forelegs and the width and depth of the chest.

From the rear view he gets the spread of rib, width of loin, the width over top and back of the hind quarter, and the smoothness with which the shoulder blends into the rib as well as the general smoothness over the hooks, tail-head and top of the quarter in general.

Having taken all these points into consideration and having used his hands intelligently to help his eyes, but not to take the place of his eyes, a judge should have a reasonably clear conception of the merits of the animal he has under examination.

Frequently we find a difference of opinion among good judges, as to the relative merits of two or more animals. This is only to be expected and will always exist so long as show-yards are in existence. From what has been said it will be seen that there are many things to be taken into consideration, and one judge may attach slightly more importance to some one point than another judge, and in cases of close decisions it would be strange indeed if variations in opinion did not occur.

In treating this subject a number of details have been omitted, and all that has been attempted is to present some of the leading considerations which enter into the problem of judging beef animals. It requires a sound practical knowledge regarding the breed under consideration, a sound judgment which is able to balance one class of facts against another, and a mind which is thoroughly independent and free from prejudice, to qualify a man to make a satisfactory judge of beef animals, or any other class of stock.

### Buying Cattle Feeds for Winter Use.

The most successful cattle feeders purchase and feed profitably a reasonable supply of mill feeds and concentrates. What feeds to select and when to purchase are at present most difficult problems. The man who buys meals in small amounts as needed and buys the meal cheapest per hundredweight is a poor business man and does not appreciate the real values of feeds. The feeder who has rich and succulent farm-grown roughages need purchase and feed less grains and meals and the meals purchased need be of a less concentrated nature. The intelligent cattle feeder always raises on his farm the best possible quality of feeds and makes his purchases of grain and meals to balance the rations properly.

There are but two correct methods of choosing meals when purchasing. Which method to follow depends altogether on the quantity, quality, and variety of the farm-grown roughages. Purchases should be made on the basis of the protein contained in a digestible form or the total digestible nutrients (protein plus starches plus fat x 2.24).

For example, red clover hay contains 152 pounds digestible protein and 1,018 pounds total digestible nutrients per ton, timothy hay has only 60 pounds digestible protein and 970 pounds total digestible nutrients per ton, corn silage has 22 pounds digestible protein and 354 pounds total digestible nutrients per ton, and mangels or swedes about half as much of each. Clover, or better, alfalfa hay supplies the protein of a ration in about the correct proportion while timothy hay must be supplemented with a rich protein meal. Again, corn silage, although bulky, supplies the cheapest total nutrients of any feed but requires a protein meal to balance it. Silage made from green clover, oats, or oats, peas and vetches, is worth almost as much as good corn silage.

The same relationship exists between all the meals which are purchased for the feeding of stock. The farmer who has grass hay (such as timothy) and corn silage, must buy meals on the basis of cheapness of protein. At the present prices these in order of cheapness are:—Cottonseed meal, dried distillers' grains, linseed oil meal, gluten feed, wheat bran, shorts, middlings, and oats. If, on the other hand, he has alfalfa or clover hay, corn or other good silage and roots he need purchase less meal and should select on the basis of cheapness of total digestible nutrients. At present prices

these in order are:—Dried distillers' grains, beet pulp, wheat middlings and bran, gluten feed, cottonseed meal, linseed oil meal, and oats.

Every farmer can in a few minutes with present feed prices and the analysis of digestible nutrients, verify the above and select his purchases accordingly.

Certainly if he wishes to get the most value for his money he must follow these four rules:—

1. Buy the highest quality feeds, not those containing dirt, filler and indigestible fibre.

2. Buy feeds containing the desirable elements in the cheapest form.

3. Buy co-operatively, in car-load lots if possible, and thus save extra freight charges and commissions.

4. Buy when the markets are lowest, usually in the summer and fall, and save the storage, handling charges, and, usually, extra profits made by the millers and dealers.—Experimental Farms Note.

### Cattle Situation in France.

G. Moussu, in Volume 28 of the "Revue d'Hygiène et de police Sanitaire 1916," in commenting on the frozen meat supply for the civil population of France writes:

"Britain was the first European nation to make use of meats preserved by refrigeration. She has established supply stations along her navigation routes at Gibraltar, Port Said, Hong Kong, etc., so that her ships can be revictualled wherever they may happen to be. Britain's successful prosecution of the Transvaal campaign was due in part to the abundance of frozen meat supplied to the army, and Russia's failure in the Russo-Japanese war was due in part to a faulty organization which did not provide for proper rations.

"Because of lack of a reserve supply of storage meat it was necessary, during the first year of the war, from August, 1914, to July, 1915, to kill large numbers of cattle, both large and small. After a year of war, the number of cattle in France had diminished by more than 2½ million adult head, out of a total effective number of 15 million (young and adult). In 1915 we were poorer in cattle than in 1862. The military administration is now in a position to put a certain amount of frozen meat before the civil population; not for the purpose of totally supplanting the fresh meat, but to correct the present high price of fresh meat."

The ravages of war on the cattle herds of France during the first year were enormous, according to Moussu, a depletion of 2,500,000 head. The condition, the writer intimates, was due to unpreparedness in storage meats. Since that time, however, the intimation is conveyed that the serious condition has been checked by the use of frozen meats for the military and civil population.

### Training Young Cattle.

Jim Powell, a veteran beef cattle herdsman of the United States, writes as follows in "The Story of the Herefords" by Saunders, regarding the training of cattle:

"In training young cattle much patience and time are required. In the first place tie them up in their stalls and handle them there. Then commence leading them out. Have a buggy whip in your hand and make them stand when you want them too. A light cut on the nose will do this. Try to make them stand with their front feet well under them, not spread apart, and then they will show a good, level back. Make them stand at ease. Do not try to do too much at once, as the calf may become sulky. They should have plenty of exercise."

It requires an expert to fit an animal properly for exhibition, and almost as much wisdom and skill to let it down again after the circuit has been covered. History of the cattle ring bears records of many losses through inefficiency in this regard after the animals were carried successfully through a whole season. Do not be too hasty in making changes. Make every alteration in the diet gradually and with care.

Frequently a herdsman neglects the feet of his charges, although he may be painstaking in other ways. This negligence often means a lower place in the showing, for the candidate cannot walk sprightly. Pare the feet when necessary and keep them from getting too long and irregular. Some make a practice of washing out the feet with soap and warm water.

Three high-priced Hereford bulls have been imported into Western Canada during the last few months. They are good individuals and carry the most fashionable blood in their veins. The "white face" is well liked in the West, and should become more popular through the use of the best bulls produced in America.

Ontario cattlemen should be able to fill the feed lots this winter and make good gains. Grain and roughage are plentiful, a striking contrast to the existing conditions last year.

Train the cattle to be exhibited at the Fall Fair. Unruly youngsters do not show up well when they have to be wrestled with all the time.

The herd header should be kept in a good, thrifty condition. It will make a difference in the calf crop.