

Best Type for Beef.

Bulletin No. 69, of the Michigan Experiment Station, gives the result of an investigation in feeding steers of different breeds. The plan was to feed all alike, using a mixed grain diet, and giving some variety, both in grain and coarse fodder, and to adjust the amount of both at all times to the appetite of the individual animal. The rations were at all times precisely alike, except as to amount and some slight variations, which the steers established themselves between grain and coarse fodder. As nearly as possible typical specimens of the breeds were selected; these were originally two each of five breeds, Shorthorn, Galloway, Hereford, Holstein and Devons, but accidents deprived the experimenters of one Shorthorn and one Devon. The feeding records cover a period of 544 days. The grain ration was made up of corn and oats (either whole or ground) with bran and some preparation of oil meal. The proportions varied from time to time, but were always the same for all the animals. No molasses was used, nor condiments of any sort. The coarse fodder was principally mixed hay—timothy and clover—relieved by roots—mangels, turnips, etc., corn ensilage, cut grass or corn, and in the early part, by pasture. During the first summer they were on pasture a large part of the time for about four months—too long I am satisfied for their own good. The last summer they were out from May 17 to June 6, and rested from grain. This resulted in a temporary loss of weight, but a real advantage to the steers. Elaborate tables are given covering such points as food consumed, total gain, per cent. gain to food consumed, weight at slaughtering, dressed meat to live weight, shrinkage on cooling, excellence of carcass, cooking qualities, etc. The general conclusions drawn from the experiment are as follows:—

1. The amount of food consumed is no index of the amount of gain it will produce, that is to its profitable use and conversion into meat.
2. Neither is the total gain secured, nor the rate of gain a sure guide to the economical use of food by the animal.
3. Large gains are not necessarily economical ones, nor medium ones necessarily costly.
4. Age is the all controlling circumstance that decides the rate of gain. The ration necessary to sustain the gain increases with age in about the same proportion as the weight of the animal, but the gain remains absolutely about the same.
5. That "baby beef" is not inconsistent with high quality.
6. That nervousness is not necessarily a sign of a bad feeder.
7. That great development in size is not a necessary condition to profitable feeding nor to quality.
8. That the "type" of an animal has much to do with his ability to use food to good advantage in the production of meat. In this sense there is a distinction and a difference between the breeds for beef purposes.
9. Those nearest the "dairy type" made less gain to the food consumed, and it consisted more largely of fat on and about the internal organs. This type was also characterized by coarser extremities, a longer, fatter rib, more shrinkage of meat in cooling, and a higher percentage of cheap parts.

10. As between the beef breeds, I think no one can here suggest marked differences that cannot be sufficiently explained on other grounds. As in all experiments of this kind, greater differences are noticeable *within* the breeds than *between* them. The two Herefords are in this experiment nearly at extremes in everything but type, and in that respect as far apart as is allowable among Herefords. Aside from the Holsteins, no two animals of the lot differed more than did the two Herefords. Very close upon them came the two Galloways with marked differences in build.

11. Knowing these animals as I did I think I may safely say that as they, irrespective of breed, approached a certain stocky, blocky form that we designate as the "meat type," in the same degree they proved good feeders and economical consumers of food, within a reasonable age. On the other hand, as they approached the coarser or more loosely built organization, betraying a circulation more largely internal and less diffused, in about the same proportions were they less profitable consumers of food for meat purposes, and turned out a less desirable carcass for the block. If this be true, as I believe it is, it is a question of type rather than of breed, and that breed that affords the largest proportion in members of this type is, all things considered, the best, if any one thinks he knows which breed or breeds that may be.

Dominion Swine Breeders.

The Executive Board of the above Association met at Guelph, December 11th, during the Fat Stock Show, President Featherstone in the chair, when a number of projects, relative to the interests of this industry, were entered into, and will be carried out by the Association for the benefit of those having herds of pure-bred swine. The following resolutions were also adopted:—

Resolved—That the Secretary be instructed to communicate with the Secretaries of other live stock associations, asking them to instruct their delegates to request the various fair associations to prevail upon the railway companies to grant free passes to the necessary attendants in charge of live stock attending the fairs, such passes not to exceed three in case of carload lots, or one in the case of less than a car lot.

1st. That our delegates be instructed to urge upon the various fair associations the necessity of better accommodation for pigs exhibited at the different fairs. And would further recommend that all pens be tight boarded and floored, and that any fair association contemplating building new pig pens be requested to submit the plans of the same to this Association before carrying them into execution.

2nd. That they urge upon the leading fair associations to form a separate class for Chester White Pigs.

3rd. That they represent to fair associations the necessity of advancing the prizes offered at least 25 per cent.

4th. That fair associations recognize the American Records for breeds not represented by a Canadian Record.

Messrs. Featherstone, Snell and Ormsby were appointed as a committee to wait upon the Minister of Agriculture in order to obtain a grant to carry on the work of the Association.

Thorough airing of milk for a few minutes by dipping, pouring or stirring will improve the flavor of the butter.

Sheep Raising in Manitoba.

The number of sheep at present in this province is but a mere fraction of what it should be and what, with a reasonable appreciation of the facilities afforded for this industry, it might profitably be. "The animal with the golden hoof," as the sheep has long and justly been termed, will withstand the dry cold of the winters much better than any other animal and will thrive and do much better than in a warmer climate with the usually attendant moisture. Shelter is necessary in winter, but any sheep shed will answer so long as it affords a dry place to lie down in, ample ventilation being an absolute necessity. Nothing is worse for sheep than an over-warm pen, which of necessity becomes damp and foul. There are few sections of country better adapted to sheep raising than northwestern Manitoba, from Neepawa west as far at least as the boundary line of the province and possibly much farther, while southern Manitoba, from Manitou west, affords a grand opening for the same industry. In no country can sheep be so easily and cheaply produced as here. Turnips, which are an important factor in the production of good sheep, are easily grown, while oats, as anyone conversant with Manitoba agriculture is aware, can be grown very cheaply. With sheaf-oats and turnips sheep may be wintered very cheaply and in excellent form. A young man might start with three hundred sheep and in ten years acquire a respectable competence. Some men with wide experience in the business claim that a flock would double in value every year, besides paying expenses. This, however, leaves much too small a margin to come and go on when figuring on an investment of this kind; but if we assume that they will double in value every two years and pay expenses besides we will be allowing a good wide margin for unfavorable seasons and occasional losses, such as must inevitably occur in the best kept flock, and still have a business much more profitable than any other branch of agriculture in this or any other country. Sheep raising here can be conducted much more satisfactorily and profitably when enough are kept to require and receive the entire time and attention of one man, than if made an adjunct to general farming, from the fact that sufficient attention will not often be given in the latter instance. In sheep it would seem that the general purpose, or wool and mutton sheep is the most profitable, in which class the "Shrops" seem to fill the bill most admirably, being unusually healthy and thrifty. The Leicesters, however, are an excellent breed, succeeding in almost every part of the province, and those who have them do not seem disposed to make a change. In sheep, however, as in other stock, it is not a competition between feed and breed, but a union of the two, that gives the best results; consequently it is not so much a matter of selecting a breed, as of caring for them; but of course the best breed and good care should be the aim of the flock-master. Circumstances are such that in this country the largest sheep is the most profitable, whether it consumes more food per pound of live weight or not, as feed on the prairies is so plentiful that the animal that will gather enough to make the most pound is the most profitable, while in older countries it is a question of which animal will make the most wool and mutton from a given amount of food.

See that the cow has access to salt every day. They know best when to help themselves.