

Saving the Valuable Reacters.

During recent years very much has been written, and cattlemen have been greatly concerned about the increased prevalence of tuberculosis in the dairy and beef herds in America. Although rather an expensive method and one which cannot be easily carried out on many farms, the Bang system of treating this disease should meet with considerable favor, and if properly followed should mean a great saving in the herds and in the end, practically exterminate the disease from the premises. It is, as a general thing, found that some of the best cows in the herd react when subjected to tuberculin test. These animals do not often show any clinical symptoms of the disease. To all outward appearances they are healthy, robust and ready to take their feed and turn it into valuable milk or beef, leaving a handsome profit to the owners; but in their system lurks the deadly germ which may be spread to the valuable calves bred from them and to other animals composing the herd. If the disease is to be stamped out on any one farm where it has made its appearance without the wholesale slaughter of the herd, then a system of isolation must be followed. By testing all the cows carefully, and this work should always be done by a competent person, and placing those which react in an isolated stable, from which they are never allowed with the other stock, or in lots or fields where the other animals feed or graze, having only a small run where they may be let out nights during the summer and keeping all individuals there so long as they react, the herd may soon be cleaned of the disease. This does not remove the valuable cow from the breeding herd. It has been demonstrated that the calf from an affected cow is not diseased when dropped, so it is necessary that all calves from the isolated stable be removed from their dams immediately they are born and before they have had any chance to partake of the dam's milk. These calves are taken to a clean stable and fed on milk from the cows of the herd which do not react. The youngsters grow up strong and healthy and as a general thing prove, when mature, to be non-reactors, and so the valuable breeding cows of the herd which may react to the tuberculin test are kept in the herd as the foundation for the herd of the future, while at the same time as producers they may more than pay their way, for it is very often the case that some of the highest producers are reactors. In this manner high-priced cows which react are not a total loss. Their stock may be kept year after year if precautions are taken to get them away from the isolated stable as outlined. We recently saw a herd being operated on this plan and successfully. In fact, the cows in the isolated stable were among the best on the farm and were more than paying their way at the pail, besides each year giving birth to a calf which is proving valuable in the clean herd operated as outlined.

Silage vs. Soiling Crops.

Experiments conducted at the University of Wisconsin have proven that silage in summer has about the same feeding value as soiling crops. During the last three summers the dairy herd at the institution was divided into two lots. The division was made so the lots would resemble each other in weight and production. In addition to pasture and a limited amount of hay and grain, one lot was fed silage throughout the season, and the other a succession of soiling crops such as red clover, peas and oats, and green maize. The production of milk and butter-fat was practically the same in both lots.

It is considered that corn can be produced more cheaply than soiling crops, and if a farmer can solve the problem of building a silo, a cheaper source of succulent fodder can be established than through the soiling-crop system. In connection with the operation one should consider the cutting and feeding of the soiling crop in summer, or the building of fences where the cattle are allowed to run in the crop for a short time each day. Everything being considered the silo and corn silage are probably as cheap and efficient a combination as are soiling crops.

The farmer who does not appreciate the experimental work carried on at the leading experiment stations knows nothing of that work. If he is an intelligent man, and willing to be convinced all that is necessary is a visit to one of these stations where those in charge will be glad to explain the work. Agricultural pessimists are made optimists in this way.

Canadians as Meat Eaters.

The inspection of slaughter houses where meat and canned goods are prepared for interprovincial or foreign trade is responsible for some interesting figures in connection with the slaughter and consumption of meat in Canada. Under the Meat and Canned Foods Act of 1907 inspection is carried out in all plants where the products are to be consumed in other provinces or in other countries. Meats and foods other than those in inspected establishments and consumed within the same province as that in which the animals are slaughtered do not at present come within the provisions of the Act. The following table appearing in the Census and Statistics Monthly for May indicates the movement of cattle, sheep and swine, slaughtered under the inspection. These figures, to a large extent, explain the decrease in our export trade of live stock.

ANIMALS SLAUGHTERED UNDER INSPECTION ACT.

Year ended March 31	Cattle	Sheep	Swine
1909	298,241	191,792	1,532,796
1910	384,789	257,049	1,261,496
1911	411,308	329,017	1,452,237
1912	408,401	376,437	1,852,997
1913	450,390	455,647	1,607,741
1914	531,994	499,284	1,799,060

The question relating to the consumption of meat in Canada has been investigated by the officers of the Meat Inspection Division of the Health of Animals Branch. Their calculations are based upon the census returns of animals slaughtered and sold off farms in 1910, upon the exports and imports of meat for the same year, and upon the meat inspection statistics. They show that in 1910 the total production of beef for consumption in Canada was about 426,451,000 lbs., of mutton 63,582,000 lbs., and of pork 466,955,000 lbs., or a total for the three descriptions of 956,988,000 lbs. For an estimated



Tamworth Sow.

Winner of first place at the Bath and West.

population in 1910 of 7,000,000 the per capita consumption in Canada works out to 61 lbs. of beef, 9 lbs. of mutton, and 66½ lbs. of pork, or 136½ lbs. of all kinds of meat.

An estimate of the per capita consumption of meat in the United States was given as 172 lbs. for 1909, and from the information to hand it appears that Canada's neighbor is the greatest consumer of meats per capita. Other countries are given as follows: United Kingdom, 119 lbs.; France, 80 lbs.; Germany, 113 lbs.; Argentina, 140 lbs.; Denmark, 76 lbs.; Norway and Sweden, 74 lbs.; Belgium, 70 lbs.; Austria-Hungary, 64 lbs.; Russia, 50 lbs., and Spain, 49 lbs.

The Theory of Baby Beef.

There are three factors or problems which every breeder and maker of beef must contend with. Apart from these it is expected that only the right kind of parent stock will be kept, and if a farmer has been using good judgment in breeding for the past ten years there is no reason why the female element in the herd should not be suitable for rearing the proper kind of calves. This qualification could be acquired with very little additional expense, for in one decade females or males could be obtained that would be practically pure bred. Starting with just cows' ten years ago it would be possible in the meantime to have reared four generations, the last of which should come quite up to the standard for beef production. However, this may not be the condition on many farms, but if the females conform tolerably well to beef conformation they should, when mated with a bull of the right stamp, throw calves suitable for baby beef. Assuming then that the farmer is equipped with a herd of cows for the purpose, the three factors which confront him are: amount of available feed, number of growing cattle, and size of the breeding herd. Like most farm operations these

three problems are dependant one upon the other. It is generally considered that beef cattle require less attention than many classes of other live stock, and this particular phase of the enterprise would allow as much time in the fields as is customary on the farm. The production of feed then would vary with systems of rotation and cultivation as well as with the fertility and area of the land tilled.

The number of growing stock directly influences the size of the breeding herd. Where it is the practice to finish off the steers and heifers at from two to three years of age there is always the yearling to be considered, and the yearlings with the feeding cattle will do away with a large quantity of feed and grass. This necessitates the reduction of the breeding herd, for only so many cattle can be kept per acre. When the young stock is disposed of when from 14 to 16 months of age, much of which time the ration will be milk, it is evident that all fodder and grain will be disposed of to the best advantage. There will be more calves raised and more pounds of beef produced on a farm where baby beef is the specialty than where older cattle are finished.

The cost of a pound of gain has never been given sufficient consideration, for upon it depends the profit of feeding cattle. All experience and teaching point to the fact that the same amount of feed will produce more pounds of gain in the young than in the older animal. Henry in "Feeds and Feeding" says: "Gain in body substances by well-nourished young animals is relatively much greater than by mature animals even when fattening. The unweaned calf may increase 2 to 3 lbs. daily for each 100 lbs. of body weight, while a gain of 0.3 to 0.4 lbs. daily per 100 lbs. of body weight is large for the mature fattening ox. The more rapid increase in weight of young animals is due to several causes—their flesh contains more water; their food is more digestible and concentrated; and they consume more food in proportion to live weight. As growth continues, the total quantity of food eaten increases, but the amount per 1,000 lbs. live weight diminishes. The daily gain and the consequent returns from food consumed also steadily decrease until maturity is reached, when there is no further gain whatever unless from the laying on of fat."

The problems met with in the beef business are most successfully solved by the baby-beef proposition. With that method of beef production feed will produce the most possible pounds of gain while more breeding stock may at the same time be maintained. The pasture, grain and fodder once used on the yearlings and two-year-olds will be consumed by the fattening calves and their dams, thus increasing the numbers of both fat cattle and breeding stock. In addition to this there are other factors which may be considered. One is the matter of capital, and in this case the turnover is quickest with the young, growing animal. Again open heifers at 14 to 16 months of age will fatten as quickly as the steer, and they have been selling for as much money.

Another important feature of the industry is the market. Of late years baby beef has sold along with prime steers, and sometimes more steady. One cannot get the same depth of fleshing on a 15-months-old steer or heifer as on an older animal, but the small cuts and tenderness of the meat recommends it to consumers. The prospects now are for high-priced beef for some time to come, and so long as this condition lasts just so long will butchers require carcasses from which small cuts can be conveniently taken.

This is the theory of baby beef, but the theory has been derived from the practice itself. However, it must be remembered that young cattle must be fat. The market has no profitable place for thin, young cattle, except as stockers and feeders.

It does not generally prove profitable to make too many changes. If a person is wrong and knows he is wrong, then it is time for a change, but until assured of this fact it is better to stick to operations. We have seen stockmen change breeds every time the wind changes. When one breed booms then they buy and sell again as soon as prices for that particular breed drops. This keeps the breeder always on the wrong side of the fence. It is better to continue during low prices and have large herds and flocks ready when prices go upward and demand becomes keener as it invariably does.

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