

Editorial.

Dairy Cows.

Before getting the cows served there are many important questions to be considered. If there is a heifer in the herd, at what age should she drop her first calf? Is there an aged cow, at what period does she cease to be profitable for the dairy? Does the farmer want to raise beef or dairy stock, or does he want to combine these industries by raising a class of animals suitable for all purposes? Now is the time to determine the character of the herd for all time to come.

In sections where only one breed exists, and where only one line of live stock industry prevails, there can be no difficulty in selecting a sire; but in an all-purpose district where there are different stamps of native cows, as well as different breeds, it would frequently pay to go a score of miles in search of a desirable sire. It is against the laws of animal economy that perfection can be attained both in the milking and the beefing qualities of the same breed. Even if an equivoque were once established, it could not be maintained, until a much profounder knowledge of the breeding art than usually exists in the farming community be first acquired. A cow that keeps in a uniformly good condition carries on her bones an investment sunk for years, which would have yielded quick and profitable returns had it been converted into milk or young. In beefers the desirability of early maturity cannot be questioned; but in dairy stock care must be taken not to do violence to conflicting laws. If early maturity in the heifer be encouraged, fecundity becomes impaired by the process of high rearing; if the feeding be moderate or scanty, a late maturing propensity will be developed in the offspring. Our conditions not naturally favoring early maturity, the question of maternity should incline more to the third than to the second year, even in the lighter classes of dairy cows. The principle involved is this: A heifer rationally fed always assimilates a uniform percentage of her food, and if she is served while immature, a portion of the nourishment which should have been expended in building up her frame is transformed into young, whereby either the mother or the calf, or both, must suffer in development; and while she is giving milk, there still remains a double strain on her system. It will not do to avoid this by milking her sparingly the first season, for then her udder and secretory vessels would remain but partially developed, and her usefulness for the dairy would be checked. There is still another violation of the same principle amongst farmers and dairymen. Forgetting that a calf is nothing but condensed milk, they sometimes expect the cow to give as large a yield of milk all the year around as if she were not pregnant. If their expectations were realized, how could there be a calf? Hence the desirability of letting her dry six or eight weeks before calving. What is lost in milk is gained in the calf; and in this case the "quick returns" argument has no weight; in fact the slower the returns, within certain limits, the greater the final profit.

Another advantage in allowing a heifer to mature before dropping her first calf is that the period of her dairy usefulness will be length-

ened. Having a beefing propensity, she cannot be profitably kept for the dairy after her sixth year, while if she is exclusively of a milking stamp, and allowed to mature before parturition, she will be profitable till her eighth or even her tenth year.

It costs considerably more to fatten old than young animals. The most profitable returns in the production of beef ceases between the fifteenth and eighteenth month of the animal's age. A well-fed beefing grade will gain an average of 2.25 lbs. per day, during the first 18 months of its life, while in its sixth year it will scarcely gain a pound a day, proving that it cannot be profitably fed at this age for the reason that it will be more profitable to feed at an earlier period. The same principle holds good with regard to the production of milk; that is, although a cow may yield ever so much profit, the investment may in one sense be regarded as a loss so long as the same quantity of food invested in another cow would produce a still greater profit. If the cow is old, and belongs to a beefing breed, the loss is ruinous. Deal peremptorily with superannuated cows.

The most desirable qualities of a dairy cow are large digestive organs, indicated by a full barrel; a wedgy frame; a large, well formed udder; large, winding milk veins; a gentle disposition, and a sound constitution.

Canadian Agents.

The Canadian Manufacturer urges that Canada should be represented in the different British colonies by agents whose duty would be to push the trade of the Dominion. It thinks that our manufacturers can find profitable markets in Australia on the completion of the Pacific Railway, as the trains-Pacific voyage is much safer than one down the Atlantic and around either of the two great capes. The Manufacturer also favors the appointment of Canadian agents in foreign countries. It is in part to meet the necessity of having some offices with whom persons might correspond who desire to learn the nature and extent of the English market for our produce and whose interest it would be to develop the trade of this Province with England that the Local Government have appointed an Agent-General in Great Britain, for New Brunswick. We think the appointment of consular agents to foreign countries, and of agents in other colonies, would be a move in the right direction.

The General Purpose Cow.

It is the practice of many farmers to keep a class of cattle which is equally well adapted to all departments of their live stock industry. It makes a fair butter and cheese record, and when superannuated, so far as the dairy is concerned, its usefulness for the flock is not yet gone. Many other authorities also uphold this practice, thinking that unless an aged cow can be turned into beef, a serious loss is the inevitable consequence. A little figuring will throw light on the question. Let us take the Devon as a representative of the general purpose cow, and let the Ayrshire represent a milking breed—supposing, for the sake of convenience, such animal to weigh 1,000 lbs. Granting that the Ayrshire is no longer fit for the dairy after the age of ten years, and that her carcass is of no

use for beef, while the Devon, at the same age, in store condition, realizes say \$30. But the carcass of the Ayrshire must not be lost sight of altogether; it is not fair to suppose that it is hauled into the bush for crow feed, as is the practice amongst most farmers. Such a carcass should contain 30 lbs. of nitrogen, 25 lbs. of phosphoric acid, and 28 lbs. of lime, besides small quantities of potash and other ash constituents, which at current prices, would bring nearly \$9 for the compost heap. Credit also \$4 for the hide. Subtracting these \$13 from \$30, we have an actual loss of \$17 when compared with the value of the Devon's carcass. What gains are to offset this loss? The Devon will give say 2,800 lbs. of milk per season for six seasons, and the Ayrshire 5,200 lbs., continuing eight seasons. Counting milk at 1½ cents a pound, \$252 would be realized from the former, and \$624 from the latter, leaving a balance of \$496 in favor of the Ayrshire on the milk account. From this amount subtract the loss of carcass, and there is still a balance of \$355 to her credit. Putting it in another way: If the Ayrshire give only 2,941 lbs. per season, or 141 lbs. per season more than the Devon, this difference would make up for the loss of the carcass. If one breed is bred for general purpose, and another exclusively for the dairy, will any farmer now assert that the difference in their milk productions will not be greater than this? Although these figures may only be regarded as approximate, they are sufficient to prove the absurdity of breeding general purpose dairy stock.

The American Humane Association is effecting a goodwork towards mitigating the cruelties inflicted on live stock during the process of transportation. Thousands of animals are daily succumbing to the tortures of their railway accommodation. Congress has passed a law compelling railway companies to remove live stock from the cars, allowing the animals five hours rest in every twenty of travel. This is only a partial alleviation, even if the enactment could be strictly carried out; for the goading of them into their repulsive quarters would scarcely be less agonizing than the method of through shipment. The association have offered a prize of \$5,000 for the best live stock car that would prevent these cruelties. This has stimulated invention, but some of the patentees thought it more profitable to have their cars patented, and some of these cars are now in use on two of the American lines. Mr. W. S. Hunter, of Belleville, received a gold medal from the association for a car invented by him. It is to be hoped that Canada will soon move in the same direction. The inspectors of the association stationed at the stock yards have also been a means of relieving suffering and preventing deaths amongst live stock.

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