

coupled with the risk and expense of shipping across the Atlantic, is further evidence of the present demand for animals of high pedigree. The export trade has not been very great, although a few prize animals were purchased in the spring at high prices for Canada, and a good shipment was made to New York. The outbreak of foot-and-mouth disease in Australia caused lengthened quarantine regulations to be enforced, and somewhat deterred exportations to that large cattle-breeding colony during the latter part of the year. For many years foreign, colonial, and American buyers paid even higher prices than our home breeders; but this practice is now reversed, and farming, coupled with the breeding of improved stock, is one of the leading pursuits of the age.

AYRSHIRE COWS.

This excellent breed of dairy cattle is at present attracting a degree of attention in Canada and some portions of the United States, that it has not before received. Some of our most experienced and successful breeders are raising large and valuable herds of them; and at our country and provincial shows the Ayrshire boxes make a capital appearance.

The Ayrshire cows are quite hardy; they thrive on very ordinary pastures; and their milk is of excellent quality and large in quantity in proportion to their size. When milk only is wanted, and the fodder is not rich and abundant, the Ayrshire is a very profitable cow. But the small size is a serious drawback when the females have to be fattened off for the butcher and a complete bar in the way of raising steers or oxen.

The points of a first-class Ayrshire cow are thus laid down by the Ayrshire Agricultural Association: HEAD short, forehead wide, nose fine between the muzzle and eyes, muzzle moderately large; eyes full and lively; horns wide apart, inclining outwards and curving slightly inwards. NECK long and straight from the head to the top of the shoulder, free from loose skin on the under side, fine at its junction with the head, and the muscles symmetrically enlarging towards the shoulders. SHOULDERS thin at the top, brisket light; the whole fore-quarters thin in front, and gradually increasing in depth and width backwards. BACK short and straight; spine well defined especially at the shoulder; the short ribs arched; the body deep at the flanks, and the milk-veins well developed. TEATS long, broad and straight; hook-bones wide apart and not much overlaid with fat; thighs deep and broad; tail long and slender, and set on level with the back. MILK-VESSLS capacious and extending well forward; hinder part broad and firmly attached to the body; the sole, or under surface, nearly level; the teats from two to two and a half inches long, equal in thickness and hanging perpendicularly; distance apart of the teats, at the sides, should be equal to about one-third of the length of the vessel, and, across, about one-half of the breadth. LEGS short, the bones fine and the joints firm. SKIN soft and elastic, and covered with soft, close woolly hair. THE COLORS preferred are brown or brown and white, distinctly defined.

The estimation in which Ayrshire cows are held among our neighbors will be gathered from the following statements of prominent authorities on such subjects:—

Mr. Lewis F. Allen, of Blackrock, says:—"The Ayrshires are a good breed of cattle, useful, and eminently qualified for the dairy, and capable of perpetuating among themselves their good qualities, are facts now well established, both in Scotland and America." He adds, "Their trial here has been successful. They are hardy, healthy, well fitted to our climate and pastures, and prove good milkers, both in the imported animals and their progeny. Their flow of milk is good in quantity, and fair in quality; yet, we may be permitted to say, that in this country they do not yield so much in quantity as it is alleged they have produced in Scotland. The chief reason for this is obvious. Ayrshire has a moist climate—an almost continual drizzle or moisture pervading it—making fresh, green pastures; a cooler and more

equable temperature in summer, and warmer in winter, than ours."

Mr. Willard, of Utica, says:—"The Ayrshires originating on the western side of Scotland, in a moist climate, have been bred specially for milk; and for this use no one questions their value. They are medium in size, hardy, healthy, well fitted to our climate and pastures; and for the milk farmer and cheese dairyman, where milk or its products alone are the object, considering the size of the animal, the food required for its keep, the great variety of soil and surface of the country to which it is adapted, perhaps no breed can show a better record."

Prof. Cook, of the New Jersey, Agricultural College, writes that on the farm connected with that institution, the average Ayrshire are better milkers than the common stock, and are always in better condition on the same food. At the Norway Agricultural College very favorable reports are given of the Ayrshires.

Col. Geo. E. Waring, Jr., a noted breeder of Jerseys, says:—"The more I see and hear of them the better I like them. They are docile, intelligent and motherly; and when they cease milking they take on fat readily. For all purposes except butter making I believe they are the best farmers' cows."

Mr. Flint, author of "Milk Cows and Dairy Farming," says:—"The Ayrshires, as a class of animals, are not so much a better breed as a milk breed. They give more milk of a high quality in proportion to the food which they consume than any other breed, but the butter would not be so highly colored as that of the Jerseys, the Brittanys, or other similar breeds. The milk is of a very good quality; a more nutritive milk to feed to children than the milk of the Jerseys, but it does not make so much butter, nor of so high a color, and would not bring so high a price in the market, even if it were made equally well."

Importance of Thorough-bred Bulls.

In all thorough-bred animals of whatever kind, the good qualities are concentrated. That is to say they breed alike throughout, from father to son, mother to daughter, and so on down to indefinite generations. There is unmistakable likeness prevailing among them. Our native cattle are made up of incongruities in size, shape, color and quality. No uniformity of likeness exists among them. Some are good, more of them indifferent, both in appearance and quality. Some of the young resemble the sire, others the dam, and a great many neither, but take the appearance of ancestral relatives generations back. They have no fixed or permanent character, but are an aggregation of various qualities and blood, possessing (owing to their miscellaneous mode of descent) no particular characteristics which can be depended on. It is this uncertainty which detracts from their value. Use a thorough-bred bull to these miscellaneous bred cows, however, and his blood is so strongly infused in their offspring, by his own fixed characteristics that his stock at once partake largely of his own quality and appearance. Now let the full blood of this bull be repeated in the half-blood heifers, and his blood becomes still stronger in them, and their stock more nearly resembles his blood (there being two crosses of it in them) than that of their dam, which has one-half the inferior or native blood, and so on to any number of these full-bred crosses, until the appearance of the progeny resembles the thorough blood almost beyond distinction to the inexperienced eye. On the other hand, among the progeny of the cross-breeds of the first generation, or half-breeds, some very choice ones will be found partaking largely of the qualities of the sire.

An unpracticed breeder may think that with so promising a calf, a bull may be raised that will answer his purpose and the quality of young stock from common cows (from which the bull sprung) will be good enough, and therefore he uses him for breeding accordingly, and finds his progeny in every way inferior and wonders why it is so. The reason is plain; this half-bred bull had in himself, one-half of the inferior or native blood, which was just as strong in him, and as likely to transmit its inferior quality through inferior dams as his own share of the good blood that he has drawn from his sire, and thus there is little progress made in improvement from this mongrel bull. Still he is better than the "native" bull, and should be used when a better one cannot be had. The same result will occur from breeding these grade animals among themselves. The same inferior blood is quite as likely to strike out among them as the superior, and the incongruity appears in their various characteristics and all higher improvement ceases. Hence there is no certainty of continuous improvement otherwise than by the use of thorough-bred bulls.—Lewis F. Allen.

Warts on Cattle:

The veterinary editor of the *Western Farmer*, thus states the case in relation to warts on cattle, and their cure. There are three kinds of warts which trouble horses and neat cattle. One is upon the skin, occupying a large surface in proportion to the size of the wart. To get rid of it, it must be excised—cut about half through the skin, then with a hot iron, at a dull red heat, well cauterize or burn the surface. The second kind is under the skin, and is encysted or inclosed in a sac, has not much organization or vitality, and is moderately easy to dissect out. Cut through the tumor lengthwise, then carefully skin off or out, the encysted lump or tumor; be careful to burn out the cyst or sac, otherwise it will be likely to form or grow again; sew up the cut, leaving an opening at the bottom, and the job is done; dress with common turpentine four or five times—inject with any kind of a syringe. The third kind is the most formidable kind of wart. It is of a vascular nature, soft, and upon the slightest touch it bleeds. In warm weather it is very offensive; in fact it is a fungus excretion, of great annoyance to both the animal and the owner. This requires the practical surgeon and knife for its removal, for, whilst I have removed a great number without losing a single patient yet I must confess I have suffered much annoyance and perplexity by the somewhat serious consequences after performing this operation.

Take care of the Calves.

Much of the future growth, and in fact much of the profits of the farmer arising from his stock, depends upon the care which it receives during the first year. I do not wish to be understood by this that if a farmer takes good care of his stock the first year, he can afterward let them run hap-hazard; every good farmer will see that his stock is at all times well cared for. But the first year is the foundation, it is the starting point of their future growth. There are many farmers who are in the habit of giving their calves nothing but whey from the time they are about three weeks old until they are weaned. They are then left to run and pick their living as best they may until winter, when they are taken to the barn and put into some little back hovel, with nothing but hay, till spring, or, as I have often seen, turned into a stack. In either case, they are when spring comes, so stunted and poor that they make but a slow growth ever afterward. Consequently, when selling time comes, the farmer finds his stock far behind in size and price, of his neighbors who cared well for their calves. One instance of this came within my knowledge. Some steers raised as above sold for \$15, while those of a neighbor, which had been well cared for while young, sold readily at \$25. The quality of the stock of the former was fully equal to the latter to start with.—Correspondence *Ohio Farmer*.

Keep Cattle Growing.

The most successful breeders of horses, cattle, sheep or swine, know from experience that although they may possess the best breeding animals, they will not be successful in producing superior stock, if a continuous growth of the young animals is not kept up. In order to begin in time at this indispensable preparation for success, the brood mares, cows, ewes and sows are most carefully and suitably fed while with young, and as soon as the young animals make their appearance, they are taken the greatest care of, the dams being suitably fed while suckling, and when the young ones are weaned, they are not supposed to want for food or drink. By this means a continuous and rapid growth is kept up, and the animals attain a large size and heavy weight at an early age. When breeding animals are not properly fed and comfortably sheltered in winter, the bad effect of such treatment is not confined to their own want of condition—it is shared by their progeny, and can never be remedied. When young stock are not fed well and comfortably sheltered in winter, their growth becomes stunted, and no subsequent amount of good treatment can repair the damage. Young animals may suffer for want of proper provender in summer and in autumn, as well as in winter, and when this happens it stops continuous growth, and prevents ultimate success in the object of the breeder.—*Working Farmer*.

THE LAST MILK FROM THE UDDER.—It has been shown, that the last cup of milk drawn from the cow's udder contained sixteen times as much cream as the first one. This separation of cream from milk takes place in part in the udder of the cow, particularly if the cow is suffered to stand at rest for some time previous to milking.