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at this date to support a population of 550,000,000. Simply taking care of the manures that we have, and making the most of them, will work wonders in the increase of fertility.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL The Selection and Summer Care of Milking Cows.

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The fair ground is still too often used as a dumping place on which to weed out the poor milkers of the herd, only to have them transplanted in all their worthlessness on some other farm. Would it not be better for every dairyman to weed out his poor unprofitable milkers by fattening them for the block, and not by selling into another herd?

In selecting a cow for milking purposes, a careful observation of certain " points " will guide the buyer in making a good choice. Where a reliable record of the animal's past performance may be examined, it is of unquestionable use in estimating her wilk producing value Descent from stock with creditable rec ords is worth much. But so much depends upon the individuality of the animal, that these values can best be rated in conjunction with their apparent evidences in her body.

When buying cows on a fair ground the animals have to be valued by their appearance. There are some general characteristics peculiar to all animals of individual merit in all the milking breeds. A coarse, rough bullish appearance is not one of these. Size is a matter of secondary consequence. Temperament 15 a matter of prime importance.

Cattle as well as horses may be classified in temperament as "nervous" and " lymphatic." "The nervous" in the cow is indicative of good milking power ; in the horse it is associated with speed and action. The "Iymphatic" in the cow means a tendency to lay on beef; in the horse it is typified in draught and heavy weights.

Milk and butter are essentially the products of nervous force. Hence a good milker should have abundant nerve power That does not necessarily im ply nervousness Her organs are to be considered as so much nervous machinery for the accomplishment of a given end. The purpose of her life is to make the largest possible quantity of the best milk out of the least consumption of feed. That faculty will generally be revealed in what are called the "points" of the animal. Specifically these might be described in the following order, which begins with the head and follows around the outline of the animal's body as viewed from her side. The model cow should have a broad forehead-a wide poll. The seat of nervous power is in the brain, and the room for that organ should be ample. Her eyes should be prominent, bright and mild looking. All the better is the indication if they stand out so well as to give the face a dished shape-the hollow up and down the face. Such eyes promise vigorous staying nervepower, if their owner be well used. Fairly large and open nostrils should be looked for, but a cow with constantly gaping nostrils is a little too expensive to keep. The face should be rather long, lean and cleancut. An instructive model for comparison is the face of the blood horse. Smoeth, wavy horns and fine ears usually accompany the delicately yet stronglystrung nervous organization we seek. The head will be small in proportion to the weight of the body, and tapering in fine lines. The neck should reveal a strong jointure between the backbone (containing the

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nervous connection from the spine to the uterus and the udder. A fine tapering neck, with no superfluous flesh, is desirable. The top of the shoulder had better be sharp than broad. In a young cow a hollow back is often indicative of weakness; a slightly arched or straight back is preferable. The loin should be wide, flat and thin The pelvis (the bony framework whereby the hind legs are attached to the backbone for locomotion) should be broad, large and somewhat arched. A hollow pelvis is the omen of danger from milk fever or an early breakdown. The ham will be in-sloping and in-hollowing, leaving lots of udderroom. The shape is merely indicative of the tendency of the animal. The pitch or symmetry of the udder's shape may be ignored except in the case of a fancy or prize animal. The extent of the udder's surface of attachment to the body is all important. It is generally a measure of the arterial and nervous activity in the milk secreting glands. Taking a side view of a cow in full milk, the line of connection or the line of absorption will be the direct measure from the upper to the lower point of attachment between the udder and the body. The longer that line is, the better is that " point." A fleshy udder is not wanted. The milk-veins are mostly in size and prominence proportionate to the flow of venous blood from the udder, consequently the larger the better. Good barrel room is required to hold and permit the proper digestion of abundance of suitable feed. In such a cow the the energy of digestion is allied to the energy of milk secretion. The chest should be deep, leaving full play for the heart and lungs-these vital organs for blood circulation and purification. Good blood promotes the activity and energy of the nervous system, and thus stimulates the secretion of milk. Of course no careful buyer will "pass" a cow without a trial of her teats. While a cow with one blind teat may yield as much or more milk than some other cows having no such blemish, it does not therefore follow that she will be as good a milker as though her udder were sound in all its quarters. Many other "points" might be mentioned, some of them important, such as a soft, mellow skin, fine silky hair, etc., but enough has been written to help the ordinary farmer in the selection of a good milker. The form of a good milking cow might be briefly described as tending to the wedge shape from three points of view; as looked at from the front rather sharp on the top of the shoulder and widening to the chest ; as looked at along the back from behind, broad and wide across the pelvis and narrowing towards the shoulder ; as seen from the side, deep from the rump to the lower line of the udder and lighter in the forequarters. By the time the grass comes the milking cows throughout the province are usually in poor condition of body; and whether just calved or milking for some months, they cagerly relish the first green bite. Common practice seems to commend a sudden and complete change from stable-feeding to pasture. The "duty" of neglecting 'o closely observe and think and act can alone be urged in excuse of the abruptness insisted upon. What sticklers for such "duty" many of our farmers are ! Their "dutifulness" occasionally reminds me of the Highland Scotchman's memory-a grand memory for forgetting. A gradual change from the fodder, grain and root feed of the spring to the succulent, appetizing herbage cropped by the cow herself from the fields, is best both for the health of the animal and her milk yield. That can best be accomplished by a continuance of stable feeding night and morning, supplemented by day pasturage. Admission to the grass fields too early spinal cord) and the skull. There is an influential in the season is bad for the pasture, if good for the same period.

cow. Good grass is admittedly the very best feed for milk production, and milking cows should not be stinted. Then, after there is sufficient grass for maintenance, a fair allowance of bran or grain should be given morning and evening. Besides the immediate gain from the increased milk secretion thus induced, there is decided after advantage. Any extra and suitable feed that increases the yield of milk and maintains that increase for a few weeks, thereby fits the cow for doing better with her ordinary feed afterwards, even when the extra feed has been withheld. Green rye fodder is early available, and when fed after being wilted one day is safe and satisfactory. Oats and peas are better still. Oats and vetches are very serviceable. Two crops during the summer may be cut from the one sowing. A good plan is to sow small plots near the stable or milking-yard, at different times. A prolonged ripening to meet the needs of the herd is thus provided for. After their season no more economical feed can be given than corn stalks. However, in most parts of the province these are not ready for use before the middle of August. Every farmer should have some provision for his herd before the dry weather burns up his pastures. The extra yield of milk from supplementary green feed will largely pay for the extra cost at the time, and the keeping of the herd up to the full flow while pastures are bare, will enable them to give a much larger yield when feed is abundant on the stubble fields and aftermath. Wheat bran is excellent and profitable, and almost satisfactorily takes the place of green feed. Its use saves the troublesome and expensive work of handling so much weight. The cost involved in the labor of partial soiling in early summer and autumn is the only objection to its being recommended for general adoption throughout Ontario.

For many years it has been recognized by observant and thoughtful dairymen that when milking cows were denied access to salt the quantity and quality of the milk yield were at once affected. A little investigation, more to define into accuracy the facts already known than to bring to light any new ideas, was undertaken with eleven cows, during last cummer. I'ntil August 15th these cows had access to salt at will in their pasture-fields. Then all salt was removed from places within their reach. Small boxes were procured for attachment to the mangers of the stable in which the cows were tied twice a day for milking. The cows were divided into four groups. Groups one and two (five cows) received . alt. In the boxes before the six cows of groups three and four a supply of common barrel salt was placed. No change was made for twelve days. Then salt was placed before the three cows of group number one, and still continued to the three animals of group number four. No salt was allowed to groups numbers two and three. This treatment was continued for a like period. The cows of group number four could take as much salt as they liked twice a day during both periods. In every other respect all the cows received similar treatment. The feed was pasture supplemented by a feed of green com fodder twice a day.

The following are the results from observation and the record : The average immediate loss (taking a period of two days after each change) was 1714 per cent. in the weight of the milk yield when salt was withheld. The total average loss in the weight of milk vield from the eight cows of groups Nos. 1, 2 and 3 which were insufficiently or irregularly salted, was 141/2 per cent. for the whole period. There was no loss in the weight of the milk from the cows of group number four, which had access to salt daily during the