

tucky blue grass, the Canadian blue grass, and the red top will gradually work in amongst the larger and more vigorous growers, as these varieties grow naturally in Ontario.

As in the case of the mixture previously referred to, the pasture mixture can be sown in the early spring either with or without a grain crop. It is better for the permanent pasture seeding to follow some cultivated crop which has been carefully looked after during the previous season. If the seed is sown alone, the tops of the plants should be cut occasionally during the summer and allowed to lie on the ground as a mulch. If a nurse crop is used, about one bushel of barley or wheat per acre is recommended. As a rule, oats do not form a good nurse crop for a permanent pasture mixture. The seed for the permanent pasture should be sown in front and not behind the tube drill. Some of the finer seeds can be sown from the grass seed box and the others by hand.

Such a mixture as this, when once well established on suitable land, should produce a good pasture, appetizing to the animals, excellent in quality, abundant in growth and permanent in character.

### Some Views on Beef Production

Four main factors have caused the present low standard of Ontario beef cattle, according to Mr. Thos. McMillan, of Seaforth, who addressed an audience at the Guelph Winter Fair last week. Shorthorn breeders, who were largely in the majority among breeders of beef cattle, in their eagerness to supply the demand of the Northwest and the United States for breeding cattle, have overlooked the milking capacity of their cows. This has caused the ordinary farmer to turn to the dairy breeds for sires which would reproduce females of profitable milking capacity. Agricultural experts, in all sincerity, had claimed that beef and dairy capacity could not be obtained in the same animal and thus had discouraged the breeding of dual purpose animals. The experience of many farmers and many experimental stations, however, have shown that some of the best beef cattle are the progeny of our best milking cows. The third reason was due to the indifference of the ordinary farmer in his breeding operations and the careless attention and improper feeding he gave the young stuff after it was dropped. Fourthly, an increased demand for beef has caused the marketing of ill-fitted and immature animals. Also, many farmers are vealing their calves.

As a remedy for these conditions, Mr. McMillan urged that the doctrine of better feeding and a more careful system of feeding be continually preached to the individual farmer. Our Exhibitions and Agricultural Departments must go on in the work of educating and enthusing the general farming public to breed cattle with broad backs, smooth and evenly-fleshed with the meat placed on the highest priced parts; the dams of such cattle should give large quantities of milk of good quality. He counselled against crossing beef breeds indiscriminately and said never to use dairy sires in producing beef animals. "I have great confidence that beef prices will be all right," said Mr. McMillan. "Our Northwest is going more largely into grain raising and will soon be a beef consuming country; and I hope we will soon have access to the great market of the American Republic."

Mr. John Campbell of Woodville, in the discussion stated that he had found beef production to be very profitable. He had always sought after early maturity in his animals and had been careful to keep up the milking capacity of his cows. He found that grass in summer and rape or its equivalent in the fall would produce beef from two to four cents a lb. cheaper than stall feeding.

Alfalfa was another very valuable forage plant. He advised young men who wanted a business which would be quite profitable and of fascinating interest to go into beef production along dual purpose lines.

Colonel McCrae, of Guelph, expressed the belief that dairying and beef raising should be kept separate and that the dual purpose animal was impracticable. He strongly criticised the Government for not aiding the beef industry as well as it does dairying.

### Care of Calves

James Smith, Russel Co., Ont.

These few lines are intended more for the farmer who raises his calves by other methods than the natural one of letting the mothers raise them.

Wherever cattle are bred a great deal of interest centres in the calf. To ensure good quality calves we must have the parents of the right type, whether they be intended for beef or for dairy production, with these qualities in the parents. Yet very much depends upon the manner in which the calves are looked after. Thus while no amount of care and attention will turn a bad or moderate quality calf into a good one, proper attention will always result in the making of a better animal than when ill bad or indifferent treatment has been meted out to it.

I prefer to have calves dropped in the fall months, as they come in a season when flies do not trouble them, and by judicious feeding are ready to turn out to grass in the spring. As may be expected the newly dropped calf requires most care. With these the farmer should never pursue a policy of indifference.

Calves that come in cold weather should be housed in cosy quarters; lots of good clean straw and always a dry bed is the rule. If intended to be raised by hand, feed three times a day, morning, noon and night, at regular hours for regularity in feeding means much. Pay special attention to having the milk of an even temperature, blood heat being the correct one.

After the first month two meals a day will be sufficient. To get a calf on properly, it should have a liberal quantity of new milk the first month. There is no substitute for this at that age. After reaching the age of one month, half skim milk may take the place of the new and gradually reduce the whole milk and add some good milk substitute such as boiled linseed, also place before the calves in clean boxes, roots sliced, oats and bran with good clover or alfalfa hay and your calves will give a good account of themselves. Success in raising calves depends largely on cleanliness.

### A Chat About Horse Raising

F. M. Barber, Norfolk Co., Ont.

I have been raising heavy horses with good success for seven years. I only regret that I did not begin sooner, but the most of people would rather pay for their experience than to copy some other farmer who has been successful with breeding horses.

A farmer should never sell his best stock. He should keep them for breeding purposes. A common draught horse is worth \$175, and a good one is worth from \$300 to \$500.

I believe the outlook for good draught horses will be good for years to come. Some of my reasons for this belief are, that good farm help is hard to get, and one man with three good heavy horses can do more work than two men with four common ones. The binder, the manure spreader, and the double plow, all need good horses to make good time. There is lots of public work going on in the cities and on the railroads. I could not help but notice the heavy teams in Toronto recently. I believe 90 per cent. were Clydesdales. So long as so many people go west, there will be

a good demand for Ontario draught horses.

I have been farming for 37 years and I never made any money out of horses until I went into the Clydesdales. I have never had but one Clydesdale with a blemish. With the light horse, only about one out of three is sound. I would rather buy them than take the chance on raising horses of the lighter classes. I could sell 20 Clydesdales in less than a week if I had them.

The majority of farmers in my neighborhood are in favor of the heavy horse. There are quite a number of farmers who have been using a Percheron sire. They say they don't like so much hair. These are the fellows that will pay for their experience. Good legs and feet with hair is better than round bone and narrow heels. As a rule the Clydesdale has got better life than heavy horses of other breeds. The average farmer breeds about two mares. A farmer that is raising two Clydesdale colts each year has got a nice profit. The man with light or general purpose colts has got to hunt a buyer and take whatever he can get.

I claim that the only way to improve the draught horse in Ontario is to do away with everything but registered sires, and they should be of a certain standard.

### Stable Management of Dairy Cows

Wm. Retson, Herdsman, Nova Scotia  
Agricultural College Farm

There is no other phase of farm life more interesting or profitable, especially during the winter months, than caring for good dairy cows when they are given proper feed and attention. In caring for the dairy cow during the winter we must have a good comfortable, roomy stable. It is necessary to have lots of light and good ventilation. It is utterly impossible to get good results from cows, when kept in dark, ill ventilated and drafty barns such as are found on too many farms in Canada.

Few of us now approve of the old stationary stanchions or stakes. The newer makes are much more comfortable. There are a great many styles of stanchions on the market, most of them are good. I prefer the tubular pipe stanchion such as that made by the Loudon Company.

#### CEMENT MANGERS PREFERRED

Cement is preferable to wood in the fittings of a dairy barn, as it is more sanitary. Especially is this true in the case of manglers. There are no crevasses or cracks in a cement manger in which the food can accumulate and decay. Occasionally flushing out with water keeps them clean. There are then no bad odors and the cows will relish their food from such a manger.

It is not enough to have an up-to-date stable. We must have up-to-date dairy cows, not the ordinary 3,000 lb. cows; but the 8,000 lb. cows and cows of even greater production. To get the best results from these cows we must feed them liberally. This is a point that is too often neglected. Unless we plan to have our cows well fed we cannot expect much success as dairymen.

#### FEED TWICE A DAY

The two-feed-a-day system I consider the best. A good feed of hay is given in the morning, followed by roots or ensilage. The grain that each cow requires is better to be mixed with the ensilage. If fed enough at this time cows will not require to be fed again until four or five o'clock in the afternoon, when the roots or ensilage and grain are fed, followed by a liberal feed of hay. Water is within reach of the cows all the time.

My reasons for adopting this system of feeding rather than the common method of feeding every few hours are: The cows when accustomed to this method will rest contentedly all day, and not expect to be fed every time we pass through the stable. It is better for the cows, as it gives their digestive organs a chance to rest between feeds. It saves time and labor.