

ill-bred or scrubby he is, or how inferior individually, as long as he can be had for little or no service fee. Others use sires of the true beef type and breeding. Would a breeder of trotting horses ever think of using a draft sire to produce trotters, or a breeder of draft horses use a trotting-bred sire to produce heavy horses? I think not; they breed for their special purpose. How, then, can the dairyman ever think of obtaining the best results under the manner in which he frequently pursues his calling? When dairying can be made to pay under such adverse circumstances, what would the possibilities be if intelligent use were made of the material within the reach of all?

To produce a superior and profitable dairy cow it is of the utmost importance that we select a sire bred on dairy lines for generations, and the further back we can trace him descending from superior dairy sires and dams the better. A few extra dollars spent in this direction are well spent, and will return a high per cent. of interest on the invested capital. Take, for instance, that you raise four heifers in a year from a sire of the right type and breeding, raise them properly and when they come in milk and will only produce three or four pounds more daily than their dams (very often they produce ten pounds more), take only four pounds for 300 milking days and you have 1,200, which at 75c. per cwt. will give you an increase of \$9, or \$36 per year for the four improved cows from only one year's produce of a good dairy bull. Supposing that you milk these cows ten years, you have a grand profit of \$360 on the investment of \$40 to \$50. How a dairyman can say he cannot afford to use a good bull is beyond my comprehension.

Now, in answer to your question how I breed, rear, and feed my heifers until they enter the dairy as milkers, the foregoing is part of my answer. I select a sire bred right and that conforms to my ideal as to dairy form and type. When his calves are dropped, I allow them to be licked dry and then remove them from their dams. They never suck, but are at once taught to drink from a pail, commencing with a quart three times daily, which is gradually increased to about twenty pounds. This I feed until they are about four weeks old, when I change to sweet skim milk to which is added a gruel made of oil-cake meal scalded in hot water. This warms the milk to the right temperature. At this time they have placed before them a little bran, which they soon learn to lick up, also a few pulped mangolds, and a little silage and whole oats, all of which they soon enjoy. A little fine hay is placed before them after they are a week or ten days old, at which they begin at once to nibble. I prefer to keep them in the stable during the first summer, as I find that they thrive better on the above feed when kept in the cool barn than when out in the scorching sun in the pasture. My aim is to keep them growing, but never allow them to get fat. During the winter they are fed on bulky foods, such as ensilage, chaff or cut straw, to which is added a little meal, bran and pulped roots. I breed them so as to drop their first calves at from 24 to 28 months old; at this time it is of importance that they are in good hearty condition. If they are on good pasture nothing else is required, but if on winter feed a liberal supply of bran and chopped oats is given. After they are in milk they should be fed liberally on such foods which will produce milk, thereby developing and establishing their milk-producing powers. Under the above system I have produced heifers that at two years old milked from 40 to 50 pounds daily, and four-year-olds that milked over 15,000 pounds in a year, which should be sufficient evidence that my system is not far from the right road to success.

Oxford Co.

H. BOLLERT.

Feeding Horses on Old Potatoes.

It would appear that there is something more than a modicum of danger in feeding old potatoes to horses. Some time ago we referred to the mysterious deaths of twelve horses owned by Mr. A. D. Wells, Baker Farm, Wallingford. At the time the deaths were shrouded in mystery, but at last a ray of light has been shed upon the cause, which should act as a warning to farmers and others similarly situated. In a great many parts of the country the feeding of potatoes is a common, and we believe wholesome enough, practice. But if these potatoes are stale, and merely used up for food because they cannot profitably be sold, then there is a certain amount of danger incurred by their use. Mr. Wells fed his horses on boiled barley, beans, and potatoes twelve months old. The deaths could not be attributed to poisoning in the ordinary way, nor could they be traced to the beans or barley. Prof. McFadyean, however, conducted an experiment with an old cab horse at the Royal Veterinary College, and his investigations clearly established the complicity of the potatoes as the cause of death. When boiled, the potatoes easily broke in two, and occasionally turned color. It will therefore be wise policy on the part of farmers to clearly comprehend the condition of the potatoes they wish to feed to their horses and feed moderately.—*Farmer and Stock Breeder, London, Eng.*

The British Markets.

Cables this week have been favorable to shippers, choice States cattle making 12c. per lb., Canadian and Argentine 11c. (sinking the offal). Sheep market strong, and 1c. to 1c. higher, at 13½c. per lb.

New Classification and Freight Rates on Pure-bred Cattle, Sheep, and Swine.

The case of the Canadian breeders of pure-bred stock for more reasonable transportation charges was very fully set forth in the February 1st and previous issues of the FARMER'S ADVOCATE. We are now able to announce that the Transportation Committee of the Dominion Cattle, Sheep, and Swine Breeders' Associations has met the representatives of the various Canadian railways and has obtained the following reduction in shipping rates of pure-bred animals. The weights at which pure-bred animals will hereafter be taken by the Canadian railways are as follows. The charge per cwt. remains as heretofore:—

Bull calves, six months old and under	500 lbs. each.
Bulls, and bull calves over six months and under one year old	1,000 " "
Bulls one year and up to two years	2,000 " "
Bulls over two years old	2,500 " "
Cows, one animal	2,000 " "
Cows, two animals in same car	3,500 " "
Cows, three animals in same car	5,000 " "
Each additional animal in same car	1,000 " "
(Must be from one shipper to one consignee, in one shipment, to one destination.)	
Heifer calves, six months old and under	500 " each.
Heifer calves over six months and up to one year old	1,000 " "
Heifers over one year and up to two years old	1,500 " "
Heifers over two years old same as cows.	

Certificates of registration must, in all cases, be produced by shipper. Agents will take note of particulars as to name of animal and age, and keep record of same, also make note of billing accordingly. Pedigreed stock, as above, may be taken without man in charge, provided owners sign the usual contract releasing the Company from liability in consequence thereof. The above special estimated weights will only apply when owners sign the usual valuation agreement for ordinary stock. If extra values are declared, the weights and rates will be as per classification for valuable stock, page 42, classification No. 10.

RATE FROM ANY POINT IN ONTARIO TO ANY POINT IN MANITOBA AND THE CANADIAN NORTHWEST.

The joint Transportation Committee of the Dominion Cattle, Sheep, and Swine Breeders' Association has arranged with the officials of the Canadian Pacific Railway and the Grand Trunk Railway to carry pure-bred cattle, sheep, and swine from any point in Ontario and Quebec (west of Montreal) at the rate of half a cent per ton per mile for carload lots. This is the rate charged on settlers' effects. The charge for a carload of pure-bred stock from any point in Ontario to any point in Manitoba may be learned from any agent of the C. P. R. or the G. T. R., and is published in the pamphlet known as "F. T. No. 45, Canadian Pacific Railway Special Through West-bound Tariff on Settlers' Effects." The rate for a carload of 20,000 pounds from any point in Ontario or Quebec (west of Montreal) to Winnipeg is \$72 per carload; to Regina, \$90; to Calgary, \$114; and corresponding rates to all other western points. (The rates heretofore in force for a similar carload have been: To Winnipeg, \$130; to Regina, \$164; to Calgary, \$202; and these latter rates are now charged for animals not recorded.)

Under the new arrangements it is not necessary to load all the animals composing a carload at any one point; i. e., part of a car may be loaded at London, part at Woodstock, part at Toronto, or at any other stations on the direct line between the starting point and the destination of the car. No additional charge will be made for a car so loaded, except shunting charges, which are \$3 for the first stop and \$2 for each subsequent stop.

One man will be passed free with each carload, and he will be returned from the destination of the car to the original point of shipment at one cent per mile, second class. All animals sent at the above rates must be pure-bred, and shipped for breeding purposes only; and a certificate of registration for each animal must be presented to the agent at the shipping point. After being examined by the agent, each certificate will be returned to the shipper.

Parties who wish to ship single animals from any point in Ontario to Manitoba and the West may do so at carload rates by corresponding with the Secretary of the Associations, and as soon as enough animals to fill a car are offered the car will be forwarded in charge of a suitable attendant. The price charged for the transportation of such animals will be about \$6.50 per head for cattle over two years old, when sent to Winnipeg. If sent to Regina the charges will be about \$7.50 per head, and to Calgary \$8.50. Young cattle and sheep and swine will be carried at proportionate rates. (From three to four sheep, and from two to six pigs, usually occupy as much space as one bullock.) In addition each shipper will be required to pay shunting charges necessitated by his shipment. In all cases the shipper must furnish enough feed to support the animal or animals from the starting point to their destination. Freight in all cases must be prepaid. Pure-bred animals shipped to Winnipeg or other distributing points, in carload lots, may be distributed singly therefrom over the various railway lines at reduced freight rates.

Further particulars may be had by applying to the general or local freight agents of the C. P. R. or the G. T. R., or to F. W. Hodson, Guelph, Ont.

Bullock Fattening in England.

Geo. Sach, of Elmstead, Colchester, Eng., describes his method of fattening bullocks, which will be of special interest to FARMER'S ADVOCATE readers who have been closely following the letters published during the past season in our columns on this subject:—

"I generally fatten about 30 in the winter and spring. My first lot I have about latter part of October. I always buy good ones, as I do not believe in having poor cattle. I always feed them well. They have the best stover I can get, cut up into chaff, mixed with barley caven (chaff) or oak caven, all they can eat. They also get 2½ bushels of meal, ½ maize meal, and ½ American flour, with 6 lbs. per head per day of best oil cake, with a little cotton cake added per day, half in the morning and half at night, along with 3 good bushels of mangels to 14 bullocks at every meal. Put the chaff with meal and cake in the cribs first, then cut the mangels and put on the chaff, and stir up all together with a four-tine fork. I always feed bullocks twice a day, morning and afternoon. Some people feed three times a day. I think this a mistake, as it unsettles their rest at midday, when mine are lying quiet. Another point is to make them eat up every meal clean before again feeding. I always like a clean plate, and so do they. I give them all they want of clean water in a tank. They like a little bunch of good hay in the hay crib. I think it helps them to digest their food. A bullock always likes a clean bed to lie down on. It does not matter so much about a dirty yard, but they must have clean beds to lie on. Some people say mangels are not good to eat before the New Year; but as I had neither swedes this year nor last, I find the mangels answer my purpose very well. My cattle have plenty of yard room and good barns to go in when they please. They are polled bullocks. I like them best, as they lie more quiet than horned ones."

A New English Flock Book.

At Taunton, Eng., recently, a preliminary meeting was held of the breeders of Devon Long-wool sheep to inaugurate a Flock Book Association for that well-established breed which has been long known in the neighborhood of Bampton. They sprang from the old Bampton variety, which was the North Devon breed most generally kept in that part of the kingdom in the last century. These Bampton sheep were exceeding hardy, robust, and of large size, but, like all other long-wool flocks throughout the United Kingdom, they were destined to be transformed into quite another type by Bakewell's rams, giving them more wool and size and a better quality of mutton. Some specimens show signs of Lincoln blood as well. They were well represented at the great meeting of the Royal Agricultural Society in 1889. They have quite a number of enthusiastic breeders. The Devon Long-wools are a white-faced and heavy-framed sheep.

FARM.

His Farm Accounts Analyzed.

To the Editor FARMER'S ADVOCATE:

SIR,—The publication in your columns of Mr. Macpherson's letter has caused considerable stir in the farming community, and many conflicting opinions are expressed as to its facts and the results to be drawn therefrom. In my long experience of nigh seventy years, I have often been called upon to investigate such facts in my own interest. Will you allow me, therefore, the privilege of a line or two with reference to his letter. As to his sales, we must take them as given; as to his debit accounts, we must take them with grains of allowance, the word "about" being very unsatisfactory in the matter of account. I take it, that a fair rent for Mr. Macpherson's land, with its immense buildings and farm accommodation, would be five dollars per acre—this sum capitalized would make the value of his farm \$12,500. The question of profits or otherwise would be very easily determined if Mr. Macpherson had given us the exact sum of his expense, as well as the exact sum of his receipts; this he has not done. The statement which he makes of "about" \$1,000 for hired labor is not satisfactory. Then the statement of "about" \$500 for wear and tear, etc., is also far within the actual fact, in my opinion. He seems to include in this blacksmith's bill, harness bill, carpenter work. He has doubtless a power, whether it is air or water, horse or steam; in such an establishment we would say it would be absolutely necessary. Then there must be pulp mill, grinding mill, carriers, shafts, jacks and belts, all liable to get out of order and deteriorate by use. Upon all these points Mr. Macpherson is silent, or thinks to satisfy us with the word "about" \$500. Under these circumstances the following statement is given as a fair result of Mr. Macpherson's work for the year. It is a simple method of keeping account of progress on a farm and is perfectly correct if properly kept: