

in this he only shows his weakness, and is liable to make blunders for which, if he is honest, he will afterwards feel like apologizing, but which may better be left unatoned for, as a verdict once rendered cannot be recalled, and the attempt only leads to trouble for all concerned.

Variety in Rations.

Like human beings, cows prefer variety in their rations, and, according to observations made at the Kansas Station, they give better returns when their desires in this respect are complied with. A ration containing the proper food elements can sometimes be given by using one rough feed and one grain feed only, and fair results be obtained, but better results are secured when a variety is given, both in the bulky foods and in grain.

A mixture of two grains will produce a higher yield than the same amount of food given of one grain, and four or five, or even more, kinds of grain mixed together will usually give better returns than two, although the bulk of the mixture is made of one grain. Small additions of a number of feeds flavor the mixture and make it more appetizing, and for this reason the cow will eat more and yield more in proportion to what she eats.

Ground oats usually cost too much to form any large portion of the dairy cow's ration, but cows like this food, and it is frequently advisable to add a handful of ground oats to the grain ration of each meal, as it makes the whole feed taste better, and when the cows relish their food, it adds to the yield. The feeders of the cows that have made the highest records have understood this fact, and a part of this success is due to feeding a mixture of a number of nutritious, palatable foods, thereby inducing their cows to eat large quantities.

While cows need a variety, they like it to come by having a mixture of feeds at each meal, and not by receiving one kind of feed at one meal, another at the next, and still another at the third. Such a method of giving a variety is sure to reduce the yield, as the cow, at a given feeding time, expects the same kind of feed that she ate yesterday at the same time, and if not getting it, will be disturbed, and will give less milk.

It is not necessary to give a cow the same kinds of food for supper that she has for breakfast, but the breakfast mixtures should be alike for all breakfasts, and the supper feeds the same for all suppers, for a considerable period. Sudden changes usually reduce the milk yield, even when the new ration is better than the old; and when it is necessary to make a change in the feed, the change should be made gradually, taking a week or ten days.

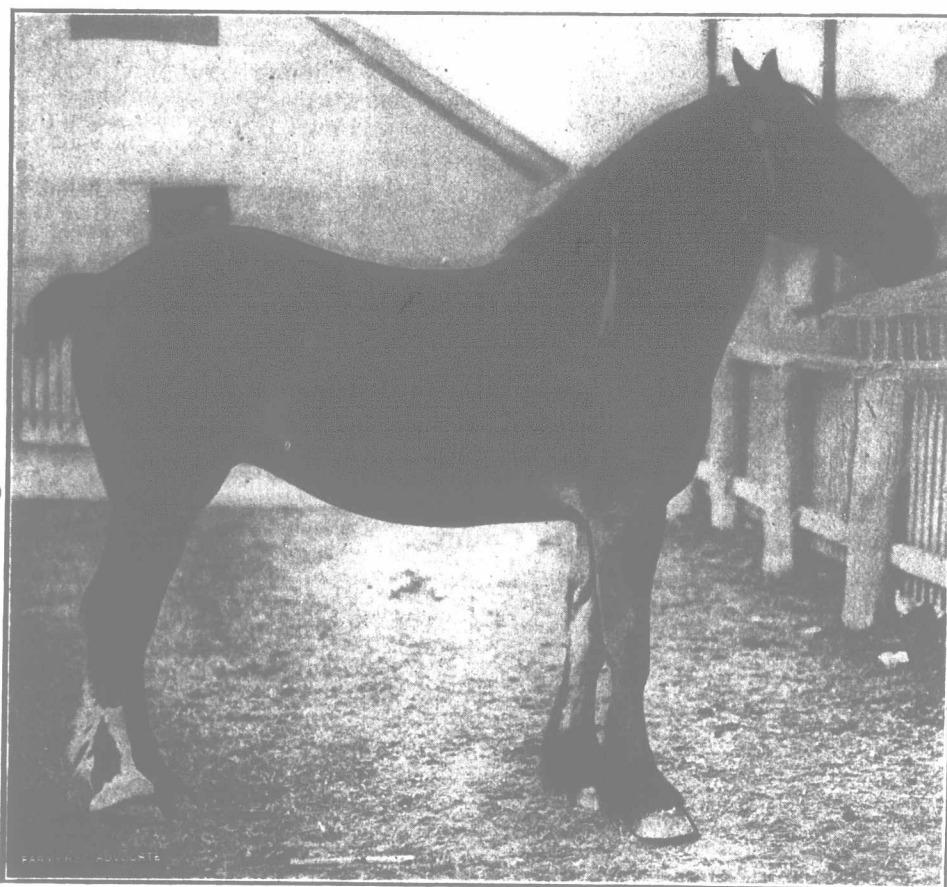
Cooking Feed and Steer Fattening.

A Hastings Co. subscriber writes: (1) Could you give me, through the columns of "The Farmer's Advocate," any advice on steamed feed for hogs and cattle during winter months. I would like to hear from some one who has had experience. I have been told that cattle fed on warm feed lose their teeth in a short time. I have been thinking of putting in a small boiler, say 8 or 10 h.-p., a safe distance from the stable, and laying pipes to run steam to heat cut straw and grain for the stock. I could lay pipes from water tank in barn to feed water all in one trench. Would hogs do well on cooked roots and grain mixed? Would it be any saving to feed? The wood for fire with would not be a drawback, as we use any amount of wood going to waste that would answer for fuel. (2) Do you think it would pay to buy steers, say, three years old, and feed cut straw and roots, say, for three months, and then finish them up for beef by first of May? I could get good steers for \$20 to \$24 per head.

would bring 4½ cents per pound. I would like to have your opinion on this. A SUBSCRIBER.

Ans.—(1) We have had no experiments at the O. A. C. with steaming food for cattle. American experiment stations, however, have dealt with this question pretty thoroughly, and the whole trend of experiments goes to indicate that steaming food for cattle does not pay, and that the cattle make practically as good gains, and in some cases better gains, where the food is not steamed. With regard to hogs, steaming food sometimes makes it more palatable, and in cold weather it is an advantage to feed the pigs on warm food. With very few exceptions, experiments indicate that steaming the food does not make it any more digestible. Cooked roots and meal make a very good ration for hogs. Cooking makes the roots rather more palatable, as a rule, especially in the case of turnips or potatoes, and in this way a cheap ration can be prepared.

(2) As to feeding steers, I am afraid I do not understand the problem. Surely your correspondent does not mean that he can buy really good three-year-old steers at from \$20 to \$24 per head. In this district (Wellington Co.) one can hardly buy a decent calf for that price. If, however, he can buy good steers at that price, there should be large profits obtained in feeding them and selling them at 4½ cents per pound. I am afraid,



Dainty Miss.

Canadian-bred draft filly, two years old. First in her class, Toronto Exhibition. Sire Bogie Stamp (imp.) [4168]. Owner, Alex. Jameson, Redickville, Ont.

however, that your subscriber is mistaken in his figures. A good three-year-old steer would weigh at least 1,200 pounds, and is worth all the way from 3½ to 4½ cents a pound, according to quality. I am afraid the three-year-old steers that could be bought at from \$20 to \$40 per head would be unsafe cattle to feed. I am doubtful, also, as to the possibility of finishing steers properly under the method of feeding outlined by your subscriber. He might feed them, say a month, or even two months, on straw and turnips, but I think he would do better to start them on a very light meal ration at the end of the first month's feeding, and gradually increase the meal ration as time proceeded, adding also a portion of hay to the ration.

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Sheep Dog Trials.

The intelligence and teachableness of the collie dog is proverbial, and, while from the nature of Canadian farming, and the very limited number of sheep kept on the average holding, there is little work of this sort for the dog, yet all admirers of the handsome collie and his intelligence feel interested in an account of a successful dog trial, even though it be not their privilege to witness one. The following, from the Scottish Farmer's report of an East Lothian trial, will doubtless be of interest to our readers.

Proposed to take the course was Mr. Alex. Allan, Balmuccie, with his great dog Frisk. (The dog was an Alick's variety dog, so, by kind

consent of the committee, he was allowed to lead off.) Supported by his old friend and rival, Mr. Tom Gilholm, the acknowledged champion of the West crossed in front of the onlookers, and calmly took up his position at the starting post. "It's no' an easy matter keeping cool the day, Alick," a genial friend remarked, which observation brought a blush to the fine manly features of the young mountaineer. Frisk having been given a few moments to scan the ground, Alick slightly raised his hand, and the operations commenced. With all his old style, Frisk swept the plain, but, mistaking the intention of his master, he threw himself beyond the starting pen, instead of taking the four selected sheep instantly in hand. This slight misunderstanding, however, was soon rectified, and without much loss of time (twenty minutes being the limit) he brought his charge up, and, with the co-operation of his master, proceeded to a shed. This was no easy task, the sheep showing themselves unusually stubborn. Frisk humored them, then made them feel his strength, but for several minutes to very little purpose. He worked beautifully, but time was going. At last this part of the programme was fulfilled, after which came the penning, the single sheep, and the poles. Instead of the sheep accepting defeat by being forced into the bucht, they no sooner found themselves in the open than they again gave expression to their rebellious nature. Frisk revealed wonderful patience and tact, although once or twice he clearly indicated that the question of the mastery would soon be settled if Alick would but let him go. The performance completed, all felt that, while Frisk on many occasions had made a greater display, he perhaps never acquitted himself more gallantly under adverse circumstances. Mr. Alex. Coltherd, Congleton, Drem, with Lassie, then took leave of his friends, and made for a start. If anything, Lassie's cast was too wide, which resulted in her going beyond the original pen. In a few minutes she was brought up to her lot, and then she commenced to acquit herself with caution. There was little display, and no great art. The sheep were cantankerous, but Lassie was sure, if not brilliant. At the shed, her want of a compelling eye made the work dull, and at times almost uninteresting. The penning, the single sheep, and the taking of the poles were quite consistent with her opening methods—creditable, but not dazzling. The tall form of Mr. James Scott, Tronehill, Ancrum, was now seen emerging from a group of shepherds, followed closely by the renowned Kep. Expectation was on tiptoe. At Hawick Kep had excelled himself, and it was felt that he was sure to challenge the best records of the day. 'Twas strange, 'twas noble—the shepherds, without exception, wanted to see Frisk or Kep carry off the championship. How eager the little canine master looked! His every nerve was strained. Before reaching the post Jamie raised his hand, and, like his great rival Frisk, Kep went forth like a bullet. That day he had witnessed a number of his sons and daughters do wonders, but he was not, without a struggle, to surrender the dictatorship. There was no doubting what Kep would do when he reached the focusing point—he clapped, then came up on his sheep in the old masterly style. Jamie waited him without uttering a word. Never stooping to a harsh turn, he "braced" for a shed, making point after point in an imitable manner. The sheep pressed on him, their persistency being tantalizing in the extreme. Nose to nose he contested—and without a whisper—the ground, sometimes losing a yard, but more frequently gaining two. An ordinary dog would have completely failed, but Kep ultimately forced his shed, and, repeating the same compulsory tactics, drove the pugnacious four into the pen. With the single sheep he was unfortunate, at which stage he usually triumphs. The sun was looking down with a melting glare, Kep had been taxing himself to the utmost, the time was short, and so, exhausted, not beaten, he dragged himself through the remainder of the programme. Forsooth, a great dog under all conditions! Then came Mr. Adam Renwick, Cruncleugh, Falstone, with Don, a dog bearing a great reputation. The opening at once showed ripe capacity, although the test of the "out-run" was partially spoiled by the sheep suddenly mending their manners, and coming to meet the dog. No fault lay here with Don, for he seemed as good for three miles as for one. He had a fortunate shed, he himself doing much towards the creation of favorable circumstances. This is where the genius comes in. There was much excitement now, for he looked like making a record pen. Great calculating powers has Don; he slipped them in as if by some magical process. He was not showy—just a regular mathematician. On the single sheep he lost nothing; and when Adam directed him towards the poles he responded like a human brother. Loud and long was the applause, and it was truly merited.

The judges having intimated their decision, the chairman mounted a platform and announced the results as follows: First, Mr. R. Sandilands, with Don; second, Mr. Alex. Coltherd, with Lassie; third, Mr. Adam Renwick, with Don.