

him. He had bought some ten or twelve calves—blue ones, too, but, as he looked at this grand yearling he would say, "I'd give them all for him." Mr. Duthie has, up to the present time, used, but sparingly, waiting until he might assure himself of the excellence of his calves. In fact, he let him to another breeder for a year. But now that he is convinced of the value of his animals, a sire, we may expect lots of sons and daughters of Bapton Champion at Collynie this summer. No chances are taken by Mr. Duthie in using an untired bull—his cows are too valuable for that.

Mr. Duthie is a great believer in milk for calves and it is noteworthy that those matrons that are raising the best calves are invariably those that swing large capacious udders. In fact, I have never seen a larger proportion of Shorthorn cows in any one herd that gave evidence of being such good milkers, a point to which Mr. Duthie thinks the breeders of beef cattle in North America are not giving enough attention.

And grass! I have stated that these Aberdeenshire fields are not naturally fertile; but a large herd of cattle, so many acres of hoed crops, and, in addition, the judicious use of fertilizers, have developed fields where clover and grasses now grow in luxuriance. No field is too good for the cows. They wander in clover knee-deep and the calves are often with them. When winter comes roots take the place of the luscious succulent grass, a barrowful twice daily for two cows; after calving two cows are fed three barrowfuls a day. Calves are mostly dropped in the fall and early winter months, and they get nothing but milk and what hay and straw they may pick up, until about the beginning of July, when the bull calves and such heifers as are to be sold begin to get meal, consisting of oats, and a good proportion of oil cake, than which there is no better and safer food for calves. All except some of the herd bulls, are kept out in the fields as long as the weather permits.

Such is the herd of cattle and such is the care that is bestowed upon them. But of the owner and breeder himself I've scarcely said enough, for Mr. Duthie is truly a great man, rankin' among the most successful of all Scotland's sons. He is a man of great energy; not only does he personally supervise and direct all matters devolving upon the management of such a herd of cattle, but he manages a local bank, is interested in various commercial undertakings, represents Lord Aberdeen in many matters relating to the Earl's extensive estates, and yet finds time to assist others less fortunate than he, who profit by his advice and interest in them.

'Twas a Saturday, the day of which I have been writing, and, tired after a long journey, we were glad to spend what he told us would be a quiet Sunday with him. We've drifted in this country, most of us, from the Sabbath of years gone by, and it does one good to spend a day under the roof of one who, though in the truest sense of the word a man of affairs, yet reverences God in the way of his forefathers. Even Shorthorns are banished from controversy until the day is past. Morning prayers, in which the whole household joins; a drive to church, where the old parish minister leads in devotions after the manner of the Scotch; and a beautiful afternoon, varied by a quiet walk to a hilltop, near by, where we might view the peaceful country side; and, in the eventide, psalms of praise to

Him, the Ruler of the universe, whose mercies last for aye,—such is the Sabbath day in the home of Mr. Duthie.

"From scenes like these old Scotia's grandsire springs,
That makes her loved at home, re-ver'd abroad."

We left the following morn, resolved, as I have said, good-by, that should good fortune bring us to Scotia's shores again, we would once again seek this Aberdeenshire home, of which such pleasant memories shall ever remain with us.

Feeding Beef Cattle Pays.

Clung Park Farm, near Milton, Ont., has for a number of years been noted for the production of fine beef cattle. Every fall a number of feeders are bought and fed for the Easter market. That the business has been profitable is shown by the fact that it has been continued from year to year without any interruption. While the direct cash return has not, in every case, been as large as many would expect, the proprietor has figured that he has always obtained a good market price for his corn, silage, clover, hay and straw by converting them into beef, not counting the benefit from the manure left on the farm.

Feeding operations for the past winter closed on April 14th, when the finished animals were disposed of. These were ten in number and averaged 1,450 lbs. each, selling for 55¢ per lb. These ten steers were high grade Shorthorns, the kind always fed at Clung Park Farm. They weighed when put in on Nov. 1st last 1,175 lbs. each and cost 4¢ per lb. They were all rising three when put in but one and he was not two years old. Had he been of the same age as the others when sold the average finished weight would have been larger.

Each animal was clipped when put in, and fed tied up. They were fed ensilage, cut clover hay and straw night and morning, and a small feed of clover hay at noon. The meal ration consisted of ground oat chop, bran, and a small portion of ground wheat, the silage being full of matured corn. At the beginning, 1 lb. of meal per day for each animal was fed. This was gradually increased to two gallons per head per day when the cattle were finished. The cattle were watered in the stable and never turned out from the time they were put in till sold. They were rubbed down frequently with a corn brush dipped in water. They were treated kindly throughout, and nothing done to unduly excite them in any way.

This is the result of one farmer's feeding. Who will be the next to send in their experience. If the exact cost of the feed can be given so much the better, but if you cannot send it, send the other details.

Bovo-Vaccine and Tuberculosis.

The Maryland Agricultural Experiment Station has been making some preliminary tests with Prof. Behring's Bovo-Vaccine for the protection of cattle against tuberculosis. That part of the test which has been completed is most encouraging. Mr. S. S. Buckley, in charge of the veterinary work of the station, sends us the following summary of the result so far:

A—Calf V was immunized with Bovo-vaccine, according to the method of von Behring. The first vaccination was made April 10th, 1905, the second and final vaccination was made July 17th, 1905. November 24th, 1905, this calf received two centi-

grams of virulent culture of tubercle bacilli, from a bovine source.

On the same day, November 27th, 1905, a healthy calf without previous vaccination, received two centigrams of the same culture. This was control calf X.

On January 2d, 1906, control calf X died of acute military tuberculosis and showed pronounced lesions on post-mortem examination.

On January 6th, 1906, vaccinated calf V was killed, and rigid examination failed to show any traces of tuberculosis.

N.B.—Calf III was immunized with Bovo-vaccine at the same time as calf V above mentioned.

On November 24th, 1905, vaccinated calf III and unvaccinated calf IX were each inoculated with one centigram of the virulent culture of tubercle bacilli used in Group A.

On January 6th, 1906, both calves were killed. Vaccinated calf III failed to show tuberculosis, while the control calf IX showed a number of military tubercles in the lungs and lymphatic glands.

Milk Fever—Air-Treatment

Of all the known methods of treating milk fever, the injection of sterilized air into the udder, is by far the most simple and practicable, as well as the most efficacious and harmless one yet tried, and only occasionally requires use concurrent use of medicinal treatment. The method of injecting the sterilized air into the udder is easy of manipulation, requires but little time, and is readily accomplished by means of a milk-fever apparatus. It consists of a metal cylinder, divided in the center, one end screwing into the other; a small nozzle at each end, which is inserted into rubber tubing, the udder is filled with sterilized wadding. A bicycle pump or an enema is attached to one end by means of nine inches of rubber tubing, and a milking tube to the other by the same means.

Previous to making the air injection, the hands should be thoroughly cleaned, also the udder of the cow. Soap and water should be applied to the teats and udder, a clean towel spread underneath to prevent the teats coming in contact with dirt, then they should be carefully disinfected with a two-per cent. solution of lysol.

About a wine glassful of the lysol solution should be injected into each teat, this will sterilize the ducts of the teat, and prevent the introduction of germs that might cause inflammation of the udder. The lower part of the cylinder, the tubing, and milk tube must be sterilized before being used for injecting the air. This is done by soaking in the lysol solution or by boiling for fifteen minutes, and not allowing it to touch anything until inserted into the teat. It is then carefully inserted into the teat without emptying the udder of milk. The air is now pumped from the bulb or pump, and a continuous flow of air is forced through the filtering chamber and into the teat. The air, if done or kneading will cause the innermost recesses of the milk ducts of the udder to be distended with the injected air. After the quarter is well distended and sufficiently turgid, the milking tube is removed, care being taken to prevent the outflow of air by having a broad piece of tape tied round the teat when the milking tube is withdrawn. The same treatment is repeated in the other three teats, until the udder is satisfactorily distended. Should the air become ab-

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