

by Clement of Cluny, a cow of good scale and nicely balanced, with great strength of rib, which, on her second calf, gave 9,420 pounds of milk, showing a percentage of 3.20 to 4.00 of butter-fat. Another cow in the herd at present gave last year 7,269 pounds of milk, with a percentage of 4.40 to 5.40 of butter-fat. A three-year-old cow, with her first calf, from May 9th to the end of the year, gave 6,216 pounds of milk, with a percentage of 3.50 to 4.50 of butter-fat; and yet another, from May 30th to the end of the year, yielded 5,142 pounds of milk, with a percentage of 3.50 to 4.40 of butter-fat.

Seasonable Swine Problems.

Those feeders who have, owing to good fortune or wisdom, been as fortunate as to have escaped the usual, we might almost say "perennial," season's difficulties in the feeding and handling of growing pigs, and are accordingly nearing the finished condition of their proteges, have still the problem of the market confronting them, but the conditions affecting the sliding scale of hog prices are beyond the control of the farmer, it would seem; so, in discussing swine problems, a discussion of the market may be said to be merely expletive. However, while the price remains low, we cannot fix or demand the price we should have, and so will find a greater measure of profit to be derived from a solution of a few of the problems met with in growing our hogs, than in clamoring for higher prices under present conditions, for I greatly fear many farmers who could have produced hogs at a profit have failed to do so, and have abandoned the enterprise, when the most potent cause of failure lay in the management given the growing hogs, rather than in the market price received. It would be unreasonable to expect a price that would make the production of stunted and crippled pigs, as are generally unthrifty throughout the growing period, profitable.

In attempting to carry late autumn pigs over winter, or to finish pigs that have received a good start out of doors in autumn, profitably, many find their efforts thwarted, owing to their pigs crippling in winter, when enclosed and on heavy feeding, and when once in this condition it is found exceedingly difficult to effect much improvement until aided by warm weather and outdoor exercise.

In no instance is an ounce of prevention worth a larger pound of cure than in the precaution taken in sustaining the thrift of a bunch of growing pigs at this season.

We, of course, need a fairly warm pen for growing stock, with plenty of light and good cement floors, and troughs free from drafts and dampness. We might very correctly add, with a good system of ventilation, but observation convinces me that, to sustain a high temperature in a hog pen, and have the desired change of fresh and foul air, without draft or dampness, in the winter season, borders on the impractical; and yet exercise in pure air proves to be one of the first requisites to be observed in keeping the heavily-fed hog thrifty. We find it is so important, in fact, that we must not disregard some provision, at least, for such exercise. Accordingly, we have our yards for winter, as well as for summer, only much smaller. Each of these enclosures adjoin two stalls (we always feed our pigs in double stalls in winter, in lots of from fifteen to twenty, finding it conducive to more activity and competition at the trough), and here we turn the entire lot once each day for an exercise of as long as they care to stay outside, continuing the practice right up until shipping day.

It is surprising how they look for this time each day, and with what unfeigned enthusiasm they rush outside for their daily airing. More exercise of the right kind is taken in this way in an hour than would be taken in a month in the pens. Upon returning to their pens, we often notice that they are perspiring freely—steaming, we might say—but this does not mean that they have been running flesh off, as some believe; the pig has rather been developing and strengthening his muscles and taking in fresh air, all of which is essential if we are to carry him along on heavy feeding to a weight of nearly two hundred pounds.

With the exercise given just before noon, an appetite for afternoon feed is never lacking, as is sometimes the case during the short days of winter. While clean water is put out at this time, a complete change of air and feeding takes place, and just before admitting the pigs we throw on the floor of each stall several shovels of earth, of which they take what they want immediately on coming inside. For this purpose we always erect a partition, one or two feet from the corner of the pen, and divide it. An excellent source of supply of soil, this is, as far as the root cellar in the pig pen is concerned, where the roots have got down in the soil, and pieces that have broken up in the soil are eagerly sought after by the pigs, and a supply of freshly-pulverized roots is always ready

tend to stimulate their appetites. This is the only condiment provided, and apparently is all that is needed with the outdoor exercise.

When we have provided charcoal, sulphur, salt, etc., accessible at all times, and omitted turning outside daily, results have been disappointing, while, with a daily airing and the use of soil, results have been highly satisfactory.

As we stated earlier, we want a warm pen for growing stock—a pen of a temperature in which the feeders will spend much time out of their sleeping quarters on their feet, there is nothing so risky in a bunch of heavily-fed pigs as the habit, once acquired, of just coming out of a warm bed of straw into an uncomfortable, damp and chilly pen for their feed, and then crawling back again.

We use no straw whatever in our pens, nor have we any place for elevated sleeping quarters in the management of our hogs. Our pigs feed in double stalls. One of these is kept clean and dry for a sleeping apartment, and here they recline on the cement floor in winter, as in summer.

Whether the hog "eats to live or lives to eat," has not yet been definitely decided, but we do know that a large digestive and assimilative capacity is essential, in order that he return the greatest measure of profit to his owner, who in turn should endeavor to keep this part of the hog in order, for in the pig-feeding end of farming, a poor feeder either way is a serious setback to profits to be gained.

As a further incentive to exercise in the pens, we like to throw some whole corn on the cement floor after trough-feeding. This alone encourages a good deal of activity.

Avoid using sloppy feed in winter. We have not found that soaking feed is expedient, and, when feeding unsoaked feed, to throw a measure of dry meal on a partially-filled trough of drink, is poor feeding practice. No pig likes his meal served in that way, nor does he like it furnished too dry. With a drink first, until a little is left in the bottom of the trough, the dry meal should then be added, and later just a sprinkling of drink on this, sufficient to moisten the mass, for in this state it is much better relished, and less is wasted.

CLARK HAMILTON.

Dundas Co., Ont.

[Note.—We heartily agree that exercise is necessary in the growing pig, but it is somewhat questionable whether, taken to such a degree as stated in this article, it would not require more feed in finishing the hogs. We also believe a pigpen should have the best of ventilation, and, where this is accomplished without draft, the pens, while they should be reasonably warm, need not be unduly so. The pigs should also be more comfortable with a little straw for bedding, and many swine-breeders and feeders prefer the elevated plank-floor sleeping apartment to a bed of cold cement. Let us hear from some of our readers regarding this subject.—Editor.]

Keep a Bell on the Flock.

Editor "The Farmer's Advocate":

I notice quite often, while reading "The Farmer's Advocate," that a great many farmers have ceased keeping sheep on account of the dog nuisance. My experience may be of benefit to some brother farmers. When I started to farm, some twenty-five years ago, I bought a bunch of grade ewes and a registered ram. I kept grading them up till I had a fairly good flock of ewes. Along about the first of April they commenced having their lambs. The weather was fine, the lambs did well, and by the first of May I had 25 lambs from 15 ewes—big, thrifty fellows. I had always kept them in the yard at night, but the weather was warm and the fields dry, and I thought I would let them out the next morning. When I went to feed them, some of the ewes were in the yard, some in the field running around calling for their lambs, others were fastened in the fence, five of my best lambs killed, and some of the sheep worried, but no dogs in sight. Well, I was bound to get even with those dogs, so I went and told my nearest neighbors that I was going to put poison out, that I had had some lambs killed, and that they had better shut their dogs up. Two of them said that they would not shut theirs up; if they had anything to do with the killing, let them take the consequences. The other one said he was sure it was not his, as he never left home. Well, the next morning I got two dead dogs in the field, and the neighbor's dog that never left home was dead on his doorstep.

But my flock never got over it; they were always uneasy; if they heard a dog bark, they were always on the run, so I was, like a good many more, soon out of the sheep business. But that winter we held the first fat-stock show we had at Ottawa, and I was at one of the lectures on keeping sheep, given by Mr. Hamner (I am not sure of the spelling, but I think they were J. G.). He said in his lecture that he kept about 300 ewes, and had four dogs on each flock, and he kept a bell on each dog in each flock, and that he never lost a dog while there was a flock on

them, but had them killed across the fence with no bell on.

I came home and bought some more sheep and a small cow-bell, have kept it on one of the flock ever since, and have never had a sheep killed. Three of my neighbors had their sheep worried about the same time as mine. I told them about the bell; they kept them on all the time, and have not been bothered since. We live right between two villages, where there is always a lot of half-starved mongrels. Now, Mr. Editor, I trust these few lines will be the means of keeping the best friend we have on the farm. Try it.

Grenville Co., Ont.

JAS. SLOAN.

On the Scarcity of Feeding Cattle.

Editor "The Farmer's Advocate":

With respect to your inquiry in regard to the shortage of beef cattle, and its comparison with other years, allow me to say that we find very few fattening cattle in the stables this season. Where carloads were formerly fattened, this year scarcely one outside those raised by the farmers themselves are in the stalls. I think this state of affairs might be accounted for by two reasons, namely, the scarcity of feed, and the general complaint of not being able to secure steers with sufficient breeding to make satisfactory gains for feed consumed. This brings me to a point which I feel it my duty, in passing, to draw the attention of your readers to. We have found farmers, for the most part, in the past few years, giving more attention to dairy interests and taking up this industry very strongly, also, in many instances scarce of help, and at a disadvantage in getting their milk disposed of conveniently, and paying practically no attention to the sires they used, with the result that to-day it is difficult, at an ordinary farm sale, to secure a good grade cow of any beef breed, much less a good Short-horn grade, that will give a heavy flow of milk herself and produce a calf that will be a real source of profit to its feeder and a delight to the meat-retailer and consumer, and, when necessary, feed up satisfactorily for the block herself.

With the future, as it seems to present itself to-day, and is likely to for years to come, and with Western Canada so rapidly opening up, where ranching is steadily giving way to the rapid march of general agriculture, for the most part grain-farming, almost exclusively, it will be seen that, with our population increasing at such an enormous rate, these high prices for beef come from a natural development of circumstances.

It would be useless for me to give Dr. Rutherford's figures as to the great shortage of cattle in the country at this point, as your readers will no doubt have read it. But I cannot too strongly advise farmers to secure the services of the very best beef bulls obtainable. I have no doubt that, were well-bred steers that would make good substantial gains for the feed they eat, procurable, more would be fed in the country to-day, even considering the scarcity of feed.

As to the proper sire to use, I feel sure that the farmer would be quite justified in paying \$150 for a good bull, getting repaid in almost his first crop of calves, and selling him to the block when done with him at a price nearly approximating that paid for him. With our home market strong, as it now is, and is likely to continue to be for some years, the beef industry offers money-making opportunities. Good well-finished yearlings are in the best demand on the markets to-day.

As for the rations fed this year, Western oats, corn and cottonseed seem to be in the lead.

As to the quantity of each fed, different cattle require different rations. I like to feed yearlings from nine to fifteen pounds grain ration per head, consisting of two parts oats to one part corn, with one pound cottonseed, oil cake, etc., added, fed in cut straw or ensilage, pulped roots, etc., fed three times per day, with an added ration of whole hay twice daily.

ROBT. T. AMOS.

Halton Co., Ont.

THE FARM.

Re Elevated Cement Tanks.

Editor "The Farmer's Advocate":

In my estimation, your reader, who has been advised to build an elevated cement tank, need have no doubts as to its being the best and most durable, and also the cheapest of any make. As you have asked for a description of one, I will try to give you the method we used in construction, etc. We have had it three years. Temperature of water in summer does not vary a great deal, as the sun cannot strike in, and in winter we are continually pumping in fresh. We use it to water about 25 head of stock; also, water is piped to house, etc. A windmill is used for pumping; mill on barn, well some three hundred feet distant. As to the amount of ice which forms inside, I could not say, as it is covered over. It cannot amount to much, as it is in barn over cows, 8 feet high. We have a chain and