

the gain in weight made by animals reared on other foods, the increase is obtained at too high cost to be profitable. It was also found to be much more economical to use separated milk along with a outter-fat substitute after calves are from four to six weeks old. The best financial results were obtained from the calves fed on separated milk and a calf meal composed of one part ground flaxseed, two parts oat meal and two parts of maize meal. The experimental evidence is based on work done at fifteen different centres in eleven counties. The calves numbered 130 and were divided into two even lots of 60 each. The calves averaged seven and one-half weeks old at the commencement of the experiment which lasted 117 days.

Fattening Cattle on Bundle-Corn.

While we, in this country, believe in the silo as being the best method of saving corn fodder for winter feed, there are other methods of handling the corn crop to advantage, according to a Minnesota bulletin by Ray P. Speer. The farmer, whose scheme is outlined in the bulletin, has achieved success by growing a cheap feed, by working out an economical system of buying cattle, and by devising an efficient scheme of farm management. These are the three most important considerations when it comes to showing a balance on the right side of the ledger in cattle feeding. Cheap feeders, cheap feed and a permanent system of cheap feeding form the basis of the work, cheap roughage being recognized as the one great essential to satisfactory profit. F. W. Hubbard, the man whose system we here outline, purchased 120 acres of weedy soil and a carload of each of two classes of cattle, stockers and feeders, is handled each winter. The stockers are immature cattle which it would be extremely difficult to finish in one winter, and the feeders are more mature cattle suitable for finishing in one winter.

The stockers are purchased in the fall, and kept over winter to follow the feeders which are being finished for market in the spring. They are pastured during the next summer, and turned into the feed lot as feeders. Each carload of stockers is kept about eighteen months—during one winter and one summer as stockers, and one winter as feeders.

The carload of stockers is purchased about November 1st, and placed on pasture. About December 1st, these cattle are placed in the feed lot to run after the feeders which have been kept on the farm one year. The stockers remain in the feed lot until the middle of May, when, after the feeders have been sold, they are turned out to pasture. They remain on pasture until about December 1st, when they are driven into the feed lot as feeders, never to leave it until ready for market.

The feed-lot equipment is not an elaborate one. The cattle are fed in a lot fifty-four by ninety feet in size. This lot is well protected from the cold winds of winter by a right-angled shed on the north and west. A barn on the north-eastern corner of the lot also affords some protection. The lot is well fenced with strong cedar posts, and 2 x 6 hemlock boards. Fences, building and equipment are all painted.

The large shed for the feeders is 74 by 16 feet, and the smaller one for the stockers 54 by 16 feet. These are combination closed-and-open sheds, well-ventilated, open on the lee side, and fitted with sliding doors to be closed against unfavorable winds. The steers are kept well-bedded and two feed racks are provided, each rack to accommodate twelve steers. They are watered from a galvanized tank.

The main feed of the steers is bundle-corn. The change from pasture to this feed is made gradually before the cattle are finally placed in the feed lot. Fallen ears from the corn field are fed to the cattle in small amounts daily in October. When this is used up, a bundle of corn is fed to each steer daily. By the first of December the cattle have become accustomed to the bundle-corn, and are turned into the feed lot. The poorest-eared corn is fed first to prevent over-feeding, and it often requires two months to get the steers on full feed.

Feeding begins at 8.00 a. m. each day. The stockers which have been in the feed lot all night are turned back into their shed. The racks are cleaned and filled with bundle-corn, one layer deep and packed fairly tight. The feeders are turned into the lot an hour later, more bundle-corn is thrown into the racks to complete the morning feed. As many bundles are given as the steers seem to be able to handle. The aim is not to overfeed, and yet to give all that will be consumed.

At 11.30 a. m. the feeders are turned into the shed and the stockers are allowed to pick over the stalks in the feed racks. At 4.15 p. m., the stockers are driven back, the racks are cleaned and filled, and the feeders are turned out again. At 8.30 p. m. the feeders are driven in for the night, and the stockers are turned out. This

method of feeding is continued until about the middle of May, when the feeders are shipped to market.

The stockers are given access to the feed lot from 11.30 a. m. to 4.30 p. m., and from 8.30 p. m. to 8.00 a. m. each day. So keen are their appetites that there is little bundle-corn left when they have finished eating. No other feed is given them except two bushels of shelled corn at noon, about five pounds of corn to each stocker.

In a general way, the plan is to give both feeders and stockers two substantial feeds each day. The same time of feeding is carefully observed each day, as the cattle will make substantial gains only when fed regularly. Salt is kept before them constantly in a tub in one corner of a rack. The steers are never disturbed, and every opportunity is given them to rest and make gains.

Brood sows are placed in the feed lot to follow the cattle. These sows farrow in the spring, and often again in the fall. Fifty sows were fed in this manner last year, and got nothing but the waste corn left by the steers, and a slop given them twice a day, composed of one pound of shorts and one-half pound of oil-meal per sow daily. No loss of pigs has so far resulted, the sows' litters averaging 8.85 pigs.

The sows are sheltered in the sheds. In each shed at the northwestern corner, a pen sixteen by sixteen feet in size has been partitioned off for them. The steers are not admitted to the hog pens. A systematic method of feeding is followed in caring for both groups of hogs. In the morning the sows which follow the feeders are turned out with the steers until they have received their slop, when they are driven back into the shed again until the bundle-corn, has been picked over. They are driven back to prevent them from pulling corn out of the rack. The sows are allowed to run in the yard with the feeders about an hour after the feeding is done. They are driven back into the shed with the feeders at 11.30 a. m. The same method is repeated at 4.30 p. m. The sows which follow the stockers are turned out with the stockers at 11.30 a. m. and at 8.30 p. m., and fed the same amount of slop given to the other sows.

The pigs from the sows are kept until six weeks of age, and are sold at about \$3.00 each. A few milk cows are bought each year. These cows give a good supply of milk when bought, or are about to freshen. They are fed bundle-corn only during the winter, and are milked regularly. In the spring they are sold as butcher cows at prices always in excess of those paid for them. Milk and butter for the home is, in this way, supplied, and some butter is also made to sell.

Bundle corn is the ration, and so it is necessary that an excellent quality of this material is produced. The old corn fields are harrowed early in the spring to level off all stubs, and to form a dust mulch to check loss of moisture. Plowing is delayed as late as possible, so as to allow weeds to germinate. The best possible seed-bed is produced, and the corn is planted from May 28th to June 5th—not too early. Harrowing is continued after the corn is up to four or five inches in height, always harrowing across the rows. The corn is sown thickly to produce fine stalks, and the smaller, heavy-eared varieties are chosen. Few cultivations are required. The crop is cut as soon as the husks have turned white, although most of the leaves are still green. The ideal crop of bundle-corn consists of an immense amount of fine, bright, well-cured fodder, bearing many ears. The bundles are made large and are placed in extremely large shocks, the large shock being the secret of good bundle-corn. Twelve corn rows constitute one shock row, and about fifty bundles are placed in each shock. Two men shock after the corn binder. The bundles are set as nearly perpendicular as possible, and they remain in the shock until required for feed. On cattle marketed in 1911 a return of 34.3 per cent. on the investment was made, and this was one of the poorest years he has had. This, to say nothing of the profit made on the pork, was not a bad return. The actual cost of keeping each sow was figured out to be just a trifle over two cents per day, as none of the corn they got, being all charged against the steers, could be charged against the sows.

The success is due to the raising of a cheap, palatable and easily-grown feed, which can be readily converted into meat and milk, and also to the fact that the cattle are secured at the smallest possible cost, and the farm well managed to feed them off. Ensiling, husking or shredding is avoided in the feeding of bundle-corn, and corn can be grown and fed in this condition, according to the bulletin, for about one-half the cost of silage. The bundle-corn has produced steers which have topped the market, as grown by Mr. Hubbard, it has been found, as grown by Mr. Hubbard, it has been found very palatable and nutritious. Mr. Hubbard favors the buying of thin stockers at a low

price, and feeding them over the winter as indicated, fattening them the second winter. There isn't the demand for the thin stockers, and they can generally be bought at a low figure. They follow the fattening steers, utilizing what would otherwise be waste, and, purchased one year ahead of the feeding off, they are accustomed to the feed and make more economical gains. Animals less than 20 months old are not purchased, as it is desired to have feeders that are nearly three years old or older.

About 38 acres of corn is produced yearly, not much hired labor being needed at any season as the remainder of the farm is rough and used for pasture. Steers are fed and young pigs raised at a profit, and all the manure is saved and returned to the corn ground thus keeping up the fertility of the soil, corn having been grown successfully on the same 38 acres for twelve consecutive years. Good farm management is necessary to get the best returns from live stock, and each feeder must adapt himself to the peculiar circumstances surrounding him.

"The Dearth of Cattle."

Editor "The Farmer's Advocate.":

A leading Toronto daily some weeks since, entitled an article in its editorial column. "The Dearth of Cattle."

The editorial pages of many of our papers furnish a great portion of our comic reading. Yet this article can scarcely be treated as a joke for it is plainly intended to be taken seriously. Moreover, it exhibits such a serene disregard for facts, logic and sane reasoning, that it deserves our attention.

This editorial, after commenting on the falling off in the export trade in cattle from the United States, remarks: "From this there is only one conclusion, and that is, that the people on this continent will have to endure high beef prices for several years."

Prices that are not remunerative enough to keep the producer in the business cannot be reasonably termed "hard to endure."

In a land continually criticized for its leaning towards materialism it is safe to assume that production will be stimulated when the financial returns warrant, and only then.

Donald Sutherland, M. P., of South Oxford, gave an address at Ingersoll, some years ago, before the Western Ontario Dairymen's Association, in which he said:

"When I consider that it has been demonstrated at the Ontario Agricultural College, that it takes 8 to 9 cents to produce a pound of beef live weight, while I have been selling my beef around 5 or 6 cents a pound, I feel that I have been something of a philanthropist."

The average journalist, whose periodic excursions into the discussion of agricultural subjects, reveals his blissful ignorance of rural economics, apparently forgets that the producers of the stalled beef in this country in the past have been philanthropists. That they have been underpaid might be proven in many ways. The best and only proof necessary, however, is the fact that beef animals have decreased in number in this Province at a very rapid rate as statistics prove.

The writer of the article referred to, goes on to say, "There must be a revolution of cattle raising before prices begin to fall materially." When prices do not at present warrant sustained production, it is surely an intelligent view that expects a material fall in prices.

This editorial goes on to say that "Canada has a splendid opportunity under present circumstances to build up a far-reaching cattle industry." I agree with this statement. The first thing necessary, however, is the exposing of the fallacious doctrine that present prices are exorbitant, which is being done to death at present over this country.

Why is it that in the numerous articles on the high cost of living, the producers of farm products receive the major portion of the abuse?

According to the best authorities on journalism, papers publish what the public demand in so far as they can follow this out, without offending those parties who advertise extensively in their papers.

There is probably a popular demand for articles blaming somebody for the present high cost of living. Abuse always follows the line of least resistance. Why not abuse the producer? He does not advertise in the paper to any great extent. He is not defended by any influential organization, therefore he is not liable to strike back. He is not represented in Parliament to anything like the extent that his numbers would warrant. He is rather indifferently defended by the Agricultural Press. At least the Agricultural Press lay themselves liable to this charge, by neglecting the opportunity of attacking articles similar to the ones here referred to, which so often come their way.

The editorial page of our papers either reflects