farm yards or sheds, while the farmers were doing the field work with horses.

Leading bankers and managers of land and loan companies were interviewed regarding the financial success of farmers who operated with tractor outfits as compared with farmers who used horses. Without exception, they declared emphatically that men who held to horses had scored much the greater success. Several declared that they would rather, ten to one, loan money to farmers who operated with horses: and several stated that they had no money to loan to farmers who bought tractor outfits, unless the buyer had sufficient resources to lose all he had put in the tractor and still remain solvent. Even then, the loan was not favored.

Commercial men, familiar with conditions, expressed substantially the same views. The concensus of opinion was that tractors were effective in sod breaking, and that their use has hastened the tillage of Canadian broad prairies; but it was also felt that the purchase and use of such outfits had bankrupted thousands of farmers, and that their use should be discontinued save for threshing, road work, and the breaking of prairie sod.

Over-investment in machinery has been a costly mistake made by thousands of American farmers. Men who can profitably use tractor outfits under our farming conditions are not the rule, but the exception. No tractor has yet been devised that will utilize the rough feeds and grass s of the farm as fuel, and none have been built that will reproduce themselves by breeding while carrying out the work of the farm.

WAYNE DINSMORE,
Secretary of Percheron Society of America.

LIVE STOCK.

A Troublesome Annual Pasture.

Editor "The Farmer's Advocate":

Having just read with interest an article on "Annual Pastures" in the issue of Aug. 13th, I write to ask if any of your readers have had any trouble with such crop? Last May I mixed 100 lbs. of sugar cane, 6 bushels of oats, and about one-half bushel buckwheat, and sowed it on 4 acres of very light land. The end of May and June being dry and the grasshoppers very bad it proved almost a failure, but the rain came when the buckwheat and sugar cane came on. My neighbor has his cows in the bush behind my field, and he told me one day he had lost a two-year-old heifer. About ten days after I found the heifer in my field dead and partly decomposed. Two days after I let my milk cows into the field about nine or ten o'clock, and at six one was found dead and stinking. I put up the fence and pronounced it unsafe for food. Last week the cows jumped in and we put them out in an hour and a half, and one could scarcely walk home. I called the veterinary, and he said she was poisoned.

We searched the field from start to finish, and all we could find was sugar cane, buckwheat and a few stalks of milkweed and fern. I believe they all got the same thing, and it must be strong for it only took about two hours to put them over. In each case the dew was off, and it was very dry.

The first one being decomposed when we found it we did not know what it was, but we were satisfied there was not enough to gorge it, and the last showed no signs of bloat, just poison.

If sugar cane and buckwheat together are poison I think it would be well to publish it, as no one cares to lose cattle. As for the milk weed and ferns we did not find one touched, and they are not poison alone any way.

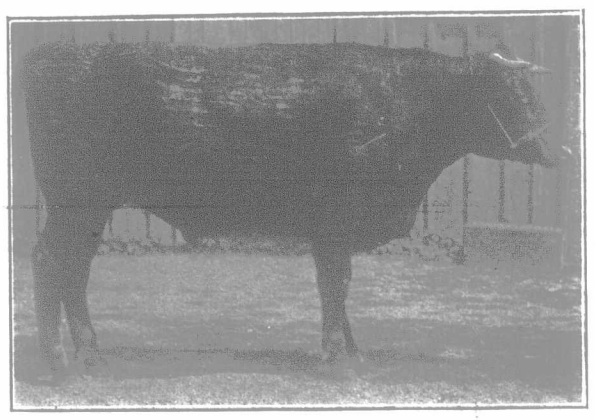
Simcoe Co., Ont. A. J. ANDERSON.

[Note.—We have had no experience in sowing sugar cane and buckwheat together, nor would we advise it as buckwheat is certainly not a satisfactory pasture crop, and its habit of growth is such as to hinder rather than aid in the growth of other crops sown with it. We are inclined to think that your cattle died from overfeeding on the rank, fresh growth when unaccustomed to it. If they were poisoned they must have got something other than buckwheat and sugar cane, as these either alone or in combination are non poisonous. In turning cattle on fresh growth great care should be taken that the feed is dry, and then the cattle should only be left on the feed for a short time, say one-half hour at first, gradually increasing to one hour and on until it is safe to leave them on. However, we may say that we never left our cattle in the annual pasture more than an hour a day, and this in the afternoon from three to four o'clock. And then, as stated in our previous article, our mixtures were: 1, early amber sugar cane 30 lbs., oats 51 lbs., red clover 7 lbs., and 2, oats 3 bushels, red clover 7 lbs., and vetches ½ bushel. Is it not possible that you left the cattle on the feed too long in the beginning?—Editor.]

Steers That Have Made Rapid Gains.

In this issue are illustrated two Shorthorn steers, fed by D. A. Graham, of Wanstead, Ont. These were two particularly good steers which made very good gains for their owner. No grain was fed from May 15 to June 15, the average amount of grain fed was about 8 pounds per day with roots, cut corn and clover hay. The cattle were fed chop practically the year round, but did not get as much in summer as in winter. Mr. Graham in writing "The Farmer's Advocate" just gives the average daily feed for the year.

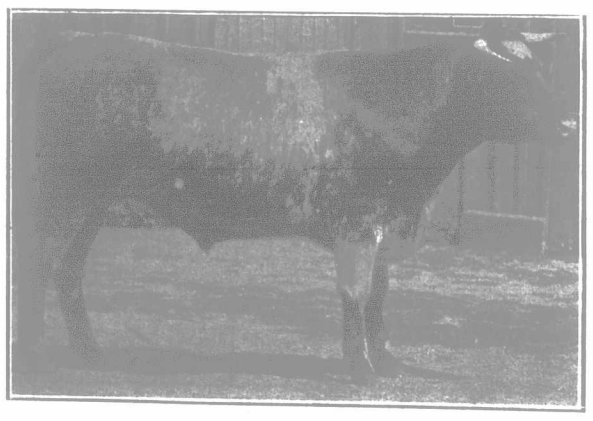
The roan steer was two years old January, 1914, and weighed on July 15, 1914, 1,525 pounds. This steer was bought and put in to feed at 6 cents a pound on October 15, 1913. He was weighed every month, and the following are the weights: October 15, 1,080 pounds; November 15, 1,165 pounds; December 15, 1,215



A Good Doer.
Read how this steer made gains for feed consumed.

pounds; January 15, 1,250 pounds; February 15, 1,295 pounds; March 15, 1,345 pounds; April 15, 1,385 pounds; May 15, 1,405 pounds; June 14, 1,455 pounds, and July 15, 1,525 pounds; making a total gain in nine months of 445 lbs., or about 1.6 pounds daily for the entire feeding period.

The red steer was two years old in December, 1913, and weighed on July 15th last 1,415 pounds. Records of this steer's weight were kept from January 15, 1912, when he weighed 115 pounds. He was weighed the middle of each month thereafter; the following being the weights: 190 pounds; 225 pounds; 255 pounds; 310 pounds; 365 pounds; 420 pounds; 470 pounds; 535 pounds; 590 pounds; 665 pounds; 740 pounds, and at a year old on January 15, 1913, 760 pounds. Weighings were continued the middle of the month up to the present time. February, 1913, he weighed 800 pounds; March, 835; April, 850; May, 875; June, 915; July, 1,000; August, 1,055 pounds; September, 1,135; October, 1,120; November, 1,150; December, 1,205; January, 1914, or at two years old, 1,255



A Profitable Feeder.
This steer has made good gains for D. A. Graham, his feeder.

pounds; February, 1,280; March, 1,315; April, 1,340; May, 1,355; June, 1,370; July, 1,415.

This steer did not make quite as large gains as the other one during the same feeding period, his gains from October 15, 1913, to the present time being 295 pounds. He was raised on his dam for two months, then gradually weaned to separator milk for five months, fed roots and clover hay with mixed grain, and a little oil cake which averaged about four pounds a day for ten months. No grain was given in May or June the first two years. In summer the steer got cut green corn and cut green alfalfa, and cut corn and clover hay in winter with roots. This steer would have shown a much better gain in the month of October in each year had he not been knocked about going to several shows every fall. He actually lost weight. During his second year the average amount of grain fed for the ten months was about 7 pounds, and in his third year it will average about 8 pounds.

These figures are valuable in that they show just about what good steers, with fair feeding, will do, and also they will give readers an idea of the gains made while the animals are young, as compared with those made as they reach maturity and finish.

We are glad to be able to publish this information from Mr. Graham, and hope that our readers may be benefitted somewhat by reading it. The gains are not phenomenal, but are good on average feed.

Sacrificing Good Cows.

Prof. Thos. Shaw, who has been in England purchasing milking Shorthorns for the United States, while there contributed an interesting article to the Live Stock Journal on a condition of affairs all too common in Canada as well as in England and the United States. Too many good stock and milk cows are turned off to the butcher at the very prime of their lives, simply because their lactation period is at an end and their owner, who is a city milk producer, does not want to wait for the beginning of another. Here is what Prof. Shaw says:

"While there is very much to be admired in the practices followed by the breeders of live stock in Britain, one that I have noticed in regard to the same is, I think, peculiarly unfortunate. The reference is to frequent sales of valuable cows that are made to dairymen who supply milk to the large cities, and who find no other use for a cow than to sell her for slaughter when her lactation period is over. This evil is present in the United States as well as in Britain, but relatively in a less degree. The cows thus sold are quite mongrel in their breeding, and therefore they are less valuable than the beautiful grade milking Shorthorns that prevail to so great an extent in England.

"This drain, I am told, is continuous, and it goes on through all the year. An intelligent farmer at Penrith stated only a few days ago that the sales of these cows, or at least the shipping of these from Penrith, would average not fewer than fifty a week. It would be interesting to know the aggregate of these sales in a year; without any doubt the record would be startling. The loss to the country, could it be stated in figures, would be appalling.

"Why should the loss be stated thus? Because of what it really represents. The buyers of cows for the uses named prefer young cows, and for the reason that they sell for a good figure when the lactation period is completed. They may, and do, buy some old cows, but they are much more anxious to get them when they are young. Suppose a cow is bought at six years old; she is milked one season by the city dairyman, after which she must die; she is cut off in the zenith of her usefulness. The milk which such a cow would produce subsequently for several years, if she were spared, is not forthcoming, of course. But, what is more to be regretted, the calves which she would produce to perpetuate her kind remain unborn. While the business is perfectly legitimate, it does seem unfortunate that it exists. Milk could be supplied from the farms without the slaughter of cows in their prime.

"Do the breeders of England know that the demand for non-pedigreed milking Shorthorn cattle is going to be brisk in the near future? The bars are down, insomuch that non-pedigreed cattle can be taken over now. American farmers will want them because of the fact that the practice in England has been to milk them for past generations. This is a guarantee of their good milking qualities, and they are also capable of producing animals that will be good producers of beef. It is animals such as these that the American arable farmer now wants, and it is animals such as these that he does not now have.

"Why are cattle of the dual class in America so few to-day? Because of the fact, first, that many of the teachers in the agricultural colleges persisted in teaching that dual-purpose cattle could not be bred; because many who were interested in dairying proclaimed the same truths, and because the dairy press aided in the dissemination of such erroneous teaching. The success of this unfortunate crusade—for it was a crusade—was aided by the low prices of meat in America, and the high prices relatively of dairy products. Meats have become very dear—nearly, or quite, as dear as in Britain. The farmers cannot supply the demand. The dairy cattle which prevail so extensively can only supply but a small portion of it. The supply from Western ranges is sensibly decreasing, because of the breaking up of much of the Western ranges into arable farms. The population is increasing at the rate of 2,000,000 to 3,000,000 people each year. Where is the extra supply of meat to come from but the arable farm? What class of cattle must furnish it mainly? It must come from dual cows, for such cows will bring more money to the owner than can be obtained from straight beef cows kept under arable farm conditions.

"Will the growers of dual-purpose cattle in