

Pigs and Pork for Local Markets.

I have had good success for several years raising pigs and pork in connection with an "all-year-round" dairy. I try to have my spring litters come in March and April, when prices are higher than for later pigs. If there is a demand, when the pigs are four weeks old I sell to neighboring farmers for from two to three dollars each; if not, I wean the pigs at that age in order to breed the sows again, and have never been able to catch them in season until the pigs have been off from three days to a week. Wheat middlings with milk is the best food to start young pigs, and should be fed often and little at a time, just what they will eat up clean each time. There is usually a good demand for them when from four to six months old, both as breeders and feeders, as many farmers, if they can find good thrifty shoats, will buy them when they have extra feed. I keep high-grade Chesters, with full-blood boar, and as soon as the grass is well started in spring, ring the sows and put them in a pasture where there is running water, aiming only to keep them in good flesh, as the grass will nearly support them.

A few days before the pigs are due, the sows are placed in a pen (a box stall, or temporary shed with board or slab roof will do), where they will be dry and confined. Old sows will usually get along farrowing all right alone in warm weather, but young sows should be tamed and kept watch of, as they are apt to injure their pigs. I have saved a whole litter by staying with the sow and as fast as the pigs arrived, putting them in a basket until she was through; then by rubbing her bag she would lie down so I could place the pigs on her, and after they have once sucked there is very little danger of losing any.

Last spring many of my neighbors lost their young pigs and some their sows as well, due, I think, to their being kept too fat and in cold quarters. I always try to keep their bowels loose by feeding something laxative, such as small potatoes, cull apples, bran mash, or roots, but as labor is expensive, very few in this section raise many roots. I also give the sows charcoal and fresh earth, and have stopped a litter of two or three weeks old from scouring by giving them a few fresh sods.

When sows eat their pigs, it is because they are feverish and suffering, the fault being with the farmer in not providing the preventive agencies mentioned above.

This has not been a banner year with me, as some of my sows failed to breed, but I have saved fifty-three out of fifty-four, two litters being from young sows. One old sow gave me eleven in March, which sold at \$3.00 each; eleven in September, at \$2.00; making \$55.00. This week I bred her again, so she is due the last of February. I expect to winter seven mature sows (three of which are due to farrow in December), as I shall have milk all winter.

Missisquoi Co., Que.

L. F. STREIT.

Prof. R. Harcourt, Chemist O. A. C.

Prof. R. Harcourt, who succeeds Dr. A. E. Shuttleworth as Chemist at the Ontario Agricultural College, Guelph, is a Canadian, born in 1866, in the County of Huron, Ont. His mother was of Scotch descent and his father (who is farming south of Beamsville) is an Englishman by birth. He completed his course at the O.A.C. in the spring of 1893, and the same fall was appointed Assistant to Dr. Shuttleworth, which position he held until last spring, when he was appointed Associate Professor, with special charge of the Dairy Chemistry. In 1896, he took a special course of study at Harvard University, and in 1900 spent two months in Dr. Wiley's laboratory in the Department of Agriculture, Washington, D. C. At different times, he has visited most of the agricultural-chemistry laboratories of the Eastern States. During Dr. Shuttleworth's absence of 20 months in Germany, he had full charge of the work in this Department, and gave entire satisfaction. During the time Dr. Shuttleworth was away, he conducted the first "Digestion Experiments" made in Ontario, in connection with a bulletin which was afterwards issued, on "Lucerne, Its Composition and Digestibility." Lately, he has been doing, at odd times, a little on "Wheat, and Flour, and Its Relation to Breadmaking." A small bulletin was issued recently by the Department on this subject. From the foregoing it will be seen that Prof. Harcourt has already demonstrated his fitness for the important duties with which he is now permanently entrusted.

Alix, fastest of trotting mares and from Sept. 19, 1894, to Sept. 25, 1900, trotting champion of the world, died at the Mariposa Farm, property of Hon. F. C. Sayles, Pawtucket, R. I., Saturday, Oct. 19, from paralysis. Alix was bred by Daniel Hayes, at Muscatine, Ia., and was foaled in 1888. She was a daughter of Patronage and Atlanta, by Attorney (son of Harold).

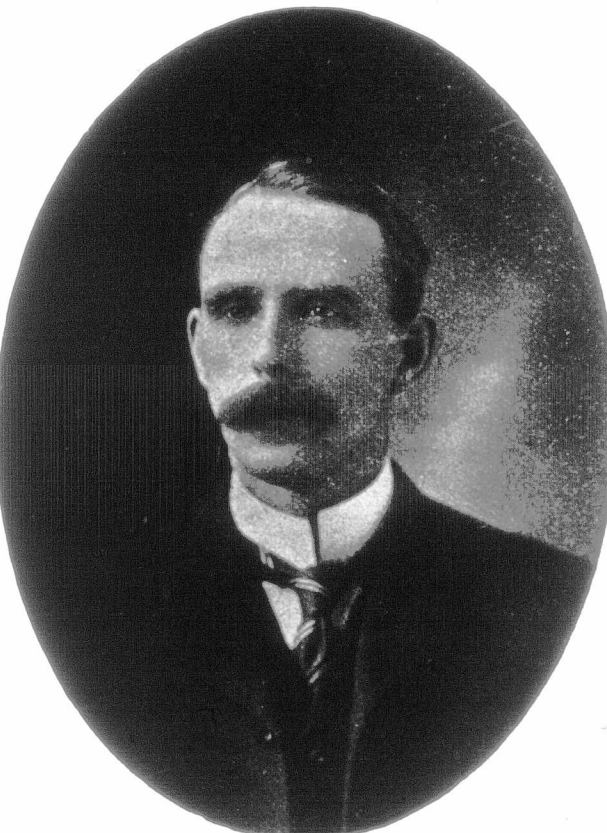
Feeding Steers.

The excellent editorial in the "Advocate" of Nov. 1st covers the question of feeding steers so thoroughly that there is comparatively little left for further discussion. In this paper, therefore, all that will be attempted is to throw out a few hints here and there along the line, which may be useful to some beginner. This is not intended for those who are old in the business, and may safely be labelled "for beginners only."

In buying steers, the purchaser must look ahead to the time of selling, and aim to obtain a class which, when finished, will tempt buyers so that they come of their own accord and compete for possession. It is not always the steer that can be bought for the least money that returns the largest profit. The desirable type of steer has already been well described in the editorial referred to above, but a word regarding weight. As a rule, 1,100-lb. to 1,200-lb. steers command a premium over lighter cattle. The main reason for this is that they can be marketed earlier, and thus the feeding period is shortened. Whether it is more profitable to feed light or heavy cattle, when the cost per pound, the selling price per pound, the gain in weight, and the length of the feeding period are the same for each, depends upon circumstances. For illustration, we will suppose that two steers, one weighing 1,000 lbs. and the other 1,200 lbs., are bought at 4c. per pound; that they each gain 300 lbs. and are sold at 5c. per lb. The statement for the two steers would be as follows:

	Cost price.	Selling price.	Return above cost.	Return for \$1.00 invested.
1,000-lb. steer ..	\$40.00	\$65.00	\$25.00	62.5 cents.
1,200-lb. steer ..	\$48.00	\$75.00	\$27.00	56.2 cents.

So far, then, the lighter steer appears to have the advantage, inasmuch as return for money in-



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vested is concerned. But if the cost of producing a pound of gain is the same in each case, it makes a different story. Let us assume that the cost of a pound of gain is 7c. in each case, or \$21.00 for each steer, and we have the following:

	Total cost.	Selling price	Net profit.
1,000-lb. steer ..	\$61.00	\$65.00	\$4.00
1,200-lb. steer ..	\$69.00	\$75.00	\$6.00

From the above it will be seen that the whole question depends upon whether the lighter steer takes less food for a pound of gain than the heavier steer. Reliable investigations show quite conclusively that young animals make more economical gains than older ones, so that if the difference in weight of the two steers under consideration were due entirely to a difference in age, it is safe to assume that the 1,000-lb. steer would make cheaper gains than the other, and would probably prove just as profitable at the same cost per pound, quality being equal. On the other hand, a stunted animal is always unsatisfactory to feed, and if the steers were the same age (or practically so), it is a pretty safe assumption that the heavier steer is to be preferred, though there is a lack of experimental evidence on this point. The question of heavy weight must not, however, be pushed too far, because the very heavy steers are likely to be too old for the most economical gains.

If steers are bought late in the fall, it is safer to buy such as are in good condition. If, however, they are bought early in September, and the purchaser has a field of rape, with water handy, and an adjacent patch of grass to give variety, comparatively thin steers are preferable. They cost less money, and will make better gains on the rape than fatter steers, going into the sta-

ble in good condition for feeding. This does not mean that extremely thin, half-starved animals are to be preferred. In all cases, the thrifty-looking steer is the safest to buy.

Another point in buying steers is worthy of careful notice. When the farmer has finished steers to sell, the buyer is particular about the question of fasting, and usually takes good care to have them stand for a time before going on the scales. This is perfectly legitimate business; but the farmer who buys by weight must look out that he does not buy full steers and sell fasted ones. It is a comparatively easy matter to increase the weight of a steer anywhere from 50 to 100 lbs. by filling his stomach with grass and water, and the man who buys full steers by weight is probably paying the equivalent of a quarter of a cent per pound more than the same steers would have cost had they been weighed in proper condition. A little lack of shrewdness just here may swamp all possible chance of profit.

The question of how much difference per pound there should be between the buying and selling price in order to insure a profit, is a difficult one to answer. In our experiments at the College we find that when steers are weighed in good condition when purchased—that is to say, when they have had a reasonable fast—we can obtain fair prices for the feed used if the selling price exceeds the buying price by one cent per pound. This applies to cases where the feeding period is about six months, and implies very careful feeding. To be really safe, however, one should have at least 1½c. per pound of a difference. It must be borne in mind, however, that the man who sells his grain, hay, etc., in the form of beef, can afford to sell these products for a lower price than the man who teams them out and sells them in their original form, because the former can produce them at a lower cost. Suppose that A is a farmer who sells most of his products on the market and feeds very few animals, and that B is a farmer who feeds nearly all he grows, or possibly a little more. A teams out his oats and sells them at 35 cents a bushel. B feeds his oats to cattle, and when he reckons up finds that he received only 30 cents per bushel. But A's farm has become so impoverished that his oats yielded only 40 bushels per acre; while B's farm, owing to the liberal treatment it has received for years, gave 70 bushels per acre. Which man has the greater profit? The mere selling price of an article gives no idea of the profit obtained. The cost price must always be taken into the reckoning.

The question of feeding has been pretty fully dealt with in the last issue, so that it is not necessary to dwell upon it here. However, since meal is the most expensive part of a steer's ration, a summary of four years' experiments at the College may not be without interest.

1. In the average of four trials, a comparatively heavy meal ration gave slightly larger but more expensive gains than those obtained with lighter rations.

2. In the average of four trials, the most economical gains were obtained by commencing with about one-third of a pound of meal per day per hundred pounds live weight of the animals, and gradually increasing; the rate of increase being such that on the average of the whole feeding period, the steers received one-half of a pound of meal per day per hundred pounds of their live weight.

3. A finished steer is fed at a loss; therefore, in economical feeding, an effort should be made not to have the animals finished for any considerable time before they can be disposed of.

4. The method of feeding recommended is suitable for somewhat long feeding periods. Shorter feeding periods would call for a more rapid increase in the meal ration.

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Pulping Roots for Fattening Stock.

Some of the most successful fat-stock feeders—the men who make a special feature of bringing out highly-finished beeves for the Christmas fat-stock shows—seem to be gradually reverting to the old-time practice of giving their animals the roots fed to them whole instead of being pulped or sliced. One of the most extensive, and also one of the most successful, exhibitors in Ireland has of late years been adopting this practice and we believe, with better results than he obtained when he followed the more general plan of pulping the roots before giving them to the animals. The reason advanced for the superiority of the former plan is that when the roots are fed in this manner the animals have to spend a longer time in eating them, and this induces a freer and larger flow of saliva than if the roots were given in a prepared state. The result of this increased secretion of saliva is that the animals digest their food better and maintain better appetites. For a similar reason the gentleman above referred to approves of giving a certain proportion of the hay or straw used in the feeding of his fat stock in a long and unchaffed condition, his argument being that when given in that condition it is less liable to cause impaction of the third stomach or manplies than when given in a finely-cut or chaffed condition.—(Farmers' Gazette.)

In raising all kinds of essential oils and either product should be

Two Yorkshires on both Yorkshires results. reared sows to 6 months nearly 5½c. to sold at 215 lbs. sequentially

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