

on the part of all breeders. There is no doubt but that in the case of all live stock the youngest meat is the cheapest to produce. It has been stated on good grounds by an American authority, that the carcass increase of steers between two and three years old is attained at a cost of 50 per cent. more than that in the carcasses of animals under two years old.

It is self-evident that to promote early maturity through breeding, it must be a quality possessed by both the sire and the dam, and they to possess it must be of a breed noted for it, and from a strain that were developed in that direction. Every stockman acquainted with the rudiments of his work readily recognises the good and rapid feeder by its mellow wealth of hair and flesh, and these again are but the external signs of healthy internal organs of digestion and secretion. From the dam and sire there must come a vigorous constitution, untainted in the least by hereditary weakness or impairing influences.

It is well to consider how far early maturity may be developed through early breeding. That it has an influence, all who have given the matter consideration will admit, but the measuring of that influence is where the difference lies. Thus the Scotch breeders recognise in breeding their heifers so as to have their first calves at foot even as early as two years old. Of course there is a possibility of over-burdening the heifer before she has matured so as to stand the strain without injurious effects. It is safe to say that with generous feeding, kind attention, and healthy comfort a heifer will approach maturity so rapidly that she may with prosperity and profit be bred at that early age. The cost of production must be lessened, and the most effective and best way of accomplishing that is through early maturity, brought about by early breeding, generous feeding, and strictest attention to all the little details that have an influence for better or for worse upon it.

Production of Mutton.

A short time ago during our absence from office, Ald. Frankland called and left a very expressive, though concise note, which we give below. We may say that Ald. Frankland has been laboring for years with voice and pen to awaken our farmers to the splendid opportunities that are open to them in the direction of sheep husbandry. The export trade in beef cattle, which is rapidly expanding to enormous proportions and has proved and is proving very profitable to Canadian farmers, owes its existence to the effective advocacy and guiding hand of Ald. Frankland, and we sincerely hope that his efforts may be at least be half as effective in leading our farmers to utilize the unequalled conditions that are theirs for sheep raising. The note reads:

Editor of the CANADIAN LIVE STOCK AND FARM JOURNAL.
SIR,—Your September number is full of interest to the farmer and live stock dealer. And one would imagine from the numerous allusions you kindly make in regard to sheep of all kinds imported that Canada must be an El Dorado for commerce in the line of exporting Canadian sheep for mutton; whereas out of 7,000 head one company shipped, there were not 75 wethers amongst them. Old ewes and rams were the staple. Shall I be able some day to go direct to any sensible farmer and buy 100 mutton sheep? "Farmers, hurry up."

FRANKLAND.

This clearly indicates that the status of general sheep breeding throughout Ontario, and we may say all Canada, is very low indeed when in such a call is made for mutton sheep as that Ald. Frankland cites, nothing can be obtained but old ewes and rams. While it may not be at present possible for every farmer to become an extensive shepherd, yet it is within the scope of every one to breed at least a few good

ones each year. To make a launch in sheep breeding requires little outlay and the returns are quick and good. In fact, the poorer the farm or farmer, the more urgent is the need of development in this direction. We are blessed with grand conditions for the production of mutton, and our farmers have only to use their intelligence and skill in breeding to make our mutton renowned throughout the world. In fact notwithstanding the indifferent attention that has been given this department of the live stock husbandry, "Canada mutton" is known as such and quoted at highest prices in the markets of our nearest neighbors. This subject is so important to our mind that we give it fuller attention in another article. We trust that Ald. Frankland's words, few though they are may, be pondered over and weighed well by those to whom they are so effectively directed.

Profits in Sheep-Raising.

The profits arising from any agricultural industry depend upon a variety of circumstances. These include the nature of the markets, the adaptability of soils and conditions, and the qualifications of the individual engaged in it. We shall treat of these in the order named.

That the markets of Canada are all that can be desired for sheep-raising is not true, but that they are encouraging is also true. The best market, that of the United States, is barricaded by a high tariff wall which greatly hinders trade in sheep and wool, more especially the former. Our principal trade in the pure bred classes is with the Americans, and largely for the reason that hitherto this class of sheep entered that country free. In lambs of a superior class our trade with that people would be unlimited were it unfettered. As it is this trade is large. We have a good market in Britain for another class of sheep, that is shearlings, if properly fattened, but as yet we have taken but little trouble to prepare sheep suitable for this market.

The market for pure-bred sheep to the United States will still be largely untrammelled, as \$1.50 per head of duty is not an insuperable barrier on pure-breds. That in mutton sheep and lambs will be seriously interfered with, as, by the provisions of the McKinley Bill, the duty on this class of sheep is likely to be doubled. The market for fat shearlings in Great Britain is virtually without limit.

Our country is well adapted to the rearing of sheep. The long winters are against us, but they do not by any means form an insuperable barrier. The great variety of soils which we possess, including both hill and valley land, enable us to keep a large variety, each one of which may easily find congenial pasture grounds.

But no advantages of market, climate, or soil, will avail where the individual does not try to obtain the mastery in the knowledge of his business. So great is the difference in natural and acquired qualifications that one person will succeed perfectly where his neighbor beside him will fail.

In sheep-raising, as in all other kinds of live-stock keeping, the great question is not so much one of profit to the individual keeping pure-breds, as one of profit to the farmers engaged in raising grades simply for wool and mutton purposes. The number of the former always will be limited.

In rearing sheep for wool and mutton purposes a due regard must be had to the breeding, and also to the breed. Some breeds are good mainly for mutton, as the Southdown. Some are good mainly for wool, as the Merino. Some are good for both, as the

Leicester, Oxford Down, and several others which we might name. The great masses of sheep in this country are grades of the Leicester, and they have shown themselves admirably adapted for being crossed with the rams of the dark-faced breeds. The progeny mature rapidly, and soon become of size sufficient for the markets, and they weigh like lead when well kept. The wool also sells well relatively in the markets.

The young man, then, who is to succeed well in growing sheep for the above-mentioned purposes must attend to several requisites. He should begin with good grade shearing ewes. Let him then fix upon the type of cross which he would like to introduce, whether Oxford, Shropshire, Hampshire, Southdown, or any other. Let him adhere to this cross, using only vigorous and well-bred rams. The lambs may be dropped on the grass if the Christmas market or that of Great Britain is the one sought. The ram lambs among them should, without fail, be castrated when from four to six weeks old. When weaned, a piece of rape should be ready for them, which will push them on, at little cost, rapidly for the market. As rape will not grow on heavy soils, a grain ration of oats, peas, or clover, or peas and oilcake, may take its place. When intended for shipment to Britain it is probable that it will be found a good practice to shear them early in September, and then to feed them through the winter, in lots not too large, in one pen. The food may consist of hay, some roots, and a grain ration of oats and peas in equal parts. Lambs treated thus will bring fully \$6 to \$7 per head at the holiday season, and fully \$8 to \$9 per head in the spring for shipment to Britain. When farmers can get these prices for their lambs, and average one each per ewe, which is a low estimate, they are making money at the business, for the fleece of the dam and the manure obtained will probably pay her keep.

The old plan of selling lambs for an average of \$3 each in autumn to the local butcher should be discarded. Raise a better class of lambs and they will find a better market, with a correspondingly better price. Never allow the ewes for breeding mutton lambs to become more than four or five years old, or there will be difficulty in preparing them for the market. When they are to be turned off also there is no cheaper fattening food ration than rape.

Size and Substance in Horses.

Those who are in direct touch with horse markets know that the most effective consideration that determines the market value of a draught or driving horse is the substance of the one and the size of the other. This, however, is not generally recognized, for if it were there would be fewer horses of indifferent types at present seeking a market. For the massive, powerful, and wearing draught horse there are waiting purchasers, and the same is fully as true of the rangy, stylish, and ambitious driving horse.

To arrive at an understanding as to how these desirable attributes may be secured, the matter must be traced to its furthest source and every feature of the work of rearing horses must undergo scrutiny. The most fertile source of error undoubtedly is the use of sires inferior, individually and in pedigree, or what is fully as grievous a blunder, the use of unsuitable sires, meaning thereby those that are not likely to mate well with the mares to which they are stunted. That horseman knows not the first principles of his business who is wheedled out of his good money by a self-asserting friend or groom, through inducing him to patronize a stallion that has been specially prepared