

that the markings on the wings of the former are very conspicuous. The English name Diamond-back Moth is derived from the peculiarity that when the wings are folded and laid flat along the back the pale line of markings on the inner margin of each of the front wings form a diamond-shaped area.

As I have already remarked, this moth has been known for some time in Great Britain. In 1851 it appeared in sufficiently large numbers to eat up the whole turnip crop. Oddly enough the chief damage done by this moth in Eastern Ontario and United States heretofore has been on cabbage, while in Western Canada, all kinds of cruciferous plants suffered. Dr. Fletcher reported an outbreak at the Central Experimental Farm, Ottawa, in 1889, and from his observations made then he was led to believe that there are probably three broods each year, that the last brood passes the winter in the pupa or chrysalis state. The same observer found moths in July, August and September. At Guelph, however, the moths have been observed as late as the first week in November.

American entomologists have also frequently referred to this insect in their publications, but their accounts relate chiefly to the damage done to cabbages.

As to remedial treatment very little can be done at this season of the year on account of the mature condition of the turnips, but should the caterpillars of the first or second broods make their appearance in any considerable number on the young turnip leaves an application of "Paris green mixed with either flour or land plaster" dusted dry upon the leaves would be found of great value. Miss Ormerod, of England, recommends the swishing off of the caterpillars by a stick, followed by a liberal supply of gas-lime or soot spread broadcast by hand. Dr. Fletcher advises the use of kerosene emulsion diluted with nine or ten parts of water, when cabbages are affected.

Fortunately for us these caterpillars appeared in destructive numbers this year in late autumn when the turnips had virtually attained their full growth. Sometimes, however, as in England in 1851, the pest was most destructive in July when the turnips were very small. Observers tell us, moreover, that the pest may be very troublesome one year, and difficult to find the next. In Canada it was very abundant at Victoria, B.C., and Winnipeg, in 1885, but has not been reported as serious since. It was quite serious at Regina in 1887, and at the Ottawa Experimental Farm in 1889, but not reported as serious from those districts since. The farmer and gardener should be on the lookout for this very serious pest early in the summer, for if not attended to promptly, it is very apt to sweep the whole crop away. The farmers have very strong allies against this diamond-back moth in the form of very small four-winged flies which destroy a large percentage of the caterpillars. No doubt it is due to the work of this parasitic ally that the pest does not reappear the succeeding year.



Feeding Export Cattle

Some Practical Pointers for Farmers

By G. W. Green

"I have not seen a decent bullock from Montreal this season." The above startling statement of an English cattle buyer, quoted in the October 17th issue of FARMING, brings home to us in a most striking manner the deplorable and far-reaching results brought about by the lack of care and attention, as regards breeding for beef, that prevailed so generally among the farming community in this Dominion for a considerable period previous to the recent improvement in trade. The statement itself is certainly exaggerated, but it is at least half true, as can easily be verified by any one who takes the trouble to visit any of the stock yards in our big cities where "exporters" are brought for sale.

The causes that have led to this deterioration in our beef cattle are well known. First and foremost was the dis-

couraging price of beef for a lengthy period, which caused numbers of farmers to give up breeding and feeding beef cattle entirely, while others became careless and bred their cattle to poor and indifferent sires, hoping foolishly to save money in service fees, while they shut their eyes to the fact that the produce must necessarily be so inferior as to be a drug on a market that was at that time none too satisfactory even for the best. Then, again, the attractive prices obtained for dairy produce caused many farmers, who had formerly handled beef cattle, to try their luck at dairying, and, finding the results satisfactory, they decided to remain dairymen.

Such are the two principal causes that have not only lessened the stock of beef cattle in this country, but have brought deterioration in them as well. Now, however, the pendulum has swung to the other side, beef is fetching good prices, and once again breeders are replenishing their stocks and buying the best they can buy. There will soon be a great improvement visible in our beef cattle, and the reproach against our foundation stock will be removed.

PROPER FEEDING OF EXPORT CATTLE.

While the raising of good stock is vital to our success in the export cattle trade, there is another very important feature that does not always receive that attention that it should, that is, the proper feeding of such cattle, when we have procured them. The rations given must be such as to produce a firm flesh that will not shrink much in shipment. A soft, flabby flesh can only result in loss to the shipper, and, on that account, he is ready to pay a little more when he knows that the animals have been fed so as to stand the long journey to the Old Country satisfactorily, and not to shrink more than is usual.

CATTLE THAT IT WILL PAY TO FEED.

And, first, a few suggestions about the class of cattle to be selected, will be in order. The breeder, who raises his own calves, will, as a rule, select his best animals for feeding for export, but a very large number are dependent on others for their supply of stockers. Of course, all feeders, who have been in the business long enough recognize the necessity of getting hold of the best animals they can, but some, especially beginners at the business, have yet much to learn in that direction. Aim to buy thick, low set, thrifty animals, with their upper and lower lines as nearly parallel as possible, taking care that they are good handlers, that is to say, that they have a nice soft skin, with a fine but thick coat of mossy hair. A harsh skin indicates slow circulation and poor digestive powers. As regards weight, from 1,000 to 1,100 lbs. is a good average, and the younger they are at those weights the better. A good, placid eye in a beast is a proof of contentment and ability to do well. An animal with coarse bones should be rejected. The demand at present is for quality and finish. All these points should be considered, because their presence or absence may make all the difference in making a profit or scoring a loss when the animal comes to be sold, and in these days, when we have the close competition of other countries to meet in the British markets, one or more deficiencies in an animal may serve to reduce the seller's profits, or even extinguish them altogether. Another important point is to select animals as nearly of a kind as possible. Buyers will pay a little more when they can purchase a good, even bunch of fat cattle in one stable, because they are saved trouble afterwards in sorting and selecting for shipment.

STALL-FEEDING.

There are two methods of feeding now practised in this country, stall-feeding and feeding dehorned animals loose in sheds. Of these the first is that most generally practised, having been in vogue for years. The other system, however, is being used by some large feeders, who speak very highly of it and who claim that their profits are larger in this way and that the animals do better.

In stall-feeding the animals should be put into the stable towards the end of November, or a little earlier if the weathe