

LIVE STOCK.

of each of the foreign breeds and filled the country with high-grades, practically pure in blood, representing each of the breeds imported from abroad. Had this been done imported stallions now would be unneeded, scrubs and grades would be scarce or unknown, and each breeding district would be noted for its special horse product just as is that country of Wisconsin for the white hogs its farmers have decided were profitable to produce and so have produced, practically pure-bred, by persisting in the use of pure-bred sires and the early castration of every male pig other than pure-bred.

"It never is too late to start mending our manners, our morals, our methods of management or our practice in farming and stock-raising, and it is high time that live-stock production, and more especially horse-production, was conducted on the common-sense basis suggested here and earnestly taught and practiced at most of the agricultural experiment stations of the country."

BREEDING HORSES WITH ACTION.

To breeders of harness horses, the question of how to obtain plenty of action in their young horses, is of the greatest practical importance. High trotting action adds greatly to the value of any kind of harness horse, and a breeder who wishes to make his breeding of horses pay, cannot attach too much importance to this quality. However good a harness horse may be in other respects, it will not command much of a price if it is devoid of action; and the better and higher the action is in harness horses, the more valuable they are in the market. Action can only be got by breeding for it, as it is primarily a hereditary quality. It is, of course, possible to effect considerable improvement in a young horse's trotting action by special modes of training, but it is obvious that one cannot improve the action when it is not there at all. No amount of training can turn a harness horse that is devoid of action into a well-actioned animal. The principal thing, therefore, is to breed horses which are by nature endowed with high-stepping trotting action, by inheriting this quality from the parent stock.

In breeding harness horses, then, writes W. R. Gilbert, in the *Rider and Driver*, the breeder must pay plenty of attention to the action of the horses which he breeds from. To obtain the best and highest possible trotting action, both the sire and the dam should be possessed of plenty of action. Unfortunately, the horse-breeding farmer finds it anything but easy, as a rule, and very frequently quite impossible, to carry out this desirable arrangement in practice. In selecting suitable brood mares from which to breed a good and salable stamp of harness horse, there are several other points of importance besides action which must receive due consideration. Important as the action is, it is not practicable, neither is it desirable, to lay sole stress on this quality, to the exclusion of other important and indispensable qualities in the selection of brood mares for harness-horse breeding purposes. So far as regards the action in brood mares, the best thing that can be said to horse-breeding farmers is to seek for as much and as good action as possible, but without in any way neglecting any other important quality, and paying due attention to the various practical considerations which are connected with the selection of suitable brood mares by the practical farmer. Where the choice lies between a good mare, with only moderate action, and a bad mare, whose principal recommendation is high-stepping trotting action, the former is decidedly much to be preferred to the latter. A strain of Hackney blood in a mare always adds to and improves her suitability for harness-horse breeding purposes, in so far as concerns the question of action. It should be here pointed out that, in the case of cross-bred mares, it is not by any means a foregone conclusion that a brood mare which is a good mover will transmit equally good action to her progeny. It not infrequently happens that the progeny of a good-moving mare is inferior to her as regards action, disappointment thus being caused to the breeder.

Stallions which are used as sires of harness horses should always possess good action and move well, and when the breeder is selecting a stallion to mate with his mare or mares, for the purpose of producing harness horses, he must lay great stress on this matter. As a general rule, it will be found that the sire exercises a greater amount of influence upon the action of the foal than the dam. Although there are infrequent exceptions to this general rule, the breeder cannot go wrong if he takes this rule into practical consideration in breeding harness horses. Thus, better and higher-actioned horses are, as a rule, bred by breeding a high-actioned stallion to a mare devoid of action, than when the mare possesses a good action and the stallion is devoid of it. The transmission of his action by a stallion to the foals which he gets, depends, of course, upon his impressiveness and prepotency as a sire. The more prepotent and impressive the sire is, the more effectually will he transmit his good action to his stock. A stallion that has proved himself to be an impressive sire, and very prepotent,

should, therefore, always be selected in preference to one whose qualities as a stock-getter are not known to the breeder. By using an impressive stallion, with good and high action, the breeder may hope to breed foals with fairly good action, even from the mares that possess no action, as, if the sire is prepotent, his foals will take after him in their action, the dam's want of action being entirely neutralized through the impressiveness of the sire. If we want the best possible and most brilliant harness action in the stallion, we must go to the Hackney breed. In point of brilliancy and showiness of action, no other kind or breed of horses can touch the Hackney. Hackney stallions of good class are certainly most suitable for getting high-actioned harness horses, but, of course, they must be mated to the right and suitable stamp of mare if the Hackney cross is to result in the production of really salable harness horses. As has already been remarked above, it will not do to sacrifice other important considerations and point entirely to the quality of high action in breeding harness horses for sale. For this reason, the Hackney cross is not by any means always the best. The brood mares in possession of the breeder may not be suitable for breeding to a Hackney stallion, but may require to be put to a stallion of some other breed.

Although Thoroughbreds do not possess showy trotting-action, and generally are low-actioned in their trot, yet there are some Thoroughbred stallions which are quite suitable for getting harness horses of the carriage-horse stamp, provided they are mated to the right kind of mare. Some Thoroughbred stallions possess quite passable trotting action, and such a one should be selected by the breeder of the harness horse when he wishes to use the Thoroughbred cross. In using a Thoroughbred stallion, it is, of course, necessary that the mares should be good movers, if the good



Moss Lavender.

Clydesdale filly, two years old. First in Canadian-bred class, Toronto, Sept., 1907. Bred and exhibited by Geo. Crawford, Oro Station, Ont. Sire Lavender (imp.) (11394).

action in the progeny is to be obtained. Fairly good action is usually met with in the Yorkshire coaching stallions; in the other Yorkshire breed—the Cleveland Bay—the trotting action is inferior to that of the Yorkshire coacher, as regards showiness. But a fair amount of action can be obtained in horses produced by a Cleveland cross if the dam is possessed of a sufficiency of this quality.

The prolificacy of the famous Clydesdale stallion, Baron's Pride, is exceeded only by his prepotency. It is safe to say no other horse's blood is so much in evidence among the prizewinners in Canadian heavy-draft horse rings. This year, in the open class at Toronto, no fewer than twelve prizes, four of them firsts, were won by his direct get, while many another decorated entry traces back to him through sire or dam.

As the fall of the year comes on one feels the need of more heating and more sustaining food, such as meat. It is so with horses, particularly the colts in the pasture. If they have not had it already, they will be needing daily, or morning and evening feeds of bran and oats. It is not necessary to keep them up in the stable. Better not. But if they are to grow and develop properly they require good bone- and muscle-forming feed—and plenty of it.

IMPROVEMENT OF MILKING CATTLE.

There is still room for improvement in the milking capacities of our dairy cattle, and it is just as important to bring it about as it is to improve the type of the various breeds of horses, cattle and sheep, having studbooks and societies to safeguard their interests, says a writer in the *Agricultural Gazette of England*. Milking cows more than any other animals form a rent-paying branch of an ordinary farmer's live stock, and if the same number can—by selection and breeding—be made to yield more milk, it follows that the income of the farmer is increased in proportion to the extra milk produced. For general-purpose cattle which will give a fair quantity of milk, and graze or fatten satisfactorily afterwards, those of the Shorthorn type are the most popular among dairy farmers, for the reason that they are the best dual-purpose breed of this country, and are capable of milking satisfactorily. The magnitude of the new-milk business may be roughly guessed when it is computed that 150,000 cows are milked each day to supply London alone, and other towns may be taken to use milk in the same proportion. Prosperous times bring an increase in the consumption of milk, and this goes to prove that the working classes are beginning to realize the advantages of a milk diet for their children, and where an adequate supply of it can be given to young children there the death rate is lowest. Therefore a plentiful supply of milk and its distribution among the masses is most important from a health point of view.

As a means of finding employment for labor the new-milk industry takes a lot of beating. The approximate number of men employed to milk the cows for London supply is estimated at 15,000, which is probably under rather than over the mark, while 40,000 more are employed to distribute it. When the number of men employed in all the great towns as milkmen are added to those actually employed among the cows, the milk trade is easily first for providing work for the willing in this country, and the advertisements for milkers prove that a trustworthy man need not be out of work for long together.

The great point for dairy farmers is to produce the maximum quantity from each cow, for one that only gives a gallon per day cannot be kept at a profit, and the sooner she is sold to make room for one giving more the better it is for her owner. One reason why many dairy farmers do not try to improve the milking qualities of their herds is that they do not rear their own calves, but sell them off when a few days old, and so long as they are strong and color their back breeding matters nothing, therefore in many cases no trouble is taken in the selection of a bull. His ancestry is ignored altogether, and possibly his looks, provided he is "cheap." Calves bred in this way find their way into the market, and help to swell the ranks of nondescripts, bred for no special purpose. On the other hand, if farmers have the accommodation they usually rear their own stock, and in that case the wisest exercise care in the selection of parents for the heifers they intend to put into the herd; but there is no doubt that such improvers are in the minority, hence the scarcity of deep-milking cows. Haphazard breeding is a short-sighted policy at the best, seeing that it is the udder which sells a dairy cow when she comes into the market, rather than her size and frame, and this should be remembered by, hitherto, careless breeders. The question is whether a sufficient number of bulls bred from milking strains are available: the probability is that they are not, therefore it behooves owners of milking Shorthorn herds to endeavor to supply the want. Circumstances have changed. There has been a great increase in the consumption of milk, and cows with dairying propensities are needed to produce it.