

HORSES AND CATTLE.

THE BROOD MARE.

The object we have in view in horse-breeding should be an annual improvement. The investment is remunerative when applied to good shape, soundness, and vigorous action, combined with the stoutest and most fashionable blood in the several classes. Horse breeding, where rents are high, can alone pay by the breeding of the very best, for which the demand exceeds supply, and which phase of the market has ruled strong for years without alteration; the difficulty is to get horses good enough for the best London trade.

It is important to regard constitution in the parentage, apart from the essential consideration of size, freedom from hereditary blemish or defect, good sound legs and feet, a symmetrical body, wind, eye-sight. Action is contributed by the mare in regard to force, by the sire with regard to direction. These are influenced by the deep shoulder, the moderate arm, length and muscularity of the forearm, a well-defined trapezium at the back of the knee, and well defined sesamoid bones at the upper posterior portion of the fetlock, shortness from the knee down; length in all bones, capability of mobility in the superstructure. Good shoulders are deep and well laid back in all good horses. Quality in the hindquarters is determined by proportion of parts. Loins, thighs, gaskins, hocks—strong loins, muscular thighs and gaskins, clean, bold hocks, the point of the hock in all cases well-defined. We thus have considered the bases of speed, action, endurance. Beauty of proportion and style of movement are features no harness, hack, or hunter breeder can afford to despise; and the same holds good in regard to heavy draft horse stock for export.

Leading breeders have always a high standard as a fixed aim: in some cases their efforts excel, in others fall short of, their beau ideal. When such is the case, the mare is invariably at fault. An upstanding, roomy mare—that is, one with a lofty fore-hand, a long barrel, well coupled up or ribbed home, wide across the hips, deep at fore and back rib, evidencing length and gentle obliquity, but no droop in the quarter, on short, flat, clean legs—this would be the brood mare of our choice to recoup outlay.

Mares with their first foals require the greatest attention. The mare should be served nine days after foaling, and again tried at the end of a fortnight. If the mare then refuses, it is conclusive; but should she stand, she must be tried on the termination of another fourteen days' interval. Mares have a strong aversion to smells, viz.: tar, carrion, vegetable putrefaction. The leaves of the willow and of the savin are equally obnoxious. Pine varnish is the material that should be used, rather than tar, for pelings. All excitation should be avoided—the neighing of entires, etc.

The most eligible times for foaling are the months of March, April, and May. In the first of these months they must be housed, unless the weather is most favourable. A roomy, sheltered, and well-ventilated box is a desideratum—no draughts—nicely littered down, level and soft in surface, not too deep. The mare must be watered three times a day. Mares at this season are liable to gorge themselves with clean litter, and they frequently exhibit a morbid appetite, which must be restrained. Therefore dry, used litter, taken from under other horses, is the best for present use. Register the time when the mare should foal down. Ten days before she is likely to foal make the necessary preparations and frequently examine her, at least twice or three times a day without disturbing her; and, as the event nears, a nocturnal visit or two must be paid. A roomy

mare, naturally fed, neither too gross nor too poor, seldom requires external aid. A waxy substance on the teat, a sinking and expansion of the pelvis, rendering the act of parturition easy, are unmistakable signs. After delivery the mare will lick her foal—leave her to it, but watch the placenta or afterbirth that it does not recede, and when it has come away remove it. Give the mare a nice pailful of warm linseed gruel, succeeded by a bran mash. Get the foal to suck as soon as you conveniently can. In any case of difficulty or doubt, do not delay to call in your professional friend and adviser, the qualified veterinary surgeon.

Variety of feeding is held by many to be a very safe plan just prior to foaling down; and after foaling, reliance for a copious supply of milk is usually looked for in those seasonable products—greenmeat or tares, lucerne, trefoil, and clovers. Most of the treatment relative to the brood mare accepts the cardinal features of first-rate management applicable to neat stock—quiet, cleanliness, supervision.—*R. H. Hillhouse, in English Agricultural Gazette.*

MARKET FOR DRAUGHT HORSES.

But there is also the horse market at home and abroad to be taken into consideration. For the American demand, in the first place, for draught horses in the cities, weight, size, and bone, not speed, are needed. Mr. George Cockburn, of Baltimore (Northumberland), who raises horses especially for the American market says:—

"We sell most of our horses in Pennsylvania, and they are sent to New York and Philadelphia for draying and other heavy work. The buyers come around for them at all seasons of the year, and if the horses are to be had, they are sent to the Pennsylvania farmers to bring into condition—that is, horses that are in low condition, which the Americans purchase. I would advise the farmers in this country to procure the best Clydesdale mares to breed from, as heavy horses, will, I think, always be in good demand. To raise a colt up to three years would cost about \$100, and it would be worth at that age from \$150 upwards. When I speak of Clydes, I mean horses got by a pure Clyde horse from a common mare."

Mr. Robert Beith, of Darlington (Durham), another breeder from pure-bred Clydesdales, says:—

"We breed our own well-bred Canadian mares to the best Clydesdale stallions we can procure, and when the colts reach four years old they can be sold readily at from \$150 to \$200. These are heavy horses, weighing 1,000 to 1,500 pounds or thereabouts. I find them very useful on the farm, and when I wish to dispose of them I can do so easily.

"I would not call them general purpose horses. They are rather draught horses for the American market. I sell to jobbers or dealers. Good Clyde stallions at three years old are worth about \$1,000, bred from Canadian mares with four crosses in them."

Mr. Wiser says:—

"There are not enough draught horses in Canada to supply the American demand."

He goes on to say:—

"Clydesdales are, I think, altogether the best strain to use upon our native mares to improve our draught horses. I should certainly stick very closely to them for that purpose. Of this stock I would strongly advise the use of imported or thoroughbred sires."

Mr. Patteson remarks:—

"The best horse for actual draught that we

have, is unquestionably the Clyde, as nearly pure as can be got. By draught horses I understand you mean such as are suitable for railway lorries, brewers' and distillers' wagons and drays, or fitted for taking about machines."

Mr. G. A. Houghton, of Seaforth, who also looks at the subject from a buyer's point of view, with the supply of the American market as his object, says:—

"Canadian horses are preferred in New York and Boston to horses from the Western States, and command from \$25 to \$50 a head more. For ordinary horses I have been paying from \$90 to \$100, and for good Clyde horses from \$125 to \$200. I consider Clyde horses more profitable for farmers to raise than any others, as they are able to work when they are two years or two years and a half old. The reason Canadian horses are preferred to western American horses is that they are not fed up so high and will wear better. Western horses are fattened on corn like as many pigs, and it injures them. Canadian horses will thrive, while western horses go backwards."—*Report of the Ontario Agricultural Commission.*

TRANSMISSION OF QUALITIES.

Leaving the mysterious impregnation of the germ, we will simply assert its vivifying principle to be a portion of the vital power of the parent, employed for the purpose of giving origin and birth to the offspring. As all the families of animals appear in a state of perpetual improvement or degeneracy, it becomes a subject of importance to detect the causes of these mutations. A tendency to hereditary diseases and malformations in the sexual progeny of animals will be admitted by those who deny the hereditary descent of the diseases themselves. It is, therefore, reasonable to conclude, that the sexual progenies of animals may be less liable to hereditary diseases if the parents be of different families. This, we believe, is admitted by all who breed animals for sale; since, if the male and female be of different temperaments (as these extremes of the animal system), they may counteract each other; and, certainly, where both parents are of families which are afflicted with the same hereditary defect, it is more likely to descend to their posterity. Thus we, who are all concerned in the improvement of the sexual progeny of animals, see the necessity of attending (and especially, most especially, as regards the horse) to choose the most perfect of both sexes; that is, the most beautiful, in respect to form and proportion, and the most freely endowed with those qualities justly esteemed most desirable. So strongly do we feel on this point, and so convinced are we, from our own experience, that we cannot leave this unnoticed.

Again, we too often err in disregarding the peculiarity of temperament in our system of crossing the breed—a circumstance most especially worthy of due attention and calm reflection. By temperament, we mean that greater or less degree of energy and irritability of the instruments of the vital powers. The bodily force depends materially on the nature of the temperament. It is a fact, we believe generally admitted, that undeviating confinement to one breed, however valuable or perfect, produces gradual deterioration; yet we cannot dwell too anxiously on the judgment and