

given once a day and a warm mash once or twice a week consisting of bran, cooked or steamed barley or oats mixed with cut hay with a handful of flax seed jelly give splendid results when fed to brood mares. As a rule if the mare does not appear to be thriving it is better to change the feed than to give medicine.

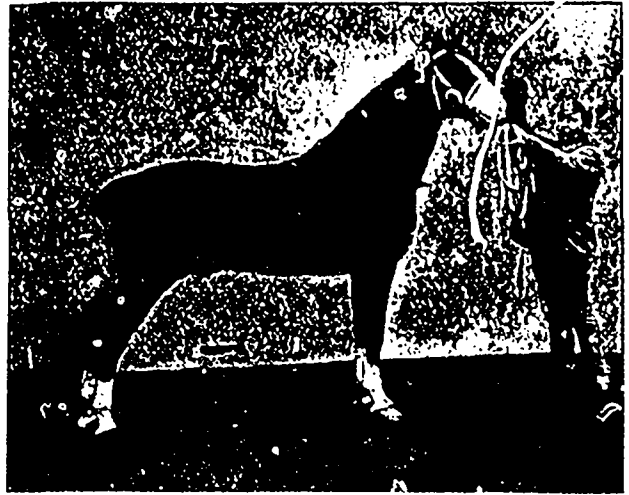
A debated point in connection with the treatment of brood mares is whether they should run idle or be given a certain amount of work or exercise. In regard to this Alex. Galbraith, the well known American authority on horse breeding, says:

"I find some farmers are under the impression that an idle mare will produce a better colt than a mare that is regularly worked. The very reverse holds true. No surer way of losing your colt altogether or of obtaining a smaller and inferior animal can be found than by allowing the mare during pregnancy to stand a large portion of the time in the barn without work or exercise. If moderate work—not excessive hauling of course—can be provided all through the winter the chances are that the colt when it comes will be strong and the mare healthier than any other way. But as all mares cannot be provided with suitable work during our long cold winters the farmer ought always to arrange so that the mares will at any rate have abundant daily exercise. Let them run out part of every day, storm or shine, always remembering, of course, that it is not advisable to have a band of pregnant mares squeeze or jostle each other at the water tank or going into or leaving the barn. Ordinary judgment and prudence will dictate what is the best and most natural treatment at that season, but I cannot impress on the average farmer too strongly the fundamental necessity of giving them plenty of exercise and a good liberal supply of nutritious food. I do not mean of course that the mares should be made fat like market horses but they should be maintained in reasonably good condition, their feet kept trimmed and their legs and body clean but without too frequent use of the currycomb."

Then special care should be exercised as the time of foaling arrives. On this point the same writer says:

"As the time of foaling approaches close attention should be paid to the mare's condition and particularly to see that her bowels are not constipated—in which case more laxative food—but not medicine—should be given. If the season be advanced so that it is thought advisable to have the mares foal on the pasture, good and well, although, as a rule, it is preferable to have one or more good roomy box stalls where the mares may be put each night as the time for parturition arrives. In the latter case it is proper to have a reliable attendant watch the mare every night so that when the event happens he may be on hand to render any necessary assistance. As many mares are of a nervous temperament, and especially at this particular time, it is recommended that the stall be so constructed that the attendant can feed, water and inspect the mare without entering the stall himself, the object to remove any exciting cause which might injuriously affect the mare at this critical time. The principal duty of the attendant in the event of a natural presentation is to see that the navel cord breaks at time of birth a few inches from the body of the colt. It may sometimes be necessary to cut this cord, in which case it is well to tie what remains attached to the body with a soft string to prevent bleeding. Should a false presentation take place, or, in other words, if the foal should be coming 'wrong end to,' or in any unusual or unnatural manner, it is well to secure the services of a veterinary surgeon or other skilful person to set matters right. The birth is usually a rapid process, however, and one of the attendant's very first duties is to assist the foal on to his feet and try to induce him to suck his dam. This done the worst is over for the present, but for the first few days the condition of the foal's bowels should be closely observed, because neither diarrhoea nor constipation can be allowed to go on any length of time without serious and often fatal results. An injection of tepid water and soap is a safe appliance, and many successful breeders make a practice of administering a tablespoonful of castor oil to every colt during the first twenty-four hours of its existence. This is the best of all lubricants and always safe."

Blood poisoning is perhaps the greatest cause of mortality amongst foals. This is caused by the absorption of disease or filth germs by means of the raw navel cord at time of birth, and to obviate this trouble it is recommended that the stall be kept scrupulously clean and thoroughly bedded with light clean straw. As a further preventive it



Hackney stallion "Rosador," champion London Hackney Show, 1899.

is a good plan to bathe the navel cord at birth and twice daily for three days afterwards with a solution of carbolic acid—say ten per cent. strength.

## Rearing and Feeding the Colt

By J. H. Griadale, Agriculturist, Central Experimental Farm, Ottawa

It is a truism to state that all forms of living matter are during the early part of their lives as independent organisms much more susceptible to exterior influences than at any subsequent period of life. This is very especially true of domestic animals, and of none more emphatically than the colt. Gifted by nature with higher mental powers than the rest of our domestic animals, it is relatively more influenced by its surroundings and bringing up, as it were. Train the colt as you would have the horse, and such he will be.

To the skilful breeder the destiny of a given colt is practically under his own control. Too many of our farmers consider that their part is done when they have bred the mare to a sire whose type they admire or whose breeding suits them. The colt comes in due time and is relegated with the dam to some remote pasture, or worse even, it is forced to follow the mare aimlessly from one end of the soft ploughed field to the other in a weary trudge. Then, as the mare is permitted to rest once in a while to cool down, the colt seizes the opportunity to drink and draws from the foaming udder the over-heated milk, turned from a life-sustaining to a death-dealing fluid.

The future usefulness of the colt depends upon nothing so much as the feed during the first year of its life. To be useful in any way a horse must have good bones, and, above all, good joints. Bones are built, like the rest of the body, from the feed consumed by the young animal, and if the food does not contain the elements essential to the growth of bone it is evident that there will be a weakness in this part of the organism. The milk from the dam contains a large proportion of the most necessary mineral substances, such as lime, but the colt seems to require much more in a short time, and may be seen trying to supplement this limited supply by taking occasional mouthfuls of soil. Probably no materials at the farmer's disposal contain more mineral or bone-forming material than bran and oats, and the colt should have plenty of these and good clover hay from the start. It is quite safe, as a rule, to give as much as two quarts of these concentrates mixed per diem as soon as the colt can be taught to eat them,