

use of them. This is particularly true of Potash and Phosphates. Fortunately the most reliable supply of Potash, German Potash Salts, are always soluble in water, but it is different with Phosphates.

In the use of chemical manures, it is well to bear in mind that on tilled soil they can be applied at any time without danger, of any considerable loss. In fact, it is advisable to apply early in the Spring as possible. On frozen ground they would of course wash off, but as soon as the land has opened is the correct time to use minerals. This is of greater importance the shorter the period of growing weather.

GEO. WILSON.

## The Horse.

### FOALING TIME

Mares probably suffer less, and require less assistance than the other animals which are the object of the breeder's care during the time of parturition. The time occupied in the act of foaling is generally very short, often not exceeding half an hour, and if the presentation is a natural one—that is, the presentation of the head and fore-legs of the foal, no assistance is required; in fact, the majority of mares foal without being observed at all, and no attention is afterwards paid to the animal so long as every thing goes on well.

#### PREPARATIONS

A correspondent inquires if it is necessary for several things to be done in anticipation of the birth of a foal. For example, he asks whether the groom should sit up all night when the event is expected, until it has happened? What should be done if the hind legs are presented? How soon after birth the foal should be made to suck? if the navel string should be cut? and when the skin (membranes) which envelop the foal should be broken; how the mare should be fed, and when the colt may be turned out to grass? We may safely assert that none of the circumstances referred to necessitate any special action. It is, of course, advisable to watch the mare when the time of foaling approaches, but under ordinary conditions she may be worked and fed as usual to within a month of the period, when a little extra care is required to avoid over-exertion or injury, which may cause the death of the foal. Absolute inaction is not beneficial at this time, and if the mare is not kept in a paddock she must be regularly exercised.

The great object should be to keep the animal as nearly as possible in ordinary working condition; more harm is done by a system of pampering than by the adoption of the opposite course, although both extremes are bad. At the time of foaling, as we have already observed, no interference is necessary as a rule, and the foal, if healthy and well developed, may be left to seek its food guided by its own instinct. If too weak to help itself assistance may be given, but it will rarely be required.

#### ASSISTANCE

Among false presentations the hind-leg presentation is the only one which requires an adjustment and our experience is that it offers little or no impediment to delivery. In nearly all other forms of mal-presentation the rule is to place the foetus in the natural position, with the fore-legs presented and the head pointing between them if possible. To do this in many cases requires all the skill, patience, strength, and endurance of an experienced practitioner, and the aid of such a one should always be obtained, if it is desired to save the lives of the mother and offspring. The amount of mischief which is done by the unintelligent use of force in the attempt to assist delivery is incalculable; and most practical men would endorse the opinion that when it is not absolutely clear to the attendant what should be done, the best thing is to do nothing.

#### PUTTING THE FOAL TO PASTURE

The weather must guide the breeder as to the time this should be done. Certainly the best place for mare and foal is a paddock with a shed in it for shelter. A foal so placed will be able to shift for itself much earlier than one which has been kept in the straw-yard or stable, and at the age of seven months will be nearly independent of the dam.

#### CASTRATION

A further question as to castration can only be answered conditionally. Everything depends upon the growth of the foal. Some animals are sufficiently advanced in form by the age of eighteen months to justify the operation; two years old will be the average time, and in weakly animals, a delay of six months or even a year is to be recommended. The spring of the year or the autumn should be selected for the operation, and the colt should be turned out again immediately afterwards. Animals which are kept shut up after castration often suffer from congestion and die, while those which are turned out and compelled to move about instead of being allowed to mope in a corner of the field, usually do well. G.