

Preparation for Foaling and Rebreeding on Foal Heat

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Article By Dr. Steve Fisch, DVM

As 2011 is about to close out, breeders everywhere begin to prepare for that exciting time of year when all the new foals are born. We have all giving our mares their rhinopneumonitis vaccinations at the prescribed times of 5, 7 and 9 months and for those mares that conceived in early February or late January 2011, early December is the time to give these mares their basic prefoaling vaccinations of tetanus, encephalitis, flu, rhinopneumonitis and west Nile virus. Depending on the history of the farm on which the foals will be born and how much immunity we want the new foal to get from his dam's colostrum, the mare may also be vaccinated for strangles, roto virus and botulism. All these vaccines raise the antibody level that will be present in the mare's colostrum. They should be given four to six weeks before the foal is due to be born. Some of the vaccine protocols involve giving a series of two or more



vaccinations given in the prefoaling period so it is important to start the process with the time sequence of each vaccine protocol in mind.

Since ingesting the mare's colostrum is the foal's only way of obtaining immunity to deadly diseases such as tetanus and eastern encephalitis and diseases that can cause death or at least sickness such as flu, EHV1 or rhinopneumonitis, roto virus, botulism and strangles it is imperative that these vaccinations be given as part of the preparation for foaling. Along with making sure the mare is vaccinated properly we need to make sure she has the proper nutrition during her entire pregnancy but especially in the third trimester which is when most of the growth occurs. It is during the last trimester that the mare has the greatest demand for nutrients. A proper amount of protein, essential vitamins and micronutrients are vitally important to intrauterine growth of the foal and to getting the foal off to a healthy and strong start. Proper nutrition also helps insure that the mare has the body condition to promote adequate milk production and to breed back on foal heat. During early pregnancy the mare has the ability to divert an adequate supply of her own nutrients to the foal but in later pregnancy the demands of the developing fetus cannot be met if the mare is on a marginally adequate or inadequate diet. The nutritional level of the mare can greatly influence the health of the foal at birth. In general the mare should be fed a good quality mare and foal feed along with a good quality hay mixture which meets the protein and calcium/phosphorous requirements for a gestating mare. An example of this mixture would be an amount equal to 2% of the mare's body weight with about 33% to 50% being an excellent quality legume such as alfalfa or perennial peanut hay. In those ratios the correct calcium/phosphorous ratios are kept intact and the protein level is high enough to provide for growth of the fetus. Not only are total amounts of certain nutrients important but the ratios of the nutrients to each other are just as important. These ratios can come into play preventing such developmental orthopedic diseases such as OCD.

The next step is to have the mare at the farm where she will foal at least four weeks prior to foaling. This allows her to build colostrum immunity to the germs at the farm. About two weeks before her due date make sure that if she has a caslick's surgery that the caslick's is taken out. This will prevent her from tearing her reproductive tract during the foaling process. This is about the time we install a foal alarm and start monitoring her for birth of the foal. The foal alert allows us to be at the mare's side within two minutes of the time the birth process begins. Assuming the birth is normal, the foal needs to nurse within three hours and the placenta needs to be passed within four hours of birth. The foal's navel is dipped into 25% chlorhexidene solution every few hours until it dries up. An IgG antibody level is determined from a blood sample from the foal at 24 hours of age. If the antibody level is too low we give the foal hyperimmune plasma to get the antibody levels to the correct levels.

In order to give the mare her best chance of conceiving on foal heat, we give the mare oxytocin every few hours post-delivery to help expel any blood and contamination in her uterus from the foaling process. About 48 hours post foaling a 5 liter uterine flush with lactated ringers solution helps clean the uterus and helps it involute to its normal size. Depending on how fast the flushing fluid that comes out of the uterus clears up, the uterus is flushed with 1 to 5 liters of

LRS every day to every other day until she is in foal heat. If her delivery was normal and her uterus is normal size and the uterine flush is clean then the mare is bred on foal heat as long as she ovulates on day 10 or later post-delivery. The chances of conception when breeding earlier

than on a day 10 ovulation are much less than when the uterus has had at least 10 days to involute. A normal birth, uterine flushes and oxytocin injections are vitally important to getting the mare to conceive on foal heat.



If everything goes well, you will have a healthy pregnant mare with a healthy foal by her side when the mare is ultrasounded two weeks later and you will have effectively backed the foaling date up by two weeks for the mare's 2013 foal. Foaling time is a very exciting time. Attention to details can be the key to having a healthy mare and newborn foal.



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