

Foaling Preparation

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Although some mares start the foaling season in early January, the majority will foal in April and May. So now is the time to select a foaling location, assemble necessary supplies, and chart a plan of action. Fortunately, nature and the mare do a pretty good job of handling the foaling process without any help from us. However, foaling complications do occur and so it's a good idea to be able to predict when foaling will occur and to take the steps to minimize problems. A mare's average gestation length is between 330 and 350 days. However, it is not uncommon for older mares (over 15 years) to go a little longer, even as long as a full year. Unlike cows, longer gestations do not produce larger foals and so there is no reason to worry that the foal is getting too big for a normal delivery. The season of the year also influences the length of gestation. Mares that foal late in the winter carry their foals about 10 days longer than mares foaling in late spring or early summer. In addition, mares that foal earlier in the year tend to have smaller foals than foals born in late spring or early summer. Fortunately, by three months of age the smaller foals have caught up in size.

Good nutrition is important for broodmares, especially during the last trimester of pregnancy when the foal grows rapidly. The mare's nutritional requirements begin to increase starting about three months prior to foaling and peaks when the foal is three months old. When considering the mare's caloric needs, the goal is for her to maintain a Henneke body condition score of between 5 and 6. It's not an issue if she is slightly heavier as we don't want her to lose weight as that could compromise her ability to rebreed. For more information on Henneke body scoring check out

https://en.wikipedia.org/wiki/Henneke_horse_body_condition_scoring_system.

The goal is to provide good quality hay and a concentrate that is designed for broodmares and contains an appropriate percentage of protein and minerals. Most pregnant mares should consume 2% of their body weight each day (for example, a 1,200-pound mare will require roughly 24 pounds of grain and hay/pasture) Roughage should be the basis of the diet with grain added as needed. After foaling, as the need to produce milk increases, the same mare will require approximately 30 to 35 pounds of total feed. If the mare is maintaining her body condition without grain supplementation, consider feeding a balancer pellet, which is a concentrated source of vitamins and minerals. If you have questions on feeding your mare talk to your veterinarian or extension equine nutritionists.

A second nutritional consideration during the last trimester of pregnancy is the type of hay or pasture the mare is being provided. Tall fescue is the most common grass pasture found in most parts of the eastern half of the United States, which includes Missouri. In the mid-1970s the U.S. Department of Agriculture discovered an endophytic fungus that infects most fescue grasses

and produces severe problems for pregnant broodmares. Unfortunately, the state of Missouri has roughly 17 million acres of infected fescue pastures and hay fields. It is believed the endophyte infected fescue grass suppresses prolactin production and other hormones required for a normal pregnancy. Mares on fescue pastures or feed fescue hay often carry their foals longer than normal, resulting in a difficult birth or foal death. Thickened placentas, premature separation of the placenta (red bag) during birth and/or retained placentas are also common and can result in foal death, excessive bleeding, uterine infections and a delay in rebreeding. If these are not problems enough, mares on fescue may have reduced milk/colostrum production or none at all. Horse owners who believe they have fescue grass should contact their local county Cooperative Extension office as they are the best source on plant identification and endophyte testing. If you have confirmed that you have fescue, there are several options to deal with the problem.

1. The most reliable solution is to remove the pregnant mare from the fescue pasture or hay 45 to 90 days prior to foaling and place her in a dry lot where she is fed brome, alfalfa or other types of hay.
2. If that's not possible, endophyte infected hay or grass can be diluted or replaced by adding other forages such as alfalfa hay to the horse's diet.
3. The greatest concentration of endophyte is in the mature seed head so clipping pastures can reduce the amount of endophyte available to the mare.
4. The drug domperidone stimulates normal prolactin production and can mediate the effects of fescue toxicosis and therefore, stimulate milk and colostrum production as well as normal foal growth and placental separation. It is administered prior to the expected foaling date. Your veterinarian can prescribe the specific product and provide you with advice on dose, length of treatment, etc. for your specific mare

Unlike human babies that can acquire immunity in their mother's uterus, a foal must ingest colostrum (the yellowy substance in a mare's first milk) within hours of birth in order to acquire protection against disease. In the last 4-6 weeks of gestation, a mare concentrates antibodies in her colostrum against viruses and bacteria to which she has been exposed, either through vaccination or environmental exposure. Therefore, it's beneficial 4 to 6 weeks before her due date to move the mare to the general location where she will foal. This allows her to encounter bacteria in the new environment that will be present when her foal is born. This is also a good time to deworm the mare to prevent her from infecting her foal with parasites and to vaccinate her against tetanus, sleeping sickness, strangles, West Nile Virus, rabies or any other diseases that may be present in the area. Vaccination at this time is important as it serves to booster the protective antibody level in the mare's colostrum. Following vaccination, the

mare should receive a final veterinary checkup and if vulvular sutures (Caslicks) are present, they should be removed.

A good clean grass pasture where the mare can be easily monitored is the ideal place to foal. The pasture must be clear of objects that could injure the mare or newborn foal such as barbed wire, creeks, or ponds. Remove other livestock from the pasture and ensure a shelter is available in case of rain or cold weather. Other horses usually won't bother a foaling mare, but there are exceptions to the rule. For some reason, mules have been known to attack newborn foals and should be removed as a precaution. If you prefer to foal the mare indoors, provide her with a large (at least 14 ft. X 14 ft.) recently cleaned, well-bedded, and ventilated stall. Before placing the mare in the stall, give it a thorough inspection and eliminate hazards such as raised nails, wood splinters, and water buckets. Good clean, dust-free straw is the preferred bedding as wood shavings may be aspirated into the mare's vagina during the foaling process and cause serious uterine infection.

During the last month of pregnancy, examine the mare at least once a day for physical changes that indicate foaling is near. As discussed earlier, the average mare's gestation length is roughly 341 days. However, there are several factors that can affect the precise day she will foal. Mares whose dam had longer gestation lengths may also do so. Old mares and maiden mares may also have longer gestations. Although all mares don't exhibit the same signs, most show consistent signs that signal foaling is near. Usually, the mare's udder and teats will start to gradually fill days or even weeks before they give birth. A "waxy" secretion that resembles dripping candle wax often accumulates on the teat end one to two days before foaling. This is called "waxing" and is the best indicator that foaling is very near, usually within 12-24 hours. However, a few never "wax up." Some mares, especially heavy milkers, will often drip milk from their teats for several days prior to foaling. This is a serious problem because they lose the valuable colostrum that the foal needs to protect it against infection for the first few months of its life. If this occurs, contact your veterinarian as they may want to harvest the colostrum and freeze it for use when the foal is born. About seven to ten days before foaling, the muscles and ligaments of the mare's croup (rump) around the tailhead will relax in preparation for the foaling process. Instead of being firm, the muscles become very loose and soft. The vulva will begin to relax and will appear swollen. Many mares, especially older mares, will also develop edema or swelling a few days before foaling that runs the length of their abdomen from just behind the elbow to their udder.

Finally, near the foaling date most pregnant mares will experience a change in disposition. This change is in response to hormonal changes that are taking place in preparation for foaling. Some mares become nervous or uneasy while others become quiet and standoffish. Some will seek out human companionship while others become cranky and difficult to handle. The mare may reduce her feed consumption and spend more time lying down than usual. If they are in a

herd, they may begin to isolate themselves. It is not uncommon for them to exhibit mild symptoms of colic such as rolling, stamping their feet, and repeatedly looking at their abdomen. These symptoms are part of the first stage of foaling and may continue for days or last only a few hours. A final sure sign that the foaling process is about to begin is when the mare begins to repeatedly lift her tail or hold it up for several minutes at a time while walking around anxiously.

If the owner is unsure of their ability to predict when foaling will occur, there are a number of foaling alarm devices that trigger an alarm or even dial a phone number when the foaling process begins. Some are sewn to the lips of the vulva, some are inserted in the vagina, while others are attached to a harness or halter. Although the devices may occasionally sound a false alarm, they are generally accurate and an aid in monitoring expectant mares. Alarms in conjunction with closed circuit cameras that send signals to a monitor in the owner's home provide an excellent option for monitoring a mare without disrupting the birth process. Most mares seem to have some control over their delivery and prefer to foal in privacy at night. Therefore, if you are monitoring the mare in person, try to be very quiet as most mares want to be alone during the foaling process and you can easily disrupt them. A dim light should be placed near the stall so that the mare can be observed without bothering her.

When foaling is imminent, consider wrapping the mare's tail so it stays out of the way, cleaning the vulva and teats. Have your veterinarian's contact information available if issues arise as well as the number of anyone else that may be needed in case of an emergency. For specific advice on your mare, your veterinarian is the best source of information. Next time we'll discuss the actual foaling process.