

Preparation for Foaling

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Now that spring is upon us, many horse owners are preparing for the arrival of a new foal crop. A healthy foal that will grow into a young horse to be marketed and sold or for future use of the breeder is the primary goal. Following good management practices will help ensure that the process goes smoothly. Most mares typically have little to no problems, but when problems arise they can be major. This is why some mare owners choose to use the service of professional foaling farms. For mare owners that choose to have their mares deliver at home this article provides some helpful recommendations for a successful foaling season.

The nutritional needs of the late gestating mare and those during early lactation are the most difficult to meet. Information on the nutritional management of broodmares can be found in the November 2007 issue of *Cattle Business in Mississippi* or through your county Extension office. During late gestation and lactation, mares will need to be fed a concentrate to meet their requirements. Most commercial feed companies offer a feed that is formulated for lactating mares. One common misconception in managing broodmares is a fear of excessive growth of the unborn foal during the last stages of gestation, resulting in foaling difficulties from a large foal. Research conducted at Texas A&M has shown that mares that are in a fleshy body condition do not have more difficulty foaling than mares of moderate body condition. Pregnant mares should be fed to maintain an ideal body condition and gain weight during the final months of gestation. An increase in body weight of an 1100 pound mare should be about one pound per day during the ninth and tenth months of gestation and about 1.4 pounds per day for the final month of gestation.

Pregnant mares grazing tall fescue grass or consuming fescue hay that is infected with the endophyte *Acremonium coenophialum* can cause prolonged gestation, thickened placentas, weak foals and the lack of milk production. Removing mares at least 30 days prior to foaling and preferably 60 days prior to foaling from fescue can prevent these problems. New varieties of fescue are available that contain a non-toxic endophyte that are safe for pregnant mares and should be considered for managing broodmares.

The gestation period in mares is variable and ranges from 322 to 345 days and most mares will deliver between the hours of 10:00 PM to 2:00 AM. This timing and variability requires broodmare owners to have many sleepless nights. Technology such as foal alert systems, video surveillance and milk tests have provided broodmare owners tools to more accurately determine the time of foaling. Foal alert systems include a device that is sutured to the mare and when labor commences a signal is sent to a cell phone or other device. This is an effective device and requires a veterinarian to suture the device to the mare. Milk tests are one of the most economical and accurate methods of determining when a mare is close to foaling. This is a simple test that requires a small amount of milk and uses test strips which change color. The test will indicate when a mare is within 24 hours of foaling if used properly. The use of video cameras allows broodmare owners to view mares from the comfort of their home, but still requires the person to be awake throughout the night.

Monitoring mares as they are approaching their foaling date is advised and the following signs should be noted. The mare's udder will begin to develop between three to six weeks before foaling and appear to become full as the expected date approaches. Around two to three days prior to foaling the udder will become distended with colostrum. The majority of mares will begin to have a small buildup of colostrum on the teat around 6 to 24 hours prior to foaling. This commonly called "waxing" and is one of the best indicators that the mare is about to foal. The process of foaling is relatively quick compared to other animals and occurs in three stages. The first stage of labor generally lasts for one hour and the mare is restless and show signs of abdominal pain. The end of the first stage is when the mare's water breaks. The second stage is rapid and generally takes about 12 minutes. The second stage is the delivery of the foal. The third stage is the delivery of the placental membranes and normally takes about an hour.

Newborn foals do not have an active immune system and it is critical that the foal receives colostrum, which is the first milk that the mare produces and contains high levels of antibodies. These antibodies are needed for the newborn foal to fight off disease and infection. The foal absorbs these antibodies through the stomach and 36 hours after birth the stomach is no longer able to transfer these antibodies into the blood stream. It is recommended that a new born foal receive colostrum within the first 24 hours of life and preferably within the first 12 hours. Colostrum can be "banked" for use later in the foaling season or during the following year for foals in which the mare dies during birthing or is not producing milk. Colostrum can be milked from gentle mares and frozen for use later. When thawing frozen colostrum do not heat it, as this will destroy the antibodies. A foal should be given one quart of colostrum the first day of life to ensure proper immunity. The foal will only be able to ingest one half to one cup of colostrum per feeding and should be repeated at least every two hours. Mares should be vaccinated against diseases that are endemic to the area 30 to 45 days prior to the foaling date so that the antibody levels will be at their peak in the colostrum. Consult your veterinarian for appropriate vaccinations for broodmares.

Mississippi State University Extension Service will be offering a horse reproduction short course on the campus of Mississippi State University on April 24, 2008. Contact Dr. Preston R. Buff for more details and registration information (662) 325-2852 or pbuff@ads.msstate.edu.