

Broodmare Management Tips

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Now that autumn is here we need to start preparing our broodmares for spring. There are many things we should do now to prepare for the spring foaling/breeding season. The first step is to identify which mares are pregnant and more importantly which ones are not and why. Your veterinarian can determine pregnancy by rectal palpation or you can buy do-it-yourself horse pregnancy kits that are effective between 40 and 100 days of pregnancy. Ideally mares should be checked for pregnancy two weeks after ovulation and again at 30 and 90 days of pregnancy. The sooner you know which mares are not pregnant the sooner you can address the situation.

There are a number of factors that may keep a mare from becoming and remaining pregnant. The easiest factors to address are management practices. Often mares that do not show strong signs of estrus (heat) will be overlooked as mares that have been settled. Another management practice that results in lower pregnancy rates is breeding only in the early part of estrus. All mares ovulate during the latter part of estrus and most stallions' semen is only viable for 72 hours in the uterus. Thus, timely insemination is critical for conception. Research has demonstrated that breeding a mare every other day from the day she will stand to be mounted until she refuses the stallion is the best protocol for natural service. Also, teasing mares for only one cycle after they have been bred can cause you to overlook open mares. The greatest percentage of mares not settling is due to early embryonic loss.

Another major cause of mares not becoming pregnant is uterine infection, which can be present before breeding or can be caused by breeding, making embryo survival impossible. Some mares are more prone to these types of infections due to poor reproductive conformation. These mares are often times referred to as wind suckers. Poor reproductive conformation is seen more often in aged mares and is worse if these mares are thin. This is easily determined by looking at the angle of mares' vulva. The more a mares' vulva slopes inward toward the anus the greater the chance fecal material will enter the vagina and lead to uterine infection. Your veterinarian can perform an inexpensive Caslick's procedure after the mare has been bred, which involves suturing the top portion of the vulva closed to prevent foreign material from entering the vagina. Before the mare foals the vulva must be reopened by the veterinarian to allow for passage of the foal. If the vulva is not reopened it can result in severe damage to the mare, or even death of the foal and/or mare.

Open mares, especially mares that have been barren for more than two years, should be examined by a veterinarian to determine if a problem exists. Uterine infections can be determined by an ultrasound examination and culturing the bacteria to determine the proper antibiotics for treatment. Often times, barren mares require a uterine biopsy to determine the reproductive quality of the uterus and likelihood of becoming pregnant. This is only a partial description of the major management problems and causes of

infertility in mares. You should consult your veterinarian about any mare that has been bred and has remained barren for two or more years.

The leading cause of late term abortion in mares is rhinopneumonitis (equine herpesvirus type 1; EHV-1). This virus is transferred from horse to horse via respiratory secretions or air containing viral particles. Good management practices will aid in preventing this disease in your broodmare band. Keep your horses that travel to shows, rodeos and other places where horses come in contact with each other away from your broodmares. The best defense against infection is vaccination using a killed virus EHV-1 vaccine. Use only products labeled for use in pregnant mares. These vaccines are labeled for vaccination at 5, 7 and 9 months of pregnancy. The reason for multiple vaccinations is due to the short period of protection from the vaccine, as it is a killed virus. If you wait to vaccinate until mares begin to abort, it is too late to start vaccinating the others. All of your mares will have been infected by the time the first one aborts. Mares should also be vaccinated against an array of diseases one month prior to foaling to build immunity, which is passed on to the foal via colostrum (first milk). Consult your veterinarian for information on diseases endemic to your area.

One of the greatest concerns for broodmare owners is fescue toxicity. This malady is caused when pregnant mares are grazing fescue grass or consuming fescue hay that is infected with an endophyte fungus during the later stages of pregnancy. This fungus produces toxins called ergot alkaloids which interfere with normal stages of late pregnancy. Typically, mares eating fescue will not begin to produce milk. The length of pregnancy will be abnormal and the foal will continue to grow to an enlarged size. Once the mare delivers there are often complications due to the enlarged foal and a thick placenta from the ergot alkaloids. Fortunately, fescue toxicity can be easily prevented by employing the following management techniques. Research has shown that the effects of the fungus occur when the mare is consuming fescue during the last 60 days of pregnancy and the most severe effects occur during the final 30 days. By removing mares from fescue pasture and not feeding fescue hay during the final 60 days of pregnancy will prevent these problems. If for some reason your mare was not taken off fescue you do have another option. A drug called domperidone is available from your veterinarian that will aid in initiating milk production in mares with fescue toxicity. This drug is most effective when treatment is initiated weeks before foaling. Domperidone is effective for bringing a mare with fescue toxicity to her milk, but foaling problems may still occur due to an enlarged foal and thick placenta. For long term management you may want to consider replacing endophyte infected fescue pastures with new endophyte free and non-toxic endophyte varieties of fescue. This requires eradicating the current stand of fescue from your pasture and replanting with one of the new safer varieties.

Knowing which mares are pregnant now will allow you to focus your management to prepare these mares for foaling. Also knowing which mares are not pregnant and determining why they are not will allow you to address these problems now and better prepare these mares for next year's breeding season. In the next issue we will discuss nutritional management of broodmares.