

Broodmare Management

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Many books have been written about broodmares. Nothing in this world is more breathtakingly beautiful than a mare and her foal frolicking in the green grass of spring. The question is how do we achieve this pretty picture outside of painting it on a canvas? From a management standpoint, I like to start setting the scene long before the frolicking takes place. The broodmare experiences three distinct stages that need to be examined and understood. First is the open stage, followed by the "in-foal" stage, and ending up in the lactating stage where mare and foal can kick up their heels in the sun. However, important issues should be addressed at each stage along the way.

There are several management functions that need to be executed correctly at specific stages of the mare's reproductive cycle. The following factors need to be examined in detail: selection, nutrition, water, deworming, vaccinations, housing, and teasing. Selection is a good place to start. Many undesirable traits are highly heritable, while desirable traits are often less heritable. If you like calm, easy-going animals for instance, then selecting pie-eyed horses that lack flexibility and show signs of stubbornness on simple commands would not be a good choice. Often people think they can breed a certain trait out of the animal by choosing a properly bred mate. However, in reality both the sire and the dam need to have "clean genes" for the chances to be high that a foal from their cross has the desired traits. World champion horses are usually the result of superior animals being crossed with other superior animals. Among many breeders it is thought that the mare may contribute 60 to 70% of what the foal turns out to be. The extra 10 to 20% may be because the foal learns so much from its mother while it runs at her side. Often it is wise to ask questions from veteran breeders before purchasing a mare to breed or breeding a mare you already own.

Nutrition plays a huge role in successful performance in an equine operation. During the first 7.5 months of gestation a mare's needs are similar to maintenance of a non-pregnant horse. The change comes during the last trimester as the foal grows dramatically. Protein needs shift to a level of 3% more on a total mixed ration basis. The mare's energy needs will jump by 20%. I routinely take calls from owners with foals or yearlings that have joint problems. When asked what to do, I usually ask the owner to roll the clock back to the time of conception. Did your mare receive proper amounts of trace minerals during pregnancy? Foals born from mares not receiving an equine mineral ad lib during gestation may look normal at birth. However, this situation can soon deteriorate as the foal starts to grow. If he did not receive proper levels of copper and other nutrients while in the womb, his joints may not have developed the strength and integrity they should for normal growth. Consistent proper mineral supplementation can make a lot of feet and leg problems disappear from a breeding operation. Gestation length, hormone levels, milking ability, and body condition can all be influenced by proper or improper nutrition.

Water is often an overlooked nutrient. A normal 1,200-pound mare may need ten gallons of water per day during gestation. That same mare may increase her water needs to twenty gallons per day while lactating. Any shortage of water will decrease her milking ability as well as increase her probability of colic or impaction. Special attention should be paid to the fact that water must be clear, clean, and free from odor for best consumption. Anything less is not acceptable and will cause damage.

Deworming is an integral part of maintaining a horse. Daily wormers are good, and purge wormers work as well, if administered regularly. I normally deworm broodmares four times a year. Rotation of deworming compounds is a good idea to help stop the development of resistance in the worms. It is a good idea to use a boticide at least once per year, preferably thirty days after the first hard freeze. I also like to rotate the form the

deworming compound comes in because some mares have problems using certain forms. For instance, I once owned a mare that always spit out paste dewormers. Even when I took great care to place the product on the very back of her tongue, she would hack it up! In general it is a good idea to deworm horses any time they show signs of carrying a worm load. That could be as often as every thirty days in some environments.

Vaccinations need to be reviewed with your veterinarian. However, there are some general vaccinations that should be administered no matter where you raise horses. One month prior to giving birth, each mare should receive a shot for Tetanus, E. W. Encephalitis, and Flu. In months 5, 7, and 9 of gestation she should receive a Rhinopneumonitis vaccination. West Nile shots should be given after consultation with your vet. I like to give them after foaling and before breeding to play it safe. Again, some problems are related to the region in which you live, so working closely with a veterinarian is wise.

Most mares with a body condition score of 5 or higher may only need a windbreak to survive even very cold temperatures. However, at foaling time the mare that foals when temperatures are below 32°F will have some special needs. I recently delivered a foal in 0° temperatures. I used a hair dryer and towels to dry the baby. We also had an electric heater that blew warm air into an insulated barn stall. This worked very well, but had the baby been born outside she probably would have lost her ears and maybe even died of exposure. When it's left up to them, most mares will foal outside on green grass and do so very efficiently. Once again the horse proves more intelligent than man, because when left to nature the mare breeds to foal when weather is much milder. Like Mother Nature, my wife also thought I was insane to foal a mare in January in Iowa!

Teasing a mare is the technique of exposing her to the stallion in a controlled situation. This is necessary to chart a mare's estrus cycle and will also help her to acclimate to the overly aggressive stallion. In addition, it is thought that exposing a mare to the stallion may help stimulate her hormone production. Heat cycles average 5 days, and the total cycle 21 days. Either live cover or A. I. techniques will accomplish breeding, but by charting estrus cycle lengths and follicle growth one can determine the most likely time for breeding success.

As you can see, a lot of attention needs to be focused on the broodmare beforehand in order for that pretty picture of frolicking foals to result.