



Feeding late gestation mares can be challenging because the foal takes up so much space.

Feeding Last Trimester Broodmares

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Spring brings the promise of a few things: longer days, more time in the saddle, show season kicking off, and for many, the arrival of foals. Mares entering the last trimester of their gestation, which usually begins at month eight, are undergoing rapid changes to prepare for the arrival of their foals. During this demanding time in her life, a proper diet is of utmost importance.

During the last trimester of gestation, mares are faced with many challenges. The fetus rapidly grows at a rate of approximately one pound per day. As this growth occurs, the mare’s digestive system has a reduced capacity. This can be problematic, as energy and protein are the largest concerns for the pregnant mare. Although forage should always be the foundation of every equine diet, forages by nature are fibrous and “bulkier” in the digestive tract. They are also lower in digestible energy than concentrates or grains, so it can be challenging providing a diet with enough energy density during a time where a mare’s total daily intake of feed may decrease. If a mare is not provided with enough nutrients during gestation to provide for fetal growth, her body will mobilize stores to support the fetus. This may come in the form of reduced body condition to provide energy or pulling calcium from bone. Additionally, lactation is hugely demanding on the body. The provided table shows the

Stage	Estimated Body Weight (pounds)	Digestible Energy Required Per Day Megacalories (calories)
Maintenance	1,100	16.7 (16,700)
5 Months Gestation	1,109	17.1 (17,100)
11 Months Gestation	1,245	21.4 (21,400)
1 Month Lactation	1,100	31.7 (31,700)

(Table derived from 2007 Equine NRC)

change in calorie requirements of a 1,100-pound mare during gestation and lactation. Notice how when the example mare foals, her energy requirements increase by 10.3 Megacalories, or 10,300 calories, overnight!

To give an example of how fetal growth impacts the mare's intake, an open mare left to her own devices may easily consume 2-2.5 % of her body weight per day on a dry matter basis (water removed). For a 1,100-pound horse, this may equate to approximately 30 pounds per day of 10% moisture hay or about 137 pounds of grass (assuming 80% pasture moisture). A broodmare with a 1,100-pound mature body weight may weigh approximately 1,245 pounds around 11 months of gestation. Due to fetal size, her daily dry matter intake may be reduced to 1-2 % of her body weight per day. If energy and protein are the largest concerns for a pregnant mare, how do we meet her requirements with reduced intake?

Ideally, mares will enter the breeding season at around 6-6.5 body condition score (BCS) on the Henneke Body Condition Scoring System's 1-9 scale. If you are unfamiliar with this system, visit the Alabama Cooperative Extension System's website at www.aces.edu and search for the article "Body Condition Scoring as an Equine Management Tool." Having your mare in this condition is more economically feasible than maintaining her at a greater BCS and will give a buffer in condition if she drops weight during lactation. This is especially important if you plan on rebreeding your mare, as outlined in the mentioned article.

Depending on the BCS of your mare, you have several options to meet her nutritional requirements. You should always provide free-choice access to fresh water and salt for

all classes of horses. Free-choice access to a good quality pasture or hay is ideal for most broodmares but may need to be restricted to 1.5% body weight in mares with a BCS >7. These mares should still be provided with a vitamin/mineral mix or ideally a forage or ration balancer if protein content is unknown. Mares in an ideal BCS of around a 6 may be offered free choice access to a good quality pasture or hay, a more nutrient-dense hay such as alfalfa or perennial peanut as needed, and the supplement described above. Mares below ideal may be offered larger portions of a more nutrient-dense hay and a grain formulated for mares. Most of these are marketed as "mare and foal" feeds, but looking at a company's website or feed tag can determine what feeds are appropriate for pregnant and lactating mares. Some people may choose to supplement with straight grains, such as oats, for extra energy, but vitamin and mineral needs should still be accounted for.

It is very difficult to increase the BCS on a lactating mare, so close attention should be paid to her BCS throughout gestation and certainly during the last trimester. Although a "forage first" approach is best for all horses, some mares may not physically be able to consume enough to meet the demands their foal places on their body. Although energy and protein are considered the biggest concerns for gestating mares, you should also make sure vitamin and mineral requirements are being met. Fortunately, there are numerous feeding strategies for mares during this sometimes challenging, but rewarding, time in their life.

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