

Ask the Nutritionist

ANNA C. PESTA, MS, PH.D. NUTRITIONIST, EQUINE TECHNICAL SOLUTIONS, PURINA ANIMAL NUTRITION

Ask the Nutritionist is a new monthly column featuring questions answered by PhD equine nutritionists and sponsored by Purina Animal Nutrition.

Have a nutrition question you want to see featured? Email the Editor. For clinics looking for specific nutritional advice, visit purinamills.com/ask-an-expert.

What's the ideal body condition for a mare preparing to be bred? Are there any specific nutrient requirements or suggestions to optimize fertility?

Body condition score (BCS) is the variable most likely to impact reproductive efficiency. Success depends on what shape mares enter the breeding season in. Evaluation of BCS should occur at least 90 days ahead of breeding to allow time to make progress, either in weight gain or loss, towards an ideal BCS of 5-7.

Mares bred at a BCS of 5-7 have an advantage in many aspects of reproductive efficiency when compared to those entering breeding season too thin (BCS < 4) or too fat (BCS > 7). Mares at BCS 5-7 will:

- Come into season earlier
- Have a decreased interovulatory interval
- Have decreased incidence of early embryonic loss, resulting in higher-pregnancy rates
- Have more optimal milk production
- Be less likely to have foals predisposed to certain health conditions

Open mares and mares in early- to mid-gestation have similar energy and nutrient requirements to a horse at maintenance. Good quality forage should meet daily calorie requirements and be paired with an appropriate concentrate or balanced vitamin and mineral supplement to supply nutrients not present in forages. If forages have low protein content, a ration balancer like Purina® Enrich Plus® is a good option to provide the correct quantity and balance of amino acids, along with essential vitamins and minerals.

For over-conditioned mares, restricting daily forage intake to 1.5-2% of body weight per day or utilizing slightly lower quality forages can lead to moderate weight loss.

Mares that need to gain weight will benefit from the addition of a high-calorie concentrate in addition to high-quality forage. The sooner the weight gain program starts before breeding, the better, since even an ambitious

Benefits of starting breeding season at BCS 5-7

Mare comes into season earlier

Decreased ovulatory interval

Decreased early embryonic loss

Lower risk for predisposed health conditions in foals

More optimal milk production



weight gain program might result in just 1 – 2 pounds of gain per day, depending on the size of the horse. A weight gain of approximately 50 pounds is needed to cause a one-point increase in BCS. Therefore, it may take up to 50 days to see a one-point increase in BCS.

The best approach is to provide a quality, balanced ration at a rate that meets the required daily calorie level to ensure the mare is at the ideal 5-7 BCS coming into the breeding season.



ABOUT THE AUTHOR

Dr. Anna Pesta is a Nutritionist, Equine Technical Solutions, with Purina Animal Nutrition. She helps bring innovative solutions from the research team to horse owners. Most of her time is spent providing technical consultations and support to the sales team on the East Coast. She also speaks at veterinary and horse owner meetings and professional conferences.

SPONSORED BY PURINA ANIMAL NUTRITION