Equine Nutrition

Feeding the Broodmare

Dr D. G. Pugh from Auburn University provided much helpful information on the feeding and care of the pregnant broodmare at the 2003 North American Veterinary Conference. He emphasized that the diet should be different for each of the 3 stages of pregnancy: open and first 2 trimesters of gestation, final trimester of gestation, and lactation.

The normal maintenance diet is adequate for pregnant mares during the first 2 trimesters, according to Dr Pugh. This is 1 to 1.5 pounds of legume hay per 100 pounds of body weight, or 1.5 to 1.75 pounds of grass hay. Grain is not necessary if the mare is already in good condition, with adequate body fat.

The body condition of the mare should be the guideline in determining if the diet is adequate. A body scoring system helps to determine the needs of the mare. One study quoted by Dr Pugh reported that thin mares gaining weight were about twice as likely to become pregnant as mares of the same body condition who were not gaining weight. Another point made was that mares with good to fat condition scores achieved high conception rates, suggesting that minimal body fat is important for adequate reproductive performance.

Daily exercise is important to the health and well-being of the mare and the fetus. The availability of fresh, clean water at all times is essential. The 1100 pound mare will consume about 12 gallons of water daily.

During the last trimester the feed intake should be increased to 1.5 to 2 pounds of legume hay or 2 to 2.5 pounds of grass hay per 100 pounds of body weight daily. In addition, Dr. Pugh recommended 0.5 to 0.75 pounds of grain per 100 pounds of body weight daily. The mare's diet at this time should contain 12% protein. During the last trimester, the calcium and phosphorus requirement increase over what can be supplied by the mare simply eating a larger quantity of feed. The diet at this time should contain at least 0.45% calcium and 0.3% phosphorus. Mares being fed grass hay may be offered ad libitum a 50:50 mixture of trace mineral salt and dicalcium phosphate, according to Dr Pugh. When properly fed, Thoroughbred and Quarter Horse mares should gain 150 to 200 pounds during pregnancy. This means that the mare should not be overly fat at the beginning of pregnancy.

A good parasite control program should be in effect throughout the year. The label on the anthelmintic should be a guide as to whether to use it during pregnancy. Dr. Pugh said that many antiparasitic drugs that are considered safe for use in pregnant mares have been used at 2 to 3 month intervals throughout gestation without the appearance of ill effects.

Observation of body condition is especially important during lactation. The grain in the diet should be increased as needed to keep the mare from losing too much weight. Some weight should be shed for the mare to become thin enough for best breeding efficiency. A complete description of the technique of body weight scoring can be found in: Henneke, et al. Relationship between condition score, physical measurements, and body fat percentages in mares.

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Equine Vet J 15:371-372, 1983.
doi: 1053/jevs.2003.61