## Ask the Nutritionist BY KELLY VINEYARD, MS, PhD



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

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## Most of my insulin-resistant patients are overweight, but occasionally I see an underweight insulin-resistant horse. What feeding recommendations can I make to help support weight gain in these horses?

When feeding the non-obese, insulin-resistant horse, the foundation of the diet should be free-choice, good quality forage that is low in soluble carbohydrates ( $\leq$ 10-12% starch + water soluble carbohydrates or WSC).

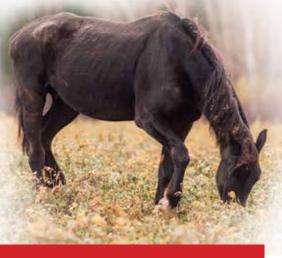
The best way to confirm carbohydrate content is to send a sample to a forage testing lab, however, if that's not possible, simply soak hay for 30 minutes in warm water or 60 minutes in cool water and drain immediately prior to feeding. Soaking hay reduces the soluble carbohydrate content by approximately 30 to 40%.

Contrary to common belief, alfalfa hay is lower in soluble carbohydrates than most cool season grass hays (i.e. orchardgrass, timothy), averaging 10.6% starch + WSC. Incorporating some straight alfalfa hay or alfalfa cubes into these horses' diets works well for weight gain. Additionally, providing free-choice access to hay can help maintain good body condition, especially if the horse is restricted from grazing.

Other ways to support weight gain include:

Supplement with ½ - 2 cups/day of vegetable oil.
Add non-molassed beet pulp – up to approximately 3 lbs. per day so as not to unbalance the ration.

- Feed a lower NSC commercial concentrate (i.e. Purina<sup>®</sup> WellSolve L/S<sup>®</sup>). Look for sugar and starch to be guaranteed on the tag at 10 to 20% starch+sugar and feed at appropriate amounts for weight gain.
- Feeding small, frequent meals will help to further limit glycemic/insulinemic response; feeding at least 3 meals per day, if not more, is preferred for IR horses on a weight gain ration.



## **ABOUT THE AUTHOR**

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**Dr. Kelly Vineyard** is a Senior Nutritionist, Equine Technical Solutions, with Purina Animal Nutrition. She is responsible for providing expert technical nutrition advice and insights in a variety of areas, including new product innovation and research and veterinarian and customer technical support.

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