

## **APPLICATION OF NON-RUMINANT HERBIVORE NUTRITION**

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### Abstract

The nutrition of the horse has perhaps been studied more than the nutrition of any other non-ruminant herbivore. Information about the nutrition of the horse may be of value when formulating diets of some wild non-ruminant herbivores. Of course, quantitative nutrient requirements developed for the horse must be used with caution for other animals, if at all. Knowledge of energy, protein, mineral and vitamin metabolism, however, might have value and be useful for other species. Information about hindgut activity could be useful. High starch, low fiber diets are associated with colic and founder in the horse because of excessive fermentation in the hindgut causing disruption of the bacterial activity. High starch intakes have been associated with insulin sensitivity and developmental orthopedic disease in foals and equine metabolic disease in overweight middle-aged horses and ponies. In those animals that require an energy source in addition to forage in order to meet requirements, feeding of frequent small meals, processing of grain to increase efficiency of starch digestion in the small intestine or replacing some of the grain with fat have been recommended. Prolonged feeding of roughage that contains an excessive concentration of non-digestible fiber such as straw may result in impaction of the intestine.