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## Strategies for Feeding the "Easy Keeper"

Horses that gain and maintain their weight easily despite being fed less forage and feed than their stable mates are considered "easy keepers." The goal in feeding easy keepers is to meet their energy and nutrient requirements, while preventing them from becoming overweight or obese. Similar as it is in humans, obesity is a serious health concern for horses and can lead to a number of diseases including insulin resistance and laminitis (or equine metabolic syndrome).

## The science behind weight loss

Weight loss occurs when a horse's energy expenditure exceeds its energy intake. Calories are a measure of the energy provided by food. Since horses are large animals, their energy requirements are measured in terms of Megacalories (Mcal). One Mcal is equal to 1,000,000 calories. Digestible energy is measured as Mcal per kilogram of feed (Mcal/kg). A 1,100 lb horse at maintenance level needs a minimum of 15.2 Mcals/day whereas a horse in very heavy exercise needs 34.5 Mcals/day. Gradually increasing exercise (energy expenditure) and decreasing the DE in the diet will result in weight loss for the easy keeper.

## Energy sources in the equine diet

Carbohydrates and fats provide the primary source of energy in the equine diet. Therefore, diets for easy keepers should aim to be low in starch and fat. Protein is not a source of energy unless it's fed in excess, or if the horse is in a state of starvation where muscle tissue is broken down and used for energy.

## Feeding the easy keeper

Forage should provide the basis of the diet for all classes of horses. The average horse needs 2% of its bodyweight in forage per day (20 lb hay/day for a 1,000 lb horse), but an easy keeper may need to be fed 1 to 1.5 % of its ideal (not current) bodyweight for weight loss (10 to 15 lb hay/day for a 1,000 lb horse). Hay should be fed in multiple small meals throughout the day to mimic the horses natural grazing behavior and avoid digestive disorders. Since feeding hay alone, especially at a reduced rate, may not provide adequate amino acids, minerals, and vitamins, a ration balancer supplement should be fed that is low in DE. These feeds are typically formulated to be nutrient dense and fed in small amounts (1 lb/day or less). Horses should also receive free choice white salt and water. If housed on pasture, a

grazing muzzle or dry-lot may be necessary to reduce forage intake while encouraging exercise. Pastures can accumulate high levels of sugar during periods of rapid plant growth, and sugars increase throughout the day under sunny conditions. Sugars are lowest in pastures during the late night and early morning hours. Easy keepers that are at risk for laminitis should not graze pastures when conditions favor high levels of sugar.