



NUTRITION NOTES

Innovation + Research from Kent Nutrition Group

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BENEFITS OF BEET PULP FOR HORSES

It can sometimes be a challenge to ensure a horse consumes adequate water and quality fiber, especially in the depths of winter. If hay quality is poor or if horse owners are looking to stretch their hay supply, beet pulp provides a number of benefits to the horse. Beet pulp is available in several forms, including shreds (with or without molasses), large pellets or incorporated into grain concentrates. KNG's Dynasty XT feeds contain shredded beet pulp and provide excellent sources of fiber, energy and nutrients. The focus here will be on beet pulp and how and why it is fed to horses.

Beet pulp is a byproduct of the sugar manufacturing industry, specifically from sugar beets. Because of the origin of beet pulp, some consumers mistakenly think that beet pulp is high in sugar itself. To the contrary, beet pulp is very low in starch and sugar, usually containing only 2-10% total carbohydrates. Thus, it is a safe feedstuff for horses with metabolic concerns such as equine Cushing's syndrome, insulin resistance and polysaccharide storage myopathy (PSSM/EPSSM).

Beet pulp is a highly digestible fiber and provides a considerable amount of digestible energy for the horse. Fermentation of fiber in the horse occurs in the cecum and colon where microorganisms convert the fiber into volatile fatty acids (VFAs, or short chain fatty acids) that are readily absorbed from the large intestine and can provide up to 70% of the horse's energy needs. Energy produced in this manner is slowly released and does not contribute to excitable behavior.

Sugar beet pulp without molasses contains approximately 1100 kcal/lb (Table 1), comparable to alfalfa meal (995 kcal/lb) and just slightly lower than rolled oats (1340 kcal/lb). However, beet pulp does not contain much in the way of vitamins and minerals, so a diet of beet pulp alone will not be sufficient for the horse's needs and should not be a total replacement for hay or pasture. In addition, beet pulp is high in calcium so animals susceptible to kidney stones should not consume large amounts. Beet pulp is better suited as a supplement or addition to the forage or grain portion of the horse's diet, as well as a source of additional energy for horses in moderate to heavy exercise and hard keepers.

Table 1: Quick Nutritional Profile of Beet Pulp (No Molasses)

DE (kcal/lb)	% CP	% Crude Fat	% Crude Fiber	% Ca	% P
1100	8.2	0.3	18	0.6	0.1

Beet pulp is very dry and has a high water-holding capacity. When fed alone as a single feed ingredient, beet pulp will expand when wet. Thus, it is recommended to soak beet pulp shreds and pellets in water prior to feeding. (Note that beet pulp in the large pellet form must be soaked before being offered to a horse). Soaking beet pulp is a very useful tool to help get additional water into the horse's digestive tract, especially in the summer and winter when water intake is of particular concern. Soaking not only increases water content, but helps to reduce the risk of choke in horses that bolt feed or have poor dentition. Soaked beet pulp is easier to chew and moistened particles are less likely to irritate the throat. Beet pulp shreds also provide acceptable fiber length to help keep the digestive tract moving appropriately. Beet pulp-based feeds, such as Dynasty XT, do not have to be soaked unless desired. Dynasty XT offers premium beet pulp-based concentrate feeds. The high fiber and moisture content provide the horse with a steady, low carbohydrate, nutritionally balanced feed source. In addition to the benefits of beet pulp, Dynasty XT offers guaranteed essential Omega-3 and Omega-6 fatty acids, essential amino acids and an advanced antioxidant package, all important for growth and tissue repair. A combination of controlled carbohydrates, dietary fat and highly fermentable fiber provide a steady energy release for sustained performance and focus.

Overall, beet pulp is an excellent choice for adding or supplementing fiber to a horse's diet. Added energy helps hard keepers maintain weight and the highly digestible fiber promotes a healthy digestive tract.

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