

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

SOYBEAN HULLS IN CONCENTRATES FOR HORSE – GLICEMIC RESPONSE

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Horse feeding today is based on the use of starchy foods, differing from that in its natural state. Currently, much effort has been directed at the search for alternative starch-free foods, but that meet the energy requirements of horses undergoing physical activity. The objective of this work was to evaluate the glycemic response in horse feed concentrate with three different levels of soybean hulls (SH) inclusion. Six adult male horses with average weight 393 ± 24.8 kg were fed one of three diets in replicated 3 x 3 Latin square. The experimental concentrates were: commercial concentrate (0% SH) (CP = $141.5 \text{ g kg DM}^{-1}$; starch = $413.9 \text{ g kg DM}^{-1}$); 25% SH on the concentrate (25% SH) (CP = $142.8 \text{ g kg DM}^{-1}$; starch = $322.3 \text{ g kg DM}^{-1}$) and; 50% SH on the concentrate (50% SH) (CP = $129.0 \text{ g kg DM}^{-1}$; starch = $303.2 \text{ g kg DM}^{-1}$). Horses were fed a *Brachiaria humidicola* cv. Llanero hay (CP = $29.2 \text{ g kg DM}^{-1}$; NDF = $864.4 \text{ g kg DM}^{-1}$) at a dosage of $12.5 \text{ g kg BW}^{-1}$ and, one of the three experimental concentrates at a dosage of 10 g kg BW^{-1} divided in two equal portions at 07:00 am and 5:00 pm. Horses were exercised every other day during the adaptation period. During the first day of each collection period a series of blood samples was drawn immediately before feeding and 30, 60, 120, 180 and 240 minutes after the morning meal. The experimental treatments did not affect the blood glucose level at the first three times of collection ($P > 0.05$). The blood glucose level at the last three sample times were affected by the experimental treatments ($P < 0.05$). At 120 minutes the highest value was observed for treatment 0% SH ($113.05 \text{ mg dL}^{-1}$), being equal to treatment 25% SH ($101.29 \text{ mg dL}^{-1}$) and higher than treatment 50% SH (89.55 mg dL^{-1}). The same was observed at 180 minutes for the three treatments 0% SH, 25% SH and 50% SH ($113.49 \text{ mg dL}^{-1}$, 95.32 mg dL^{-1} and 85.29 mg dL^{-1} , respectively). At 240 minutes, the treatment 0% SH ($112.86 \text{ mg dL}^{-1}$) had a blood glucose level higher than 25% SH (98.30 mg dL^{-1}) and 50% SH (87.45 mg dL^{-1}). The changes on blood glucose site observed may be consequence of the change on the digestion site promoted by de increasing levels of soybean hulls inclusion in the concentrate.

Keywords: equine, fiber, glucose, pectin, starch

Promoção e Realização:



Apoio Institucional:



Organização:

