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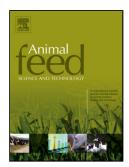
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1 The post feeding glycaemic and insulin response to copra

meal in horses

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Abstract

- 9 Knowing the effect a feed ingredient has on post-feeding glycaemic and insulin responses is
- 10 important when managing conditions like equine metabolic syndrome, laminitis and the
- 11 polysaccharide storage myopathy form of tying up in horses. Feeds that cause minimal post-feeding
- 12 disturbances to plasma glucose and insulin are desirable. This study was conducted to determine the
- post feeding glycaemic and insulin response in horses to copra meal (Copra Meal; 11% non-
- structural carbohydrate; NSC) and to compare this to the responses observed to low NSC pasture
- 15 (Pasture; 7 % NSC) and higher NSC extruded pellet (Pellet; 25.3 % NSC) and sweetfeed (Sweetfeed;
- 16 33.7 % NSC) rations.
- 17 Copra Meal did not increase plasma glucose levels above those observed in horses grazing the low
- 18 NSC Pasture while the Pellet and Sweetfeed rations caused significant post-feeding rises in plasma
- 19 glucose. The Pellet and Sweetfeed rations also raised post feeding plasma insulin levels significantly
- 20 compared to Pasture and Copra Meal. Copra Meal raised plasma insulin levels significantly higher
- 21 than that observed in horses grazing Pasture from 15 to 60 minutes post feeding, after which time
- there was no significant difference. The results of this study demonstrated that the NSC content of a

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