

NUTRITIONAL EVALUATION OF THE SUITABILITY OF PROSOPIS PODS FOR LIVESTOCK FEED IN KENYA

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Abstract

To study the suitability of prosopis pods flour as a feed ingredient in manufacture of animal feeds, prosopis were collected from four districts heavily affected by the invasive species. Pods were collected from trees at three levels; green but mature pods still attached to the twigs, yellow (dry) pods still attached to the tree and yellow (dry) pods that have dropped onto the ground from the tree. Pods picked from the ground were inspected against decay or insect damage. These samples were analyzed at the department of animal production laboratory University of Nairobi for proximate chemical composition, fibre composition, and calcium and phosphorus profiles. In addition cost comparisons between prosopis pod flour and animal feedstuffs with approximate chemical composition were done. Pods collected in Tana River and Garissa districts were drier than those collected in Baringo indicating potentially better keeping quality. The pods protein content averaged 11.7% but the fibre content was on the higher side at 29.8%. The calcium and phosphorus level, at 0.3% and 0.36% respectively, were considerably higher than those found in cereals although its availability on digestion was likely to be affected by the high fibre level. From the preliminary analysis, it was concluded that the flour will form a valuable addition to the feed ingredient base in Kenya.

Key Words: Prosopis pods, feed quality, nutrient composition