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Growth Stimulating Effects of Aspilia africana Fed to Female Pseudo-Ruminant Herbivores (Rabbits) at Different Physiological States

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Abstract: In recent times, there has been a significant shortfall in between the production and supply of animal protein to meet the ever increasing population. To meet the increasing demand for animal protein, there is a need to focus attention on the production of livestock whose nutritional requirement does not put much strain on the limited sources of feed ingredients to which men subscribe. An example of such livestock is the rabbit. Rabbit is a pseudo-ruminant herbivore which utilizes much undigested and unabsorbed feed materials as sources of nutrient for maintenance and production. Thus, this study was conducted to investigate the effects of feeding Aspilia africana as forage on the growth rates of female pseudo-ruminant herbivores (rabbits) at different physiological states. Thirty (30) Dutch breed rabbit does of 5-6 months of age were used for the experiment which was conducted in a completely randomized design for four months. The rabbits were divided into three treatment groups, ten does per treatment group; which consisted of mixed forages (Centrosema pubescent (200g), Panicum maximum (200g) and Ipomea batatas leaves (100g) without Aspilia africana (T1; control), fresh Aspilia africana (500g/dose/day) (T2) and wilted Aspilia africana (500g/dose/day) (T3). Rabbits in all treatment groups received the same concentrate (300g/animal/day) throughout the period of the study and mixed forages from the commencement of the experiment till the does kindled. After parturition, fresh and wilted Aspilia africana were introduced in treatments 2 and three respectively, whereas the control group continued on mixed forages throughout the study. The result of the study revealed that the initial average body weight of the rabbit does was 1.74kg. At mating and gestation periods, the body weights of the does in T2 was significantly higher (P<0.05) than the rest. There were no significant differences (P<0.05) in the body weights of does at kindling between the various treatment groups. During the physiological states of lactation, weaning and re-mating, the control group (T1) had significantly lower body weight than those of the treated groups (T2 and T3). Furthermore, T2 had significantly higher body weight than T3. The study revealed that Aspilia africana; mainly the fresh leaves have greater growth stimulating effects when fed to pseudo-ruminants (rabbits), thereby enhancing body weights of does during lactation and weaning.

Keywords: Aspilia africana, herbivores, pseudo-ruminants, physiological states

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