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Abstract Title: Second Kiko Buck Performance Test in Mississippi

ABSTRACT PREVIEW: SECOND KIKO BUCK PERFORMANCE TEST IN MISSISSIPPI

Second Kiko Buck Performance Test in Mississippi

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Abstract Submission

Would you like this submission to be considered for the WESTERN SECTION Applied Animal Science Research Award?

- Yes

Abstracts

Kikos are a meat goat breed that is growing in popularity in the Southeast, because of their hardiness and resistance to parasites. The objective of this test was to collect data on weaned Kiko bucks grazing a mixture of warm season forages (Crabgrass (*Digitaria sanguinalis*), Switchgrass (*Panicum virgatum*), Bahia grass (*Paspalum notatum*), Carpet grass (*Axonopus affinis*), Dallisgrass (*Paspalum dilatatum*), under commercial farm conditions in Mississippi (MS), from June 2024 to August 2024 (IACUC-24-232). Thirty-five (35) farmers consigned 66 bucks from 13 different states (TX, OK, AR, MO, IL, IN, KY, TN, MS, AL, GA, NC, and WV). Measurements including body weight for calculating the average daily gain (ADG), body condition scoring (BCS), FAMACHA©, and fecal egg count of nematodes (FEC expressed in eggs per gram of feces-EPG), and coccidias (OPG, oocysts per gram of feces), were taken every two weeks. Loin eye area (LA), and loin depth were measured via ultrasound at the beginning and end of the grazing period. USDA grading was also performed by observation of the animals at the same time points. The LA was used to calculate the ratio of LA/BW (REA). The herd was rotated between three paddocks every two weeks, and forage samples were obtained from each paddock for analysis prior to the test. The average crude protein and fiber (acid detergent fiber) of the grasses were 10.55% and 41.23%, respectively. The bucks were dewormed with three classes of anthelmintics upon arrival at the testing site. The 10-week grazing period started after a two-week quarantine period was completed after deworming. The data was analyzed using a Proc Mixed Analysis (SAS, 9.4) to check the effect of the variable (FAMACHA©, BCS, FEC) on BW for a total of 183 observations. The overall averages for the variables resulted: BW 24.7± 4.6 kg; ADG 19.4 g/d; FAMACHA© 2.5; BCS 2.4; and

nematodes 1291.2 EPG. FAMACHA© did not affect BW (P=0.5651); BCS affected BW (P< 0.0001), and higher BCS values were associated with higher BW of the bucks. FEC did not affect BW, (P=0.8974). Winning bucks had ADG (g/day) of 58.3 (KY), 51.8 (MS), and 51.8 (GA). Winners for FEC (EPG) had 233.3 (KY), 250 (TN), and 283.3 (KY). The average REA/BW ratio was 1.542 (KY), 1.539 (MS), and 1.506 (IN) for the winning bucks. The overall winning buck was from MS. In 2024, MS experienced a very harsh summer with little rain and low grass availability, restricting the animals' normal growth. In the future, a small commercial concentrate supplementation (approx. 250g/animal/day) will be used, for the animal to express their growth potential.

Keywords

goats, meat, southeast, grazing, parasites