

## **Corporal weight variation and reproductive parameters of goats raised under different alimentary regimes in the Northeast of Brazil.**

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### **Abstract**

### **Resumo:**

The Brazilian goat herd is estimated in 11.2 million animals, where approximately 92.2% are raised in the Northeastern region. However, the productive performance of animals raised here is low due mainly to poor feeding management. This work aimed to evaluate the effect of different alimentary regimes over the dry matter intake, corporal weight variation and reproductive parameters of goats raised in the semi-arid region of Northeastern Brazil. Fifty-six goats were distributed into four treatments: Diet 1 (n = 14), Caatinga vegetation and palm forage; Diet 2 (n = 14), Caatinga, palm forage and concentrate supplementation; Diet 3 (n = 14), Buffel grass and palm forage; Diet 4 (n = 14), Buffel grass, palm forage and concentrate supplementation. For the concentrate supplementation there was soybean, bran and corn, all together with, 73% of total digestive nutrients and 18% of crude protein. It was measured the corporal weight and the percentage of females in estrus, the last was done with the aid of vasectomized bucks. It was observed a greater ( $p < 0.05$ ) daily weight gain and total weight gain in the goats kept under pasture of Buffel grass or Caatinga receiving concentrate supplementation (Diets 2 and 4). The alimentary regimes could reduce the loose of weight or promoted the weight gain of 16 g/animal/day during the dry period. During the experimental period, the goats showed a total number of estrus of 33, 33, 48 and 40 for Diets 1, 2, 3 and 4, respectively. The highest percentage of estrus was observed at the beginning of the experimental period and in the beginning of the rainy season. The reproductive performance was not influenced ( $p > 0.05$ ) by the alimentary regimes. In conclusion, the supplementation with palm forage and concentrate increased the goat's weight gain. The concentrate supplementation might be necessary to increase the weight of goats during the dry period.