

STRATEGIC SUPPLEMENTATION OF CATTLE UNDER NATIVE FIELD DURING DRY SEASON¹

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Abstract- The objective of this study was to monitor the performance of cattle raised on native field and supplemented with corn disintegrated with straw and cob during the dry season. Data were collected in a private property in the municipality of Canguçu, Southeastern region of the state of Rio Grande do Sul, Brazil. Non-castrated Braford males with ten months of age and initial weight of 225 kg were observed, kept exclusively in the native field. The supplement was provided daily, in the amount of 0.5% of live weight based on dry matter. The use of corn disintegrated with straw and cob as supplement during the dry season, besides attending the maintenance of the animals, generated additional weight gain, and can be considered an interesting option of supplementation.

Keywords: corn. Serra do Sudeste. southern fields

SUPLEMENTAÇÃO ESTRATÉGICA DE BOVINOS SOBRE CAMPO NATIVO DURANTE A ESTAÇÃO SECA

Resumo- O objetivo deste estudo foi monitorar o desempenho de bovinos criados em campo nativo e suplementados com milho desintegrado com palha e sabugo (MDPS) durante a estação seca. Os dados foram coletados em uma propriedade particular do município de Canguçu, região sudeste do Estado do Rio Grande do Sul, Brasil. Foram observados machos Braford não castrados, com dez meses de idade e peso inicial de 225 kg, mantidos exclusivamente no campo nativo. O suplemento foi fornecido diariamente na quantidade de 0,5% do peso vivo, com base na matéria seca. O uso de milho desintegrado com palha e sabugo (MDPS) como suplemento durante a estação seca, além de atender à manutenção dos animais, gerou ganho de peso adicional e pode ser considerado uma opção interessante de suplementação.

Palavras-chave: MDPS. Serra do Sudeste. Campos Sulinos

INTRODUCTION

Beef production develops in a wide variety of environmental conditions (PAULINO et al., 2014). Despite the favorable edaphoclimatic characteristics, in the production systems of cattle to pasture, the qualitative and quantitative seasonality that pastures present throughout the year is notably one of the largest bottlenecks.

Drought periods are one of the critical phases of cattle-to-pasture production systems. In response to water deficit, plants reduce leaf area, restricting the emergence of new leaves, stems and tillers, increasing leaf death and promoting alterations in the metabolism of proteins, carbohydrates and growth regulators (CARÁMBULA & TERRA, 2000). There is also a delay in the development of the stem and in the maturity of the plant, often providing greater leaf:stem ratio and, consequently, higher percentages of protein and digestibility (NELSON & MOSER, 1994), despite the low mass.

In these conditions, if there is no supplementation of the diet of the animals, in order to supply in sufficient quantity the nutrients deficient in the forage, may occur reduction of weight gain or even negative performance. In this case, body nutrients are mobilized for maintenance, resulting in increased age of slaughter, reduced outcome rate of the farm and increased costs of the activity (EUCLIDES et al., 1998).

Among the options of supplements, corn disintegrated with straw and cob can be very useful, if evaluated its form of use (PAZIANI et al., 2001). Thus, this study aimed to monitor the performance of cattle bred on natural grassland and supplemented with corn disintegrated with straw and cob during the dry season.

MATERIALS AND METHODS

Data were collected in a private property in the municipality of Canguçu, Southeastern region of the state of Rio Grande do Sul, Brazil. The climate of the region is of the CFA type, according to Köppen. The climatic record of the work period is found in table 1. The evaluations were carried out in December and January, totaling 45 days. The area in which the animals were kept was formed from a native field, managed in continuous grazing with fixed stocking.

Table 1 – Climatic records during the evaluation period. Canguçu – RS.

	Temperature °C			Pluviometric precipitation (mm)	Number of days with rain
	Maximum	Media	Minimum		
*Occurred	33,7	21,5	11,4	82,6	4
Normal	26,8	22,3	15,8	150	-

*Fonte: Instituto Nacional de Meteorologia (INMET).

Uncastrated male Braford cattle were observed, duly identified, with ten months of age and initial weight of 225 kg. The supplement, corn disintegrated with straw and cob (Table 2) was provided daily in the afternoon, in a set feeder of approximately 0.5 meters/animal, in the amount of 0.5% of the live weight, based on the dry matter, based on the individual body

weight. The animals were weighed without fasting at the beginning of each evaluation period and the results were submitted to descriptive statistics.

Table 2 – Percentage bromatological analysis of the supplement (MDPS).

Dry Matter	Crude Protein	Neutral Detergent Fiber	Acid Detergent Fiber	Ashes
47,7	7,13	45,3	18,1	8,23

RESULTS AND DISCUSSION

Due to climatic circumstances (Table 1), the availability of forage in the native field limited the performance of the animals. However, the food management adopted allowed a load of up to 210.5 kg/ha (Table 3).

The average daily gain (ADG) was 0.380 kg/animal/day, assuring satisfactory performance considering the limitation of forage intake. This result is confirmed (MOORE et al., 1999), who, when reviewing supplementation studies associated with natural and cultivated pastures, concluded that the natural pastures are those that have the best response to supplementation. In unfavorable climatic conditions the ADG of Braford steers on native field similar to that of the present study is 0.172 kg/animal/day, and 0.310 kg under favorable conditions (TREVISAN et al., 2009).

Because of the nutritional contribution made available to the animals by supplementation, and selective grazing, at the end of the period, an increment of 7.6% in the body weight of steers was observed. It is known that when grazing, the animals can select diets of higher quality than the average forage that is offered to them (MOTTA et al., 2016), so during grazing, the material consumed by the animal is more digestible (PILAU & LOBATO, 2006), determining greater efficiency and weight gain due to higher metabolizable energy consumption (POPPI & McLENANN, 1995). However, better animal performances are observed with the use of supplementation as fodder is limited from a nutritional point of view both quantitatively and qualitatively (PILAU & LOBATO, 2006; PÖTTER et al., 2010). Nutritional alterations through dietary supplementation represent a way to potentiate the performance of grazing animals (CARVALHO et al., 2010). In this sense, the corn disintegrated with straw and cob is a source of high energy and rich in fiber, which reduces the negative effects of readily fermentable carbohydrates on the degradation of the fiber (GARCIA et al., 2004).

Table 3 – Performance of cattle receiving supplementation with MDPS.

Stocking (cab/ha)	0,87
Initial average weight (kg)	224,9
Initial load (kg/ha)	195,6
Average final weight (kg)	242,1
Final load (kg/ha)	210,5
Total weight gain of the period (kg)	171
Average daily gain (kg)	0,380
Average gain per area (kg/ha)	14,87

CONCLUSION

The use of corn disintegrated with straw and cob as a source of supplementation during the dry season, besides attending the maintenance of the animals was able to generate additional weight gain, and can be considered an interesting option of supplementation.

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