

PSXII-15 The organic additives in tropical pasture: effects in vitro

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Abstract

Currently the inclusion of organic additives in the diet of cattle on pasture is being considered as an advantageous option for livestock, increasing the productivity of the animals, being more profitable for the breeder, and making management practices safer and more sustainable for the environment. The present work was to evaluate in vitro metabolic effects of Fator P[®] in potential and degradability rate of dry matter (DM) of forage of the *Urochloa brizantha* (syn. *Brachiaria brizantha*). The Fator P[®] is the organic additive elaborate by a blend of the compounds like aminoacids (lysine, methionine, and tyrosine), the choline, minerals, probiotics and essential fatty acids (omega 3 and omega 6). The additive was evaluated in dosage of 6 gr / 8 kg DM in compared to control, during 72 hours of the experiment (0, 12, 24, 48, 72). The calculations of ruminal kinetics rate were performed based on mathematical model developed by Orskov e Mcdonald (1979) and France et al. (1993). In the table were expressed all the results obtained after by analyses of results by the method One-Way ANOVA. The soluble fraction was the same, as it was the same forage. There was a difference in the potentially fermentable insoluble fraction and non-degradable fraction ($P < 0.001$). No difference in the degradation rate ($P = 0.54$). The results showed that the additive was able to improve de efficient of potential degradation in 22.1% ($P < 0,001$). In this condition, the data show that can improve ruminal utilization of ingested forage. The animals can better enjoy the diet consumed, increasing weight gains and

carcass quality. Besides that, the organic additive can improve sustainability, reducing de enteric gas production for the environment, and the risks of evolution of microbial resistance, for being composed of organic and natural substances.

Table: Soluble fraction (A), potentially fermentable insoluble fraction (B), non-degradable fraction (Fi), degradation rate (C), potential degradation (Dp) of dry matter of *Urochloa brizantha* (syn. *Brachiaria brizantha*) with organic additives

	A (%)	B (%)	Fi(%)	C(%/h)	Dp (%)
Organic additives	14,83	47,35 a	37,61 b	6,10	61,46 a
Control	14,83	40,67 b	44,51 a	5,45	50,31 b
p-value	1,00	<0,001	<0,001	0,54	<0,001
SEM	<0,001	0,68	0,67	0,55	0,94

Different lowercase letters in the same column are significantly different ($p < 0.05$). SEM-Standard Error of the Mean.

Issue Section: Ruminant Nutrition

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