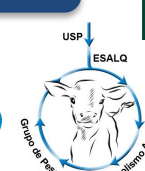


EFFECT OF TWO DIFFERENT FEEDING METHODS ON PERFORMANCE AND BLOOD PARAMETERS OF DAIRY CALVES

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INTRODUCTION

Providing dairy calves with alternative ways to ingest the liquid diet, such as the use of buckets with artificial teats, can significantly impact important aspects in the raising process of these animals, such as behaviour, health and performance.

The objective of this work was to evaluate two milk feeding methods and their influence on performance and blood parameters of dairy calves.

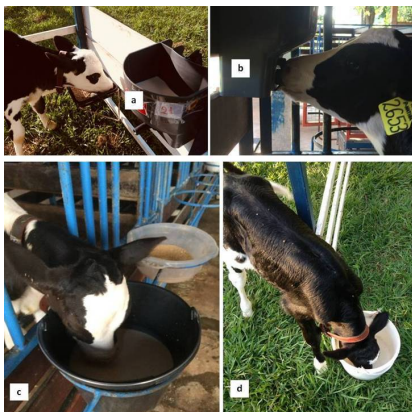


Figure 1: Bucket with artificial teat (a,b) and open bucket (c, d).

MATERIAL E METHODS

- Thirty newborn calves were evaluated during 56 days;
- Treatments: (1) open buckets; (2) buckets with artificial teats;
- The speed of milk intake and the consumption of milk and concentrate were recorded daily;
- Plasma glucose and globular volume were measured weekly;
- The results were evaluated using the SAS package and the means were compared using the F test ($P \leq 0.05$).

RESULTS

- Calves fed milk with open buckets presented higher starter intake;
- No effect was observed for weight gain, final weight and body measures;
- Calves fed with artificial teats spend more time to drink 3L/meal;
- Calves fed with artificial teats showed a higher glucose plasma concentration measured 2h after milk feeding.

Table 1: Performance, blood parameters and speed milk intake of calves fed with two different feeding methods.

	Treatment ¹			P ³ Value		
	Open Bucket	Artificial teat	SEM ²	Treatment	Week	T×W
Starter intake, g/d	303.31 ^a	213.78 ^b	30.19	0.03	0.14	0.57
Birth weight, Kg	35.61	35.42	1.131	0.68	-	-
Weaning Weight, (56d), Kg	70.46	68.72	1.443	0.39	-	-
Average daily gain, Kg	0.620	0.596	0.0257	0.51	<0.01	0.02
Withers height, cm	81.61	81.48	0.795	0.88	<0.01	0.62
Heart girth, cm	87.21	87.45	0.859	0.78	<0.01	0.73
Hip width, cm	22.77	22.62	0.260	0.58	<0.01	0.27
Glucose, mg/dL	137.80 ^a	159.28 ^b	5.005	0.01	<0.01	0.52
Hematocrit, %	27.06	25.58	0.972	0.25	0.11	0.60
Speed milk intake, min	1.65 ^a	5.18 ^b	0.251	<0.01	0.01	0.02

CONCLUSIONS

These results suggest that the speed for milk intake may interfere on blood glucose concentrations peak for calves fed with artificial teats. However, because the behavioral need of suckling is attended, it may decrease starter intake, but without decrease performance.