Effect of timing of silage supplementation on fed intake, milk production and grazing behavior of dairy cows during autumn

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INTRODUCTION

Grazing milk production in Chile (limited)	
< DMI	< E intake

Strategies

Timing and type of supplementation

Timing of Pasture allowance

Autumn?

OBJECTIVE

To evaluate the effect of timing of silage supplementation on milk production and grazing behavior of dairy cows in autumn

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MATERIAL AND METHODS

Location and Experimental design

- **May to July, 2015**
- **36 Holstein Friesian cows** (22.9 kg milk/d, 509 kg LW, 60 DIM)

Sampling and analysis

- **Milk production:** Daily at milking (08.00 and 15.00 hours)
- **Grazing behavior:** days 25 and 40 of experiment (24 hours each one)
- **Dry matter intake**: Using Chrome oxide

TREATMENTS

NAME	AM SUPPLEMENTATION	PM SUPPLEMENTATION
MMS	3 kg DM maize silage	3 kg DM grass silage
EMS	3 kg DM grass silage	3 kg DM maize silage
MEMS	1,5 kg DM maize silage + 1,5kg DM grass silage	1,5 kg DM maize silage + 1,5kg DM grass silage

- Herbage allowance (afternoon) : 17kg DM/d
- Concentrate : 3.5kg DM/d

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RESULTS

	Treatment				
	MMS	MEMS	EMS	SEM	P-value
Milk production, kg/d	21.8a	19.9b	20.0b	0.56	0.05
Dry matter intake, kg/cow/d					
Pasture	5.83	5.16	5.14	0.26	0.49
Total	14.83	14.16	14.14	0.26	0.49
Grazing behaviour					
Total grazing time, min	352	341	315	13.3	0.16
Grazing time (08:00-16:50), min	108	83	94	7.1	0.08
Grazing time (17:00-07:45), min	244ab	257a	221b	9.3	0.03
Total ruminating time, min	446	459	432	13.1	0.35
Idling time, min	547b	551ab	608a	16.6	0.03

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CONCLUSION

Supplementing maize silage during the morning alters grazing behavior and increase milk production.