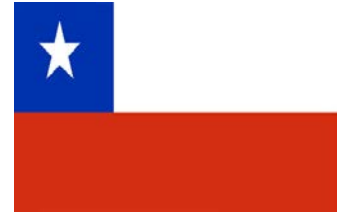




Effect of timing of pasture and silage allocation on nitrogen partitioning and milk production of grazing dairy cows in autumn



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INTRODUCTION

Grazing milk production (limiting)

< DMI

< E intake

N/E Asynchrony

Low NUE and high urinary N excretion

Strategies

1. Timing of Pasture allowance
2. Timing of supplementation

Autumn?

OBJECTIVE

To evaluate the effect of timing of pasture and grass silage allocation on nitrogen partitioning and milk production of grazing dairy cows during autumn





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MATERIAL AND METHODS

Location and Experimental design

- April to June, 2014
- 45 Holstein Friesian cows

• Herbage allowance (HA)	: 21kg DM/d	D I E T
• Grass silage (GS)	: 3kg DM/d	
• Concentrate	: 3.5kg DM/d	

Sampling and analysis

- Milk, food and feces samples → weeks 7 and 8 → N intake and milk, feces and urine nitrogen content

TREATMENTS

Name	Morning	Afternoon
MHA	75% HA 25% GS	25% HA 75% GS
AHA	25% HA 75% GS	75% HA 25% GS
BHA	50% HA 50% GS	50% HA 50% GS



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RESULTS

	Treatment			SEM	P-value	
	MH A	BHA	AHA			
Milk production, kg/d	22.08	22.07	22.1	1.1	0.99	→ 22kg/d
N intake, g/d	461	450	464	13.2	0.91	→ 460g/d
Milk N, g/d	124	113	121	3.4	0.39	
Faecal N excretion, g/d	143	145	145	1.4	0.82	
Urinary N excretion, g/d	193	193	198	10.9	0.98	→ 26%
Milk N/N intake, %	27.0	25.0	26.0	0.3	0.09	



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CONCLUSION

The combination of timing of pasture and silage allocation did not modify milk production and nitrogen partitioning.