

Effects of pre- and post-partum feeding system on the performance of autumn-lambing ewes raising suckling lambs

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After summer grazing, pregnant ewes might extend the grazing season until weaning suckling lambs instead of indoors feeding hay



AIM: To evaluate the effect of feeding system around parturition on ewe and lamb performances

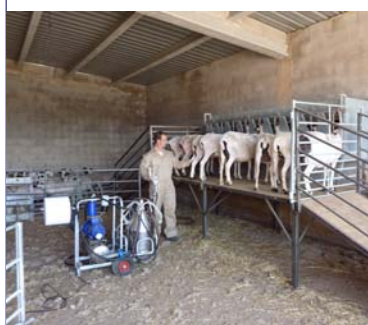
Materials and Methods



A 2x2 factorial design

Two feeding systems: permanent pasture outdoors vs meadow hay indoors

Two periods: pre-partum (last third of pregnancy) vs post-partum period (5 weeks)

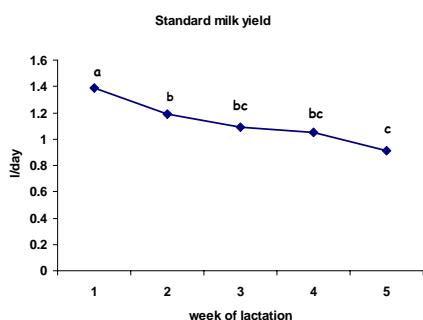


- Weekly live weight (LW) of ewes and lambs: average daily gain (ADG)
- Milk production estimated weekly by the oxytocin technique (4-h interval)
- Milk composition determined with infrared.
- Lambs were slaughtered as suckling lambs commercial category (11.2 kg LW).

Results

Diet did not affect either LW (44.9 ± 0.78) or Body condition score (BCS; 2.44 ± 0.038) of ewes ($P > 0.05$) in any period

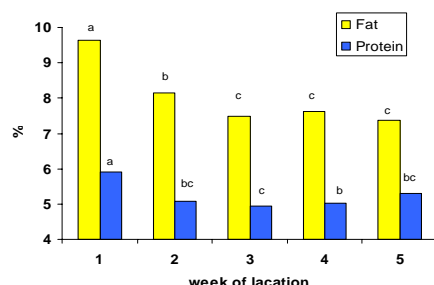
Milk



Pre-partum diet affected the milk protein content during lactation (5.41 vs 5.10% for hay vs pasture; $P < 0.05$). Any effect was observed in post-partum period.

Week of lactation had significant effect on most of the parameters studied: standard milk yield, fat and protein contents, fat and protein yield

Lambs



Diet only had effect in post-partum period. ADG was lower and the slaughter age was slightly greater in lambs whose dams were hay-fed indoors during the post-partum period than in those that grazed green forage outdoors ($p < 0.05$).

	Pre-partum		Post-partum	
	Hay	Grazing	Hay	Grazing
ADG (g)	245	236	220 ^a	257 ^b
Slaughter weight (kg)	11.2	11.0	11.1	11.1
Slaughter age (days)	32	32	34 ^b	30 ^a

In conclusion, feeding system around parturition did not affect ewe performance but offspring from hay-fed ewes during post-partum showed a lower performance