Changes in the composition of ewe's milk for the production of Rabaçal (PDO) cheese

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OBJECTIVES:

The objective of this study was to evaluate the characteristics of grazing ewe's milk for the production of Rabaçal (PDO) cheese.

CONCLUSIONS:

•Lactation period affected milk composition. Ca, P, K and fat decreased with the advance of lactation and Na and protein increased.

•Milk fractioning showed that Ca and P were mainly present in the colloidal phase.

•Casein fractions were higher at the beginning of lactation.

•It would be important to have information about ewes' milk production levels, for the studied periods, and to carry on this study with the cheese obtained from the analysed milks, for a holistic understanding of this production system.

METHODOLOGY:

The study was conducted in two locations, in the Middle Western coast of Portugal, where Rabaçal PDO cheese is produced and where degraded soils were improved with swards.

Feeding system: Grazing during the gestating period from March to June/July, with a stocking rate of 10 ewes/ha; Lucerne hay in grass scarcity (19.5% crude protein and 55% DM digestibility) or Mixed Feeding (grass and hay)

Parturition at September /October **Weaning** 60 days after parturition.

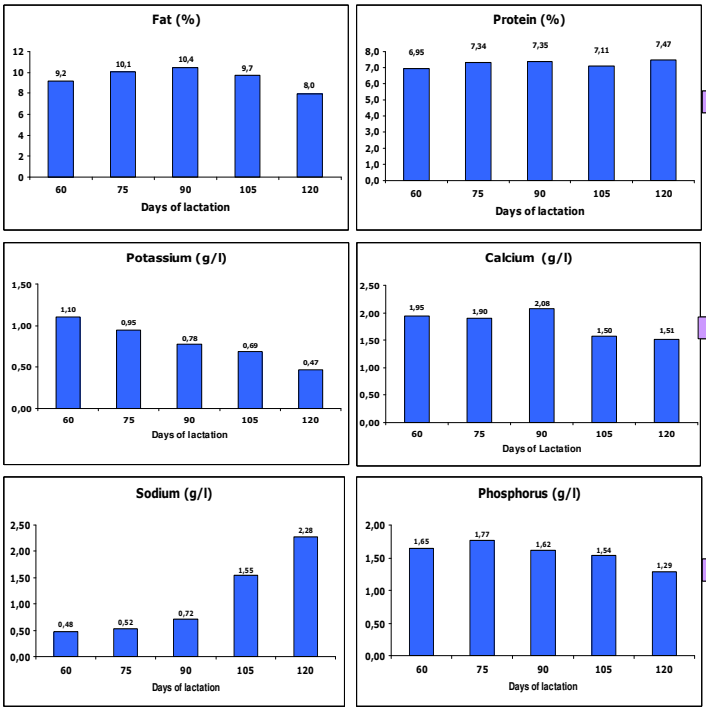
Milk sampling: in each location ten ewes were selected, for fortnight milk sampling from 60 to 120 days after parturition.

Milk analysis: <u>in complete milk</u> (protein and fat by IR in a *Milkoscan50®* and macrominerals) for all the sampling period, and <u>after fractioning</u> (soluble N, casein, soluble and colloidal Ca and P), extemporaneously, for the three first lactation phases: 60, 75 and 90 days.

Statistical analysis Data were analysed by a mixed model using location and period and their interaction as fixed effects and considering period as repeated measurements on animal (location).

RESULTS:

COMPOSITION OF EWES <u>COMPLETE MILK</u> (FROM 60 TO 120 DAYS OF LACTATION)



COMPOSITION OF EWES <u>MILK FRACTIONS</u> (FROM 60 TO 90 DAYS OF LACTATION)