CHARACTERIZATION OF BODY CONDITION CHANGES IN LUSITANO BROODMARES FED PASTURE BASED DIETS

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INTRODUCTION

Most of Lusitano (PSL) studs in Portugal are managed under extensive feeding systems, with pasture based diets. When grass production is scarce, supplementary feeds are generally used, but farm practices vary widely.

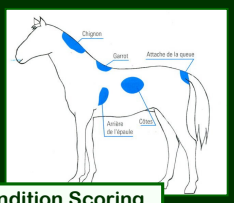
Body condition (BC) scoring is a practical tool to access body reserves in livestock and its assessment could provide valuable information about the adequacy of feeding management.

OBJECTIVE

The main objective of this study was to characterize BC changes along the year in PSL broodmares fed pasture based diets.

MATERIALS & METHODS

- BC was monthly assessed (during three breeding seasons) in four groups of mares (A n=17, B n=19, C n=6; D n=17) on different stud farms, from the 9th month of gestation (G) to the post-weaning period (PW).
- All mares were kept on pasture: A and B groups were daily supplemented (compound feeds and preserved forages) according to pasture availability and farm practices, while C and D groups were rarely supplemented.



Body Condition Scoring (method INRA-HN-IE)

- Foaling season occurred between February and May.

RESULTS

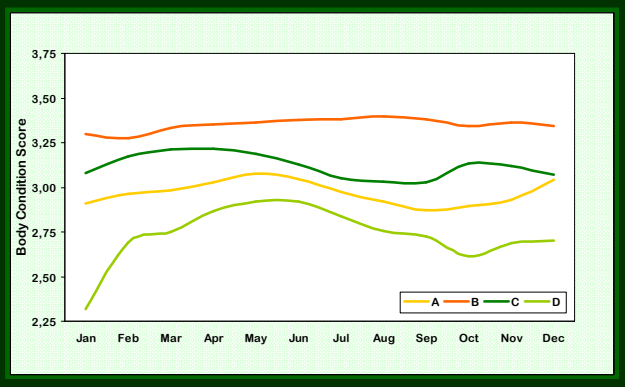


Fig.1. BC changes along the year in the four groups of mares (average of three years)

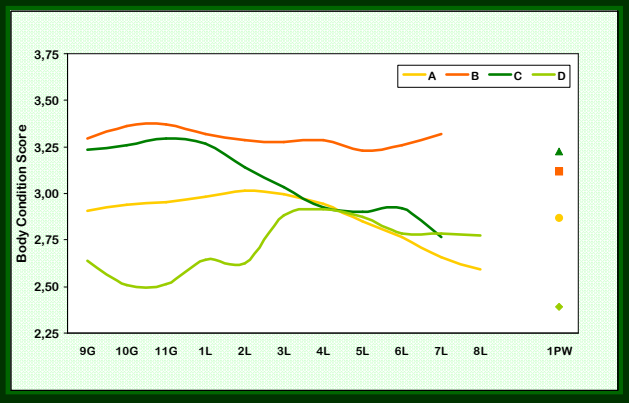


Fig.2. BC changes in the four groups of mares according to the physiological stage (9th, 10th and 11th month of gestation, 1st, 2nd, 3rd, 4th, 5th, 6th, 7th and 8th month of lactation and post-weaning period).

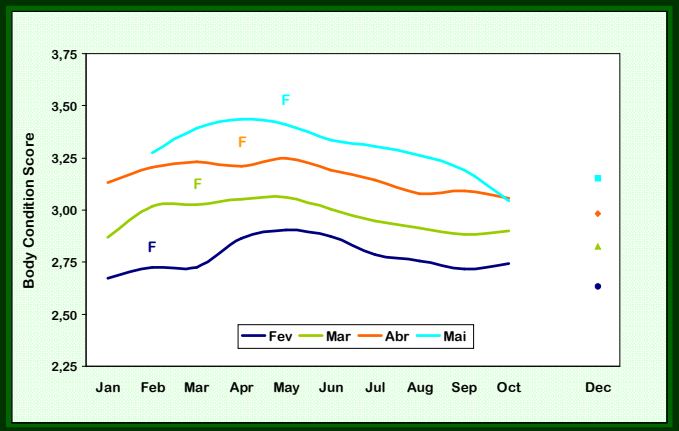


Fig.3. BC changes along the year considering the foaling month

DISCUSSION & CONCLUSIONS

Changes on BC throughout the breeding cycles were small (0.25 - 0.75 in 0-5 points scale) and seem to be affected by foaling month.

Highest BC scores were recorded at the end of spring/beginning of summer, decreasing thereafter until weaning, in the fall.

Early foaling mares (Feb) showed the lowest BC scores along the cycle. On the opposite, higher BC scores were observed on mares that foaled later (May), but they generally were already loosing BC by then.

Mares that were almost exclusively fed with pasture (C and D) showed higher BC changes along the year probably due to the variation on pasture quality and availability during that period.

BC scoring provides valuable information to identify critical phases when supplementation could be crucial and allow the development of feeding strategies suitable for each system.

Supported by grants POCI 2010 Nº GG/GGP/ME611-0166/05 and SFRH/BD/29890/2006 from FCT, Lisbon, Portugal.