

Plasma pregnancy specific protein B (PSPB) in days 25, 26 and 28 in two beef cattle breeds



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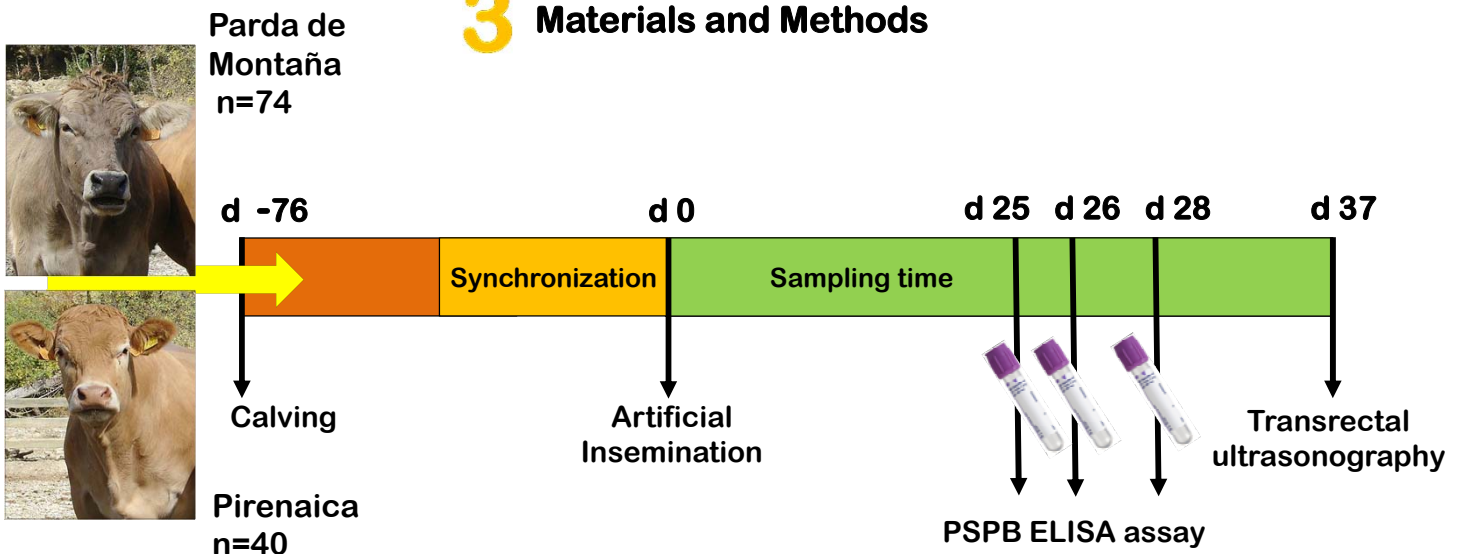
1 Introduction

Early detection of Pregnancy Specific Protein B (PSPB) could be an accurate pregnancy diagnosis method to reduce the calving interval in extensive beef cattle farming systems.

2 Objective

Determine, based on PSPB concentrations, the earliest day to accurately diagnose pregnancy in beef cows.

3 Materials and Methods



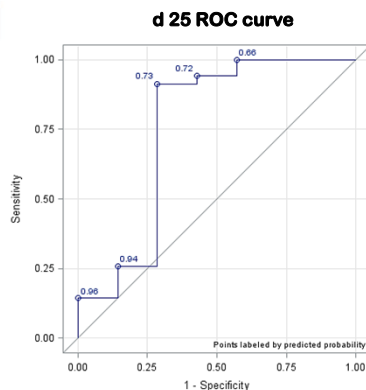
4 Results

4.1 PSPB concentrations (ng/ml)

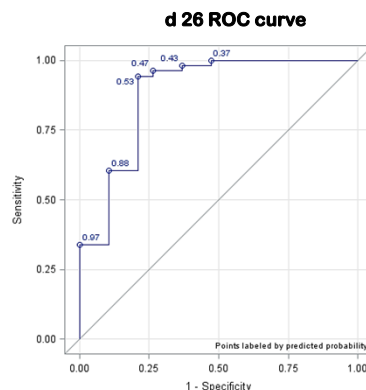
	Non-pregnant	Pregnant
d 25	0.67 ^b	1.15 ^a
d 26	0.41 ^b	1.22 ^a
d 28	0.48 ^b	1.82 ^a

a ≠ b P<0.0001
No differences between breeds (P>0.05)

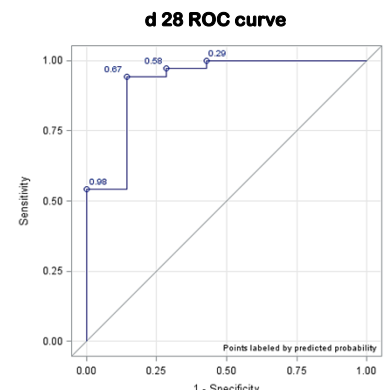
4.2 ROC curve analysis



Area under the curve (AUC): 0.79
Cut-off value: not determined
Sensitivity: not determined
Specificity: not determined



AUC: 0.88
Cut-off value: 0.57 ng/ml
Sensitivity: 94.3%
Specificity: 78.9%



AUC: 0.93
Cut-off value: 0.91 ng/ml
Sensitivity: 94.3%
Specificity: 80.8%

No differences between d26 AUC and d28 AUC (P>0.1)

5 Conclusion

Implementing the plasma PSPB analysis on day 26 could be useful for early pregnancy diagnosis, with a similar accuracy to that obtained on day 28 and avoiding the lack of precision obtained on day 25