

UNDER-NUTRITION DURING EARLY PREGNANCY AFFECTS PERIPHERAL WHITE BLOOD CELL KINETICS IN TWO BEEF CATTLE BREEDS DURING PERI-IMPLANTATION PERIOD

A. Noya¹, B. Serrano-Pérez², E. Molina², I. López-Helguera², I. Casasus¹, D. Villaba², A. Sanz¹

¹ CITA de Aragon, Avda. Montañana 930, 50059 Zaragoza, Spain (anoya@cita-aragon.es)

² Depart. Ciència Animal, Universitat de Lleida, Av. Rovira Roure 191, 25198 Lleida, Spain.



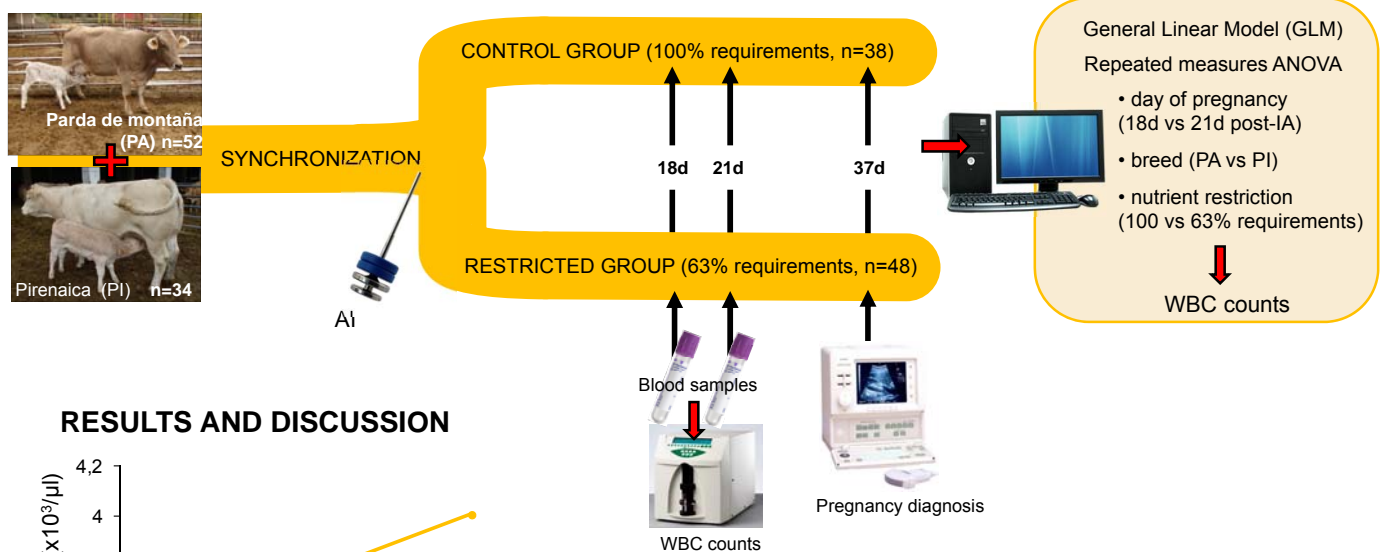
INTRODUCTION

Pregnancy recognition in ruminants is characterized by transient changes in the maternal immune system, also evident at peripheral level.

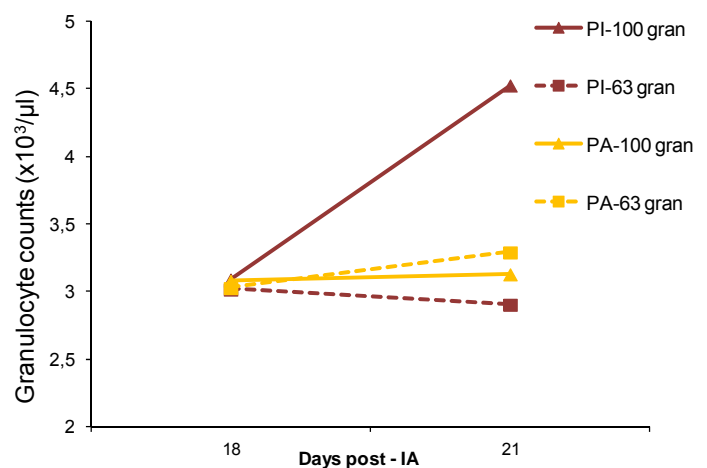
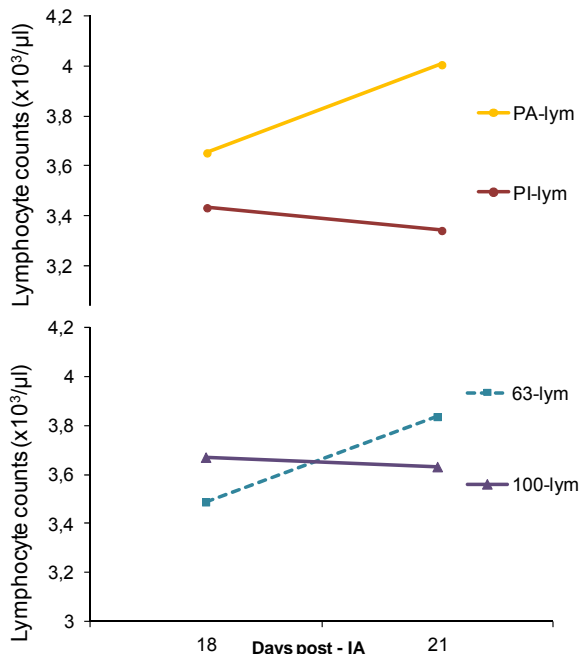
OBJECTIVE

Evaluate the effect of nutrient restriction on peripheral white blood cell (WBC) counts of two different breeds in pregnant dams during the peri-implantation period.

MATERIAL AND METHODS



RESULTS AND DISCUSSION



- Increased lymphocyte counts in PA dams (P=0.047) compared to PI dams, may be due to a different sensitivity to stress during pregnancy establishment
- Increased lymphocyte counts in nutrient restricted group (P=0.066, trend) compared to control

- Interaction between breed of dam and maternal nutrient restriction: increased granulocytes counts in control PI dams compared to control PA and nutrient-restricted dams (P=0.007)

CONCLUSION

Breed of dams and maternal nutrient restriction affected peripheral WBC in beef dams during peri-implantation period