THE FINAL WINTER SWARD HEIGHT OF A NATIVE GRASSLAND PASTURE AFFECTS THE QUANTITY OF THE GREEN BIOMASS IN SPRING

Cazzuli, F *, Jaurena, M., Durante, M., Cardozo, G., Ruggia, A., Bremm, C., Lagomarsino, X., Cuadro, R., Rovira, P., Poppi, D.P., Lattanzi, F. A.

*fcazzuli@inia.org.uy

INTRODUCTION

The management of native grasslands during winter could have effects on both quantity and characteristics of spring grown forage.

HYPOTHESIS

We hypothesised that the higher the sward height (SH) at the end of the winter, the lower the green dry matter (DM) accumulated during spring.

MATERIALS AND METHODS

An experiment was carried out on native grasslands on medium basaltic soils. At the end of the winter (7 September) homogeneous plots were selected (0.2 x 0.5 m) in a complete random block design experiment with five initial SH (treatments) of 2, 4, 6, 8 and 10 cm, repeated in 6 blocks.

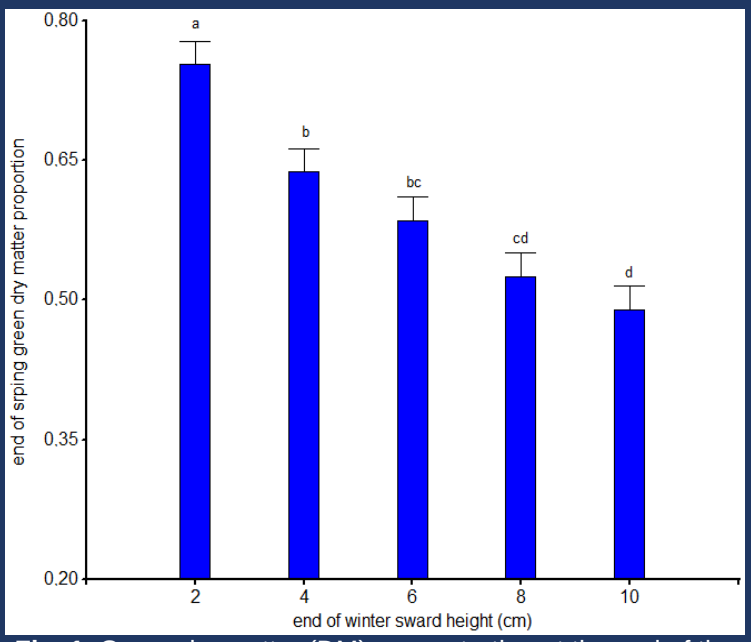


Fig. 1. Green dry matter (DM) concentration at the end of the spring, by sward height at the end of the winter.

RESULTS

The initial green DM biomass was greater with increasing SH: 273, 376, 496, 579 and 722 kg/ha (± 44, $p<0.01$) and green DM proportion was 28, 30, 33, 35, 37 % (± 2, $p<0.05$), for 2, 4, 6, 8 and 10 cm treatments, respectively. Figures 1 and 2 present the results observed at the end of the experiment (93 days, 9 December).

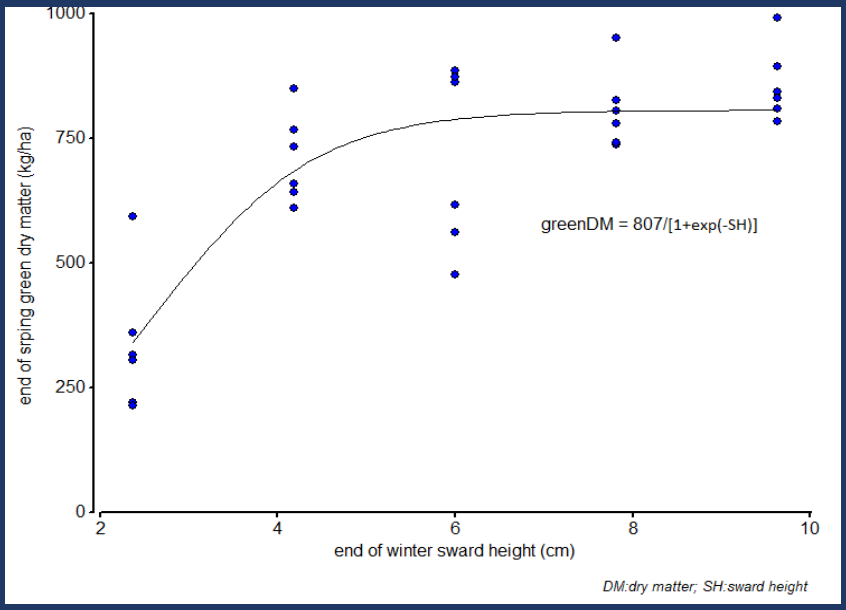
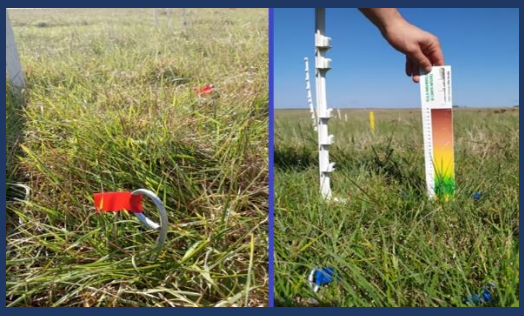


Fig. 2. Green dry matter (DM) concentration at the end of the spring, by sward height at the end of the winter.

CONCLUSION

The SH at the end of the winter was positively associated with an increase in accumulated green DM by the end of the spring, reaching a plateau effectively above 6 cm.



***KEY WORDS**: native grasslands, late winter sward height, green biomass production*