

The comparative effect on *medicago orbicularis* seed reserves of grazing dry residues

Saunders<sup>1</sup> and J.P. Egan<sup>2</sup>

<sup>1</sup>PI (SA). Minnipa Research Centre, Minnipa, SA, 5654

<sup>2</sup>SARDI, Port. Lincoln, SA. 5606

*Medicago orbicularis* (L) Ban. (button medic) has been identified as a potential new pasture legume species for the cereal growing areas of Southern Australia (I). The *M. orbicularis* accession SA 8460 is a Libyan line with demonstrable high seed production and adaptation to a broad range of edaphic situations. However, because of the large pod size and discoid shape there is potential for excessive seed removal by grazing. This experiment tested the effect of grazing on the seed residue of SA 8460.

## Methods

Six annual medic lines (SA 8460, Caliph, Cyprus, Parabinga, Paraggio (*M. truncanna*) and Harbinger AR (*M. lift oralis*) were sown in plots 12 m x 6 m with two randomised replicates, at Minnipa Research Centre in 1991. The plots were sown at 10 kg/ha pure germinating seed. Seed yields were estimated from the plots in December (four. 1 m x 0.5 m quadrats), which were then grazed for two weeks (133 DSE/ha) and then reassessed.

## Results and discussion

Fig. 1 shows the change in harvestable seed yield for each of the varieties following grazing. SA 8460 showed no loss of seed through grazing whereas the other varieties showed reductions in the range 16 - 30%. It was expected that loss of SA 8460 seed through grating would be greater than other medic varieties because of the size and shape of *M. orbicularis* pods: SA 8460 are discoid, 14 mm x 4 mm (diameter x height), compared to the largest cultivar tested - Parabinga with a cylindrical pod. 8 mm x 8 mm. It would appear that factors other than simple physical pod dimensions influenced sheep in feed selection in this instance. These factors arc unknown. Further work is being conducted to assess SA 8460 and other *M. orbicularis* lines under grazing.

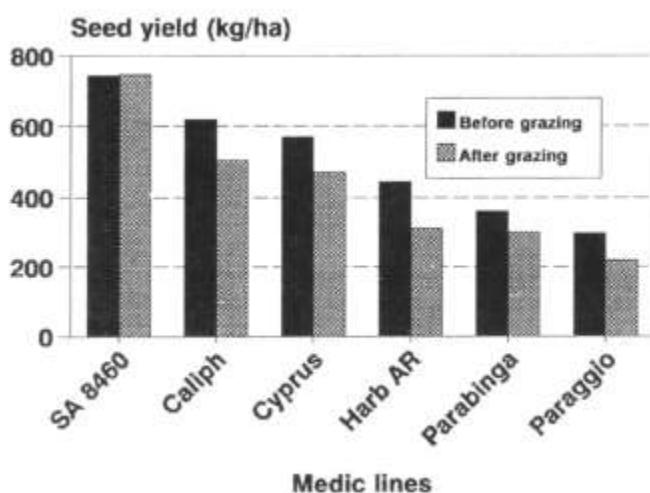


Figure 1. Effect on seed reserves of grazing dry residues of six annual medic lines.

## References

1. Saunders. R.J.. Howie, J.H. and Auricht. G.C. 1992. Proc. 6th Aust. Agron. Conf. p.614

