

The grazing preference of sheep is related to prior experience

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Background - The annual pasture legume Casbah biserrula (*Biserrula pelecinus* L.) is moderately palatable to sheep relative to other species but, in the field, sheep often avoid biserrula and select other plants. We hypothesised that the preference of sheep for biserrula is influenced by their prior grazing experience.

Objective - To determine the preference of sheep for biserrula after they had experienced grazing pastures with different proportions of biserrula.

Design - Five groups of 10 Merino hoggets grazed for four weeks pastures sown with i) 100% biserrula, ii) 100% crimson clover, iii) 100% annual ryegrass, iv) 50% biserrula and 50% annual ryegrass or v) 50% crimson clover and 50% annual ryegrass. Each group then grazed randomized monoculture rows of biserrula, crimson clover and annual ryegrass and their preference was calculated from pasture samples that were taken from paired sites before and after grazing. The pastures were grazed at the vegetative, reproductive and senesced phases of growth by a new group of hoggets each time.

Outcomes - The preference of sheep for biserrula at the vegetative and reproductive phases of growth was influenced by their previous grazing history, but not after senescence.

Conclusions - Sheep that have grazed a biserrula dominant pasture can develop an aversion to biserrula at the vegetative and reproductive phases of growth. This may explain why sheep eat other plants late in the growing season. Sheep grazing a pasture with a low proportion of biserrula are less likely to develop an aversion and may continue to eat biserrula.