

INFORMATION NOTES



DEPARTMENT OF
PRIMARY INDUSTRIES

Managing Puccinellia

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Puccinellia pastures last about 10 years and can be a productive asset if well managed.

Grazing

Graze Puccinellia in the first year after establishment only if the seedlings cannot be pulled from the ground by hand.

A quick, light graze will promote tillering and encourage root growth.

Overgrazing Puccinellia at any stage reduces production the following season. Rotational grazing is recommended during wet periods for established Puccinellia growing on well-drained sites. Areas prone to flooding should be grazed over spring and summer. It is important to maintain the height of the plants so the Puccinellia can keep some leaf above water when inundated.

Puccinellia's feed value is greatest during winter to early spring, when it is green - protein (10-18%) and digestibility (60-78%) levels are high and the plant has a low salt content. Feed quality declines over summer and once the plant flowers and browns off, the crude protein falls to less than 5% and digestibility to less than 50%.

Table 1: Feed quality of Puccinellia ciliata at the DPI West Wimmera demonstration Site 7/10/2005

| Moisture | Dry Matter | Crude Protein | Neutral Detergent Fibre | Digestibility | Metabolisable Energy |
|----------|------------|---------------|-------------------------|---------------|----------------------|
| 75.4 % | 24.6 % | 16.7 % | 52.7 | 70.9 | 10.6 MJ/kg DM |

(FeedTest results for Puccinellia ciliata Department of Primary Industries Saline Pastures Demonstration Site)

Fertiliser Nitrogen: Sustainable Grazing on Saline Land (SGSL) trials have found the best times to applying nitrogen to Puccinellia are:

- * Late autumn/early winter (May to early June) to increase early winter feed, but nitrogen may be lost if waterlogging
- * Mid-winter (July to early August) for the drier areas (<400mm rainfall) as long as the soil temperature is not too low.
- * Late winter/early spring (August to early September) to promote ground cover and/or dry feed over summer/autumn and improve seed yield if harvesting for seed.

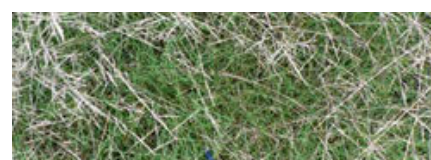
Table 2: Suggested rates of nitrogen fertiliser for Puccinellia pastures

| Rainfall (mm) | 350 | 400 | 450 | 500 |
|------------------|-------|-------|-------|-------|
| Nitrogen (kg/ha) | 15-25 | 20-30 | 25-40 | 30-50 |

Phosphorus: Puccinellia responds to phosphorus where the soil has been eroded or where levels are below critical levels (12 mg/kg, Colwell P test). Many farmers use N-P fertiliser blends annually on established Puccinellia stands.

Weed control

Weeds such as Sea Barley Grass in established Puccinellia pasture can be controlled by spraytopping. SGSL trials in South Australia successfully spraytopped weeds with Paraquat (250g/L) at 400mL/ha.



Insect Control

Monitor for red legged earth mite during establishment and regularly monitor for insect problems and use recommended controls.

References and Further Information

'*Puccinellia ciliata for the Wimmera*' (April 2004) Angela Smallacombe, Agriculture Notes (AG1161), Department of Primary Industries (ISSN 1329-8062).

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