

Productivity Highlights

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Flexi-N and Potash - important for oaten hay

Background

Oaten hay production has expanded rapidly over the past decade in Western Australia.

- Some experiences suggested that, while high rates of fertilisers increase hay yields, they may also reduce hay quality.
- Nitrogen and potassium are known to increase pasture hay quality.

CSBP has conducted 6 trials investigating the effects of nitrogen (N) and potassium (K), applied as Flexi-N and Muriate of Potash on oaten hay production and quality.

Key Results

- Despite dry conditions at many sites, oaten hay production increased significantly in all cases where Flexi-N was applied.
- In all cases, Flexi-N also improved hay protein content.
- At all sites, Potash appeared less important than Flexi-N for high hay yields.
- Financial returns on applications of Flexi-N and Potash for oaten hay were favourable.

Summary

- The application of Flexi-N (and to a lesser extent, Potash) increased hay yields and improved hay protein content.
- Results demonstrated that oaten hay producers should not be apprehensive about applying high rates of Flexi-N and Potash.
- Well-balanced Flexi-N and Potash strategies can be very profitable.



Nitrogen response at Calingiri (nil on far left) – note colour and growth response.

Table 1: Hay yield responses and extra income from fertiliser applications.

Site	Fertiliser Applications kg N/ha kg K/ha	Hay Yield t/ha	Extra Income* \$/ha
Yerecoin 2000	Phosphorus only 90 80	2.0 4.3	177
Williams 2001	Phosphorus only 90 50	5.1 7.1	161
Yerecoin 2001	Phosphorus only 120 80	6.0 10.9	516
Aldersyde 2001	Phosphorus only 60 25	3.6 6.4	320
Calingiri 2002	Phosphorus only 60 80	8.5 11.0	229

* Income less fertiliser costs, compared to P fertiliser only, assuming \$140/t for hay, and no consideration of quality parameters

