

AUSTRALIAN JOURNAL OF EXPERIMENTAL AGRICULTURE

CONTENTS Volume 48, Issue 4, 2008, 387–588

SUSTAINABLE PASTURES IN MARGINAL ENVIRONMENTS

Foreword

Kevin Goss iii

The search for new pasture plants to achieve more sustainable production systems in southern Australia.

B. S. Dear and M. A. Ewing 387–396

The systematic collection and characterisation of herbaceous forage species for recharge and discharge environments in southern Australia.

S. J. Hughes, R. Snowball, K. F. M. Reed, B. Cohen, K. Gajda, A. R. Williams and S. L. Groeneweg 397–408

Field evaluation of perennial grasses and herbs in southern Australia. 1. Establishment and herbage production.

K. F. M. Reed, Z. N. Nie, S. Miller, B. F. Hackney, S. P. Boschma, M. L. Mitchell, T. O. Albertsen, G. A. Moore, S. G. Clark, A. D. Craig, G. Kearney, G. D. Li and B. S. Dear 409–423

Field evaluation of perennial grasses and herbs in southern Australia. 2. Persistence, root characteristics and summer activity.

Z. N. Nie, S. Miller, G. A. Moore, B. F. Hackney, S. P. Boschma, K. F. M. Reed, M. Mitchell, T. O. Albertsen, S. Clark, A. D. Craig, G. Kearney, G. D. Li and B. S. Dear 424–435

Novel *Festuca arundinacea* Shreb. and *Dactylis glomerata* L. germplasm to improve adaptation for marginal environments.

C. A. Harris, S. G. Clark, K. F. M. Reed, Z. N. Nie and K. F. Smith 436–448

Evaluation of perennial pasture legumes and herbs to identify species with high herbage production and persistence in mixed farming zones in southern Australia.

G. D. Li, G. M. Lodge, G. A. Moore, A. D. Craig, B. S. Dear, S. P. Boschma, T. O. Albertsen, S. M. Miller, S. Harden, R. C. Hayes, S. J. Hughes, R. Snowball, A. B. Smith and B. C. Cullis 449–466

Prospects for three *Dorycnium* species as forage plants in agricultural systems: a review of their agronomic characteristics.

Lindsay W. Bell, Megan H. Ryan, Mike A. Ewing, Geoff A. Moore and Peter A. Lane 467–479

Waterlogging tolerance and recovery of 10 *Lotus* species.

Daniel Real, Jonathan Warden, Graeme A. Sandral and Timothy D. Colmer 480–487

Developing birdsfoot trefoil (*Lotus corniculatus* L.) varieties for permanent pasture applications in low latitude regions of eastern Australia.

J. F. Ayres, W. M. Kelman, S. G. Wiedemann, L. A. Lane and B. E. McCorkell 488–498

Tolerance of aluminium toxicity in annual *Medicago* species and lucerne.

B. J. Scott, M. A. Ewing, R. Williams, A. W. Humphries and N. E. Coombes 499–511

Improving lucerne nodulation at low pH: contribution of rhizobial and plant genotype to the nodulation of lucerne seedlings growing in solution culture at pH 5.

N. Charman, R. A. Ballard, A. W. Humphries and G. C. Auricht 512–517

Production and persistence of annual pasture legumes at five saline sites in southern Australia.

P. G. H. Nichols, A. D. Craig, M. E. Rogers, T. O. Albertsen, S. M. Miller, D. R. McClements, S. J. Hughes, M. F. D'Antuono and B. S. Dear 518–535

Production and persistence of temperate perennial grasses and legumes at five saline sites in southern Australia.

P. G. H. Nichols, M. E. Rogers, A. D. Craig, T. O. Albertsen, S. M. Miller, D. R. McClements, S. J. Hughes, M. F. D'Antuono and B. S. Dear 536–552

Herbage mass and persistence of pasture legumes and grasses at two potentially different saline and waterlogging sites in northern New South Wales.

S. P. Boschma, G. M. Lodge and S. Harden 553–567

An environmental weed risk assessment model for Australian forage improvement programs.

Lynley M. Stone, Margaret Byrne and John G. Virtue 568–574

Trangie wallaby grass [*Austrodanthonia caespitosa* (Gaudich.) H.P. Linder].

C. Waters, B. Dear, B. Hackney, P. Jessop and G. Melville 575–577

Outcomes of the search for new perennial and salt tolerant pasture plants for southern Australia.

B. S. Dear, K. F. M. Reed and A. D. Craig 578–588