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The XXI International Grassland Congress / VIII International Rangeland Congress took place in Hohhot, China from June 29 through July 5, 2008.

Proceedings edited by Organizing Committee of 2008 IGC/IRC Conference

Published by Guangdong People's Publishing House

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Domestication of mediterranean annual pasture legumes for Australian farming systems

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Key words germplasm cultivars adaptation biomass persistence

Introduction Since 1996, scientists in southern Australia have released cultivars of eleven new annual pasture legume species to agriculture, with four new species currently under consideration for release (Nichols *et al.* 2007). This paper outlines the processes involved in their domestication.

Processes involved in domestication of new species The methodology used in the germplasm acquisition, selection and cultivar release processes are summarised in Figure 1. Agronomic trials to optimise grazing management practices and seed production and to refine areas of adaptation are also required post-release.

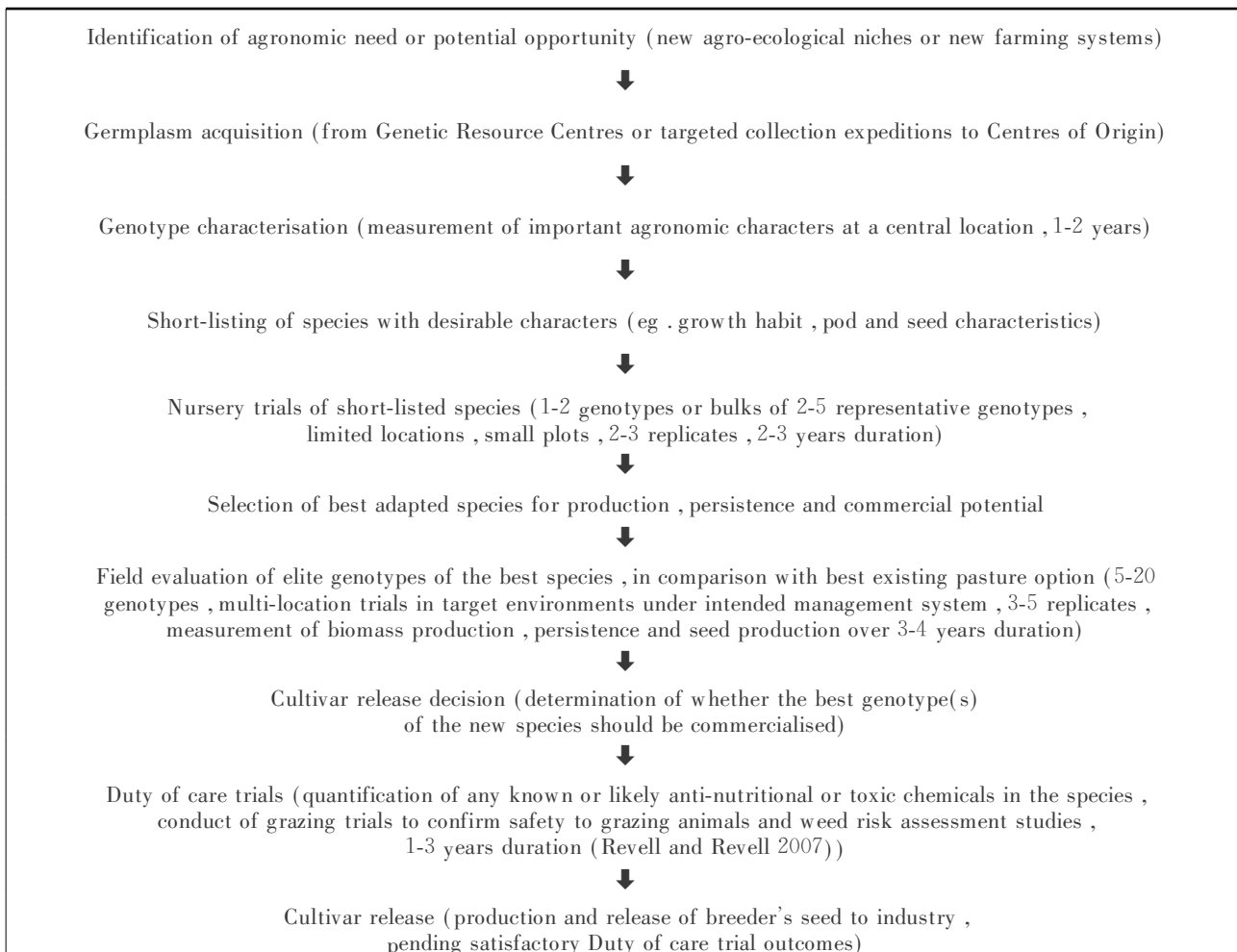


Figure 1 Steps involved in the domestication of new annual pasture legume species.

References

- Nichols, P.G.H., Loi, A., Nutt, B.J. *et al.* 2007. New annual and short-lived perennial pasture legumes for Australian agriculture-15 years of revolution. *Field Crops Research* 104, 10-23.
- Revell, C., Revell, D. 2007. Meeting duty of care obligations when developing new pasture species. *Field Crops Research* 104, 95-102.