Register of Australian Herbage Plant Cultivars

B. Legumes
8. Lucerne
(a) *Medicago sativa* L. (lucerne) cv. Quadrella

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*Morphological description*
Quadrella is similar in most characteristics to its parent cultivar, Trifecta, but can be distinguished from it by being slightly less erect when grown as spaced plants. Quadrella also shows slightly less winter activity than Trifecta.

*Agronomic characters*
Quadrella has high levels of resistance to the stemphylium leaf spot isolates 162 and 302 (Bray and Irwin 1989), the new virulent isolate UQ129 (J. A. G. Irwin unpublished data), and leptosphaerulina leaf spot (I. D. Kaehne, R. W. Williams, J. A. Horsnell, E. T. Kobelt and B. M. Martin pers. comm.). Its colletotrichum resistance is as high as that of Trifecta, but the level of resistance to *Phytophthora* is slightly lower (Bray and Irwin 1989). However, the level of phytophthora resistance is sufficient for all but the most severely affected sites.

In a yield trial at Lawes (south-eastern Queensland) with 14 harvests over an 18-month period, Quadrella produced 95% of the yield of Trifecta, with no significant stand losses (R. A. Bray unpublished data). In another trial at Lawes, situated on an area known to be infested with phytophthora, Quadrella produced only 80% of the first-year yield of Trifecta (9 harvests). However, persistence over that period was 37% for Quadrella, compared to 26% for Trifecta (K. F. Lowe pers. comm.). Neither of these trials suffered significant losses due to stemphylium.

First-year seed yields of Quadrella have been extremely good, producing over 800 kg/ha (S. M. Martens pers. comm.). Quadrella should be suitable for all areas in eastern and southern Australia where Trifecta has been successful, except in very limited areas of extreme phytophthora infestation. It should be particularly useful where stemphylium leaf spot is a problem.

*References*