

Register of Australian Herbage Plant Cultivars

A. Grasses

2. Ryegrass

Lolium rigidum Gaud. (annual ryegrass) cv. Wimmera

Reg. No. A-2d-1

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Origin

First noticed by H.A. Mullett in the Minyip district of Victoria (4), and tentatively identified by Ewart and Hitchcock as *Lolium subulatum* Vis. (5). Mullett concluded that it had its origin on the property of Mr. R. Light at Noradjuha (near Horsham, Victoria), where it had been sown about 1887 by the previous landholder, Mr. McNichol, who had brought the seed from Europe. From this centre it had spread to many farms in the Wimmera and southern Mallee districts (4, 5). In 1926, J.N. Whittet (9) classified it as *Lolium rigidum* var. *strictum* Jansen; in 1930, Ewart in his Flora of Victoria called it *Lolium hybridum* Hausskn. (*L. perenne* X *L. multiflorum*), but also suggested the possibility that it might be a natural hybrid between *L. rigidum* and *L. perenne*. Evidence supporting the view that Wimmera originated as a hybrid between *L. multiflorum* and *L. rigidum* was put forward by Trumble and Phipps (8) in 1933. Current botanical opinion regards it as a variable ecotype of *Lolium rigidum* Gaud.

In 1966 the Victorian Herbage Plant Liaison Committee agreed to use "annual ryegrass" as the common or popular name of the species and Wimmera as the cultivar name for the Australian ecotype.

Morphological description (2, 3, 5)

Annual, rather variable in habit ranging from vigorous prostrate and sprawling much-tillered late-maturing plants, to sparsely stooled more erect early-maturing types. The dominant habit is upright with rigid geniculate stems, sprawling after maturity. Leaves glabrous, shiny below and evenly ribbed above, broader than perennial ryegrass, rolled in bud on young plants; ligules membranous and transparent, hairless; auricles present but variable in size; coloration, general purplish tinge, the reddish coloration common at the base of the stem in ryegrass extending upwards in this cultivar as the plant matures. Inflorescence a spike similar to perennial ryegrass but usually longer and the lower spikelets more widely spaced. Spikelets 6-8 flowered, generally longer and narrower than in perennial ryegrass; only one outer glume much shorter than the spikelet, but longer than the lemma above it; lemma long, rigid, and awnless but occasionally awned. Seed similar to perennial ryegrass, approximately 463,000 per kg.

Agronomic characters (2, 5, 9)

Adapted to winter rainfall areas south of latitude 30°S. with annual precipitation of 360-635 mm (or down to 230 mm in Western Australia on soils of loose texture. Is of greatest value in areas of 360-500 mm rainfall. Makes rapid spring growth and produces a large bulk of palatable herbage. In the Wimmera district it flowers about the middle of October, but up to a month's difference in the date of flowering may occur within the range of the cultivar; under adverse conditions it will complete its life cycle in a shorter growing season. When dried off the hay contains a large amount of seed which is not readily shed.

Wimmera seeds very freely and regenerates readily with autumn rains on soils of loose texture or self-mulching soils. Periodic cultivation is essential for maintaining stands in some areas, whilst in other areas its strong regeneration may be troublesome. It possesses a useful degree of resistance to the root-rotting organisms attacking cereal crops (1) and is widely used in ley farming.

Whilst growing well on a wide range of soils, Wimmera thrives best on soils of relatively high fertility. It has a high degree of salt tolerance and is classed by Teakle (7) in the same category as *Lolium multiflorum* and *Hordeum leporinum* in this respect. Useful in reclamation of salt-affected areas (6).

References

1. Butler, F.C. (1961). Root and foot-rot diseases of wheat. Dep. Agric. N.S.W. Sci. Bull. No. 77. 98 pp.
2. Cariss, H.G. (1962). Wimmera ryegrass - major pasture grass of cereal and sheep areas. *J. Agric. West. Aust.* **3** (4th Ser.), 854-66.
3. Hall, M. (1948). 500 Varieties herbage and fodder plants. Commonw. Agric. Bur., Aberystwyth. Bull. No. 39.
4. Mullett, H.A. (1919). Minyip crop and fallow competition. *J. Agric. Vict. Dep. Agric.* **17**, 65-75.
5. Mullett, H.A. (1919). *Lolium subulatum* Vis "Wimmera" ryegrass. *J. Agric. Vict. Dep. Agric.* **17**, 266-78.
6. Shier, F.L. (1952). The regeneration and maintenance of Wimmera ryegrass pastures under saline soil conditions. *J. Agric. West. Aust.* **1** (3rd Ser.), 781-4.
7. Teakle, L.J.H. (1937). Saline soils of Western Australia and their utilization. *J. Dep. Agric. West. Aust.* **14** (2nd Ser.), 313-23.
8. Trumble, H.C., and Phipps, I.F. (1933). The inheritance of fluorescence in hybrids between perennial ryegrass and Wimmera ryegrass. *J. Coun. Scient. Ind. Res. Aust.* **6**, 170-8.
9. Whittet, J.N. (1926). Wimmera ryegrass. Trials in New South Wales. *Agric. Gaz. N.S.W.* **37**, 295-300.