Register of Australian Herbage Plant Cultivars

A. Grasses
4. Fescue
Festuca arundinacea Schreb. (tall fescue) cv. Alta

Reg. No. A-4a-2
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Origin

A selection made by H.A. Schoth of the Bureau of Plant Industry, U.S.D.A., in cooperation with the Oregon Agricultural Experiment Station at Corvallis. Trials were commenced at Corvallis in 1918 of three separate lines introduced from Germany to U.S.A. during 1907-09. Plants which survived the severe winter of 1922-23 were grouped together as a source of seed for "selection 7". In 1927 selection 7 was redesignated FC29366 and was known under this number until named Alta in 1940. The prime features upon which selection was based were ability to remain green during dry summers in western Oregon and to give high yields of forage. The first sowing for seed increase was made in 1932; it was released in 1940 by the Oregon Agricultural Experiment Station and the Crops Research Division, Agricultural Research Service, U.S.D.A.; and it was registered in 1945 as a variety of *Festuca elatior* L. var. *arundinacea* (Schreb.) Wimm. Breeder's seed is supplied by the Oregon Agricultural Experiment Station, Corvallis, and in 1967 almost all tall fescue seed produced in Oregon was of this cultivar (2). It was introduced for trial by CSIR first in 1941 and again in 1959.

Morphological description

Not distinguishable on morphological characters from cv. Kentucky 31.

Agronomic characters (1, 3, 8)

Climatic and edaphic adaptation similar to cv. Kentucky 31. Main data relating to cv. Alta come from Oregon and north-eastern States of U.S.A. and for cv. Kentucky 31 from south-eastern States. Few direct comparative data are available. It thrives on alkaline soils of pH 9.5 and makes good growth on soils with pH 4.7. It is tolerant of high salinity and will survive relatively well at concentration of 194 m-equiv. soluble salt per litre (6) and it is also tolerant of wet soil conditions. It is slow to establish and its palatability is similar to cv. Kentucky 31.

In comparative sward trials with white clover at Armidale, N.S.W. (4), it was more productive after the first year than Victorian perennial ryegrass, Australian phalaris, and Grasslands Apanui cocksfoot; was outstanding in production during spring and summer; and was apparently as palatable as Australian phalaris. It was less frost-resistant in winter than cv. Demeter.

On the Central Tablelands of New South Wales it has been observed to be well suited to wet areas and able to survive long periods of waterlogging (7). It has tended to be dormant when summer temperatures were high and moisture limited. Summer-autumn rainfall in these areas is too erratic for it and other cultivars of tall fescue (7).

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