

# Register of Australian Herbage Plant Cultivars

## A. Grasses

### 3. Phalaris

#### *Phalaris aquatica* L. (phalaris) cv. El Golea

Reg. No. A-3a-5

Registered September 1977

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#### Origin

Derived from CPI19305 by two generations of selection for seed retention by Dr R.N. Oram of the Division of Plant Industry, CSIRO. CPI19305 was collected by Mr C.A. Neal-Smith of the FAO/CSIRO Plant Exploration Mission in 1954 at Za Sidi Rehal (Mzouda), 55 km west of Amizmiz in southern Morocco; latitude 31° 40'N., longitude 7° 30'W.; altitude 700 m, annual rainfall 200-250 mm with a long severe summer drought. Soil a pinkish brown clay or clay loam (9).

Submitted by the Victorian Department of Agriculture and recommended for registration by the Victorian Herbage Plant Liaison Committee. The Victorian Department of Agriculture will be responsible for maintenance of breeder's seed. Registered September 1977.

#### Morphological description

El Golea differs morphologically from Australian phalaris in a number of ways. It has a more open and erect habit of growth, its leaves are a lighter green and its culms are taller. Its inflorescence is longer and less compact, its outer glumes are hairy and it has larger seeds than Australian. In all these respects it resembles Sirocco except that it has a larger seed than Sirocco. It differs from Siroso in having a less compact inflorescence. The number of seeds per kilogram is c. 550,000.

#### Agronomic characters (1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14)

El Golea's most valuable attribute is high winter production compared with other cultivars of phalaris. Like most of them it is also markedly summer dormant. At Burnley Gardens, Melbourne, it comes into head 2 1/2 weeks earlier than Sirocco and 3 1/2 weeks earlier than Australian (2).

In northern Victoria, particularly the North East where phalaris is an important pasture species, it has outyielded Siroso by 12%, Sirocco by 33% and Australian by 40% during the critical winter period and its total annual production has been at least as high as that of these cultivars over a period of 4 years (3,4). The rainfall in this region ranges from 420-1120 mm per annum; the summers are hot and dry (mean January maximum 26-31°C) and the winters cold (mean July minimum 1-3°C).

It has also outyielded Sirocco and Australian at Coonabarabran, N.S.W. (6) and the parent line, CPI19305, has outyielded Australian at Ginninderra on the Southern Tablelands of New South Wales (14) and has performed well at Albany in Western Australia (13). In Tasmania it has not been as productive as Siroso or Australian (5).

El Golea is easier to establish than Australian and Seedmaster and as easy as Sirocco and Siroso (3,4). It has given more productive stands than Sirocco in the third winter at Wagga Wagga, N.S.W., following better establishment under a wheat crop. However, when sown without a cover crop Sirocco was usually more productive than El Golea after the second year (7,10).

It has persisted well under grazing in the North-East region of Victoria where it was more persistent than Sirocco (4); it was also more persistent than Sirocco at Coonabarabran (6).

Its tryptamine alkaloid content is comparable with that of Australian and Sirocco (11,12).

Seed retention by the parent line CPI19305, is about half that of Australian (8) whereas Sirocco has seed retention comparable with that of Australian (1); Siroso is better (1). El Golea has higher seed retention than CPI19305, having been derived from it by selection for this character (12) but its seed retention is still low.

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