

# Register of Australian Herbage Plant Cultivars

## A. Grasses

### 3. *Phalaris*

#### *Phalaris aquatica* L. (*phalaris*) cv. Sirocco

Reg. No. A-3a-3

Registered September 1967

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#### Origin

Derived from C.P.I.19331 by intense selection for panicle compactness over two generations by Dr. R.N. Oram of the CSIRO Division of Plant Industry, Canberra. C.P.I.19331 was collected by Mr. C.A. Neal-Smith of the FAO-CSIRO Plant Exploration Mission in 1954 on the bank of Oued Sebou at Boukraoua, just north of Port Lyautey in Morocco; latitude 34°20'N., annual rainfall 590 mm with regular severe and prolonged summer drought (4). Submitted by the Division of Plant Industry, CSIRO, and recommended for registration by the Herbage Plant Liaison Committees of New South Wales, South Australia, and Victoria. Registered in September 1967. Seed certified in New South Wales, Victoria, and South Australia.

#### Morphological description

Sirocco differs from Australian *phalaris* in the following respects. Leaf sheaths are longer; laminae broader, lighter in colour, and more erect; and culms fewer, thicker, and longer. The panicles are slightly longer and narrower and the outer glumes are usually hairy. The seeds are larger and more hairy. Ninety per cent of newly germinated seedlings have coloured root tips, varying from pale to intense red.

#### Agronomic characters

Sirocco is more productive and persistent than Australian in areas such as the eastern Riverina of New South Wales, where the summer rainfall is suboptimal for Australian. Sirocco heads about one week earlier than Australian. Its larger seedlings compete better with weeds or cover crops, and plants survive the first summer more frequently because of their larger size at senescence (1) and greater summer dormancy (2). Its growth rate and production of herbage in late autumn and winter is higher (3, 6). Seed production and seed retention are comparable with Australian. In mixtures with subterranean clover, Sirocco *phalaris* is more productive on average and its yield varies less between years and locations than Wimmera annual ryegrass (6).

The concentration of tryptamine alkaloids in its herbage is comparable during winter and early spring with that in Australian but under certain conditions in summer it may be considerably higher (5). However, in areas with a low incidence of summer rainfall, to which Sirocco is well adapted, herbage is not produced during this season. In Sirocco most of the alkaloid occurs as 5-methoxy-N, N-dimethyl-tryptamine, whereas in Australian the predominant form is N,N-dimethyltryptamine (5).

#### References

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4. Neal-Smith, C.A. (1955). Report on herbage plant exploration in the Mediterranean region. FAO Rep. No. 415. (Rome.)
5. Oram, R.N. (1970). Genetic and environmental control of the amount and composition of toxins in *Phalaris tuberosa* L. Proc. 11th Int. Grassld. Congr., Surfer's Paradise, Qld, pp. 785-8.
6. Oram, R.N., and Hoen, K. (1967). Perennial grass cultivars for long leys in the wheat belt of southern New South Wales. *Aust. J. Exp. Agric. Anim. Husb.* **7**, 249-54.