

# Register of Australian Herbage Plant Cultivars

## A. Grasses

### 9. Forage Sorghum

#### *Sorghum vulgare* Pers. (sweet sorghum) cv. Saccaline

Reg. No. A-9b-1

Registered prior to December 1971

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#### Origin

Introduced from Victoria to the Richmond River area of New South Wales by Mr. George Elliott of Woodburn, some time prior to 1916 under the name *Saccharum officinarum* (3). The name Saccaline was applied locally and it replaced the varieties Early Amber cane and Planters' Friend in the northern river district (3).

Nothing is known of the circumstances of its introduction to Victoria. There is a possibility, however, that it came from the U.S.A. and is a selection from the variety Sapling. It is reported (6) that, in 1919, a variety named Saccaline was imported from Australia into the U.S.A. where it was found to be quite similar in all important characteristics to Sapling. Sapling is believed to have originated as a selection from Honey which was one of the varieties introduced to the U.S.A. by Leonard Wray from Natal, South Africa (6).

Selection work with Saccaline was undertaken at the Wollongbar Experiment Farm in 1926, and later at Hawkesbury Agricultural College. Foundation seed selected on seed colour and juiciness of stalk was produced at Hawkesbury Agricultural College and formed the basis of certified seed production which commenced in the 1954-55 season (4). Standards of the cultivar have been maintained to 1971 by continued selection at the Hawkesbury Agricultural College and use of seed from the college by certified seed growers.

It is to be noted that the term, Saccaline, is often applied loosely in the trade to any sweet sorghum.

#### Morphological description (5, 6)

A tall erect annual producing up to 5 or 6 culms per plant. Culms prominently jointed and sheathed, comparatively slender, 2.4-3.4 m high, solid pith, juicy and sweet; branching is usually absent but may occur. Leaves 10-18, flat, up to 96 cm long and 8 cm wide, glabrous except just above ligule, scabrid on margins particularly on upper half, and with broad greenish white midrib; ligule, a short and membranous rim. Inflorescence an irregular long narrow cylindrical, slightly open panicle, approximately 25 cm by 5 cm, with the lower branches spreading a little; rachis hairy, averages about 85% of head length. Spikelets in pairs; one sessile with an upper perfect and lower sterile floret; the other pedicelled, small, and inconspicuous, with two sterile florets. The glumes are narrow-ovate, small, and black with a few hairs; the lemmas hyaline, not awned. The seed (caryopsis) approx. 39,000 per kg, plump and ellipsoid, and projects quite prominently from the glumes; it is a reddish brown colour, normally lighter than cv. Sumac but darker than cv. Sugardrip; it has a brown nucellar layer and starchy endosperm.

The foliage is abundant but dries off rather early and the crop presents a somewhat stemmy appearance compared with Sugardrip or White African.

#### Agronomic characters (1, 5)

Like other sweet sorghums is summer-growing and adapted to subtropical and tropical, coastal and subcoastal districts of reliable summer rainfall; it is, however, more drought-resistant than maize. Also grown successfully as a fodder crop under irrigation, e.g. in northern Victoria, where it gives high yields (2). Grows on a wide range of soils but prefers the lighter fertile types.

Cv. Saccaline is late-maturing. In southern Queensland and northern New South Wales flowering occurs in about 80 days from planting and in central Queensland within 65 days. Grain usually ripens one to two months after flowering. It is capable of producing heavy fodder yields (50,000-75,000 kg per ha green) under a wide range of conditions and retains its palatability after maturity and well into winter; it makes excellent ensilage. Its recovery after grazing or cutting is only fair compared with

some of the newer varieties. It also suffers in comparison with some newer hybrid varieties in its greater tendency to lodge and its greater susceptibility to leaf diseases, especially bacterial red spot. Agronomically it is rather similar to Sumac.

#### **References**

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