

## Aboriginal Food Plants, Their Propagation and Interest for Today's Nursery Trade

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It is my contention that we present day Australians are now beginning to place prehistoric Aboriginal culture in a unique and special place associated with the heritage values of this continent. I believe that the time is right for the nursery trade and therefore plant propagators to accept that there is public interest in those plants which were used by Aboriginal people. The developing interest in those plants used by the first Australians for perhaps longer than 50 thousand years can only grow as more knowledge, understanding and appreciation of Aboriginal culture increases

Aboriginal people through experiment and expediency developed an extraordinary knowledge of the indigenous flora. Besides the obvious use for food, plants were also needed for medicine, ceremony, art, weapons, poisons, snares, daily utensils, shelter, and transport.

It has been shown that Aboriginal technologies for obtaining food varied across regions of the continent. However, as food procurement strategists, the Aboriginal people developed methods comparable in complexity to those of several other indigenous groups (Satterwait, 1980). This argument negates therefore the previously held tenet of a people with relatively simple technologies.

I believe that there is a need to help promote plants for their essential Aboriginal association and this should be done with sensitivity for the Aboriginal culture and care for accuracy in the presentation. It is necessary to translate this interest within contemporary Australian society for things 'Aboriginal' and, as a corollary, for the nursery industry to accept this interest as a challenge and one of the future directions for the plant buying public.

It is my observation that people who participate in 'Aboriginal trail walks', such as the one in place at the Australian National Botanic Gardens, Canberra, develop feelings towards the plants displayed that add a new dimension of importance to the plants themselves. This is an aesthetic dimension for the participant that relates to the plant's history and interaction with humankind. The past associations and importance for the Aboriginal people are transferred to a significance for today's observer.

In the context of a plant propagators' conference, and the industry which it serves, I wish to project these relatively unpromoted plants for their special place in human history. The plants chosen to illustrate the discussion are a few of many examples from temperate Australia.

Interest in the natural environment, and the conservation issues that such interest generates, is not a passing phenomenon. Indications are that this awareness and concern for the environment will redirect our priorities and lifestyles in the future. I do emphasize the importance of an historical perspective in decision making relating to contemporary issues.

We have, by and large, lost our ability to 'capture' most of our food needs today. In our home gardens a narrow range of food plants in no way emulates the gathering of the variety of bush foods available to Aboriginal hunter/gatherers in the past.

It is not my intention to detail all the properties or qualities sought from plants by Aboriginal people. Suffice to say that for those species chosen to provide food, the plant parts were mainly fruits, seed, nectar, roots, and leaves, as well as pith and gum. Such information is derived from studies of the ethnographic record and field research; valuable literature on the ethnobotany of southeastern Australia has been contributed by: J. Backhouse, S. Bowdler, Smyth R. Brough, J.B. Cleland, P.J.F. Coutts, J. Flood, E.D. Gill, B. Gott, B. Hiatt, G.S. Hope, R. Jones, R. Lampert, J.H. Maiden, I. McBryde, D.J. Mulvaney, and N. Peterson. This literature is readily available in Australian libraries.

In line with the aims of this conference, propagation information is provided where available. The indigenous plants chosen to illustrate this theme are, I believe, relatively unknown to the nursery industry and have ornamental potential. The latter evaluation, however, I must admit is a subjective one.

If the examples chosen are already recognised as familiar native plants of the catalogue, do not be put off. If sought, there are hundreds of equally valuable Aboriginal plants needing promotion, many of which have great potential for garden use. Some are highly ornamental, but also endangered because of the small size of naturally occurring populations.

I do not seek or expect a revolution, or even significant early changes in the direction of Australian gardening. I am sure that there will be no loss of interest in the petunia, the camellia or the rose in the foreseeable future, nor am I advocating that this should be so.

It is likely, however, that the concerns for, and understanding of, Australia's remaining 'natural' environment will grow for many people over time. This in turn should promote a wider interest in the plants known to have been useful for Australia's Aboriginal people, and allow a few to find a niche in gardens. Their owners will justifiably feel proud of their heritage values relating to the prehistory of this continent.

*Pittosporum phillyraeoides* DC, native apricot

Family: Pittosporaceae

Aboriginal use: gum, fruit, medicinal.

A shrub or tree to 17 metres (but usually less) with drooping branches. The small yellow to white five-petalled flowers are scented and occur from July to November. The decorative orange fruit, 10 to 12 mm long, is ovoid and opens to reveal sticky red seeds (Costermans, 1981). The species occurs in all Australian mainland states, generally in relatively dry habitats.

Propagation is by cuttings or seed. No pretreatment is necessary for seed, which germinates in 17 to 24 days when sown in summer. Rooting success may exceed 45% for cuttings treated with 500 ppm IBA and 500 ppm NAA.

*Solanum simile* F. Muell., oondoroo

Family: Solanaceae

Aboriginal use: fruit.

There are about 1400 *Solanum* species worldwide, chiefly in tropical and subtropical zones. Australia has 87 endemic species and a further 23 have become naturalised. They occur in all but saline, alpine or aquatic habitats and several species contain steroidal alkaloids which may be considered toxic (*Flora of Australia*, 1982).

*Solanum simile* is one of 24 *Solanum* species listed by Peterson (1979) for their use by Aboriginal people. It is an erect shrub to 2.0 m and grows in sandy, sometimes alkaline soils, often in association with mallee *Eucalyptus* woodlands. Typically, the flower has a violet corolla which is shortly lobed. The globular purplish fruit is 15 mm in diameter.

Propagation is by seed or cuttings, the latter usually taking from 18 to 30 days to root, with 75 to 100% success when using 500 ppm IBA and 500 ppm NAA. Seed in one sowing took 90 days to germinate; several other native *Solanum* species germinate in from 6 to 30 days.

*Gahnia melanocarpa* R. Br., black-fruit saw-sedge

Family: Cyperaceae

Aboriginal use: leaves, shoots, flowers, seeds.

This clumping perennial herb to 2.5 m high by 1 to 2 m wide but usually less, is one of 23 Australian endemic *Gahnia* species. These bold plants have narrow, channelled leaves to 1.5 m long. The flowers are cream and the characteristically hard fruit is brown-black. *Gahnia melanocarpa* occurs in rainforests of Queensland, New South Wales and Victoria and is typically associated with swamp conditions.

Propagation is by seed or division, the latter however being difficult if the reduced sections are too small. If divisions do die back, suckering may follow and lead to recovery. Seed may require pretreatment or take up to 19 months before germination occurs. Other species, notably *G. sieberiana*, may germinate in 40 days.

*Eustrephus latifolius* R. Br., wombat berry

Family: Smilacaceae (Philesiaceae)

Aboriginal use: roots.

A slender, scrambling and twining shrub with leaves having fine longitudinal veins. The flowers are pink with fringed petals. The handsome fruit, 8 to 14 mm in diameter, is orange and splits to reveal 3 to 12 glossy black seeds which mature from July to September. *Eustrephus latifolius* occurs from North-East Queensland to Eastern Victoria in forested moist, usually coastal habitats. It is, however, tolerant of dryness when established.

Propagation is usually by seed, which when sown during winter and spring may germinate in 30 to 45 days. In spite of its status as a monocotyledonous plant, cuttings of *E. latifolius* root relatively easily. A recent propagation gave 56% success using a range of IBA hormone dips.

*Lomandra longifolia* Labill., spiny-headed mat-rush

Family: Xanthorrhoeaceae

Aboriginal use: leaves, shoots, flowers, nectar

There are about 50 endemic Australia *Lomandra* species. This species is a clumping and tufted perennial herb with separate male and female plants. The leaves are strap-like, flat or slightly convex, about 1/2 to 1 metre long, and with a distinctive 2 or 3 toothed apex. The flowers have yellow to cream petals, purplish to yellow sepals, and appear in spring. *Lomandra longifolia* occurs in eastern Australia including Tasmania. It is found in a range of habitats (*Flora of Australia*, 1986).

Seed needs no pretreatment and germination may occur from c. 19 to 32 days. Divisions of established plants should not be reduced in size to very small sections or overpotted.

*Enchylaena tomentosa* R. Br., barrier, or ruby saltbush

Family: Chenopodiaceae

Aboriginal use: fruit.

Ruby saltbush is a low-spreading sub-shrub with woolly procumbent stems. The leaves are green to glaucous and hairy. The spectacular small fruit are about 5 mm in diameter and colours range through green, yellow and red as they mature. This species occurs in all Australian mainland states, especially in semi-arid and arid zones, and is tolerant of many soil types, including those that are saline. *Enchylaena tomentosa* is also drought and frost tolerant.

Propagation is by cuttings or seed. Fog or low rates of mist are desirable for cuttings, which root in about 4 weeks. IBA at 500 ppm and NAA at 500 ppm will give 60% or greater success rates. Viable seed germinates in approximately 4 days if summer sown or in 25 days in winter.

## LITERATURE CITED

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