ASSOCIATION OF SOCIETIES FOR GROWING AUSTRALIAN PLANTS.

AUSTRALIAN FOOD PLANTS STUDY GROUP. ISSN 0811-5362.

NEWSLETTER

NUMBER 16. OCTOBER 1992.

323 Philp Ave.,
Frenchville.
Q'l'd. 4701.
31/10/92.

Dear Members,

I must apologise for the late arrival of this newsletter. It was still in the computer when I was involved in a road accident which put me out of action for a bit, (I'm pretty right now though, which is more than can be said for the van)! Then Number Two Son was in the throes of a uni. assignment, so Mum had to wait in the queue. Still, better late than never.

In the meantime, I spent a very interesting and useful weekend at the National Botanic Gardens in Canberra on your behalf, attending the A.S.G.A.P. Seminar for Study Group Leaders, co-ordinated by the Australian Network for Plant Conservation. It was wonderful to meet so many people and finally put faces to familiar names, and the sessions were of great value. It is planned to publish a handbook as a result, so I will be able to pass on information of particular interest to you from this, as well as from my notes, starting in the next newsletter.

Jim Hill sent us a jar of jam made from Antidesma bunius fruit. It was delicious - tart, dark red, rather like a good quality homemade plum jam in many ways, but still containing the small seeds, as the flesh adheres tightly and is almost impossible to remove. Jim says it was made with the simplest of recipes: boil fruit till soft, add equal quantity of sugar, and boil again till set. He's going to try a jelly next year. Unfortunately, he has had no success whatsoever in germinating the seed of this species. Has anyone any ideas?

Following later in this letter are a number of letters from members, with queries and requests. If anyone can help in any way, or wishes to comment or add to any of the topics raised, we'd love to hear from you. Gary Reed's leaf doesn't look like the plant of *Canavalia papuana* in the Kershaw Gardens, being definitely pointed and considerably smaller, so we'll try to take that identification further.

The winter lillipillies along Waterpark Creek at Byfield were magnificent this year. Very large trees of Acmena hemilampra (Eungella Gum) loaded with round, pure white "cherries"; smaller, dark leaved Syzygium oleosum dropping their heavy crops of football shaped blue fruit into the water; and amongst them trees from very small to very large, carrying Acmenas varying in size from small peas

to large cherries, and in colour from white with the faintest flush of pink or lavender through to bright cyclamen pink. Every specimen I sent away to the Herbarium for identification came back as Acmena smithii, in spite of the trees and fruit looking so different from each other.

Ann McHugh and I were guest speakers at the Wandal Catholic Women's Club on 11th August, and were very well received. The tasting session which followed our talk and demonstration created much interest and enthusiasm. As well as assorted fruits, we had wattle seed damper with native honey and various jams and jellies, wattle flower pikelets, lillipilly wine, raspberry syrup, and lemon tea.

I again conducted the Bush Food/Useful Plant sessions at the annual Aboriginal Studies Activity Day at Marian/St.Stanislaus College. This year our area was further enlivened by the manager of the Dreamtime Cultural Centre who brought along some live witchetty grubs in baskets woven of pandanus.

My Rubus fraxinifolius fruited for the first time this year. It produced a spray of large white flowers, followed by hollow flattened fruits which were succulent and delicious. As it is too warm here for the usual cultivated raspberries, this plant has definite possibilities. At the other end of the climatic scale, I saw a plant of Rubus gunnianus in flower in Canberra, though there was no fruit in evidence.

A couple of months ago I was given some small plants of Triglochin procera. They are surviving so far, but not thriving, in a small glass aquarium on my back verandah. Can anyone help with advice on making them happier?

I recently purchased for the reference library some of the ethnobotanical notes published by the Conservation Commission of the Northern Territory. They are from Belyuen near Darwin, Milingimbi on the north coast of Arnhem Land, and Minyerri which is south of the Roper River. There are also small Identikit booklets on Bush Tucker and Bush Medicine, and some excellent posters available. Prices are extremely reasonable, and if you have a special interest in such matters, it may well be worth writing for a catalogue. The address is: P.O. Box 496, Palmerston, N.T. 0831.

Our Christmas wish for everyone north of about Sydney is for rain, and lots of it, and for all of you, compliments of the Season and good growing!

Regards, Lenore

Lenore Lindsay and Rockhampton S.G.A.P.

NEW MEMBERS.

Welcome to the following new members:-

Kieran MCDERMOTT: c/- P.O. Tumbulgum. N.S.W. 2490.

Liza SCHAEPER: 2 Kulgoa Ave., Ryde. N.S.W. 2112.

Ron TWADDLE: 413 Oxley Rd., Sherwood. Q. 4075.

Michael DELANEY: c/- Dept. Agriculture, Tropical Fruit Research Station, Alstonville. N.S.W. 2477. (Michael has taken over from Brett Robinson, who has been sent to Wagga Wagga.)

A. MACKENZIE: P.O.Box 313, Manly. N.S.W. 2095.

Bob BUCH: 37 Bushland Dr., Taree. N.S.W. 2430.

Nick HOCKEY: "Nahele", McHughs Ck. Rd., via Bowraville. N.S.W. 2449.

Alex LYONS: Pacific Highway, Valla. N.S.W. 2448.

David PHELPS: P.O.Box 519, Longreach. Q. 4730.

Pia SORENSEN: Leap Station Rd., M/S 895, via Mackay. Q. 4741.

Arthur RUDNICK: 17 Fletcher Rd., Elizabeth East. S.A. 5112.

A.I.JAMES: M/S 424, Beerwah. Q. 4519.

EDIBLE SPECIMENS TABLED AT MEETINGS:

24.7.92: Grevillea banksii (white), G. "Honey Gem", G. "Pink Surprise", G. teretifolia, G. venusta, G. sp., Melaleuca viminalis, M. viridiflora (red), Macadamia integrifolia, Hibiscus diversifolius, Acacia podalyriifolia, A. decora, Syzygium fibrosum.

28.8.92: Acacia podalyriifolia, A. salicina, A. aulacocarpa, Alectryon tomentosus, Callistemon pachyphyllus (green), Cassia brewsteri, Cyperus sp., Cordyline sp., Dianella sp., Eleagnus triflora, Grevillea banksii (red), G. banksii (white), G. obtusifloia, G. "Honey Gem", G. "Pink Surprise", G. "Superb", G. venusta, Leptospermum flavescens, Melaleuca viminalis.

24.9.92: Brachychiton bidwillii, Grevillea banksii (red), G. obtusifolia, G. "Robyn Gordon", G. asplenifolia, G. robusta, Callistemon formosus, C. salignus, C. pachyphyllus, C. "Eureka", Melaleuca viminalis, M. linarifolia.

EXCURSIONS.

5.7.92: Canoona: Canthium odoratum, Capparis canescens, Ficus opposita, Hibiscus heterophyllus, Leucopogon sp., Xanthorrhoea media subsp. latifolia, Macrozamia miquellii, Cassytha filiformis, Eustrephus latifolius, Hardenbergia violacea, Geitonoplesium cymosum, Passiflora foetida, P. suberosa, Grewia latifolia, Dianella sp., Gahnia aspera, Cyperus sp., Emilia sonchifolia, Panicum effusum, Themeda australis.

1/2.8.92: Weekend camp Blackdown Tableland: Acacia complanata, A. podalyriifolia, Banksia oblongifolia. B. spinulosa, Callistemon pearsonii, Eucalyptus citriodora, Exocarpos cupressiformis, Grevillea floribunda, G. longistyla, Leptospermum flavescens, Leucopogon biflorus, L. muticus, Persoonia fastigata, Santalum lanceolatum, Livistonia sp., Macrozamia platyrhachis, Xanthorrhoea johnsonii, Billardiera scandens, Cassytha filiformis, Eustrephus latifolius, Hardenbergia violacea, Smilax australis, Dianella caerulea, Lomandra longifolia, L. leucocephala.

6.9.92: "Belgamba", Struck Oil: Rauwenhoffia leichardtii, Carissa ovata, Capparis arborea, C. ornans, Terminalia porphyrocarpa, Commelina cyanea, Dioscorea transversa, Diospyros australis, D. fasciculosa, D. geminata, Hibiscus heterophyllus, Acacia melanoxylon, Ficus obliqua var. petiolaris, F. opposita, Malaisia scandens, Passiflora aurantia, Geitonoplesium cymosum, Citriobatus pauciflorus, C. spinescens, Canthium coprosmoides, C. odoratum, Acronychia laevis, A. pauciflora, Alectryon subdentatus, Planchonella pohlmaniana, Smilax australis, Solanum stelligerum, Sterculia quadrifida, Clerodendrum floribundum, Cayratia acris, Cissus oblonga, C. reniformis, Tetrastigma nitens.

4.10.92: Kershaw Gardens: (In flower, fruit or seed): Acacia holosericea, A. aneura, A. farnesiana, A. victorae, A. salicina, Backhousia anisata, Billardiera scandens, Brachychiton bidwillii, Cassia brewsterii, Carpobrotus glaucescens, Dianella sp., Dodonaea viscosa, Diospyrus ferrea, Dioscorea bulbifera, Eugenia reinwardtiana, Ficus opposita, F. watkinsiana, F. racemosa, Geitonoplesium cymosum, Lomandra longifolia, Lysiphillum hookeri, Marsilea sp., Morinda citrifolia, Myoporum ellipticum, M. debile, Owenia acidula, Pandanus sp., Pipturis argenteus, Pittosporum phylliraeoides, Sterculia quadrifida, Syzygium australe, S. wilsonii, Terminalia porphyrocarpa, Tournefortia argusea, Typha sp.,and various species of Callistemons, Eucalypts, Grevilleas, Hibiscus, Mistletoes and Melaleucas, too numerous to list separately.

LETTERS TO THE EDITOR

8 Vanity St.,
Toowoomba.
Q. 4350.
8.9.92.

Dear Lenore,

Thank you for the newsletters which I find to be excellent, and look forward to receiving each new issue.

In response to the request for information on seed and germination of *Terminalia ferdinandiana,* my seed source was Top End Seeds, 4 Montoro Crt., Larrakeyah, N.T. 0820. Their phone number is 089-812705. I planted about 20 seeds (1 to each 2" tube) about mid spring 1991. First germination was about 6 weeks, and about 50% germinated by the end of summer. One of the remaining seeds germinated on the 15th August, 1992! For germinating these seeds I found periods of, say, a couple of months of keeping them very wet, and when there are no more emerging, let the pots dry out for a few weeks, and then wet them again for another period, to be quite successful. They like very warm to hot conditions. I was unable to keep a very small (7cm) plant alive in my hothouse over winter. It died about 20.7.92.

The large *Cissus* which is either not fruiting or is a shy bearer might well be treated by fertilizing with Potassium and Phosphorus, but not Nitrogen.

If any readers want them, I could send seeds of Syzygium paniculatum, S. australe (available autumn), and some years S. leuhmanii in mid to late summer.

Following is a list of seeds, cuttings, or small plants that I would like to obtain if anyone can help me.

Beilschmiedia bancroftii, Capparis all species, *Cissus* all except *C. antarctica* and *C. hypoglauca, Dioscorea transversa, Ficus nodosa, F. melinocarpa, F. pantonia, F. platypoda, F. variegata,* (but a good fruiting form of this last one - preferably a rooted cutting or a few cuttings from a good tree), *Freycinetia propinqua, F. scandens, Garcinia* except *G. gibsae* and *G. warrenii, Melastoma polyanthum, Microcitrus inodora, Microseris lanceolata, Passiflora* all species, *Pouteria sericea,* and *Acronychia laevis.*

I will immediately refund postage and, if advised, packing cost. I am prepared to pay a modest price for plants if advised also.

Oliver Carter.

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84 Chelmsford Ave.,
Epping. N.S.W. 2121.
10.10 91.

Dear Lenore,

I have let the months slip by too fast - but:
I had hoped to contribute more *Ficus coronata* seed to the seed bank. However the dry autumn in Sydney following a dry summer was a disaster - all the budding young fruit all over my female tree just fell off. The male tree managed to keep producing its small green figs all winter, with a huge flush now it's spring. Some months ago I selected a larger than average male fig, split it in half to observe the mature anthers, and put the fig in a small jar. By the next day there were a phenomenal number of tiny black agaonid wasps (with minute wings sticking straight upright) all over the inside of the jar, having emerged from the gall flowers. An interesting exercise!

Way back in Feb. 1990 I purchased 1kg (for $4) of fresh bunya nuts from Eden Seeds, but was too busy when they arrived to do anything. They got left in their sealed plastic bag in a cool cupboard for about 5 months before I dared look at them. To my surprise the bag was full of healthy germinated bunya nuts! Large tuberous radicles had emerged from the fibrous seed coats.

Co-incidentally, I then came across an article by D. Doley in the journal Seed Science & Technology, 18: 33-42 (1990), which found that the best way to obtain 95% germination of *Araucaria bidwillii* seeds was by immediate storage of fresh seeds in closed polythene bags for 40 to 100 days. (The article stressed polythene bags rather than polycarbonate film which was not successful).

Fresh seed has a moisture content of 30% of fresh weight. If seeds are allowed to dessicate to less than 25%, germinability is greatly reduced. Rate of seed drying in *A. bidwillii* was found to be 0.2% of the initial weight per day. But if the seeds are enclosed in polythene bags and stored at 20°C, germination commences around 40 days even without the addition of water. Half the seeds germinate by 60 days. Those seeds not germinated by 100 days can be stimulated to do so by dipping in water and then returning them to closed polythene bags.

Doley says "the ability of seed to germinate without the provision of additional water suggests that, in the forest, germination could proceed in the absence of rainfall, provided that dessication of the seed was prevented... if the seeds were buried to a depth of a few centimetres in the soil. The liklihood of this occurring without the intervention of humans must be considered to be small, but since the seeds were prizes by aboriginals as a source of food, it may not be unreasonable that some were deliberately buried during seasons of abundant seed crops."

So, it seems I had, by a fluke of negligence, hit upon the optimal way to germinate bunya nuts. The story didn't end there, of course. At the end of July 1990 I potted these seed-coat topped carrots individually in 150mm pots of sand/peat/compost mix, with the seedcoat half protruding, and kept well-watered.

Doley comments "the only evidence of growth for several weeks following the commencement of germination was the production of a single large tap root, at the base of which developed a tuber that eventually gives rise to the erect shoot". It seems "eventually" is the key word. Months passed. I guess I expected a shoot to vigorously rise up and lift off the fibrous seed-coat. Only one did so unassisted, and that was from a nut that had subsided into a near horizontal position. Earlier this year, I curiously pulled at the seed-coats. They came away semi-rotten. (I despaired of having over-watered). But over the next few months a closer inspection of the pots (that I had thankfully not thrown out) showed the development of small leaves on the woody apex of the tuber. If I had left the seed-coats on I feel sure the leaf development would have been delayed. Now, 12 months from potting, my plants range from barely visible to 17cm tall with a whorl of 2 or 3 lateral shoots well developed.

Araucaria bidwillii merits 4 pages in the new book by Louis Glowinski, The Complete Book of Fruit Growing in Australia, Lothian 1991. He describes the double-germination: transfer of nutrients from inside the nut to a secondary tuber deeper in the ground, this being joined to the original nut but viable on its own. "This tuber or earth nut is drought tolerant, and remains viable for a long time, waiting for a propitious time to germinate" (i.e. shoot). "The earth nut is also edible and has an excellent flavour, and I am sure that the Aboriginals who stored their bunyas (by burying) were doing so in anticipation of this extra taste treat. It is said to resemble coconut in flavour."

I have also been growing *Austromyrtus dulcis* from seed. Two small plants purchased last year flowered well in summer, with berries being prolific in April 1991. Those that were not gobbled up by my two children I collected and ate, after first breaking them in half and retrieving the pithy seed clump from the centre. The seeds were readily picked out with fine forceps, and soaked on a sprouting tray (the type used for alfalfa sprouts). When radicles emerged I potted each seed individually in 50mm tubes. By the end of April I had accumulated 70 seedlings. Now, in October, there has been no mortality, but seedlings are slow growing, only 3cm tall with 8-9 leaf pairs.

All for now,

Shona Sadlier.

Cranbrook. Q. 4814

Dear Lenore,

Sorry I've been so slack reporting back to you on the bush Tucker survey with school kids I conducted at the University at the start of this year. I hope you haven't been waiting for it.

The Townsville Branch of SGAP had their annual plant expo on Saturday 15th August and the Bush Tucker I had on display generated a large amount of enthusiasm from the public. Species used were: *Pleiogynum timorense* (and jelly made from the same), *Morinda citrifolia*, *Solanum nigrens*, *Nelumbo nucifera* (roots), *Pandanus whitei*, *Macadamia integrifolia*, *Elaeocarpus angustifolia*, *Dioscorea bulbifera*, *Sterculia quadrifida*, *Acronychia acidula*, *Terminalia catappa*, *Alpinia caerula* (fruit), *Prumnopitys amara* (leaves), *Ficus racemosa*, *Eugenia reinwardtiana*, *Mimusops elengi*, *Hibiscus tiliaceus* (flowers) and *Syzygium alliigneum*. The *Acronychia* and *Pleigyonum* got overwhelming approval by visitors and society members alike as an eating or cooking fruit. A group member had donated the underground tuber of *Discorea bulbifera* (Yam) which, at 2 years old, weighed more than 5 kilograms and is now on display at the Townsville Museum's Aboriginal culture display.

Greg Calvert.

SURVEY OF BUSH FOODS BY 21 YEAR 10 (15 YR OLD) STUDENTS

A class of 21 students were asked to sample a total of 28 types of bush food. Four of these plants weren't native but were used to highlight certain points. The Brazil Nut is the only plant which is still collected totally from the wild and exported internationally. *Passiflora foetida* and *Tamarindus indica* are both naturalised and can frequently be collected in local bushland. The capers, though of the commercial tinned variety, were given after the students were shown the local caper (*Capparis arborea*) as a potential source of this foodstuff.

As each specimen was sampled, I announced that I thought it tasted delicious and asked for a show of hands as to whether they: strongly agreed (SA), agreed (A), were undecided (U), disagreed (D) or strongly disagreed (SD). The number of students voting was variable and could be used an index of how palatable that fruit appeared.

SPECIES	SA	A	U	D	SD	No.Votes
Brazil Nut (*Bertholletia excelsa*)	4	15	1	-	-	19/21
Macadamia Nut (*Macadamia integrifolia*)	18	2	1	-	-	21/21
Cluster Fig (*Ficus racemosa*)	-	1	9	8	2	20/21
Sea Almond (*Terminalia catappa*)	7	11	2	1	-	21/21
Beach Tamarind (*Cupaniopsis anacaroides*)	-	-	5	10	6	21/21
Beach Hibiscus (flowers) (*Hibiscus tiliaceus*)	-	5	10	4	2	21/21
Samphire (*Halosarcia indica*)	-	2	2	9	5	18/21
Exotic Tamarind (*Tamarindus indica*)	5	7	1	4	3	20/21
Dodder Laurel (*Cassytha pubescens*)	3	4	12	2	-	21/21
Blue Quandong (*Elaeocapus angustifolia*)	-	3	7	6	5	21/21
Native Ginger (fruit) (*Alpinia caerula*)	1	11	9	-	-	21/21
Lillipilli (*Syzygium leumanii*)	2	8	-	11	-	21/21
Lillipilli (*Syzygium wilsonii*)	-	5	8	7	-	20/21
Lillipilli (*Syzygium armstrongii*)	6	3	3	2	7	21/21
Lillipilli (*Syzygium angophoroides*)	2	2	7	5	5	21/21
Lillipilli Jam (*Syzygium angophoroides*)	15	6	-	-	-	21/21
Lillipilli (*Syzygium australe*)	4	3	1	8	4	20/21
Bush Apple (*Syzygium suborbiculare*)	6	5	4	4	1	20/21
Taro (boiled) (*Colocasia* sp.)	3	1	7	2	7	20/21

Native Grape (*Cayratia trifolia*)	3	10	4	2	1	20/21
Native Grape (*Cissus opaca*)	-	-	7	11	2	20/21
White Currant (*Flueggea virosa*)	1	8	8	2	-	19/21
Lerp (Scale Insect) (on *Eucalyptus platyphylla*)	9	9	2	-	-	20/21
Capers (*Capparis* sp.)	2	1	2	3	11	19/21
Stinking Passionfruit (*Passiflora foetida*)	15	4	-	-	1	20/21
Grewia (*Grewia latifolia*)	3	2	4	6	2	17/21
Chocolate Green Ants (*Oecophylla smaragdina*)	13	2	1	1	-	17/21

Conclusions: There was a wide range of reactions to these foods and was hopefully a reasonably good cross section of Australian consumer attitudes. The extremes ranged from one boy who refused to try most fruits (and wasn't even too keen on Macadamias!) to a young Fijian girl who thought everything was great and was horrified when some students didn't like Taro (her main staple in Fiji). It was perhaps understandable that I failed to get any takers to try the Cheese Fruit (*Morinda citrifolia*) due to the overpowering smell and taste. Previous displays have shown that some people genuinely like Cheese Fruit but obviously appeals to a very small section of the community.

It is evident from the Lillipillies that there is a huge variation within this genus and that market acceptability can be greatly improved by cooking. To any potential Bush Tucker farmers reading this, it must be remembered that wide genetic variation exists within each species and much selective breeding is probably required. Perhaps a few other club members could conduct similar sorts of surveys themselves and the combined results would hopefully then be an indication of the market acceptability of a wide range of Australian bush foods.

26 Fifth Ave.,
Scottville. Q. 4804.
16.9.92

Dear Lenore,

Hope this finds you well. Please find enclosed seeds and specimen of plant.

I have been meaning to get these off to you for ages. Anyway, I expect that these are *Canavalia papuana* from your description - greyish, hairy, rounded leaves (these are pointed at the ends though). Also, the State Herbarium identified *C. papuana* collected up Pelican Creeks head, and our farm is on its bank. The leaf shape of this plant was smaller and more pointed though. The plants in the creek at our place grew on the sand with a falling water level through winter and produced very abundantly.

I have some concerns with the growing of native plants - obviously plants from other areas that spread, and also the necessity for selection and breeding of plants in areas in which they are indigenous, e.g. *Pleiogynium timorense* is a major tree of the creeks here, and if I planted substantial numbers of plants sourced from other areas or selected for fruit characteristics, this might weaken the local gene pool and contribute to lack of bio-diversity. A plant that fruits well might not be as drought, flood, fire, defoliation, etc. resistant. I believe that there is variation in plants that relates to the micro-variation in the eco-system, and as my primary motivation for using native plants is environmental, I would like to factor this into the equation. I don't have concerns about small urban plantings, but with larger , more general applications.

Does anyone know of any work on this subject at all?

I've really found the newsletter great, a real antidote to the pessimism I seem to come up against on this subject up here.

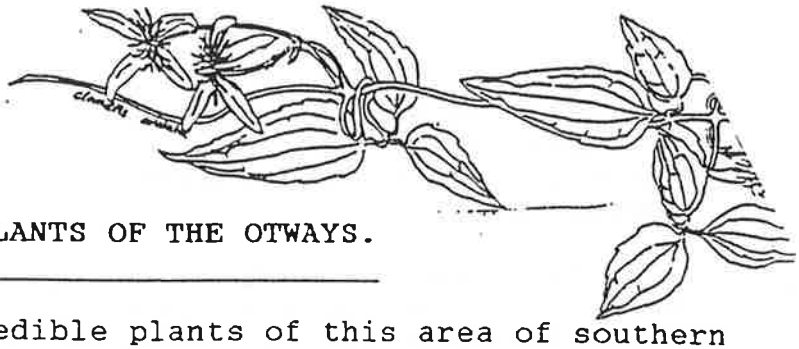
Cheers,

Gary (Reed).

MEMBERS' GARDENS

Arthur Rudnick of South Australia is a berry keen fruit grower! While he grows many Australian natives, his main gardening interest is cultivating berry type plants from all over the world, and his collection includes many North American varieties. He is keen to expand the Australian representation among his fruits, and would like to hear from other members with similar interests who may have seeds or other material available, particularly of native raspberries, limes, and cranberry (Astroloma humifusum). He is also a member of the Rare Fruit Society.

RUBUS PARVIFOLIUS, the Small-leaf Bramble or Pink-flowered Raspberry



EDIBLE PLANTS OF THE OTWAYS.

Our knowledge of native edible plants of this area of southern Victoria is sketchy, due to the early destruction of Aboriginal culture. Diseases, dislocation and discrimination, coupled with very little recording by the invading Europeans, have left us with a limited number of known edible species.

Often the species which were recorded were noted by a single ill-informed source. Therefore early records of edible plants need to be treated with some caution, since many of these require complex preparation before they can be eaten eg. Mangrove seed.

Another problem is that no apparent selection had been made by the Aborigines of plants, for a better yielding food staple. Europeans have many heavy yielding food plants (already selected by various indigenous people) from all over the world. Australian natives will probably never form a food staple, with perhaps the sole exception of the Macadamia Nut, and its commercial viability is due to the Yanks!

Before eating native plants, it is a help to know the array of poisons which can confront you. If it is natural it is not necessarily safe. **Toxins** tend to be in Family or Genus groups, and some of the major ones are:-

Glycosides.

These work on the heart, causing vomiting and purging. Solanaceae, Digitalis, and many plants with milky latex sap eg. Apocyanaceae, contain glycosides.

Serotins.

To check for this toxin, grind the plant, shake vigorously with water or boil, then stand. If the resulting froth is stable after half an hour, reject the plant. Nicotinia, Duboisia and Derris contain serotins.

Cyanide.

The species containing this poison often taste and smell of benzaldehyde (bitter almonds). Many nuts contain cyanide which can be removed by a process of boiling and washing.

Alkaloids.

These are often very bitter and work mainly on the central nervous system. Alkaloides are found in Solanaceae and Senecio.

Oxalic Acid.

This comes in two forms. One burns the mouth whilst the other combines with body calcium to form kidney stones. The soluble oxalates are usually sour, and the main plant families containing this toxin include Polygonaceae and Oxalidaceae.

Unfortunately, toxin levels can vary from year to year, concentrate more highly in different plant parts, and be influenced by plant maturity. People can differ in their reaction to plant poisons.

Some poisons have a cumulative effect eg. ferns. The fern toxin destroys body vitamin B, but is only dangerous if normal levels of vitamin B are not maintained. Eat foods rich in this vitamin whilst consuming ferns.

Many fungi are edible, although in terms of nutrition ie. proteins, vitamins, etc. quite poor. If unable to be positively identified they are not worth the risk, as the poisonous varieties are extremely toxic and heat stable.

Nutrition.

The major human food requirement is energy (carbohydrates and fats). Most of the Australian flora has either low food value or is difficult to gather in large enough quantities to be worth the energy expended in both collection and preparation.

Shoots and berries are most cost effective energy-wise, since large quantities can be collected on the run, need no preparation and are highly digestible. Berries also form a valuable source of water.

Leaves contain too much cellulose to be a good food source, and approximately 11 kg. would need to be eaten to satisify daily requirements.

Bulbs, tubers and rhizomes require some effort at digging out and preparation, but do have relatively high nutritional status.

Seed has high food value but presents difficulties in collection and preparation.

Much of our flora yields good quantities of nectar, and some flowers, eg. Wahlenbergia, can be eaten whole.

GENUS AND FAMILIES OF SOME EDIBLE PLANTS.

Orchidaceae: virtually all bulbs are edible.

Santalaceae: all fruits are edible, and in some cases the seed.

Myrtaceae, Proteaceae and Xanthorrhoea are excellent sources of nectar.

Proteaceae seed is also edible.

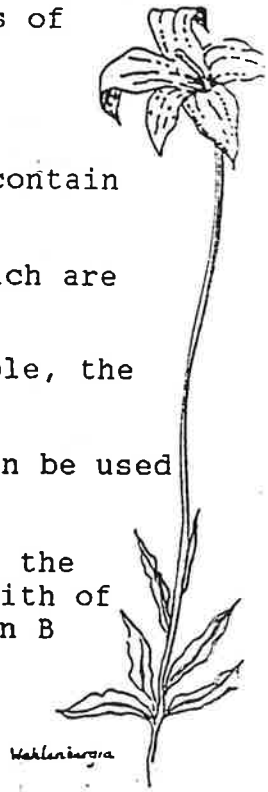
Epacridaceae: all soft fruits are edible, and some flowers contain useful quantities of nectar.

Solanaceae: generally a family to avoid, and the species which are edible need to have very ripe fruit.

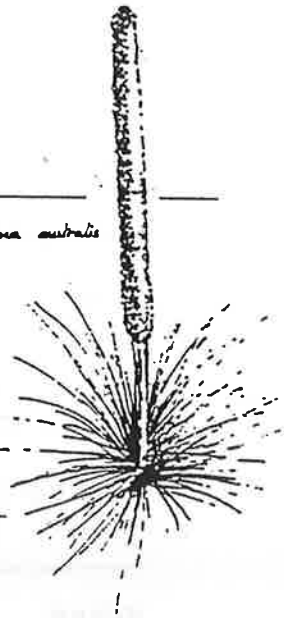
Asteraceae: most of the daisy group is edible if not palatable, the major exception being Senecio.

Grasses and Sedges: have seeds, rhizomes and shoots which can be used after a fair amount of preparation.

Ferns: The tips - fiddles - can be used following removal of the hairs. The rhizomes can be pounded and baked. The pith of Tree Ferns can also be eaten. Be aware of the vitamin B destroying properties of ferns.



EDIBLE NATIVE OTWAY PLANTS



NAME	PREPARATION
WATER PLANTS	
Typha ssp. (Bulrush, Cumbungi)	Bake roots. Shoots can be eaten raw.
Triglochin procera (Water Ribbon)	Bake tuber.
Phragmites australis (Common Reed)	Shoots can be eaten raw.
SEDGES	
Gahnia ssp. (Saw Sedges)	Very young shoots can be eaten raw.
LILY FAMILY	
Xanthorrhoea ssp. (Grass Trees)	Eat top of stem raw or baked. Leaf bases can be eaten raw. Flower stalk is toxic. Nectar in flowers. Use only as a survival food, as eating the stem apex kills this slow growing plant.
Lomandra ssp. (Mat Rushes)	Young shoots and leaf bases can be eaten raw.
Dianella ssp. (Flax Lillies)	Fruits can be eaten raw.
Thysanotus tuberosus (Common Fringe Lily)	Roots can be roasted.
Anguillaria dioica (Early Nancy)	Bulbs can be eaten raw or cooked.
Burchardia umbellata (Milkmaids)	Bulbs can be eaten raw or cooked
ORCHIDS	
Most terrestrial orchids	Bulbs can be eaten raw or roasted.
SUCCULENTS	
Carpobrotus ssp. (Pig Faces)	Soft pulp of fruit edible. Leaves are a water source with some food value.
Disphyma sp. (Noon Flower)	Leaves edible raw.
Suaedia australis (Austral Seablite)	Stem tips and leaves edible raw or cooked.
MISTLETOES	
Loranthaceae Family	Fruit may be eaten raw (revolting!)

VINES, CREEPERS AND SCRAMBLERS.

Billardiera ssp. (Apple Berries)	Fruits are edible raw.
Cassytha ssp. (Dodder Laurel)	Fruits may be eaten (possibly purgative).
Clematis ssp. (Clematis)	Roots must be baked before eating.
Oxalis corniculata (Yellow Wood Sorrel)	Whole plant edible, but high oxalic acid content can be a problem.
Rubus parvifolius (Small Leaf Bramble)	Fruit edible raw.
Tetragonia ssp. (N.Z. and Bower Spinach)	Leaves used as a spinach or eaten raw.

HERBS.

Apium prostatum (Sea Celery)	Cook leaves and stem.
Geranium ssp. (Crane's Bills)	Roots can be cooked.
Hydrocotyle ssp. (Pennyworts)	Boil leaves.
Urtica incisa (Scrub nettle)	Boil leaves.
Wahlenbergia ssp. (Bluebells)	Flowers edible raw.

TREES AND SHRUBS.

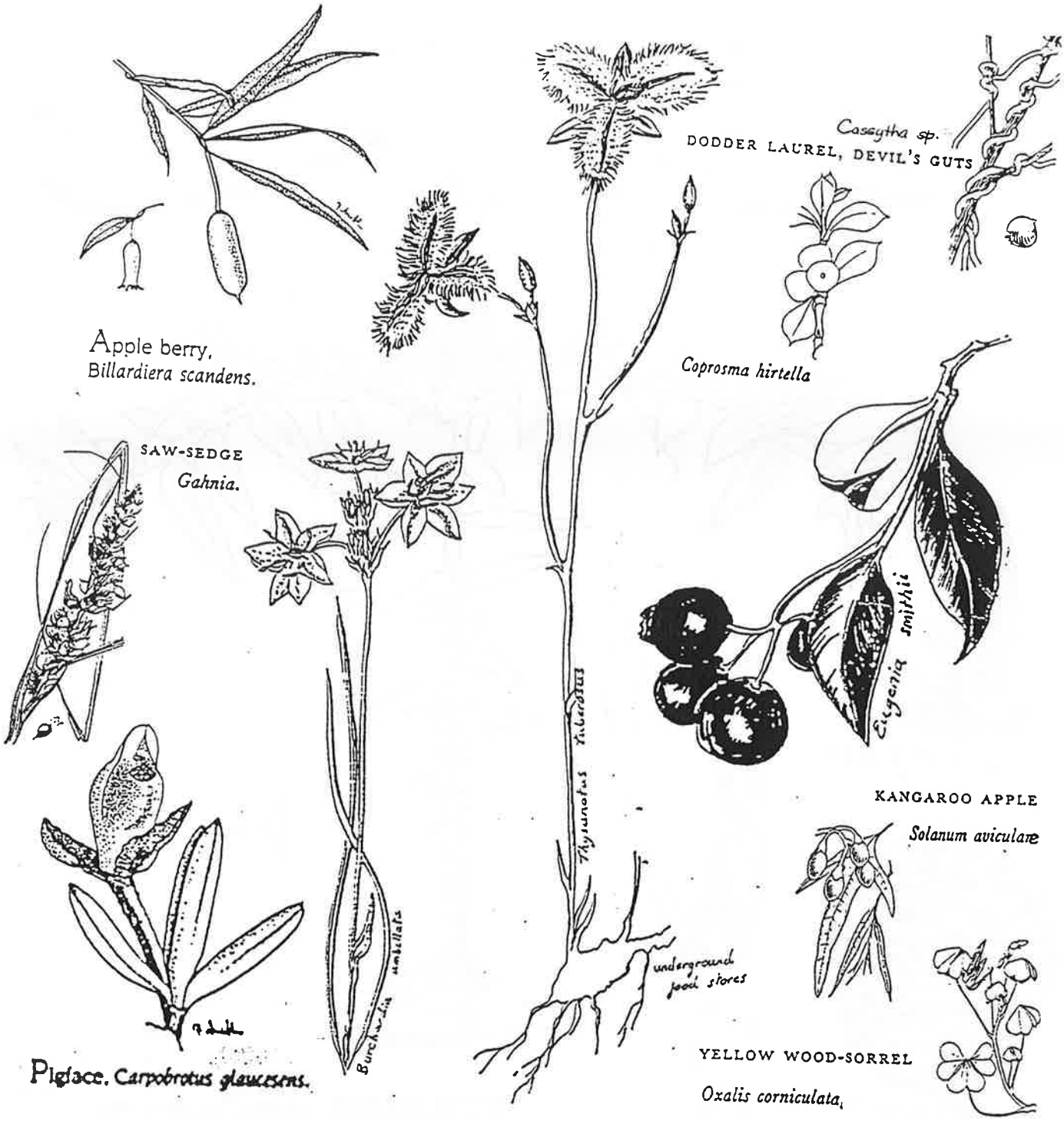
Acrotriche ssp. (Honey Pots)	Fruits and nectar.
Astroloma humifusum (Cranberry Heath)	Fruits and nectar.
Banksia marginata (Silver Banksia)	Nectar and seed.
Casuarina ssp. (She-oaks)	Leaves and young kernals can be chewed to relieve thirst.
Coprosma ssp. (Coprosma)	Fruit eaten raw.
Exocarpus ssp. (Ballarts)	Fruit can be eaten raw.
Leucopogon parviflorus (Coast Beard Heath)	Raw fruit eaten.
Myoporum ssp. (Boobiallas)	Fruit edible raw.
Sambucus gaudichaudiana (White Elderberry)	Raw fruit eaten.
Solanum ssp. (Kangaroo Apples)	Fruit must be very ripe before using.

BEVERAGE plants include: Acaena, Correa alba, Hardenbergia, Leptospermum.

CONDIMENT plants include: Drimys (Native Pepper), Mentha.

List of plants according to Willis.

* BOB SHOEBRIDGE.



Restaurant food for thought from bush tucker chef

ADELAIDE — Witchetty grub soup washed down by a cup of wattlecino, made from ground wattle seeds, would replace Australia's traditional meat pie and beer if bush tucker chef Andrew Fielke controlled the menu.

The 33-year-old chef said he would like to see dishes such as emu egg pasta, chargrilled yabbies and quandong pie become national traditions.

Mr Fielke has opened one of the country's first bush tucker restaurants, the Red Ochre Grill in Gouger St, in the heart of Adelaide.

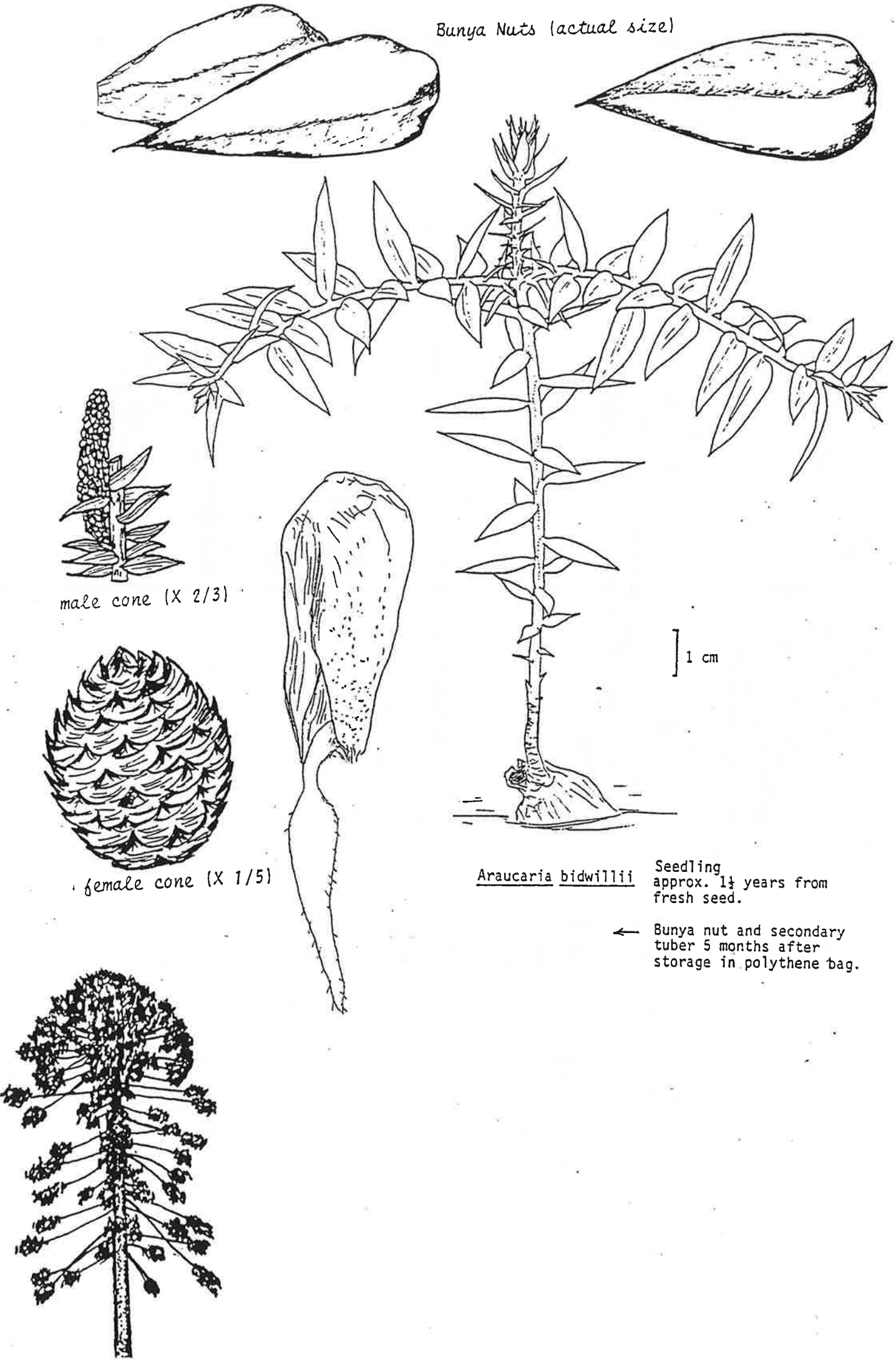
He said the restaurant was Adelaide's answer to Riberry's in Sydney and would likewise use "some of the world's finest food right on its doorstep".

Mr Fielke said he would like to see bush tucker dishes introduced across the nation to encourage Australians to regenerate the natural bushland and develop national pride.

But he said not all Aussie favourites should be cut from the cuisine and some traditional Aussie dishes would remain on his restaurant menu — with a slight difference.

Pavolas would be served with emu eggs and pizzas would be topped with yabbies.

"Europeans have been here for 200 years and virtually ignored native foods," Mr Fielke said.


Bunya Nuts (actual size)
male cone (X 2/3)
female cone (X 1/5)
1 cm
Araucaria bidwillii
Seedling approx. 1½ years from fresh seed.
← Bunya nut and secondary tuber 5 months after storage in polythene bag.