ASSOCIATION OF SOCIETIES FOR GROWING AUSTRALIAN PLANTS.

AUSTRALIAN FOOD PLANTS STUDY GROUP. ISSN 0811 5362.

NEWSLETTER

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323 Philp Ave.,
Frenchville.
Qld. 4701.
18/5/2003.

Dear Members and subscribers,

Well, a belated Happy New Year to you and yours. We hope it has begun well and continues the same way.

As it always seems these days, the seasons have been capricious and rainfall unpredictable here on the Tropic. We've had one lot of good rain this year, and that's it. There's been a bit of isolated "weed rain" but we desperately need follow up falls. The water in the holes in the creeks is rapidly disappearing, and the countryside is starting to brown off. One begins to wonder if we somehow imagined the wet seasons of the ever receding past, but then the framework of the local creeks and lagoons is there to reassure, so hope springs eternal.....

At present the creeks are lined with the tall white paperbarks *(Melaleuca fluviatilis)* adorned with their great weeping ropes of sticky green brushes that drip on the unwary passerby, and full of squawking parrots and myriads of insects. Many other varieties of *Melaleucas* and *Callistemons* are also in flower right across town, where a form of *Callistemon* (or is it definitely *Melaleuca* these days?) *viminalis* is widely planted as a street tree.

A spelling correction is necessary from the last newsletter - the plant on Willie Bollerman's property is *Leucaena glauca*, now an environmental weed in much of the tropical north, which puts it in the same category as Jujube (*Zizyphus sp*).

Work has finally begun in earnest on the bush food garden at Emmaus College in North Rockhampton. At a working bee last weekend the paths were laid out, and the borders of treated logs fixed by metal ties driven into the ground. On the subject of school gardens, the Queensland Bushfood Association is currently working on what they hope will prove a comprehensive kit designed to promote bushfood gardens in schools. I will keep you informed.

We have been told there will be national conference called "Herbs, Native Foods and Essential Oils" run by members of the Lismore

Herb Festival with the Department of Agriculture in September this year. More information at www.herbfestival.com

While we assisted Kershaw Gardens staff with identification and name changes for the plants round Thozet Walk preparatory to refurbishment of name plates and information plaques, and the setting up of at least one self-guided walk, we have not heard whether this work has yet commenced.

I have had some requests recently for more information on temperate climate bush foods in the newsletter. As you know, Rockhampton is in the dry tropics, so anything I could write would be at second hand. Therefore, I'd appreciate contributions from any of you who have experience of these plants so we can include a wider spread of subject matter. Don't forget that articles from newspapers and other publications can also contain much of interest to be shared.

I've also had a request for information about the native raspberry *Rubus moluccanus* var *trilobus* ,from northern New South Wales, particularly for flowering and fruiting times, and whether anyone is currently growing this, so if anyone can help, please write or email.

21 June: This is going to turn into the sort of serial letter my mother (bless her soul) used to write. Like her, I don't seem to get a clear go at anything, so it's all done in bits and pieces. Please continue to bear with me.

The good news is that the "dreaded book" is finally in the hands of the printers, and Rocky SGAP is now just tying up the loose ends of the final report and trying to arrange a suitable official launch. Then we can get back on track with all the things we've had in the background for so long, including the Study Group newsletters.....and maybe sell a few books at well! So if anyone wants a copy of "Native Plants for the Fitzroy Basin" ($18 retail or $15 for SGAP/APS members) just write. It's basically a guide to choosing native plants suitable for the area for revegetation, landscaping, erosion control, amenity planting, home gardens, etc., with lots of other information besides a species description for each plant.

Unfortunately, it still hasn't rained, but it has got cold (for us anyway), with night temperatures down to 8 degrees, even though the days are up to 25, and usually clear and sunny. The vegetation has taken on its typical winter yellow tinge, and all the winter flowering trees and shrubs are putting on a brave show.

At the beginning of June, our monthly SGAP excursion was down to Tondoon Botanic Gardens in Gladstone, which was running a community Eco-Fest. I had been invited to talk on local bush foods, and Joel Plumb to speak on some local plants, accompanied by his gorgeous photographs, so the others came to help set up, lend moral support, poke around the stalls, and enjoy a walk in the gardens. It turned out to be a very pleasant day, and when our talks were over, and the morning tea of Lemon Myrtle cake, scones with Quandong jam and a cuppa served, we all checked out the self-guided Useful Plants Walk, and

some of the special habitat plantings, such as Kroombit Tops. (Tondoon is a wholly Australian flora garden).

2 August: Well, here I am back again at the beginning of August. "The Book" is in our hands, and the official launch is set for 14 September. Then we can finally heave a great sigh of relief!

We have had a week of very cold weather, but are now back to daytime temperatures in the high twenties. No wonder the plants are so confused! We had just started to pick a decent number of raspberries when the weather turned warm again, and the fruit stopped.

I'm sure I read something somewhere about *Adiantum* sp. being used as a tea, but if I did, I can't find the original, so if anyone has any information please pass it on. I've also seen reference to *Breynia oblongifolia* being edible, but to the best of my knowledge this is not so, so again, if anyone has any information to the contrary, please get in touch. There's also been renewed discussion on the net about the edibility or otherwise of Dianella fruit, notably in the on-line newsletter "Gumnuts". I know about the dubious reports re *Dianella tasmannia* but we've always eaten the fruit of *Dianella caerulea* and used it to make jelly, as we have more recently with *Dianella attraxis,* so find the assertion they are poisonous a little difficult to believe. Accordingly I wrote to Dr Elwyn Hegarty to ask if she could supply any further information. Her reply is published in the correspondence section.

An innovation in our meetings this year has been a short "technical talk" on a particular plant Family or Genus by one of our Technical Officers, Joel Plumb, accompanied by some of his beautiful photographs. So far we have enjoyed presentations on the Queensland ELAEOCARPACEAE, PITTOSPORACEAE, NYMPHAEACEAE, and the genus *Canthium,* all of which contain at least some plants with edible parts. It has also given us the opportunity to come to grips with some of the plethora of recent name changes, specifically *Citriobatus spinescens* to *Pittosporum spinescens, Pittosporum phylliraeoides to Pittosporum angustifolium,* and *Canthium coprosmoides* to *Cyclophyllum coprosmoides.*

Regards,

Lenore

Lenore Lindsay and Rockhampton SGAP.

E-mail: lenorelindsay@hotmail.com

EDIBLE SPECIMENS TABLED AT MEETINGS:

31/1/03: *Abelmoschus* sp (fruit), *Amyema miquellii* (fruit), *Amyema* sp (possibly *maidenii*) (fruit), *Dendropthoe glabrescens* (fruit), *Eucalyptus ravaretiana* (nectar).

28/2/03: *Acacia disparrima* (root?), *Corymbia erythrophloia*, *Melaleuca quinquenervia* (nectar), *Orthosiphon aristartus* (medicinal), *Psychotria daphnoides* (fruit).

28/3/03: *Cyclophyllum odoratum* (fruit), *Geijera salicifolia* (medicinal), *Orthosiphon aristartus* (medicinal), *Pouteria chartacea* (fruit).

25/4/03: *Dianella* sp (fruit), *Orthosiphon aristartus* (medicinal).
23/5/03: *Melaleuca fluviatilis*, *Melaleuca* sp.- a beautiful purple/red *M.quinquenervia* like flower, so possibly a hybrid (nectar), *Orthosiphon aristartus* (medicinal).

27/6/03: *Amyema miquellii* (fruit), *Eremophila debila* (fruit), *Marsilea* sp (sporocarps), *Melaleuca fluviatilis* (nectar), *Podocarpus elatus* ("fruit"), *Pogonolobus reticulatus* (seed), *Viscum articulatum* (fruit).

25/7/03: *Acacia holosericea*, *A.salicina* (seeds), *A.podalyriifolia* (flowers), *Brachychiton bidwillii* (seeds), *Callistemon polandii*, *C.viminalis* (nectar), *Cassia brewsteri var brewsteri* (gum from seeds), *Dendropthoe glabrescens* (fruit), *Eucalyptus tereticornus*, *Melaleuca fluviatilis*, *M.quinquenervia*, various *Grevillea* spp. (nectar).

EXCURSIONS:

2/2/03: Cool Waters reserve on the Causeway foreshore: *Acacia disparrima* (root), *Acacia leptocarpa* (gum), *Acronychia imperforata*, *Aidia racemosa* (fruit), *Alectryon connatus* (fruit), *Banksia integrifolia var.compar* (nectar), *Carissa ovata* (fruit), *Clerodendrum inerme* (fruit), *Corymbia tesselaris* (nectar), *Cupaniopsis anacardioides*, *Cyclophyllum coprosmoides*, *Diospyros geminata*, *Euroschinus falcata*, *Exocarpus latifolius*, *Ficus opposita*, *F.virens*, *Lantana camara**, *Mallotus discolor*, *Myoporum acuminatum*, *Planchonia careya*, *Polyalthia nitidissima*, *Pouteria sericea*, *Terminalia catappa* (fruits), *Avicennia marina var.australasica* (fruit), *Rhizophora stylosa* (germinated seeds), *Livistona decipiens* ("cabbage"), *Cassytha pubescens* (fruit), *Glycine tabacina*, *Ipomoea pes-caprae* (roots), *Passiflora suberosa**, *Trophis scandens* (fruit), *Enchylaena tomentosa* (fruit), *Sesuvium portulacastrum* (leaves), *Solanum nigrum* (fruit), *Amyema conspicuum* (fruit), *Opuntia stricta* (fruit, stems).

2/3/03: Rosslyn Bay Section, Capricorn Coast National Park: *Acacia disparrima* (root), *Acacia holosericea*, (seed), *Acronychia imperforata*, *A.laevis*, *Alectryon connatus* (fruit), *Argusia argentea* (leaves), *Banksia integrifolia* (nectar), *Carissa ovata*, *Cupaniopsis anacardioides*, *Cyclophyllum coprosmoides*, *Diospyros geminata*, *Drypetes deplanchei* (fruits), *Corymbia tesselaris*, *C.intermedia* ((nectar), *Eucalyptus exserta* (leaf), *Euroschinus falcata*, *Exocarpus latifolius* (fruits), *Ficus opposita*, *F.obliqua*, *F.rubiginosa* (fruit, shoots, medicinal sap), *Geijera salicifolia* (medicinal leaves), *Lantana camara** (fruit), *Melaleuca quinquenervia* (nectar, medicinal leaves), *Planchonia careya* (fruit), *Pogonolobus reticulatus*, *Sterculia quadrifida* (seeds), *Pouteria sericea* (fruit), *Eustrephus latifolius*,

Ipomoea pescaprae (roots), *Passiflora suberosa**, *Tetrastigma nitens* (fruit), *Gahnia aspera* (seeds), *Xanthorrhoea latifolia* ssp *latifolia* (growing tip, leaf bases), *Livistona decipiens* (palm "cabbage"), *Pandanus tectorius* (seeds, leaf bases, treated fruit), *Amyema congener* (fruit), *Opuntia stricta* (fruit, stems).

6/4/03: Spring Creek, The Caves: *Acronychia laevis, Alectryon connatus, A.diversifolius, A.subdentatus, Canthium odoratum, Carissa ovata, Pittosporum spinescens* (fruit supposedly), *Cupaniopsis anacardioides, Diospyros australis, D.fasciculosa, D.humilis, Drypetes deplanchei, Euroschinus falcata, Exocarpus latifolius* (fruits), *Ficus opposita, F.rubiginosa, F.virens* (fruit, shoots, medicinal sap), *Geijera salicifolia* (medicinal leaves), *Grewia latifolia* (fruit), *Hibiscus heterophyllus,* (buds, shoots, roots, flowers), *Lantana camara** (fruit), *Melaleuca fluviatilis* (nectar), *Planchonia careya, Siphonodon australis* (fruit), *Terminalia porphyrocarpa* (kernel), *Cassytha filiformis* (fruit), *Cissus oblonga* (fruit flesh), *Eustrephus latifolius* (roots), *Geitonoplesium cymosum* (shoots), *Maclura cochinchinensis* (fruit), *Passiflora edulis**, *P.suberosa** (fruit), *Trophis scandens* (seed), *Cycas media* (treated seed), *Dianella caerulea* (fruit), *Gahnia aspera* (seed), *Lomandra longifolia* (leaf bases, seeds).

4/5/03: Kooyalee Guide Camp, helping identify trees for a nature trail: *Acacia salicina* (seeds), *A.disparrima* (root), *Cupaniopsis anacardioides* (fruit), *Corymbia dallachyana, C.trachyphloia, Eucalyptus crebra, E.tereticornus, E.tesselaris* (nectar), *E.exserta* (nectar, leaves), *Euroschinus falcata* (fruit), *Ficus opposita, F.rubiginosa* (fruit, shoots, medicinal sap), *Lantana camara**, *Planchonia careya* (fruits), *Melaleuca sp.* (nectar), *Eustrephus latifolius* (roots), *Passiflora foetida**, *Passiflora suberosa** (fruits), *Opuntia stricta* (fruit, stems), *Bidens pilosa* (leaves), *Emilia sonchifolia* (whole plant), *Grewia latifolia* (seeds), *Eremophila debilis* (fruit), *Gahnia aspera, Themeda triandra* (seeds).

1/6/03: Tondoon Gardens, Gladstone: *Araucaria bidwillii*(nut), *Alocasia macrorrhiza* (treated stems), *Alpinia caerulea* (roots, stems, fruit), *Archontophoenix cunninghamiana* (palm "cabbage"), *Backhousia citriodora* (leaves), *Cayratia sp. Cissus sp.* (fruit flesh), *Elaeocarpus grandis, Eupomatia laurina* (fruits), *Ficus coronata* (fruit), *Lomandra spp* (leaf bases), *Macaranga tanarius* (food wrap, medicinal, fibre from bark), *Podocarpus elatus* ("fruit"), *Syzygium oleosum, S.luehmannii* (fruit), *Sterculia quadrifida* (kernels), *Pipturis argenteus* (fruit), *Pleiogynum timorense* (fruit), *Randia fitzalanii* (fruit).

6/7/03: "Archontophoenix Grove", Yeppoon: *Acacia disparrima* (root), *Acronychia laevis* (fruit), *Archontophoenix alexandrae, Livistona decipiens* (palm "cabbage"), *Ptychosperma elegans* (fruit), *Corymbia intermedia, C.tesselaris* (nectar), *Cupaniopsis anacardioides* (fruit), *Diospyros geminata, D.pentamera* (fruit), *Elaeagnus triflora* (fruit), *Elaeocarpus grandis* (fruit), *Eucalyptus tereticornus* (nectar), *Euroschinus falcata* (fruit), *Ficus obliqua, F.opposita, F.virens* (fruit, shoots, medicinal sap), *Lantana camara**, *Mangifera indica** (fruit), *Macaranga tanarius* (food wrap, medicinal, fibre from bark),

Melaleuca quinquenervia (nectar, medicinal leaves), *Pipturis argenteus, Planchonia careya, Pleiogynium timorense, Pouteria queenslandica, Psidium guajava* Syzygium australe* (fruits), *Pogonolobus reticulatus* (seeds), .*Macrozamia miquellii* (treated seed), *Cissus oblonga* (fruit flesh), *Eustrephus latifolius* (roots), *Geitonoplesium cymosum* (shoots), *Melodorum leichhardtii, Passiflora suberosa** (fruits), *Piper novae-hollandiae* (fruit, seeds), *Trophis scandens* (seed), *Tetrastigma nitens* (fruit), *Lomandra hystrix, L.longifolia* (leaf bases, seeds), *Cordyline manners-suttoniae* (underground stem).

LETTERS TO THE EDITOR

Plantchem,
Brisbane.
28/7/03

Dear Lenore,

Re *Dianella:* Well, there isn't much information. We put everything we could find in our bushfood safety report (p38) and suggested that until something more was known it would be a good idea to avoid experimenting with them. There are a whole lot of *Dianella* species and the taxonomy is difficult, especially if the person is not a botanist. There are stories about people walking round in circles after eating a few fruits (in Queensland), aborigines using the bases of the leaves and roots,but not the fruits, toxicity of some part/s of the plants to Australian stock, and fatal toxicity of a N.Z. species to a child; on the other hand, *Dianaella longifolia* is occasionally mentioned as edible in southern states. But I think it is one of the species with a complex taxonomic history so some may be OK and others not. I don't know of any current work with *Dianellas* to see what truth of it all is. Sorry I can't be more helpful. I see Brian Walters' "Gumnuts" pages are asking for the same sort of information, so maybe there will be some replies there eventually. I thought about replying but will wait and see if anyone else knows more than the little bit that I do.

Best regards,
Elwyn (Hegarty).

Noted the 'Bush Tucker' stamp series released last year by Australia Post to coincide with the Year of the Outback. They don't seem to have had a very wide circulation, as very few have come my way. The plants featured are: Wattle Seeds *(Acacia coriacea)*, Honey Grevillea *(Grevillea juncifolia)*, Murnong *(Microseris lanceolata)*, Quandong *(Santalum acuminatum)*, Lilly-pilly *(Acmena smithii)*.

An all blue native viola has been found growing by a track between Newnes ans Glen Davis in N.S.W. It could make a lovely garden subject, either in a shady bed or a hanging basket. Viola flowers are edible.

Clunes, Vic.

Dear Lenore,

.....I am very interested in Australian Food Plants and I hope to learn more about them, especially the practical side of preparation and processing, and also contacts for seed. I look forward to sharing information and experiences with other like-minded people.

I contribute art/illustrations to the APS Vic newsletter as well as my local Ballarat one, and if the Study Group needs any illustrations for the newsletter in the future, I offer my services.

Yours,
Kate Vlcek.

katesimon2003@yahoo.com.au

"Lahnlea Quandongs'
Via Swan Hill. N.S.W.
21.6.03

Dear Lenore,

As you will note, I am particularly interested in Quandongs (that is *Santalum sp*), and am also interested to know more about the Bush Food Industry happenings if you are in the know.

I am a member of the Australian Quandong Industry Association (based basically in South Australia because of climatic conditions).Directions are changing for the industry at this point and I see (personally) greater input for this organization by being part of the 'Bush Food Industry'. I know very little of the 'Bush Food Industry' Australia wide. Perhaps you may be able to give me a list of contacts, or some useful pointers.

As a member of the Australian Plants Society I had always intended to join the study group, so here I am.

I also grow a few other food plants like *Leichhardtia australis, Kunzea pomifera,* and *Acacia coriacea,* and am very interested in Aboriginal uses of plants like Wilga and *Eremophila spp.*

We are still in drought here and it looks like no crops again at this point. I am situated about 35 km north of Swan Hill on the Wakool River in station country. Odd farmers have opted for pivot irrigation of cropping land where they have access (and funds) for irrigation water. It looks like there will be no water for next summer (not enough rain).

.....Also I am interested in any wine recipes available for bush foods.

Thanking you in anticipation,
Lindy.

Dooley Dynamics Pty Ltd,
Coffs Harbour, N.S.W.

Hi Lenore,

Australian Food Plants are an interest of ours, though I would have to say we are rank amateurs.grow many foods for our own consumption and these include native mint, violets, warrigal greens, davidson plum, lemon myrtle and a few others. Could you tell me what would be involved in joining the study group, as we are fairly new to APS, so it's all new to us.

Many Thanks,
Cheryl Dooley.

SNIPPETS:

New member Rose Tongmar is interested in any information on bush foods, recipes, etc. She's found Davidson's Plum makes good wine, and is interested in trying out Burdekin Plums for the same purpose.
John Aisthorpe is growing some Australian food plants in Roma and has a growing interest in their culture and uses.

Ali Broome and Pam Orren run Blue Tongue Organics at Healesville, Victoria.

Paula Havelberg from Coburg, Victoria, is a full time horticulture student doing work experience/voluntary work at a permaculture and bush foods nursery.

There's a nursery in South Australia which stocks Australian capers *(Capparis spinosa nummularia)* as well as the commercial Mediterranean variety *(Capparis spinosa inermis)*. Their name is Cottage Herbs and they do mail order. <cottherb@iweb.net.au>

Tim Langdon sent us information about an Australian invention, the WaterTube - a self-watering plant guard. More information on line at <http://www.watertube.com.au> Tim is offering a 10% discount to members, and also 10% on the purchase of any plants or other products ordered on line at <http://www.nativenursery.com.au>

Jenni and Rob Weekes of Weewalk Bushfoods sent us a newsletter and brochure promoting their working property near Mt Walker, between Ipswich and Boonah in south east Queensland. They produce up to 45 organically grown varieties of Australian Native Bushfoods, conduct on farm tours, overnight catered camping stays, morning and afternoon teas and light lunches using native food ingredients, and have some products for sale. For more information phone 07 5464 6667, website <www.geocities.com/weewalkweb> or email <weewalk@bigpond.com>

The RIRDC site for accessing all reports published to date on alternative niche crops is
<http://www.rirdc.gov.au/fullreports/index.html>

A couple of interesting comments on this and that from a talk by Glenn Leiper, co-author of 2 books on native plants ("Mutooroo" and "Mangroves to Mountains"), at Fairhill Nursery back in 2001: There's a story around that the treated fruit of Burney Vine (*Trophis* syn *Malaisia scandens*) used to be used by some of the elder Aboriginal men as a natural Viagra - no evidence available though. The edible fruit of the Blue or Tropical Quandong *(Elaeocarpus grandis)* taste like wet balsa! The Corduroy Tamarind (*Mischarytera lautereriana)* fruit is really sour and acidic, but gets better the more you eat - beautiful tree with lovely foliage and masses of golden yellow fruit. *Lomandra hystrix* is a wonderful plant for binding and holding together soil on river and creek banks. (George Negus gave the example of his property on "Burke's Backyard" last year).

On an outing to the popular Strawberry Farm interactive zoo at Pimpama in the Gold Coast hinterland with my grand-daughters I noticed an impressive array of bushfood products on sale in their gift shop. Labels from Tasmania, South Australia, Byron Bay (NSW), Maleny (Qld) and other Queensland towns graced jams, jellies, chutneys, pickles, sauces, dressings and confectionary. It's good to see Australian stuff showcased like this, so that both locals and tourists can purchase genuine souvenirs and gifts.

On the bushfood discussion page Glen Calvert raised the possibility of some sort of processing machine for Sea Almond *(Terminalia catappa)* nuts. He considers it superior to the almond in quality, and the tree could easily be grown in plantations in tropical areas. At present, he collects the dried fruit, cuts off the spongy wings with secateurs, then hits the fruit side on with a hammer, causing the fruit to open up and reveal the undamaged nut. An ideal processing machine would sort the fruit according to size, run them between two blades to cut the wings off, then turn the fruit on its side to run between two rollers. The seeds may then have to be removed and graded by hand, but maybe someone will come up with other ideas. This is an easily marketed bush food just waiting for someone to come up with the harvesting and processing machinery.

A product called (modestly!) the "World's Best Macadamia Nutcracker" can be found at <http://www.geocities.com/tjnutcrackers>

On the topic of removing nuts from shells, a hint for getting bunya nuts out is to use long handled secateurs.

To propagate Fringed Lily *(Thysanotus tuberosus)* it is essential to use fresh seed - even month old seed is too old.

News from the Rutter family (occasional members of Hawkesbury APSOC and members of the Food Plant Study Group): Their latest venture is to establish an Australian Native Food farm near Bathurst. What started out as a bush regeneration project by their eldest son soon transformed itself into a 40 acre block of steep hilly country near O'Connell, some 26km from Bathurst.

The property had been part of a sheep property, which had resulted in some soil degradation and two deep erosion gullies. However, as there

had not been any stock grazing for a few years there had been some regeneration of native flora and occupation by kangaroos, wallabies and many species of birds.

The plan is to establish plots of Quandongs, Lillipillies, Native Peppers,' Raspberries and Currants, and the remaining areas of land would be restored to 'as near as possible' the former native vegetation and fauna. Of course, as the purchase of the land was finalised in July 2002, the severity of the drought struck. This resulted in delaying the planting for a year. However, we have been busy researching the types of plants that will grow at an elevation of 900 metres in Central Tablelands country, and obtaining seeds and cuttings.

They have been busy raising Quandongs (*Santalum acuminatum)* from seed - an interesting process - , potting on Lillipillies (*Syzygium luehmannii*) and cuttings of Native Pepper *(Tasmannia lanceolata)* which had a high loss rate. They're also growing cuttings of *Rubus parvifolius* and looking after them at East Kurrajong, where they at least had some water. Current tasks include having a water storage dam put in and fencing off small plots of land so they can plant out in spring after the frosts and protect the plants from the depredations of the kangaroos and wallabies.
More to come later.

Vic Cherikoff is looking for propagation material of, or a nursery that stocks, *Hornstedtia scottiana*.

CORDIALS AND SYRUPS.

If you have an excess of fruit, try making a syrup to use as a cordial or a sweet sauce. Here are a few examples:

Lillypilly Syrup. (Jenny and Rob Weekes).

500g of washed lillipilly fruit
500g water
250g sugar

Bring to boil and continue boiling till the fruit is soft.
Strain and bottle.

Lillipilly Cordial. (Jan Sked).

1kg of lillipilly fruit
2 litres water
2 cups sugar
juice of a lemon
Boil fruit with enough of water to cover till fruit is tender.
Mash and strain through a fine sieve. Discard pulp and seeds.
Simmer juice, remaining water, sugar and lemon juice till sugar has dissolved.
Bottle when cool. Dilute with water to serve.

Passionfruit Cordial. (Mark Kickbusch).

18 large passionfruit (or equivalent of *Passiflora foetida* fruit)
2 teaspoons citric acid
1 1/2 cups sugar
600ml water

Remove pulp from passionfruit, add the acid.
Boil the sugar and water together and pour over pulp.
Cool, strain and bottle.
Dilute as necessary for cordial.

Native Lime or Wild Tamarind Syrup. (Jan Sked).

2 cups finely sliced native limes or tamarind fruit *(Diploglottis australis)*
2 cups water
2 cups sugar

Boil fruit and water together till fruit is tender.
Mash fruit and strain through a sieve. Discard pulp and seeds.
Add sugar to liquid and simmer until dissolved.
Bottle when cool. Dilute with cold water to serve.

Lemon Myrtle Sugar Syrup. (Jan Sked).

Put 2.5 litres of hot water and 2 1/2 cups of sugar into a large saucepan and stir until sugar is dissolved. Add about 40 Lemon Myrtle leaves. Then bring to the boil and simmer for 10 minutes. Allow to sit until cool. Then remove leaves, bottle and store in refrigerator. Use as a cordial or a punch ingredient.

A suggestion for propagating root parasites like *Leptomeria acida* and *Exocarpus spp.* is to use methods that work with Quandong *(Santalum acuminatum)*. One is to place the seeds in a plastic bag with moist vermiculite. When the roots appear the seedlings are potted into individual pots, where they will survive for some time on their own food reserves. *Myoporum parvifolium* is then introduced into the pot as a host plant. A piece of *Myoporum* is placed in the pot. It will produce roots in a couple of weeks which are then parasitised by the Quandong. Both are then planted out together when large enough.

* I'm sure we'd all be interested in hearing of anybody's success or failure at propagating any of these rather difficult plants. (Ed)

Dwindling stocks of Sandalwood worldwide have encouraged a timber plantation trial of Sandalwood, Rosewood, Sheoak and Teak at the remote Beagle Bay Aboriginal Community in West Australia. The Sandalwood will not be harvested for 12 years and it is expected that more than 80 indigenous workers will be employed throughout this time. The oil is used in medicines, cosmetics and perfumes, and the timber for artifacts and furniture.

Wonderful Wines with Bruce Chadfield

I hope to be able to explain in three easy-to-follow steps, how to make a quality fruit wine you can be proud of. You will then be on your way with a new art form, like when an artist paints his first masterpiece, or when a chef creates his first great meal. As with any art, you may experiment around some basic principles, with some failures, but with time and experience, failures will rarely occur and most of it will be success.

Step One

Prepare the fruit. Take over the kitchen. You will need access to a stove, a kettle, a freezer, a blender, a sink, and a good glass of wine (of course to remind you of what you are aiming for).

Prepare two kilograms of the fruit (I will not be covering the creation of vegetable, flower, herb, honey or grape wines – let's learn to crawl before we run). Do not remove the skin unless it is usually inedible – the exception being bananas, as banana skin can be used in wine, but we don't usually eat it. Remove stones and pips – it is easy to do so. If the fruit has larger stones or seeds that are not easy to remove, that would be broken up by the blender, then the fruit needs to be crushed by the potato masher rather than put through the blender. If the seeds are either very, very small, such in many berry fruits, or have been removed completely, then the two kilograms of fruit is best put through a blender. Then, in 2kg lots, freeze them in the freezer. The ice cream tubs come in very handy for this process. Freezing the fruit brings out the extra flavours and helps break down some cell walls in the fruit. The fruit, now frozen, can be stored until it is convenient to start the wine.

Clean out a twenty-litre esky with some boiling water. It does not need to be completely sterile. However, if you prefer to be absolutely sure, then a small quantity of sodium metabisulphite and warm water wiped around the inside of the esky will do the job. Put the two-kilogram block of fruit in the esky and leave to defrost.

Into a large saucepan, that is able to hold at least ten litres, put one kilogram of sugar (1.5kg for a medium wine, 2kg for a sweet wine), the tea from six teabags or half a teaspoon of red tannin powder, and three litres of boiling water from the kettle (this is quicker than trying to bring the water to the boil on the stove). Bring it all to the boil, then pour over the defrosted fruit in the esky. Stir quickly, then replace the esky lid and leave to cool for twelve to twenty-four hours. The heat from the boiling water will effectively sterilise everything inside the esky without cooking the fruit. Don't forget to clean out the stockpot and clean up the kitchen. Your future expeditions into wine making may depend on it!

Step Two

Your wine / sugar mixture (must) is now ready to start fermenting. Yeast can replicate and grow by breaking down sugar into alcohol and carbon dioxide (CO_2). It does not need oxygen (O_2) to complete this process. This is called an anaerobic process. If oxygen or air is allowed to get to the wine, oxidation can occur, whereby, alcohol combines with oxygen to create acetic acid (vinegar). There is a bacterium called acetobacter that carries enzymes that rapidly promote this process. The acetobacter looks like a white scum on the surface of your wine or beer. It requires oxygen to survive.

When wines or beers are fermenting rapidly, a large amount of carbon dioxide (CO_2) is produced, which is heavier than air. Therefore, a thick layer of CO_2 is created above the fermenting wine or beer, excluding any oxygen. Therefore, during the rapid fermenting process, at the beginning, oxidation of your wine or beer is very unlikely to occur, and you do not need to have it in an airtight container fitted with an air lock. When the fermentation slows down, this is the danger time, as the layer of CO_2 above the wine or beer is not as dense, oxygen can get to the surface and oxidise the alcohol to vinegar, particularly in the hot Queensland climate. It is therefore important to reduce the amount of air space above your fermenting wine or beer when the fermentation process slows down. This simple

understanding of how the fermentation process works will probably get rid of a very large number of people having disasters.

When we add the yeast, we want fermentation to start quite rapidly to create that CO_2 layer. To ensure this rapid start, some people create a yeast starter bottle where they add a small quantity of sugar in a sterile bottle and water with the yeast the day before they are going to add this to the wine. DON'T BOTHER! The wine will still be warm after twenty-four hours in the esky and addition of dry yeast will still create a very rapid fermentation, so, add a small quantity of dried wine yeast, a teaspoon of yeast nutrient (available at local brew shops), and a teaspoon of pectolitic enzyme (pectolase). For most wine, the addition of the yeast nutrient is not absolutely necessary, however, if you embark on vegetable, flower or honey wines, the addition of yeast nutrient is essential. The addition of one tspn of tartaric or citric acid will certainly help the flavour of wines that are based on non-acidic fruit, in particular bananas. The pectolase, in my opinion, is essential for most wines, unless you are absolutely sure that the fruit you are basing your wine on does not contain any pectin. Pectin is required in jam making, making the jam set. If present in wine, it creates a haze that is very difficult to get rid of at a later date. Therefore, the addition of a pectolitic enzyme, that destroys pectin, at the beginning of the fermentation process, ensures you are likely to have a clear wine at the end.

Which yeast? There are approximately ten different wine yeasts, all with different qualities. I will not go into every wine yeast here, but Gervin produce an excellent range and the quality is superb, however, they are difficult to get hold of in Australia. The licensed importer is in WA, however, most of the yeasts can be purchased from your local brew shop, although, not under the Gervin name. Once the yeast nutrient and pectolase are added, stir them twice a day for the next seven days. Note: Use a large wooden or plastic spoon, or alternatively, a stainless steel one that has been sterilised with boiling water or through the microwave. This is quite important.

Step Three

For the past seven days, some part of your house has smelled like a brewery. Well, now it's time to get a bit messy. You need a 10 litre plastic bucket that has been sterilised with some sodium metabisulphite. Over this, drape a large nylon straining bag. You can make this from nylon mesh similar to mosquito netting, or buy it from you local brew shop. Pour your brew into the straining bag, lift up the edges, and gently squeeze out as much of the liquid as you can into the bucket. IMPORTANT: Your hands need to be as clean as possible for this stage, preferably cleaned in a weak sodium metabisulphite solution, or better still, put on some plastic gloves and wash those in a metabisulphite solution. There are probably a hundred different ways that this messy stage can be made slightly less messy, but why should I spoil your fun. Just keep the solid particulate matter inside the nylon bag and the liquid matter in the bucket. When you have squeezed out as much as you can and your hands and arms are aching from the process, put the nylon bag and solid matter aside.

The liquid now needs to go into sterile fermenting vessels, that is, some concentrated metabisulphite should have been in the container, shaken about and left for a short time. 3L fruit juice containers are ideal for this purpose, and the liquid you have should fill two of these almost exactly. If it doesn't, top up with water to approximately 3cm from the top. Fit a rubber bung and air lock, also sterilised by soaking in metabisulphite. Put a small amount of metabisulphite solution in the air lock and leave to finish fermenting, which will take approximately two to six weeks, depending on the time of the year. After three weeks, whether it has finished fermenting or not, the clearer wine at the top needs to be siphoned off, using a sterile siphon tube, into another sterile fermenting vessel. A 5litre glass demijohn is ideal. Alternatively, another 3litre fruit juice container and a 2litre wine or port flagon is adequate. (Anyone unsure of how to siphon the clear wine from one bottle into another, please give me a call.)

Some wines may now have finished fermenting and be quite clear and therefore are ready for bottling without further ado. Most wines will take a little longer than this to clear and you have to leave them

in the fermenting vessels for anywhere up to six months, however, most wines will be clear within two months. There are various reasons why your wine may not clear, and it is probably best to seek advice from your local brew shop about using a clearing agent. For perfectionists who wish to have their wine absolutely crystal clear, a filtering mechanism may be required. However, for most people starting up, a very slight haze on the wine will not change the flavour much at all, and is quite acceptable.

Bottling: How to become very unpopular with the rest of the household in the middle of a summer's night, (and oh so many people has this happened to), with exploding bottles and popping corks on a hot warm evening because they have lacked that great virtue, patience, and have tried to bottle their wine far too early. I could make this part very high-tech and very complicated. For those who compete at state or national levels it is complicated, especially when trying to make lower alcohol semi-sweet or medium wines. So, invest in a hydrometer and read the instructions. If the specific gravity of the wine is less than 0.995, and the fluid level in the air lock appears level and not popping, the wine is unlikely to ferment any further, and if it is clear, it can be bottled. If you are making a sweet wine and the specificity is as it is meant to be (more than 1.020), invest in a little, tiny capillary action vinometer that gives an approximate alcohol by volume measurement. If the alcohol by volume measurement with this little device is more than 18%, it is not likely to ferment any further and can be bottled if clear. Anything between these perimeters may need a little more thought. Happy brewing and remember, have fun! Experiment in small qualities and even the best chef can burn the toast. #

School has cultural feast

Hazel Hill, Angie Balderston, Lachlan Greenalsh and Eddie Francis try some bush tucker. Picture by LUKE MARSDEN lm1/802/4

ST Joseph's Park Avenue students learned Aboriginal, Torres Strait Islander and Pacific culture as part of the school's cultural day yesterday.

Students had sessions with Coral Way (Storytelling), John Rakena (Maori culture), Eddie Francis (bush tucker) and Eddie Tapim (Torres Strait Islander culture).

Students also learned about Aboriginal health, nutrition and youth issues.

Principal Jenny Cable thanked St Joseph's indigenous liaison officer Hazel Hill and parents for their help.

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