

Eucalyptus Study Group Newsletter

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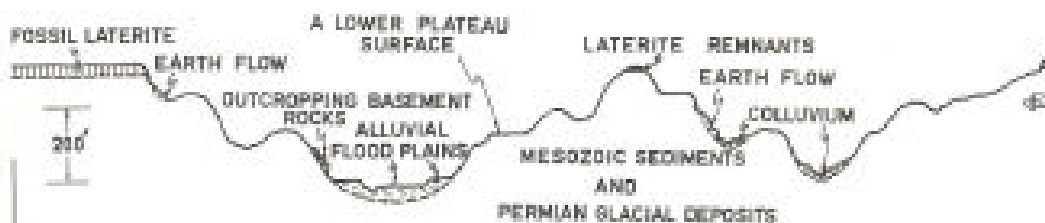
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A/c name ASAGP Euc. Study Group

Welcome to all members and thank you to everyone who gave us positive feedback from our first newsletter last Spring.

As with last year, it has been another tough hot summer in our area and a few more trees and shrubby species in the Arboretum have succumbed. However you would all appreciate that this is not really seen as a problem, but simply a part of the life cycle of an ecosystem. Although our curator looks after the Arboretum and all its plantings as if they were his own “babies”, no doubt a few deaths every now and again provide him with an opportunity to practice his propagation skills. In fact this is an area in which he has considerable success. Its opportune that Elspeth has made a suggestion in this newsletter that we share seedling nurturing techniques in future editions and we will ask our curator to start the ball rolling. We hope many of you will respond to this challenge.

The Friends have been busy over the last few months organising some interpretive signs and another booklet – this time on our native grasslands. We are taking a broad ecological approach that helps people understand how the unique landscape and soils of our region led to it being home to a mosaic of grassland and grassy woodland. Not many eucalypts were able to cope with the extremes of our soils – from being largely airless during the wetter months to cracking open in the summer. Thus *Eucalyptus camaldulensis* dominated on the laterised tablelands and along water courses and only a limited number of other species were able to find conditions to their liking. *Eucalyptus ovata* (Swamp Gum), *E. viminalis ssp. viminalis* (Manna Gum), *E. viminalis ssp. cygnetensis* (Rough-barked Manna Gum) and *E. obliqua* (Messmate) were found locally wherever soil and moisture variations provided them with their own particular needs.



North of Coleraine, at a much higher elevation there are isolated remnants of Snow Gum *E.pauciflora ssp. pauciflora* which hint at our past history of glaciation during the Pleistocene era.

Notes from the Curator's diary – A Selection of mallee eucalypts

Eucalyptus insularis (from an island) Monocalyptus
Twin Peak Island Mallee
North Twin Peak Island Mallee

Endemic to Western Australia, east of Esperance growing on North Peak Island as a tall mallee and on Mt Le Grand as dwarf mallee and are gazetted as rare. They grow from 3m to 10m in height by 3m to 8m in width forming a lignotuber.

Bark can be brownish and fibrous at base but smooth greyish all over. The leaves are small, greenish and are held somewhat erect. It has profuse white flowers.

We have a number of these growing and the first thing you see is the attractive form of a low growing, dense, greenish, mushroom shaped shrub. On close examination you find it is a Eucalypt. The pale bark adds to their beauty.

Some of them are over 20 years in age but are less than two metres in height, yet they are quite healthy. They are growing on sandy iron stone and clay/loam soils and are proving to be hardy. They would make an attractive garden plant and are good for low windbreaks particularly coastal areas. They grow on well drained light soils.



Eucalyptus livida (bluish or leaden colour of leaves)
Symphyomyrtus Mallee Wandoo

A small tree or mallee to 5 metres forming a lignotuber. It is endemic to Western Australia in the Goldfields area south of Coolgardie to Peak Charles and west to Iron Cap Hills.

The smooth bark has colours of various greys to orange. The leaves are concolorous, grey green to dull grey. The buds number from 11 to 15, the flowers are creamy white and they finish up as small barrel shaped fruits. We have a number of plantings from 5 years to 10 years, some up to 4 metres. They are growing strongly on loamy clay areas, still single stemmed, the older group now flowering regularly in late summer.



Eucalyptus coolabah (Aboriginal name) Symphyomyrtes
Coolabah, Coolibah.

A mallee or small tree to 10 metres forming a lignotuber and is found in every mainland state. It occurs on river banks and seasonally flooded heavy soiled areas. The bark is rough box type (sometimes tessellated) over most of the tree, colour being grey to black, white to pink. The leaves are concolorous, dull grey green or blue green. They are 3-7 flowered on terminal panicles with white flowers and the fruits become hemispherical or obconical. Though the timber has no forestry value, it is hard and durable being used for fuel and fence posts. It tolerates droughts, frosts and waterlogging.



We have one solitary 12 year old specimen (*Eucalyptus coolabah* ssp *excerata*). It is in C7-1, growing on a grey clay loam embankment and has reached about 5 metres, developing tessellated bark but it has not produced any flower buds.

What I recall in growing this from a packet of \$1.00 Nindethana seed, was that it may have been the only seed that successfully came up. The other seed probably found our southern Victorian conditions fairly intolerable.

Eucalyptus lucens (shining, in reference to the leaves)
Symphyomyrtus Shiny-leaved Mallee

A small mallee to 3 metres, being localized in the Mt Sonder and Mt Hermannsburg areas (N.T.). The stems arising from a lignotuber are very slender with smooth pale to grey bark. The glossy green leaves are thin and concolorous. They are 7-11 flowered, cream/white to about 1cm across and develop conical shaped fruits.



We have a 21 year old clump of 3 in B1-4. They vary in height from 2 metres to 4 metres. They are attractive, slender multi stem plants that are in flower at the moment. The shiny leaves with their creamy flowers mixed in are certainly pleasing to look at.

They are growing on a mostly sandy soil close to our ironstone tableland.



Grafting Eucalypts

(including corymbia) by Rob Beulke

As many eucalypt enthusiasts are aware, there can be a great deal of variation within single eucalypt species.

Seed grown from a unique form has a great deal of variation when grown on and is often quite different from the parent tree. Many hybrids are now commonly found from mixed species being grown together and hybridising. Recently a friend brought me a branch off a tree which is probably a red flowering sugar gum hybrid.

Cloning eucalyptus is very difficult from cuttings, cuttings of some species can be grown reasonably easily but most species are almost impossible. Forestry companies and nurseries are growing high value timber clones through complex cutting techniques and tissue culture. Luckily grafting and budding eucalypts is reasonably easy and relatively cheap, with more grafting going on now, more tricks and tips are being passed on, so cloning those unique hybrids can happen.

The biggest lesson I have learnt is that once a cut is made on a Eucalyptus stem, oxidation begins immediately.

The reason this is so important is because when you are grafting or joining a stem to a rootstock it must be done very quickly, within seconds of the cuts being made in fact. The oxidation damages/destroys the cambium tissue which is what joins together, uniting the graft.

If you have a Eucalypt you would like to graft/clone, here are some important tips to keep in mind while doing so:

- Grow about a dozen rootstock of the same species or a closely related species
- Rootstocks should be about 12 months old and growing vigorously prior to grafting
- Plan to graft in the summer months when trees are growing vigorously
- Rootstocks should be watered well the day before grafting
- Cut graftwood that is firm new growth and carefully cut off all leaves
- When you cut the graftwood off the tree to be cloned, try use it immediately
- Have all tools and grafting tape ready to start straight away
- Choose a comfortable place to graft
 - Do not graft on hot days, oxidation is more rapid
- Have a practice graft on some spare material to get the feel for the real thing
- Prepare the rootstock by removing all leaves close to the stem where the graft is to be attached
 - Ensure leaf stems on the graftwood are carefully cut short
 - Examine the piece of graftwood to see where it could be best joined into the rootstock
 - Basically have everything ready before the first cut is made for the grafting process

I bud graft most eucalypts and generally graft corymbias'. A common chip budding technique that is used with most fruit tree propagation is what I prefer. It can be performed extremely quickly. It involves cutting a bud eye off a small stem/graftwood and placing it in a similar cut out area on a rootstock and firmly taping it in position.

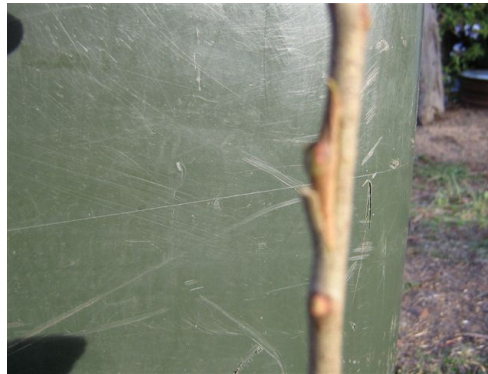
I use a cleft graft for corymbias'. The cleft graft is very simply, match the stem size of both rootstock and graftwood, cut rootstock horizontally straight through about 15cm. high and put a cut vertically down the middle 3cm. deep. Cut a piece of graftwood with 3 or 4 buds on it, then put two equal cuts about 2.5cm. long at bottom, each side to make a point and carefully insert it into cut on rootstock. Firmly tape over graft union, ensuring stems are matching each other, also tape entire piece of graftwood, this protects buds from drying out.

I generally remove grafting tape after about six to eight weeks, the budded eucalypts have the rootstocks cut straight off above the attached bud and should begin shooting immediately. All budded and grafted plants should be carefully looked after for the first year and then can be planted into your garden.

Remember a grafting knife is extremely sharp, be very carefull, always cut away from yourself.
 Good luck
 Rob Beulke



Cutting bud to place into already cut rootstock



Bud in place in rootstock ready to be taped over



2 year old budded red gum showing bud union, note the already smooth bark of budded red gum, whereas seedling rootstock still has rough bark



Cleft graft in place, ready to be taped over



Cleft graft growing, 2 months old, some leaves on seedling still remain to enhance sap flow, have left graft taped on until graft has grown a bit bigger



Cleft graft one year old, can still see "v" like cleft graft union

News from Elspeth

Re comment in the last newsletter about *Euc erythrocorys* being frost tender and therefore difficult to grow in Melbourne...I found that every night when a frost was predicted I would put a small ladder over the plant and throw a large towel over this to protect it. This sounds a lot of work, but it was probably only about 8 times a year, and worth it for such a wonderful plant. Once it was a metre or so high this was no longer needed.

I would love to know what measures other study group members take to develop strong healthy seedlings of eucs. eg. What methods of fertilizing, what insect control etc. I am sure we could learn a lot from each other.

Last newsletter Elspeth remarked about how she had sourced *E. pauciflora* ssp. *debeuzevillei* seed from France. Graham and Heather Milligan from New Zealand responded:

Hi, Thanks for your very interesting newsletter – great job.

But we are concerned that you obtained seed from France without any certification. Through your AQIS it is stated that New Zealand is the only country they will allow bulk eucalyptus seed from and then it has to be accompanied by a phytosanitary certificate.

Elspeths reply:

All I can say is that the seed was not requested, so I did not know it was coming. It was clearly labelled on the packet as 'Eucalyptus seed', but was possibly such a small amount that customs allowed it through.

I have just received a number of new seed lots (from Australia!) but will perhaps leave the listing of those for the next newsletter.

For those who are not yet aware, the Study Group has a webpage that also contains the seed bank list. It saves us having to print it too often in the newsletter. The address is

www.asgap.org.au/eucsg/index.html

Many thanks to all our contributors.

Friends of Peter Francis Points Arboretum