

Beechmont District Landcare Association Inc.
Rainforest Tree Identification,
Seed Collection & Propagation Field Day
Saturday, 20 October 2007

Propagation Notes by Mark Henderson

General Note on Collection

The collection of vegetative matter for propagation (eg. seeds and cuttings) is prohibited in National Parks, Reserves and Conservation areas.

Vegetative matter for propagation is best collected from private property (with the permission of the owner) within the local area. Seeds can also be obtained from specialist suppliers.

Seed and Fruit Collection

Collection

- Take only small amounts of fruit or seeds and leave some for the birds and animals.
- Bird and animal droppings can be a good source of preconditioned seeds, although, there is no way of knowing what plants will germinate from seeds you have obtained.
- Birds can be attracted to your garden with water or bird attracting trees.
- Try not to collect from the same tree all the time. Seed from different trees maintains genetic diversity and guards against in-breeding.
- After storms or windy weather limbs may fall containing fruit. The leaves will also aid in identification.

Transplantation

- There can sometimes be an abundance of seedlings under large, mature rainforest trees. These can be dug up and transplanted.
- Encourage bird visitation as natural germination produces the healthiest seedlings.
- Remove native vegetation from roadsides or drains that will be destroyed by road work or slashing.
- In home gardens seedlings will germinate, these may be left to grow or transplanted elsewhere.

Cuttings

- Taken direct from the parent tree.
- Different types of cuttings – tip, heel and root.
- Generally use fresh shoots from a recent growth flush that have hardened off.

Types of Seed and Fruit

Dry Seed and Fruits

Usually no flesh, tough or woody capsules and hard seeds.

Winged seeds falling from a pod or blown on the wind, typical examples:

- Silky Oak
- Black Booyong
- Red Cedar
- Hoop Pine
- Native Frangipani
- Flindersias, eg. Crow's Ash, Cudgerie, etc

Large pod and seed, typical examples:

- Native Wisteria
- Black Bean
- Hairy Walnut

Woody pods, twisting open to pop seed, typical examples:

- Native Hibiscus
- Fairy Paint Brush
- Wattles
- Brush Cassia

Capsules that split open, typical examples:

- Macadamia Nut
- Flame Tree
- Peanut Tree
- Rosewood

Powdery coated capsules with dark, hard seeds, typical examples:

- Red Ash
- Red and Yellow Kamala

Papery skin, hard stone, typical examples:

- Deep Yellowwood

Fleshy Fruit

Usually found in large quantities in bunches or singly, often brightly coloured and edible to birds and animals.

Soft fleshy fruit and many fine seeds, typical examples:

- Figs
- Cordylines
- Kangaroo Apple and other Solanums
- Copper Laurel or Bolwarra
- Finger Lime
- Some Myrtles
- Native Pomegranate

Fleshy coating with one or more firm seeds, typical examples:

- Brown Beech
- Most true Laurels
- Syzygiums
- Ribbonwood
- Red Apple

Thin fleshy fruit or outer layer with hard stone, typical examples:

- Quandong
- White Beech
- White Cedar
- Red Olive Plum
- Native Olive
- Crab Apple
- Lignum-vitae

Large, fleshy fruit with large seed, typical examples:

- Black apple
- Davidson's plum

Woody or firm capsules

Containing one or more seeds, each covered or partly covered with an aril, typical examples:

- Tuckeroos, Alectryons, Coogeras, Tamarinds, Foam Bark, etc
- Scentless Rosewood, Rosewood, Red Bean
- Sloaneas
- Winged Tulip, Blunt-leaved Tulip

(Aril: An expansion of the stalk of a seed, growing partly or completely over the seed, usually fleshy and often brightly coloured, eg. the Lychee fruit we eat is in fact an aril.)

Special Fruit

- Brown pine – holds a hard single seed outside a fleshy fruit (swollen stalk)

Preparation and Propagation

General

- Replicate nature in a controlled environment
- Good soil contact and good even moisture

Dry Seed Germination

In most cases no treatment is needed. Sow as soon as possible. Some seeds require hot water treatment to assist with germination, eg. Acacias, Cassias, Red Ash, Brown Kurrajong. Soak in hot tap water and leave for three days to rehydrate.

Fleshy Fruit Germination

Fresh seed is very important. Remove outer capsules and soft flesh. Squash fruits between paper or cloth to remove skin and juices. Plant seeds before they dry out. Can soak seeds in water to kill any insects in the seed, eg. Tulipwood. Stone covered seeds have longer viability. Sticky seeds can be mixed with sand, eg. Pittosporums. Whole fruits can be squashed and mixed with sand before sowing, eg. Figs. Cover with seed raising mix to approximately the same depth as the seed.

Seed raising mix

- Coir
- Sand and peat
- Topsoil and mulch
- Buy premium potting mix and sieve to required texture
- Cover seed lightly with mix

Containers

- Large seeds – plant singly in own tube.
- Small quantity of seed – plant in small pots.
- Large quantity of seed – plant in deep boxes or trays.

Position

- Keep in light shade
- Big boxes may require filtered sun and dappled light
- Cover with plastic or shade cloth
- Protect from extreme weather but able to receive rain water
- Protect from vermin or turkeys

Potting up

- After germination watch growth to determine right time to divide and pot up
- Most can go to their own tube
- Depending on size of root system choose a larger container
- Keep in light shade at first, then move to filtered light position
- Sun harden before planting out

Labelling

- Make white plastic tags from old pots or food containers
- Unidentified seed should be described fully (shape, size, colour, flesh colour, date, etc)

Fertilising

- Use sparingly and only when new growth appears
- Excessive nutrient will cause weak rapid growth or kill young plants
- Seedlings tolerate some dryness rather than constant over watering

Tools

- Keep pots, benches and tools dry and clean
- Trowels (broad and thin)
- Sieve
- Old stainless steel kitchen knife
- Old saw
- Cheap stainless steel scissors
- Secateurs (sharp and clean)
- Small watering can
- Labels and water proof pen
- Books for identification and reference

Storage

Dry Seed

- Remove from pods
- Store in paper bag or box
- Keep dry and sealed from vermin
- Label with full description (size, shape, name, date & place of collection)

Fleshy fruit

- Should be kept moist and clean
- Keep in plastic bag
- Remove flesh and sow fresh seed immediately – does not keep well
- Store under water overnight to kill insects
- Refrigerate in plastic bags to delay fungal decay
- Storage of fleshy fruit is a short-term option only

Aims of Propagating and Planting Native Plants

- To provide native habitat and food for native fauna
- To replace or prevent exotic weed invasion
- To rehabilitate degraded land, especially stream banks and slopes
- To provide corridors linking remnants
- To increase and strengthen existing remnants
- To improve the aesthetic and recreational appeal of our local landscapes

Some Useful Tips

- Use seeds or stock from local plants
- Look and learn
- Be patient – persistence will be rewarded
- Much satisfaction can be had from raising your own plants
- MOST IMPORTANTLY HAVE FUN!

Seeding and Fruiting Records for Beechmont by George Rankin

Month	Plant – Fresh Seed Available
January	Silky Oak – <i>Grevillea robusta</i> Red Cedar – <i>Toona ciliata</i> Purple Cherry – <i>Syzygium crebrinerve</i> Giant Water Gum – <i>Syzygium francisii</i> Small-leaved Fig – <i>Ficus obliqua</i> Twin-leaved Coogera – <i>Arytera distylis</i> Oliver’s Sassafras – <i>Cinnamomum oliveri</i> Dorrigo Maple – <i>Endiandra crassiflora</i> Koda – <i>Ehretia acuminata</i> Hoop Pine – <i>Araucaria cunninghamii</i>
February	Yellow Carabeen – <i>Sloanea woollsii</i> Piccabeen Palm – <i>Archontophoenix cunninghamiana</i> Walking-stick Palm – <i>Linospadix monostachyas</i> Creek Water Gum – <i>Syzygium smithii</i> or <i>Acmena smithii</i>
End of March through winter	Rosewood – <i>Dysoxylum fraserianum</i>
April	Cudgerie – <i>Flindersia schottiana</i>
Autumn	Watkin’s Fig – <i>Ficus watkinsiana</i> White Beech – <i>Gmelina leichhardtii</i>
May	Red Carabeen – <i>Geissois benthamii</i>
Winter	White Cedar – <i>Melia azedarach</i>
August	Native Olive – <i>Olea paniculata</i>
October	Hairy Rosewood – <i>Dysolylum rufum</i>
November	Yellow Sassafras – <i>Doryphora sassafras</i> Brush Cherry – <i>Syzygium australe</i> Yellowwood – <i>Flindersia xanthoxyla</i> Native Tamarind – <i>Diploglottis australis</i>