

Seed Propagation

Many of our Australian native plants can be easily grown from seed.

Propagating new plants from seed is one of the simplest means of producing plants.

Nature created seed as a complete plant within a package, requiring only moisture and warmth to initiate germination. However, many of the new hybrid plants, do not produce viable seed and must be grown from cutting.

Seed Storage

- Remove seed pods or any other vegetable matter.
- Ensure the seed is completely dry before storage.
- Store short term in a paper bag, long term in sealed air tight containers.
- Label seed with species name, date and where collected.
- To prevent damage from insects, place a little insecticide amongst the seeds.

Treatment of seed

Most seeds germinate readily, for example eucalyptus, callistemon and melaleuca. However, some seeds such as acacias and pea species have a hard skin or coat, which must be damaged to allow moisture to penetrate. Check on the chart over the page to see if your seed needs one of the following treatments.

- Hot water - carefully pour boiling water onto seed and soak for 24 hours.
- Abrasion - rub the seed with fine sandpaper.
- Peeled & nicked - carefully 'nick' the seed with a sharp knife.
- Leaching - use running water to leech away inhibitors. Place seed in a muslin bag and suspend inside the toilet cistern for 12- 18 days. Worth a try when all else fails!
- Smoked water - has shown excellent results with some species that have been difficult to germinate.

Seed from many rainforest trees may have added difficulties such as:

- a very short period of viability.
- the temperature may not be high enough to initiate germination without artificial heating.

Sowing the seed

- All tools, pots or containers should be thoroughly cleaned to avoid plant disease.
- Sow seed in a free draining mix such as 50% washed river sand (not beach sand) and 50% cocopeat or peat moss. Environmentally it is better to use cocopeat, a renewable product. Peat moss is not renewable
- Sow seed thinly and uniformly to allow good airflow and reduce fungal diseases.
- Cover large seed with the sowing medium to approximately twice their diameter.
- Mix fine seed with sieved river sand and sprinkle on the surface of the sowing medium.
- Water with a fine mist to prevent washing out the seed.
- To avoid the seed drying out, cover the seed container with a plastic bag, placing a support to keep the bag up off the soil surface.
- Before transplanting seedlings, remove the plastic bag for a few days to allow plants to 'harden off'.

- Label with the plant name and date.
- Place seed punnets in a sheltered position.

The very fine seed of the Melaleucas and Leptospermums can be germinated using the **BOG** method.

- Sow seed as normal.
- Place the seed punnets into a larger container which allows water to come halfway up the sides of the punnet.

Germination

Patience is required as some species can take several weeks or even 6-12 months to germinate.

Pests and diseases

Good hygiene will help prevent 'damping off', a condition caused by a fungus. The stem of the plant becomes soft and the plant dies rapidly.

Snails and slugs can be a problem-use appropriate snail protection.

Pricking out the Seedlings

Seedlings can be pricked out when they have developed two true leaves.

- Hold the seedling carefully by its leaves and gently tease out the roots from the seedling mix.
- Fill pots with a good quality potting mix with added fertilizer.
- Make a hole in the centre, deeper than the length of the roots.
- Lower roots into the hole and gently bump pot on bench to settle potting mix around roots.
Do not press potting mix down.
- Water thoroughly, label and place in a sheltered environment until seedlings have established.

Species	Method	Sow
<i>Acacia species</i>	Seed is shed when ripe. Boiling water treatment	Spring/ summer
<i>Acmena species</i>	Fresh seed only. Remove fleshy fruit before sowing	Spring
<i>All Palm species</i>	Fresh seed. No special treatment	Spring
<i>Angophora / Eucalyptus / Corymbia</i>	No special treatment	Spring
<i>Allocasuarina species</i>	No special treatment	Spring
<i>Banksia species</i>	Cones require heat to release seed	Spring/ summer
<i>Brachychiton species</i>	Handle seed with care as they have irritating hairs	Spring
<i>Brachyscome species</i>	Do not cover seed. Use bog method	Spring/ autumn

Species	Method	Sow
<i>Callistemon species</i>	Use bog method	Spring/ summer
<i>Casuarina species</i>	Seed retained in fruit. Collect & dry	Spring/ summer
<i>Doryanthus excelsa</i>	No pre-treatment	Spring
<i>Dodonaea species</i>	Boiling water treatment	Spring
<i>Hymenosporum flavum</i>	No pre-treatment	Spring/ summer
<i>Kennedia species</i>	Boiling water treatment or abrasion	Spring
<i>Hakea species</i>	No pre-treatment	Spring/ summer
<i>Hardenbergia species</i>	Boiling water treatment	Spring
<i>Lagunaria patersonia</i>	Seed capsules contain irritating hairs	Spring
<i>Lepidozamia, Macrozamia & cycads</i>	Wear gloves and carefully remove the poisonous fleshy coat. Crack the seed case	Spring
<i>Leptospermum species</i>	Use bog method	Spring/ summer
<i>Libertia paniculata</i>	No special treatment	Spring
<i>Lomandra species</i>	Fresh seed. No special treatment	Spring/ summer
<i>Melaleuca species</i>	Use bog method	Spring
<i>Oxylobium species</i>	Boiling water method	Spring/ summer
<i>Rhodanthe ssp.rosea</i>	Do not cover seed	Autumn

Further reading

"Let's Propagate" by Angus Stewart

"Australian Native Plants" by Wrigley & Fagg

"Germination of Local Native Plants" by Murray Ralph

Produced by the Australian Plants Society, Central Coast Group in conjunction with Gosford City Council and Wyong Shire Council.