



Fact Sheet: Collecting Seeds for Multiple Benefits

Why collect native seeds?

The reintroduction of species into the landscape relies on seed collection for plant propagation and direct seeding. Collection can be a rewarding experience and a great way to make an environmental difference!

Native seeds are a valuable resource for the plant that produces it and the range of native animals, birds and insects that feed on it. This guide is aimed at landholders to assist in identifying and collecting native seeds for planting along riparian land.



Photo: *Phragmites Australis* at Narrabundah Wetlands

How to collect native seeds

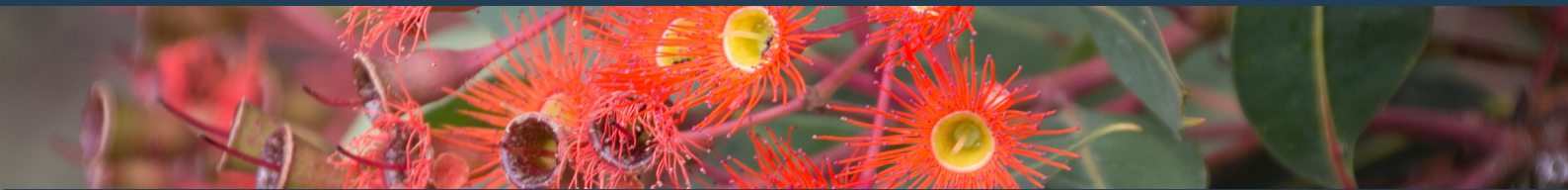
1. For tall trees, it is best to use fallen limbs and branches, provided it is clear where the limb fell from and seeds have not been released yet. A long-handled pruner can be the perfect tool to access lower limbs.
2. Fruit and seeds on smaller trees and shrubs can be cut with pruners, secateurs, or hand-picked with a tarpaulin beneath to catch loose seeds directly into a large tub.
3. Some species, such as wattle and bush-peas, release their seeds very quickly after ripening. Tying a paper bag or nylon cover over branches will help catch seeds as the pods ripen. This reduces labour and ensures ripe seeds are collected.
4. Ensure you inspect seed as you collect to make sure it is fully ripe and does not contain insect pests that may eat the seed in storage.

Contact us

The Molonglo Conservation Group is a not-for-profit coordinator of Landcare and Park Care groups in the Molonglo and Queanbeyan River Catchments. Contact the Molonglo Conservation Group Program Manager for more information.

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Important things to consider

1. *Where will the seeds come from*

- Are the plants on park, private, government land?
- Consider the relevant permits needed

2. *Identify the parent plant and type of seed*

- Use Greening Australia resources/local native plant lists

3. *When to collect the seed*

- Woody species (e.g. eucalypts and tea trees): All year round
- Grasses: December - March
- Hard seeds: November - January

4. *Consider ethical collection practices/uses*

- Don't collect more than 10% of seed from a single plant.
- Try to match provenances (from collection to planting)
- Take particular care to avoid trampling of understorey, disturbance of nests, introducing outside weeds on clothes & shoes, and when collecting from rare or threatened species

5. *Obtaining the best genetic quality seed*

- Collect seeds from large, healthy & natural populations
- Avoid neighbouring plants (they're related)/isolated plants

6. *Consider work health and safety*

- Look after yourself (appropriate clothing, tools and first aid kit) and the environment (minimise trampling, vehicle use, and introducing new species)

7. *Keep records*

- Record the date, location and climate of seed collection sites - this is really important to ensure you know the origin of the plants that are grown from the seed.

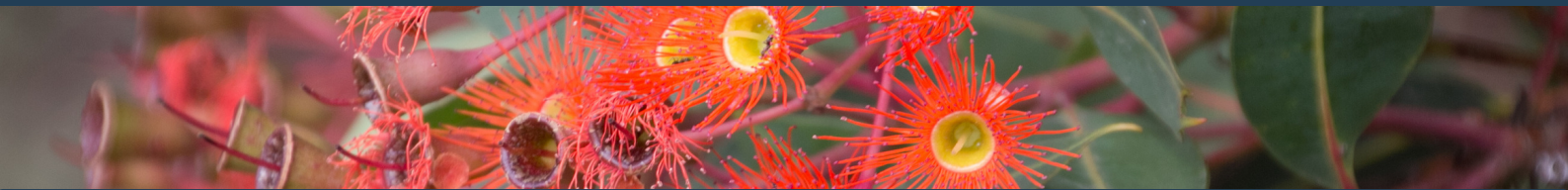
8. *Dry, extract and store seeds appropriately*

- Different plants require different environmental conditions to release seeds. Woody and other non-succulent fruits need to be dried in a warm, dry and well-ventilated space safe from seed-eating creatures. Seeds in fleshy fruit need to be soaked to ferment the fruit and separate from the seed. Viable seeds will fall to the bottom of the container while fruit will rise to the top. Seeds released by bushfire will need to be heated in the oven at 80-100°C for 30 minutes to allow the valves to open and expose the seeds.



Photo: River Bottlebrush

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Seed processing

Drying

It is important to dry your seeds after collection. Before drying, look for holes, bubble lesions on seed which can indicate insect damage. If stored with the rest of the seeds it can spread and make the seed lot unviable for propagation. Discard any seeds that do not look healthy.

Dry seed in a room that has low humidity and a stable temperature. Remember to spread the seed thinly out to avoid composting and to allow quick drying. For large quantities seed can be dried on tarps in a shed or outside on low humidity days. The aim is to get the seed moisture content as low as possible (15-20% relative humidity). High moisture content in seed decreases shelf life.

Cleaning

There are 2 main techniques to clean seed, depending on seed type. Some seed such as Asteraceae species requires little or no cleaning.

1. Threshing

This technique removes the seed from the plant material (chaff) and can be done with seed screens or a rolling pin over seeds wrapped in newspaper! Next step is winnowing which separates the chaff from the seeds. This can be done with a fan to blow off the chaff, a winnowing basket or velvet which sticks to the chaff and lets the seed slide through



Photo: Threshing seeds with screen or machine



2. De-pulping

This technique is for fleshy seeds (enclosed in berries). The 2 week storage period dries out the fruit and encourages the release of the seeds. Once separated, flush with water. This will cause the fleshy skins to rise to the top and the seeds to sink. Remove seeds and let them air dry.

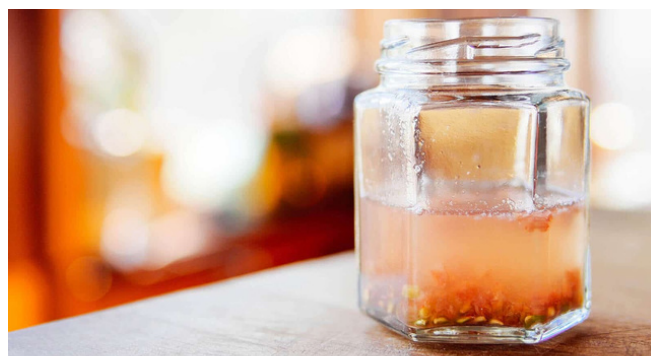
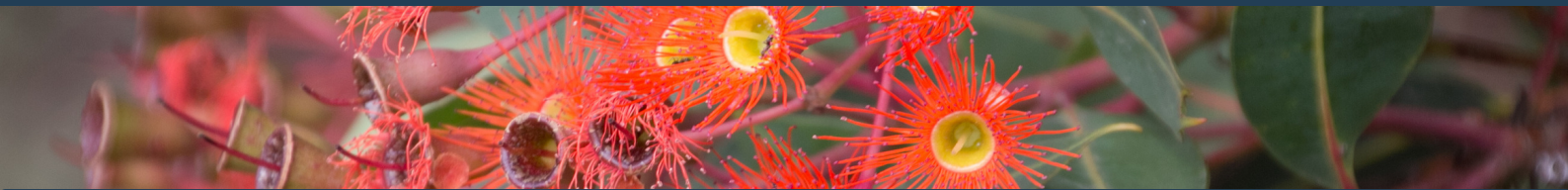


Photo: Viable seeds sinking while flesh rises

Storage

The best method to store seed in an airtight container or for short storage (< 2 years) Ziplock bags, envelopes and paper bags would be sufficient. The containers or bags should be labelled with the species name, collection date and location. This will keep track of relevant information and avoid confusion later! Store seed in a stable dry temperature away from light.

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Propagating and planting seeds

Once processed, stored and prepared (techniques depend on type of seed but commonly pouring boiling water over seeds releases them from seed coat), the seeds are ready to be planted. It is best to begin propagation in autumn because the weather is not yet too harsh and the seedlings will be ready to relocate in spring. Seeds should be sown into small pots, punnets or tubs and covered to a depth of twice the seed diameter. Smaller seeds (<2mm) can just be pressed down onto the soil, no covering is required.

Keep the seed bed moist and away from any dangers of wind or rain. Access to sunlight will encourage faster germination. Overhead watering can then commence with a spray bottle or watering can. Try to avoid disturbing the soil with watering as much as possible.

Once seedlings are big enough to handle (usually by the time the second pair of leaves arrive), they can be planted into pots in protected positions away from danger (winds, heavy rain, pests, etc). After 1-3 months they should be transplanted again to a larger pot. Plants will be ready for the site when good root development has occurred, this is clear when roots are able to hold onto soil when removed from pot.

Helpful resources

- Florabank [Guidelines](#)
- Molonglo Conservation Group (www.molonglo.org.au)
- Bushland Conservation Management [Revegetation guide](#)
- Rivers of Carbon [Native Revegetation Species List](#)
- NSW Government Department of Environment & Heritage [Revegetation Guide](#)



Photo: Spreading Wattle