

Information Sheet

Landholder Conservation Partnerships Program Seed Collection Program

Background

Our native seed collection initiative commenced late 2021 aimed at diversifying the species offered through the Free Plant Program, which was identified as a key area of improvement during the 20-21 program review.

Both collection and propagation so far has been successful, with high germination rate attributed to using “fresh” seeds collected locally. This ensures that propagated seedlings are adapted to local and regional climatic conditions and are likely to have a higher survival rate in revegetation projects.

Seed collection

Australian native species are generally adapted to the boom and bust of our highly unpredictable climate and temperatures, and perhaps as a result, many native species set fruit several times a year, and sometimes staggered (i.e. *Aphananthe philippensis* Native Elm), and when they do, seeds can be propelled through the explosive action of bursting pods (i.e. *Croton spp.*, *Flindersia spp.*), or perhaps be eaten by wildlife; either way, making it extremely difficult for seed collection.

Whilst we’ve had a highly productive year of collecting seeds from species such as *Owenia venosa* (crows Apple) and *Alyxia ruscifolia* (chain fruit), these species can take up to 9-12 months to germinate, so there is often a significant time lag between collection, propagation to distribution.

The seed collection table is a working list of priority species that will be updated routinely and is available as a separate document. If you have any of these species on your property and are fruiting, please feel free to get in touch.

Seed collection has been guided by the following consideration:

- Species recommended to our landholders through the Property Management Plan;
- Indicator species of semi-evergreen vine thicket (this is a vegetation community that has significantly reduced in size due to historic clearing);
- Species considered difficult to source from local nurseries;
- Locally significant species; and eventually
- Threatened species (council is currently working with the state government to obtain a protected plant growing permit for a number of threatened species).

Many native species, particularly those found in the vine thicket scrub can take up to 12 months or longer to germinate under a specific condition (including dry composting, use of smoke water, pre-treatment using boiling water etc.), which might be



For more information contact the Landholder Conservation Partnerships Team at Partnerships@ipswich.qld.gov.au

Information Sheet

Landholder Conservation Partnerships Program Seed Collection Program

why it's difficult to source bulk seedlings of these species from local nurseries.

Collection/delivery of seeds:

To ensure there is genetic diversity, seeds should be collected from a number of specimens from the same species. You should also leave enough for wildlife as they are extremely efficient at naturally dispersing these seeds to new areas.

There are a few considerations when seeking to collect seeds outside of your own property.

You can collect seeds from most native species if you are on your own property, however, approval is usually required for collection of seeds from Council, State, Federal government land, and Private land.

Before collecting the seeds:

1. Contact us to confirm the species by sending us photos, as well as collect specimens of the plant (fruit, leaves, flowers).
2. Once the species is confirmed and identified as priority species and if there is a considerable amount:
 - a. one of the Conservation Partnerships Officers can arrange to collect it from you; or
 - b. you can send it to us via pre-paid envelope (that we will send to you); or

c. you can drop it off at the council building at 1 Nicholas Street with prior notice.

3. Please note that we currently don't have the capacity to accept and process the seeds without prior arrangement as various methods are used to separate the seeds from the fruit / capsule / pods.

For procedures on collection of threatened and protected species visit: <https://www.qld.gov.au/environment/plants-animals/plants/protected-plants/harvesting>

General rules for collecting native fruit / seeds:

1. For dry cones / nuts / pods - the seeds are usually in a woody casing:
 - a. collect when they appear dry.
 - b. brown and woody, some are starting to drop on the ground (*Macadamia spp.*); and
 - c. They can be stored in a paper bag in a warm place and they will start releasing the seeds (*Flindersia spp.*, *Eucalyptus spp.*, *Acacia spp.*, *Banksia spp.*, *Pultanea spp.*, *Daviesia spp.*, *Elatostachys spp.*, *Alectryon spp.*, *Cupaniopsis spp.*, *Glochidion spp.*)



Information Sheet

Landholder Conservation Partnerships Program Seed Collection Program

2. For fleshy fruit:
 - a. they can be collected when they appear round and full.
 - b. they soften or wrinkle and change colours (*Ficus coronata* Sandpaper Fig, *Aphananthe philippensis* Native Elm);
 - c. they are falling to the ground (i.e. *Owenia venosa*, *Elaeocarpus obovatus* half broken down fruit); and
 - d. birds are feeding on the fruit.
 - e. Fleshy fruit generally has a short shelf life, so it is recommended that you store them in a fridge or in dry compost or propagate them immediately.
3. As a general rule of thumb, collect no more than 20% of what is on individual tree in any given season (unless it is a critically endangered or endangered species in which case, must be accompanied by a Sustainable Harvest Plan and a Permit from Department of Environment and Science).
4. Maintain good hygiene of equipment (sanitise after each use using isopropyl alcohol or similar).
5. Avoid collecting fruit / seeds if the plant is visually affected by disease.
6. Store in dry cool place, or in a fridge until propagation.
7. Label your name, location, date, and species name.

8. Consider using PPE and follow general safety (i.e. use gloves when handling seed pods such as *Jagera pseudorhus*, watch out for traffic if parking on a roadside, etc.).

Visit the following for more detailed information and keep an eye out for future workshops on collection and propagation of native fruit and seeds.

References and resources:

www.anpc.asn.au/florabank/

https://www.anpc.asn.au/wp-content/uploads/2021/09/GermplasmGuidelinesThirdEdition_FL_NAL_210902.pdf

https://www.greeningaustralia.org.au/wp-content/uploads/2017/11/FLORABANK-GUIDELINES_collection-methods.pdf

https://www.greeningaustralia.org.au/wp-content/uploads/2017/11/ALEP5_Collect_Seed_Web.pdf

<https://npg.org.au/ipswich/>

https://www.redland.qld.gov.au/info/20286/native_gardening/640/growing_native_plants_from_seeds_and_cuttings

Books: Dunphy M, McAlpin S, Nelson P, Chapman N, Nicholson H (2020) 'Australian Rainforest Seeds: A guide to collecting, processing and propagation.' (CSIRO Publishing: Melbourne)

