

Revegetation Fact Sheet

Collecting native plant seed

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Collecting your own seed from local vegetation for revegetation projects has many advantages. You will learn what plants are on your property and in your area and have the most suitable species for your local conditions. This not only increases the survival rates of the seedlings but preserves a genetic resource as well. Collecting seed can be a rewarding and inexpensive part of your revegetation project.

Identifying species

It is important to be able to identify and have some knowledge about the species you are collecting so you can:

- Collect the right species for the site and project
- Recognize when seed is mature and ready to collect
- Know when to sow and understand germination requirements

There are many books, web sites and revegetation organisations that can assist in identifying species and provide guidance in the collection and growing of native plants.



Senna

When to harvest

Seed harvest will vary depending on climate, species, region and seasonal variations. Check the flowering times of the species you wish to collect and visit the area regularly to check on the seed. A hot weather burst can accelerate ripening.

Local seed or provenance

As plants have adapted to local conditions, variations within a species has evolved over thousands of years to produce provenances. These provenances can vary greatly from size and form through to frost or drought tolerance. When collecting seed for a specific site it is important to collect from plants as close to the site as possible. This ensures that plants with the same provenance will have the greatest chance of survival.

*Eucalyptus gracilis*

When collecting seed follow these useful guidelines:

- Ensure that the fruits you are collecting are mature
- Collect from healthy, strong plants
- Do not take more than 10% of the seed present
- Collect from as many different plants as possible of the same species in the same area
- Do not collect from isolated plants, as these tend to produce poor quality seed
- Collect from all over the plant if possible
- Collect seed to match the site according to soil type, rainfall etc
- If revegetating a sand dune, collect seed, if possible, from nearby dune vegetation
- Label with plant name, location and date.

SEED COLLECTING

Plants with woody fruits - Eucalypt, Melaleuca, Callitris, Allocasuarina and Banksia

Woody fruits often remain closed and persistent on the plant. They are generally ready to collect when the fruits are hard and the colour changes from green to grey-brown. To check on maturity in eucalypts cut a fruit open and seeds will be a tan, reddish-brown to black colour. Individual fruits or branches with fruits can be removed and placed in trays or paper bags. Larger specimens can be placed on a tarpaulin and allowed to dry. After several days to weeks the fruits open releasing the seed.



Callistemon



Leptospermum

Plants with pods - Acacias, Davesia and Kennedia

Collect when pods become dry and change colour from green to brown. Pods usually split on maturity, allowing seeds to be dispersed so the plants must be checked regularly. Pods can be hand stripped or caught on a tarpaulin spread underneath the plant and shaken to dislodge the seeds and pods.



Kennedia

Fleshy fruits - Dianella, Enchylaena and Rhagodia

Fleshy fruits soften and often change colour when mature. Hand strip fruits when ripe and remove flesh by crushing and washing in water, then spread out in the open air to dry.

Many species can show an increase in germination when the fruit is removed.



Enchylaena

Papery fruit - Dodonaea, Bursaria and Maireana

Seed is ripe when the papery capsules are dry and often change colour to brown. Capsules develop quickly after flowering so it is important to check plants regularly. It is recommended to open the capsule and check that the seed is mature before collecting.



Maireana



Bursaria



Dodonaea

Native grasses - Austrodattonia, Chloris and Austrostipa

Generally as seed heads ripen they begin to dry and change to a pale brown colour. Harvest seed heads as soon as ripening starts either by hand and place in a large paper bag to collect released seed, or by slashing grasses and spreading the hay immediately on the site to be sown (see Native Grasses fact sheet in this series).



Chloris



Austrostipa seed

Sedges and Rushes - Gahnia, Juncus and Carex

Collect seed heads and place in paper bags to dry. Rub seed heads between hands to extract the seed.



Juncus

Daisy type flowers - *Olearia*, *Helichrysum* and *Senecio*

Seed is mature when the centre of the seed head becomes loose and seeds are easily removed.

Harvest by hand on a warm dry day and place in paper bags to dry with an insect strip, as they are prone to insect attack. Some daisy type species produce very few viable seed, rub between hands to remove the seed.



Olearia

Seed extraction

After drying, the seed should be extracted from the fruits and the method used will vary depending on the species. Woody fruits such as eucalypts can be tapped against the side of a container. While most acacias release their seed easily, some need to be manually removed from their pods.

Banksia fruits can be singed in a fire to open the valves and release the seed.

Some species with papery capsules or seed heads will need to be broken up by rubbing between the hands or crushing to release the seed.

For fleshy fruits it is best to remove the flesh before drying. To extract the seed from the flesh soak in water to soften then gently crush the fruits, they can be rubbed in a sieve to separate the flesh from the seed. Wash away the flesh and drain. Spread out in the open air to dry

Recovering dropped seed

In some species it is possible to recover dropped seed from beneath the plant by raking or vacuuming. Seed harvested this way will contain a good deal of leaf litter and topsoil and will need to be sieved to remove the rubbish. This method of collecting usually produces a lower seed yield but is useful if optimum harvest time is missed.



Acacia - dropped seed



Drying

Spread out fruit on a tarpaulin, newspaper or in trays in the open air in warm, dry, sunny weather, out of windy conditions and safe from birds, ants and rodents. Under these conditions it will take a few days to a couple of weeks for some species, for the fruits to dry and open. If drying inside, make sure the room is well ventilated and turn the fruits regularly. Remove any plant material before drying that may mix with the seed and be difficult to remove when cleaning.

Cleaning and Storage

When seed has been extracted from the fruits remove any rubbish such as leaves, twigs and dirt before storage by sieving or winnowing (blowing or using a fan to remove rubbish).

Before storing check that the seed is completely dry. Place each seed lot in a separate airtight container and label with the plant name, location and date. Viability will be determined by the conditions the seed is stored under. To help prolong the life of the seed always fill the container with seed and store in a dry, dark, cool place and check at intervals for any fungal, insect or rodent problems.

Safety

Always play it safe by wearing the appropriate safety equipment. Safety glasses, leather gloves and strong footwear should be worn and if removing branches above your head also a safety hat. Wear a dust mask or respirator when cleaning or sieving seed as the dust can cause irritation to airways.

EQUIPMENT

Tools needed for collecting will depend on the species and quantity required. For small projects just secateurs and paper bags may suffice.

Secateurs

Pruning saw

Sieves

Tarpaulin

Large and small paper bags or sacks for larger samples

Telescopic long-handled pruner

Permanent pen and paper for labelling

Safety equipment



The Murray Mallee LAP has seed collecting equipment available to lend at the Murray Bridge office including sieves, secateurs, tarpaulins, telescopic pruners and long-handle loppers.



Obtain permission

To collect native seed from Forest Reserves, National parks and Wildlife Reserves, Crown Land, roadsides and local council reserves a permit is required from the National Parks & Wildlife, Department of Environment and Heritage. Written approval must also be obtained from the management authority before collecting.

On private land, written permission must be sought from the landholder.

Check with the Department of Environment and Heritage before collecting.

For further information contact:

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Produced by Barbara Martin, hetta designs 2005

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