

How to Collect and Identify Plants

The Queensland Herbarium provides an excellent service offering free identification of plants for all landholders in Queensland. This service is invaluable for landholders who wish to identify those mystery plants on their property. All identification is carried out by Herbarium staff or volunteers. The Queensland Herbarium encourages well-prepared plant specimens to help make the identification process quicker. This Note discusses the process required for preparing and sending a plant specimen for identification to the Queensland Herbarium.

Find a good specimen

A good specimen is required for a positive identification. Take some time to find a specimen that includes:

- Up to 50 cm of leaf and stem.
- Fertile plant material such as seeds, flowers, pods, buds and cones.
- For long grasses - pick an entire length of the grass including the roots.

You should also record:

- The date when the specimen was collected.
- The location. Write down a detailed description from where you picked your specimen. Include a GPS reading if you have one.
- The habitat. Write down the type of habitat from where you collected your specimen. For example, near a dam, next to the road, along a creek or in a paddock.
- The surrounding vegetation. If known, record the plants that grow in the surrounding area from where you collected your specimen. For example, ironbark forest with Kangaroo Grass, lantana and casuarina trees in a creek line. Be specific and use scientific names if possible.
- Whether the specimen is from a tree, shrub, vine, groundcover, grass or herb. If unsure, describe the height and form of the plant and the colour of the flowers and fruit. For example, a rambling bush about two metres high with small yellow flowers.
- The abundance of the plant in the area (e.g. common or uncommon).

Preparing your specimen

First dry and press the specimen. Lay the specimen on several pieces of newspaper and arrange in a way that leaves, fruit, flowers and stems are separated as much as possible. Avoid stacking plants on top of each other as they may go mouldy and will not dry. Fold long grasses into N, Z or W shapes. Put several pieces of newspaper on top of specimens and press down with a heavy object, such as a phone book. Allow to dry for between 1-3 weeks, depending upon the humidity, temperature and the type of plants being pressed. The paper may need to be changed during the first few days to prevent mould developing.

To help identify eucalypts, describe the colour and type of bark from the tree e.g. white and smooth, brown and rough, grey and tessellated (divided into small squares) or red and stringy.



A specimen of the flower or fruit can make identification of a plant much easier. Shown here is the White Cedar (Melia azedarach) in flower.

Water plants and fleshy plants (such as mistletoe, succulents and cacti) can be hard to dry and press. They will generally not dry if pressed in newspaper and tend to go mushy and rot before they dry. These plants can be placed in a fan forced oven for a few hours on a very low temperature to dry them out.

Spiky plants also pose some difficulties when pressing. Some spiky plants can be lightly pressed. Alternatively you can roll up these plants in newspaper to avoid breaking off thorns during the pressing process.

Although fertile material helps identification, some plants fruit or flower very infrequently. If this is the case, send in leaves and stems of the plant collected from both in the sun and the shade.

Rainforest plants generally require only the stems and leaves for identification. Any additional information about the soil or geology from where your specimen was taken may also be helpful.

Although plastic bags can keep your plant specimens fresh until you get them home, you should never use plastic to wrap, store or press your plant specimens. Plastic bags make plants go mouldy so only use paper.

Sending in your specimen

It is important to number and record what specimens you have sent in. You can send up to ten plant specimens at one time for identification, and the Herbarium will normally reply in around a month's time. Preferably make two specimens and keep one at home, as specimens sent to the Herbarium are not returned. Good specimens may be added to Herbarium records for future use by scientists and students, may help uncover rare or 'undiscovered' plant species and can help document the spread of weeds.

Once prepared, send your specimens to:

Botanical Information and Advisory Service
Queensland Herbarium
Brisbane Botanic Gardens, Mt Coot-tha Rd
Toowong QLD 4066



Type specimen of *Eucalyptus tereticornis*.
Image sourced from Royal Botanic Gardens & Domain Trust, Sydney Australia.

Additional sources of information

A fact sheet about how to collect, prepare and send botanical specimens is available from the Queensland Herbarium. They also offer botanical specimen cover sheets for you to write down your contact details and to record information about your specimen. These are available by calling the Herbarium on 07 3896 9326, or can be downloaded from the Dept of Environment and Resource Management website at www.derm.qld.gov.au

Land for Wildlife is a voluntary program that encourages and assists landholders to provide habitat for wildlife on their properties. For more information about Land for Wildlife South East Queensland, or to download *Land for Wildlife Notes* free of charge, visit www.lfwseq.com.au

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