

# Plant Germplasm Conservation in Australia:

*Strategies and guidelines for developing, managing and utilising ex situ collections (Third edition)*

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**Germplasm is living tissue - such as seeds, cuttings or spores - from which new plants can be grown.**

## Sharing our knowledge

The new edition of *Plant Germplasm Conservation in Australia* shares knowledge about ex situ plant conservation, such as seed storage, which helps safeguard plant diversity for future use in restoration, translocation, horticulture and research.

A video series and webinar recordings, both based on the guideline's chapters, support this release and are available on our YouTube channel.

## In the Guidelines

These 'Germplasm Guidelines' are practical, technical and evidence-based, providing a workflow to address each step of acquiring, maintaining and utilising genetically representative collections (right).

Decades of research and experience from 78 contributors actively conserving Australian plants in seed banks, botanic gardens and conservation nurseries has been brought together in these best-practice guidelines.

Readers are taken through the genetics and practice of acquiring collections and the processes of seed banking, tissue culture, cryopreservation, and living collections maintenance, with 50 case studies to highlight the application of research and theory.

This edition is testament to our increased understanding of the Australia flora, with mentions of more than 116 genera and 117 plant families. The Guidelines include information on common plant families, including those known to be difficult to store and germinate. We address the need to collect, store and grow plants with 'special' life history stages or growing requirements (terrestrial orchids with mycorrhizal associations, carnivorous and parasitic plants) and 'special' types of germplasm (material from ferns, mosses, and liverworts).

## Who can use the Guidelines

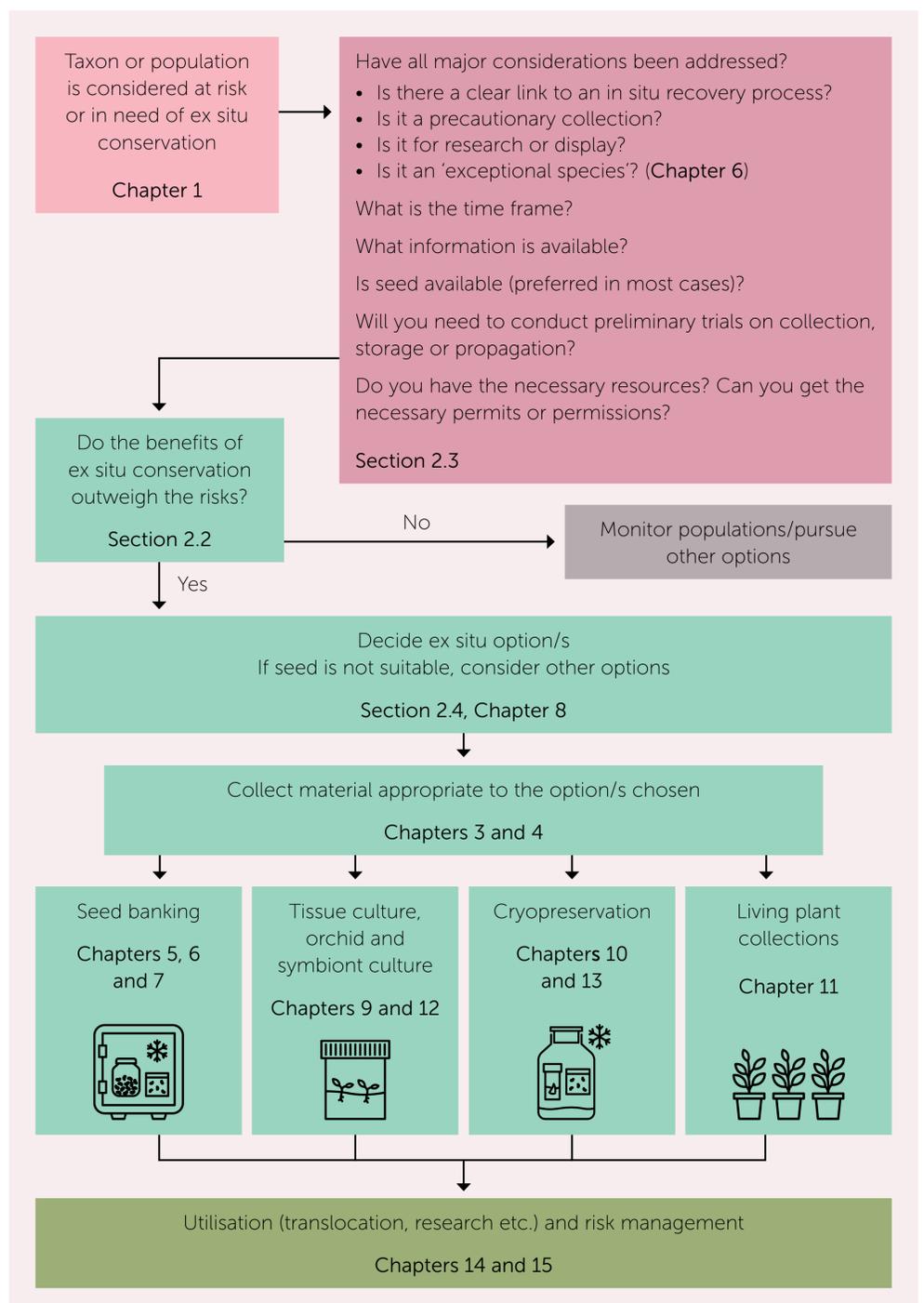
Conservation agencies, scientists, nursery staff, students, volunteers, and anyone interested in applied plant biology will all benefit from reading the guidelines. They will be of particular interest to Landcare and other community groups propagating Australian plant species, storing seeds or working with threatened species.



Scan to download the full Guidelines for free or purchase a hard copy:



[www.anpc.asn.au/germplasm-guidelines-review/](http://www.anpc.asn.au/germplasm-guidelines-review/)



**Launch of the Plant Germplasm Conservation in Australia...**  
37:11  
Australian Seed Bank Partnership

**Collection, processing and storage of fern spores**  
6:33  
Australian Network for Plant Conser...

**Cutting propagation in the conservation nursery**  
3:06  
Australian Network for Plant Conser...

**Using differential scanning calorimetry (DSC) to identify...**  
5:54  
Australian Network for Plant Conser...

**Our national plant treasures: Australia's native plants and...**  
7:35  
Australian Network for Plant Conser...

## VIDEOS

For more resources visit the ANPC YouTube channel and browse our playlist *Plant Germplasm Conservation in Australia*.

You'll find our webinar series 'Plant treasures - in conversation', technique specific videos and more!

[www.youtube.com/c/AnpcAsnAu](http://www.youtube.com/c/AnpcAsnAu)