AUSTRALIAN RAINFOREST SEEDS

A Guide to Collecting, Processing and Propagation

Mark Dunphy, Steve McAlpin, Paul Nelson and Michelle Chapman
Photographs by Hugh Nicholson

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Foreword

This is the book I needed when I started growing rainforest plants 35 years ago.

In the 1980s, when Hugh and I started Terania Rainforest Nursery, growing rainforest was unheard of. The only reference books were W.D. Francis' *Australian Rain-forest Trees* and Alex Floyd's booklets *N.S.W. Rainforest Trees*, Parts I–XII. There were no clues on how to germinate rainforest plants. We did not even know about the daunting range of seed types, all requiring individual techniques.

This book, with its stunning photos of rainforest fruits and the concise information on germinating their seeds, would have been priceless. It would have helped first of all to identify the fruits found and then given us precise instructions on how to turn them into trees.

And there is still no other book like this, despite the now numerous books on rainforest identification.

It has a rare, delicious combination of beauty, scientific accuracy and a readily understood text that makes the plant lover want to use it as bedtime reading. However, it is primarily a concise manual for all of those professionals and amateurs who need to grow rainforest trees from seed.

Firewheel Rainforest Nursery is one of the longest-running nurseries in the region. The combined expertise of Mark Dunphy, Paul Nelson, Michelle Chapman and Steve McAlpin, with contributions from many other people over the years, has produced a synthesis of knowledge that is unparalleled.

The nursery is clearly more than a business: it is a lifetime passion. That is why they have produced a guide which is of benefit to everyone, including their nursery competitors. The authors genuinely want to see more rainforest being regenerated in places where it belongs. This book ensures that more of the seed that is collected in ignorance will actually survive and produce plants.

This book is needed because rainforest propagation is more important than ever as native forests, including rainforests, continue to decline. Propagation of rainforest plants from seed is necessarily complex because of the huge variety of

seed types, each with its own idiosyncrasies. The ecological information included in the explanation of seed types is not only fascinating: it is essential for the understanding of germination strategies to ensure a crop of viable seedlings.

This book will help immeasurably the previously forested landscapes which have been cleared or degraded but are now being actively and extensively reforested by both professionals and by local groups or individuals.

Just as importantly, it will have a profound effect on the people who do the magic work of turning an apparently inert fruit into a little tree. Reforestation is an antidote to despair and starting from scratch with a seed feels like a very profound and subversive act. It is a morale boost in desperate times full of bad news on the environmental front. It inspires people to have a go, gives joy where it is most needed and contributes to general wellbeing and hopefulness.

The gratifying experience of seeing a bird in a tree that you planted is even more satisfying if you grew the plant yourself from seed. It connects you to something bigger than yourself and it connects you to the community of people who care about the planet in practical ways.

Nan Nicholson
Terania Rainforest Publishing

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Preface

At field days and workshops Phil Murray, Paul Nelson and I would say we are 'writing it all down' and 'one day we will write a book'. People then started asking, and then demanding, 'where is the book?' Every year for a decade I would make some attempt to start the process, but sadly I didn't get far especially when I realised we actually weren't writing it all down, only some of it. Then Steve McAlpin appeared and brought a scientific rigour that was needed to collect accurate data. Then, with the addition of Michelle Chapman, we gained some badly needed organising talent, academic research and computer skills. Paul provided the decades of field experience and deep ecological insights.

So here it is: all the secrets of rainforest propagation. Well not quite: included are 300 species that we know how to collect and propagate. There are hundreds of species we haven't included, because we don't have the information about them. Hopefully this can be rectified in a future edition. It is also hoped we will be helped by contributions from people inspired to conduct trials and research on other species and update the information on the 300 species included in this book. Send feedback to: info@firewheelnursery.com.au.

This book is designed as a reference guide: that is, skip to the section you need at the time. If you have a rainforest fruit, you can go straight to Chapter 7 (the A–Z species guide) or if you are interested in seed processing techniques, for example, go straight to that chapter.

I hope you enjoy discovering the secrets of seeds as much as we have.

Mark Dunphy

About the authors

Mark Dunphy (BSc) has worked in Rainforest restoration for 35 years. He has worked as a rainforest regenerator, ecological restoration consultant and nursery owner of Firewheel Rainforest Nursery on the North Coast of NSW. He has worked on over 100 projects and grown over 1 million trees. A regular presenter at rainforest restoration field days, workshops and conferences, his work has appeared in the *Australian Journal of Ecological Management* and the *Subtropical Rainforest Restoration: A Practical Manual and Data Source for Landcare groups, Land Managers and Rainforest Regenerators*.

Steve McAlpin has extensive expertise in both rainforest and arid zone ecology and has an MSc in conservation ecology. He has worked as a botanic garden curator, plant propagator and ABC talkback gardener, as well as leading numerous flora and fauna surveys. Steve's research has been widely published in Australian and international journals and he has written a 'recovery plan' for the nationally Vulnerable Great Desert Skink and co-authored a book on central Australian threatened species. Steve is currently using skills developed across more than 15 years of living in the NSW subtropics to collect seed and propagate plants for Firewheel Rainforest Nursery.

Paul Nelson has been a professional rainforest seed collector and propagator for 20 years. Paul's knowledge of rainforest botany and ecology has led him to becoming recognised as a leader in the field of rainforest seed collection and propagation. Many of the breakthroughs in propagation at Firewheel Rainforest Nursery have been due to Paul's work in this field. Paul is a regular speaker at field days and runs workshops.

Michelle Chapman, ActivatED consultant, has been developing programs and facilitating workshops around the world for 15 years. Most recently, as Education and Sustainability Manager for Greenpop (South Africa), she co-managed the Cape Town Urban Greening Program and developed and facilitated tree planting workshops for Trees for Zambia: Conference of Action and two South African

The team (from left to right): Michelle Chapman, Paul Nelson, Mark Dunphy and Steve McAlpin.

reforestation festivals. Recently graduated with a Bachelor of Environmental Science from Southern Cross University, NSW, Michelle is passionate about inspiring and facilitating the community protection and restoration of subtropical rainforest. Email: activatedza@gmail.com

Firewheel Rainforest Nursery

ActivatEd Environmental Activation & Education

About the photographer

Hugh Nicholson started specialising in photographing plants when with his partner Nan established Terania Rainforest Nursery in the 1970s. He became a professional photographer with the publication in 1985 of the first book in their series, *Australian Rainforest Plants I*. Hugh and Nan then went on to publish five more books *Australian Rainforest Plants II–VI*. He has also supplied photographs to Australian and International magazines and books, and national parks and tourist information displays. He has also travelled extensively throughout the world photographing rainforest plants. In 2006, Hugh was appointed as the Federal Government conservation representative on the Community Advisory Committee for the Gondwana Rainforests of Australia World Heritage Area. Most recently, he has supplied most of the 12 000 photographs for the interactive rainforest plant identification key – *Rainforest Plants of Australia: Rockhampton to Victoria*.

Terania
Rainforest
Publishing

Acknowledgements

It is important to acknowledge the pioneers of rainforest botany, ecology and propagation. We are 'standing on the shoulders of giants': Alex Floyd, Len Webb, Robert Kooyman, Hugh and Nan Nicholson, Gwen Harden, Bill McDonald and John Williams.

We wish to acknowledge and thank many people who helped make this book a reality. Hugh Nicholson generously donated nearly all the beautiful and accurate photographs for the botany and species guide, with some photos donated by Glenn Leiper. The fruit and seed descriptions were greatly assisted by data generously provided by Rob Kooyman.

Nan Nicholson and Rob Kooyman reviewed the complete document with their considerable expertise, making many insightful comments. Cathy Offord, Amelia Yenson, Karen Sommerville and Graeme Errington of the Australia Botanic Garden provided updated seed biology and germination information and proofread the biology and storage chapters, for which we are very grateful.

Many people assisted with the seed collection and processing information collated over 30 years at Firewheel Rainforest Nursery. Most notable are John Nagle, Dianne Brown and the irrepressible long-term seed collector and propagator Phil Murray. People from other nurseries who contributed to collection and propagation information include Sally Fitzgerald from Burringbar Rainforest Nursery and Nan Nicholson, formerly from Terania Rainforest Nursery.

Michelle would like to thank her father Peter for long weekends of bushwalking in Lamington National Park, her mother Lea for her eye for detail, Sonia Davis for the guidance and Tom Brownhill for the endless encouragement.

Lastly, we wish to thank the staff at Firewheel Rainforest Nursery: Johanna Ierace, Marie Glover, Fiona Dawson and Hilke Feldema, for keeping our spirits up through the whole drama, helping out with propagation tips and keeping the show on the road.

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1

Introduction

There is something primal about gathering fruit from wild trees. It is an act carried out over millions of years by thousands of species, including humans and our close primate relatives. Even today, humans walking around in the rainforest sense this history and find it irresistible to pick up a fruit and ponder its potential. For some the fruit represents food, but for others it is about the almost magical possibility of the small seed within growing into a huge tree.

Aboriginal people have collected fruits from rainforest plants in Australia for tens of thousands of years. Over this time, they developed an intricate and detailed knowledge of what to collect, when to collect and how to prepare rainforest fruits. Following colonisation, rainforest clearing and dispossession, this information either remains in the hands of a few or has been lost. Despite this, some information has survived. For example, we know that Foambark (*Jagera pseudorhus*) was used to 'stun' fish, the Black Bean (*Castanospermum australe*), properly processed to remove its poisonous toxins, could feed hundreds at ceremonial gatherings, and the sweet cinnamon flavoured Midyim (*Austromyrtus dulcis*) berries were picked and eaten. Although Aboriginal collection of rainforest fruits has been mostly about food and medicines, and not so much about propagation, there is considerable overlap in relation to knowledge of the timing of fruit and seed production. It is tragic to think of so much knowledge lost, and that there has not been a continuous flow and exchange of knowledge through time.

Most of the subtropical rainforests of New South Wales and Queensland were cleared in the mid to late 1800s and early 1900s. However, logging of rainforest continued well into the 1980s. Since that time there has been a growing interest in regenerating rainforest, and that interest has developed into a highly skilled and

Subtropical rainforest in Terania Creek, New South Wales

experienced industry that is restoring and replanting hundreds of hectares. This book aims to fill a gap in the body of knowledge on rainforest restoration by passing on skills and information to allow more people to collect and propagate rainforest plants in a sustainable way. At current levels alone, the restoration of rainforest from cleared and degraded land needs tens of thousands of rainforest plants to be propagated, grown, planted and maintained every year. To expand this planting rate, we need hundreds of thousands of rainforest plants every year. To supply these plants, many nurseries – commercial, community and backyard – are needed to play the vital role of propagating seeds and producing plants.

There are no texts specifically dedicated to the collection, processing and propagation of subtropical rainforest plants. This book is the first, and is the culmination of 30 years of research, experience and practice at the Firewheel Rainforest Nursery, situated within the former Big Scrub rainforest in northern New South Wales. Even with 30 years of work, this book does not have all the answers. There are still many unsolved mysteries and secrets to germinating rainforest seeds. It is hoped that this book is the start of a continuous process of sharing research, knowledge and discoveries that will help increase plant numbers and protect and enhance the biodiversity of the rainforests into the future.

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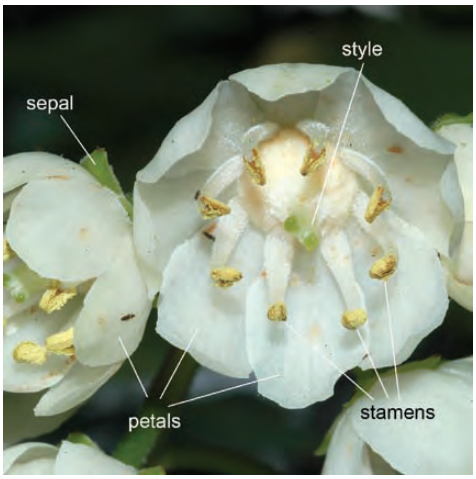
Biology and ecology

Is this a seed, a fruit or a nut? It may come as a surprise to know that it is possible to be holding all three. Indeed, a nut is a type of fruit, with a hardy woody inner layer that usually contains one seed. Seed collecting, processing and propagation requires a basic understanding of seed biology and terminology. Knowing the parts and functions of fruits and seeds can assist identification during collecting, prevent seed damage during transport and processing, and reduce germination time during propagation. It is also helpful when communicating with colleagues or other propagators during discussions about which processing techniques may be most beneficial.

What is a flower?

There are many ways the various flower parts can be arranged to create the structure we recognise as a flower, and these differences provide taxonomists with ways to differentiate between families. However, similar-looking flowers can be found in families that are not closely related.

A flower is the reproductive organ of any angiosperm (flowering plant) and is positioned on a pedicel (flower stalk), with an expanded end called a receptacle that supports whorls of flower parts. The two whorls closest to the receptacle are collectively called the perianth, made up of the sepals and petals. The sepals are usually green and enclose the bud. The petals can be white or coloured, and rarely can even be green. When the sepals and petals are similar in size, texture and colour then they are all termed tepals or perianth parts. The next inner whorl



Parts of a simple flower – Macleay Laurel (*Anopterus macleayanus*)

Cone – Shining Burrawang (*Lepidozamia peroffskyana*)

consists of stamens, part of the male reproductive organ, which produce pollen. The last whorl is called the pistil, the female reproductive organ, which consists of one or more carpels. Each carpel is made up of an ovary (base), style (stalk) and stigma (top). The stigma receives the pollen, which travels down the style to the ovary. Each ovary contains an egg cell (ovule) and is connected to the placenta (ovary wall tissue) by a funicle (stalk). Each fertilised ovule becomes a seed, and the ovary tissue becomes the surrounding fruit.

Gymnosperms (non-flowering plants) have slightly different reproductive structures. Fertilisation occurs when wind-borne pollen grains from male pollen cones are collected on the stigmatic surface of scale-like leaves, on the ovulate cones. The pollen grain matures into sperm inside the ovule and then fertilises the egg, which together develop to form a 'naked' seed, so called due to lack of protective fruit layers.

What is a fruit?

In angiosperms, the fleshy material surrounding a seed or seeds is called the fruit. In gymnosperms (non-flowering plants), the seed-bearing structure is the cone, consisting of multiple cone scales, each bearing a seed. In addition, some gymnosperms do have fruit-like structures to attract flying seed dispersers (e.g. species in the family Podocarpaceae).

Simple fruits develop from single flowers with a single carpel and ovary. Aggregate fruits develop from single flowers, with two or more separate or partially united carpels that develop into several separate fruits bunched close together. Multiple fruits consist of united fruits developed from many flowers positioned closely.

(Top left) Simple fruit – Hard Quandong (*Elaeocarpus obovatus*)

(Top right) Aggregate fruit – Native Mulberry (*Hedycarya angustifolia*)

(Bottom left) Multiple fruit – Cockspur Thorn (*Maclura cochinchinensis*)

Fruit tissue, or the pericarp, consists of three layers: the exocarp (outer layer), the mesocarp (middle layer) and endocarp (inner layer closest to the seed coat). Sometimes the layers are not distinct, or two layers are blended together, while in other fruits the three layers are clear. For example, in a peach, the exocarp is the furry 'skin', mesocarp is the juicy 'flesh' or 'pulp', and endocarp the woody 'stone' which holds the seed within. Mistaking the woody endocarp for the seed, and not accessing the actual seed inside, could delay germination by months or even years.

Fruit types

Fruits are categorised based on whether they split open and release their seeds (dehiscent) or do not (indehiscent). Fruits can be further classified as either fleshy or dry. Fleshy fruits accumulate water and sugars and stay moist as the seed matures, whereas dry fruits dehydrate. To predict if and how a fruit will open, if

seeds will dehisce (be released) naturally or need to be extracted, how quickly fruit will decompose, and choose which processes will be most efficient for collecting, transporting and processing, it is helpful to know the fruit types described in the following sections.

Simple fruits: dehiscent

A legume, also called a pod, is a dry fruit that splits in half along two sides to release seeds, such as Blackwood (*Acacia melanoxylon*) and White Laceflower (*Archidendron hendersonii*).

A follicle is a dry pod-like fruit that splits along one side to release seeds, such as Silky Oak (*Grevillea robusta*) and Lacebark Tree (*Brachychiton discolor*).

A capsule allows different methods of splitting along sutures between lobes. Capsules are often woody, such as Australian Teak (*Flindersia australis*) but can be leathery, such as Tuckeroo (*Cupaniopsis anacardioides*).

(Top left) Legume – White Laceflower (*Archidendron hendersonii*)

(Top right) Follicle – Lacebark Tree (*Brachychiton discolor*)

(Bottom left) Capsule – Tuckeroo (*Cupaniopsis anacardioides*)

Simple fruits: indehiscent and dry

A samara is flattened and has a distinct wing, such as White Booyong (*Argyrodendron trifoliolatum*).

A nut has a hard, sometimes woody, pericarp. The single seed usually has a thin, papery seed coat, such as Coachwood (*Ceratopetalum apetalum*). Some rainforest fruits are commonly referred to as nuts due to their woody appearance and single seed, such as Macadamia (*Macadamia tetraphylla*), but botanically speaking they are follicles with leathery skin splitting on one side to reveal a woody stone holding the seed.

Achenes have a thin seedcoat or crust-like pericarp that is not fused to the fruit wall, with a single seed, such as Red-flowered Socketwood (*Daphnandra tenuipes*).

Simple fruits: indehiscent and fleshy

A drupe has a leathery exocarp, a fleshy or leathery mesocarp, and a hard, woody endocarp enclosing one or more seeds, such as Pepperberry (*Cryptocarya obovata*) and Blue Quandong (*Elaeocarpus grandis*).

(Top left) Samara – White Booyong (*Argyrodendron trifoliolatum*)

(Top right) Nut – Coachwood (*Ceratopetalum apetalum*)

(Bottom left) Achene – Red-flowered Socketwood (*Daphnandra tenuipes*)

A berry has a juicy pulpy, soft endocarp and mesocarp in which one or many seeds are embedded, all encased in a skin of varying thickness, such as Brush Cherry (*Syzygium australe*) and Brush Pepperbush (*Tasmannia insipida*).

Drupe – Blue Quandong
(*Elaeocarpus grandis*)

Berry – Brush Cherry
(*Syzygium australe*)

What is a fig?

A fig is not a single fruit. The *Ficus* fruit is a kind of multiple fruit named a syconium. When you hold a fig, you are holding hundreds of fruits encased in a fleshy skin. Each tiny fruit inside is an achene containing a single seed.

Syconium – Moreton Bay Fig (*Ficus macrophylla*)

What is a seed?

Commonly, the term seed usually refers to the dispersal unit (diaspore) that is being collected and processed. This is usually the actual seed but can sometimes be the seed enclosed in hard, woody fruit layers.

Botanically, a seed is a matured ovule consisting of three parts: an embryo, storage tissue and seed coat. The embryo is the rudimentary plant and consists of one or two cotyledons, which become the first photosynthesising leaves. The storage tissue, called endosperm in angiosperms, provides the embryo with food reserves to mature, germinate and grow. The outer layer of the ovule develops into the protective outer layer of the seed, called the seed coat.

Seeds of different species vary greatly in appearance, size, shape and location and structure of the embryo in relation to storage tissue. In many cases the embryos are difficult to detect without laboratory equipment. However, in some

(Top left) Seed – Bat's Wing Coral Tree (*Erythrina numerosa*)

(Top right) Woody endocarp – Blue Quandong (*Elaeocarpus grandis*)

(Bottom left) Seed-like fruit – Deep Yellowwood (*Rhodosphaera rhodanthema*)

cases, because differentiation of parts is possible with the naked eye, seed handlers can avoid rupturing the embryo during processing.

There are distinctive and useful structures on the seed coat, derived from seed and fruit development. These features are sometimes useful for species identification and can be important cues to knowing the correct sowing techniques. The micropyle is a pore that, when visible, can provide an indication of the point of emergence of the radicle (first root). The raphe is a ridge, and the hilum is a groove or scar, both of which can be used to orientate the seed correctly when propagating. The aril is a partial or complete fleshy or membranous envelope around the seed. It stays attached to the seed and attracts animals for dispersal because it is usually brightly coloured and nutritious.

With a basic understanding of seed germination and dormancy terminology, propagators can do their own investigation and share their knowledge.

(Top left) Micropyle – Black Bean (*Castanospermum australe*)

(Top right) Hilum – Black Apple (*Planchonella australis*)

(Bottom left) Aril – Scentless Rosewood (*Synoum glandulosum*)

Dead, alive or dormant?

- **Viable:** Seed that is filled, live, mature and will germinate in suitable environmental conditions.
- **Not Viable:** Seed that is dead or immature so will not germinate in suitable conditions.
- **Dormant:** Seed that is viable but will not germinate even in suitable environmental conditions due to one or more limiting seed characteristics.
- **Non-dormant:** Seed that is viable and can germinate over the widest range of environmental (germination) conditions.
- **Quiescent:** Seed that is non-dormant but not germinating due to one or more limiting environmental (germination) factors.

Germination

Germination is the first growth phase of the seed, stimulated by water uptake. Germination becomes visible when the shoot bearing cotyledons begins protruding from the seed and/or the radicle emerges, becoming the first root.

A viable, non-dormant seed should germinate from an appropriate combination of environmental variables:

- light
- temperature
- moisture
- gases.

When one or more of these environmental conditions is unsuitable, the viable seed remains quiescent, or resting, until suitable conditions are available for successful germination. However, if there are no signs, it's likely that the seeds are dormant and require further processing to 'break dormancy' or alter the characteristics of the seed so it can germinate.

Dormancy

Many rainforest species' seeds are viable and will germinate within approximately 8 weeks. If there are no signs of germination, it is likely that the seeds are dormant and require further processing to break dormancy. But what type of dormancy? A basic knowledge of dormancy types and the natural dormancy-breaking stimuli provided by nature can guide seed handlers towards processing seed with the correct equipment and pre-sowing treatments.

Primary dormancy

1. Physical dormancy (PY) – Physical barrier to water absorption.
   Seeds with PY have a hard seed coat, or woody endocarp that is impermeable to water and sometimes gases. Inside, the seed is likely to be non-dormant, but requires breaking through the seed coat or stone to allow water entry and germination to begin.
2. Physiological dormancy (PD) – Embryo is unable to break through seedcoat.
   Seeds with PD are permeable to water, but the embryo is prevented from breaking through the surrounding seed and fruit layers by low growth potential. Some seeds with PD require a period of dry after-ripening to germinate. Other seeds with PD require conditions of higher or lower temperature once water has been absorbed to develop. Chemical inhibitors may also be present in the fleshy fruit layers, seed coverings or embryo, and need time to be removed. In all cases, once dormancy is broken, the embryo can break through the seed coat.
3. Morphological dormancy (MD) – Embryo needs time to mature.
   Seeds with MD are dispersed with embryos that are underdeveloped, needing to mature before germination. If water and gases have been absorbed, and light and temperature conditions are ideal, then it may be that the embryo simply needs more time to grow and emerge from the seed coat.
4. Morphophysiological dormancy (MPD) – Embryo needs time to mature and embryo is unable to break through seedcoat due to low growth potential.
   Seeds with MPD have two kinds of dormancy: morphological and physiological. This means the embryo is underdeveloped at the time of dispersal and needs more time to grow, and it is also inhibited from growing by a physiological factor such as the need for high or low temperatures, or removal of chemical inhibitors.
5. Combinational dormancy (PY + PD) – Physical barrier to water absorption and embryo is unable to break through seedcoat due to low growth potential.
   These seeds have both a physical barrier to water uptake, and physiological dormancy.

Secondary dormancy

If a dormant seed breaks through primary dormancy, only to become dormant again, it is termed secondary dormancy. It is usually triggered by adverse conditions that are unfavourable for germination such as high temperatures indicating dry conditions. An example is case-hardening, where fruits reseal and/or harden to protect seeds from high temperatures.

Thinking like a seed

Dormancy is an evolutionary adaptation developed by seeds for many ecological reasons:

- to delay germination when conditions are not suitable for seedling survival
- to disperse beyond the parent tree, minimising within species competition for resources
- to ensure dispersal across the landscape and over time
- to defend against pathogens and predators during dispersal
- to store the resources required for initial growth when suitable conditions arise.

When selecting the most effective processes for breaking dormancy, it is helpful to consider the ecological processes and natural dormancy-breaking mechanisms that seeds encounter.

Argyrodendron trifoliolatum (White Booyong) seedlings

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3

Collecting

Overview

Seed collection must be carried out legally, ethically and sustainably to ensure it is of benefit to the environment and not detrimental to natural forest processes. There are many pitfalls for the unsuspecting seed collector, and to try to avoid everyone learning by trial and error is the purpose of this book. The goal is to be well researched and prepared, so the collections occur in the right places, with the correct techniques, and the seeds collected are viable.

When to collect

There are ripe rainforest fruits available all months of the year. However, the heaviest fruiting times are late spring, summer and early autumn. It is important to know that some species have a collection period that can go for months and other species have a very small window of collection, sometimes just a matter of days. For fruiting periods and intervals for each species, refer to Chapter 7.

The flowering and fruiting of rainforest plants roughly corresponds with the three successional categories each plant may be placed in. The pioneer (early stage) species tend to fruit every year, the secondary stage species every 1 to 3 years, while mature stage species are highly variable with fruiting events from 1 to 5 or more years.

Box 3.1: Signs of fruit maturity

The following signs may indicate that fruit is mature:

- dropping from the tree
- birds or other animals are eating it
- brightly coloured
- soft
- plump or puffy
- fragrant
- open pod, capsule or follicle
- drying out, becoming woody

Many species fruit very heavily at periodic times, called masting. This may be due to the amount of rainfall and temperature levels before and during flowering and fruit set, the presence of specific pollinators or it may be an adaptation to overcome heavy predation of fruit. Chapter 7 provides the fruiting interval of each species, but mast years are variable.

The most important and often the most difficult aspect of seed collection is to determine fruit maturity. Fruit size, shape and colour vary greatly between species, so determining maturity is species specific. Chapter 7 identifies these characteristics for each species, although there are indicators that can help to determine fruit maturity more generally (see Box 3.1).

In most species, fruit maturity is a sign of seed maturity and viability. However, mature fruits may contain immature seeds that require further maturation either on or off the tree (post-harvest ripening) before being germinable. In some species, fruit will develop and ripen without seeds, called parthenocarpy. Also, on the same individual tree, there may be seedless fruit and seeded fruit. It is important for seed collectors to test some of the fruit and determine the ratio of seed-bearing and seedless fruits. Some species regularly produce whole crops of perfect-looking fruit with unviable seed that will never germinate, such as Sour Cherry (*Syzygium corynanthum*).

To assess fruit viability, open the fruit, extract the seed and cut it open. The inside is usually white, sometimes green or purple, and healthy looking like the inside of an almond. The inside of the seed should not be hollow, dried, dark grey, brown or black. This test sounds simple, but the difficulty often lies in identifying and locating the seed within the fruit. The seeds can be very small, have hard seed coats, woody shells or multiple fruit layers that make it tricky to find, extract and inspect the seed.

Where to collect

Legalities

There are many places to collect seed. Some require a permit or a licence, some require permission from the landowner and some require no prior approval. It is not always easy to understand what permit is required or how to obtain the necessary permit. However, there are websites, guides and helpful people within the national park agencies to make this process easier. See Box 3.2 for important links to information and permit applications for the relevant agencies. Keep in mind that conservation status, licensing permits, websites and agencies are constantly being updated.

Practicalities

Seed collection is usually undertaken on roadsides and in parks, paddocks and the edges of forests. Collection is rarely undertaken within large areas of intact rainforest.

Box 3.2: Seed collecting in subtropical rainforest areas in Australia

New South Wales

Licences are always required when collecting from threatened species, populations and ecological communities listed under the *NSW Biodiversity Conservation Act 2016* and the *Commonwealth Environmental Protection and Biodiversity Conservation Act 1999*.

For more information: https://www.environment.nsw.gov.au/resources/cpp/SeedCollecting.pdf.

For licence applications: https://www.environment.nsw.gov.au/topics/animals-and-plants/threatened-species/programs-legislation-and-framework/licences.

To find out if a species is listed as protected, go to: https://www.environment.nsw.gov.au/committee/schedulesthreatenedspeciesconservationact.htm

Queensland

For more information and licence applications: https://environment.des.qld.gov.au/licences-permits/plants-animals/protected-plants/harvesting.html.

Local councils

Many local councils have specific but sometimes different policies for collecting seed on council land. Most will issue permission to allow some collecting, with safety and aesthetic provisions. It is best to check online with your local councils as some do require a specific permit.

Private land

To access plants on private land, permission always needs to be obtained from the landowner.

This occurs for several reasons:

1 Most rainforest trees fruit more heavily in the full or partial sun, as individual isolated trees or on forest edges rather than in an intact forest.
2. Isolated or edge trees often have low branches useful for identification and accessing fruit.
3. Roads allow more trees to be checked more regularly by driving rather than by walking.
4. Roads rarely traverse intact subtropical rainforest; they mostly run through open areas, regrowth and paddocks containing forest patches.
5. Many intact rainforests are protected within the national parks system and seed collection is prohibited without a licence.

However, collection within larger tracts of intact rainforest is sometimes needed for seeds of certain understorey species and some of the less common mature phase species.

Genetics

Less than 5% of the original extent of subtropical rainforest in Australia remains, leaving mostly small populations of rainforest plants surviving in remnants, fragments and regrowth patches across the landscape. This isolation is causing inbreeding in some species. The extent and the long-term effects of inbreeding is unknown at this stage, but it is generally known that it can lead to decreased vigour, reduced fertility and ultimately extinction.

What is understood is that pioneer and common secondary species are able to spread across the landscape in large enough populations to avoid problems associated with decreasing genetic diversity. Small populations of mature phase species confined to isolated, small remnants are the most vulnerable to a loss of genetic diversity. The primary pollinators of most rainforest plants are small insects that are unable to travel long distances. Pollinating within very small populations potentially leads to inbreeding depression in those isolated populations.

The policy promoted by many government agencies and individuals over the years has been to collect 'locally sourced' or 'local provenance' seed, due to concerns about outbreeding. Early research is showing inbreeding as a greater problem than outbreeding, so the previous 'locally sourced' seed policy is acknowledged as inadequate and not the best policy for all species.

Currently there are projects underway to determine the extent of the loss or localised restriction of genetic diversity and what can be done to overcome potential problems in relation to seed collection and restoration plantings. In the short term there are helpful things that can improve the situation:

- Seed should be collected, propagated and planted from as wide a range of local to regional locations as possible.
- Always collect from wild plants in preference to planted plants.
- Collect from old growth plants rather than secondary regrowth if possible.
- Collect from as many mother plants as possible. Ten to 20 geographically well-separated individuals are ideal.
- Collect from different mother plants each year.

There is a big difference in impact on the landscape between collecting seed, growing and planting a few hundred plants for a small project and collecting, growing and planting for large-scale commercial nurseries. We all have a responsibility to try to protect and, where necessary, improve the genetic diversity of our planting stock. It is also important not to feel too constrained by genetic considerations. The science is advancing quickly and will soon reveal the answers to many of our questions. For the moment, following these guidelines will minimise any issues.

At this stage it is also important to collect, propagate and plant to increase both the area of rainforest and expand connectivity, using corridors, where it has previously been cleared. These plantings will assist both pollinators and seed dispersers to increase populations of all species.

What to collect

Seed collection tends to happen in two ways – opportunistically and targeted. Many people stumble across rainforest fruits that are bright and shiny and wonder 'what is this?' and then think 'how do I grow it?' If the species is unknown, taking a small branchlet and a small amount of fruit to help with identification is important. Use a rainforest identification key (see References) or ask an expert to help identify the species. Once the species is identified, Chapter 7 provides the necessary processing instructions. A common mistake is to collect large quantities of seed only to discover they are a weed species, immature native seed or unviable seed and therefore useless for the purpose of propagation.

Once some knowledge of rainforest identification, fruiting patterns and growing requirements is accumulated, seed collection can be undertaken in a more targeted way. Individual species can be identified, the localities of specimens recorded and the appropriate quantity of fruit collected when mature. If suites of species are needed for a particular project, such as pioneers for a degraded area, or understorey species to enhance diversity, suitable locations can be visited regularly for collection.

Collecting threatened plants in New South Wales requires a licence from the Office of Environment and Heritage, and in Queensland, the Department of Environment and Heritage Protection (see Box 3.2).

How to collect

Good seed collectors are always ready for an opportunistic discovery. Carry in your pocket, pack or vehicle various sized bags and a permanent marker in case you come across something interesting. If you are unsure of the species in the field, remember to place a branchlet in the bag to help identify the species later. Always label your bags, buckets or jars with the species, location and date of collection, because it is surprising how quickly you forget what you collected. You may want to carry a small field press to make herbarium specimens that will be available to check identifications later.

(Top left) Carefully cutting Red-fruited Palm Lily (*Cordyline rubra*) fruits with secateurs

(Top right) Collecting Small-leaved Tamarind (*Diploglottis campbellii*) fruits on a tarpaulin

(Bottom left) Range of equipment required for seed collecting

Sustainable collecting guidelines state that no more than 20% of available fruit should be taken from an individual plant. It is often difficult for the inexperienced collector to determine what is the appropriate amount because maturity, viability and the number of seeds per fruit can be difficult to assess accurately. When unsure, it is best to collect a small amount, enough to experiment with, and revisit to collect more if needed.

Collecting from the tree

When collecting from the tree it is very simple to collect within arms' reach by hand or with secateurs or loppers. However, when the fruit is higher a small ladder or telescopic pole pruner is needed to snip off fruits or small branchlets. A small tarpaulin can be placed under the tree to catch fruit and prevent it being lost in the grass or debris. Occasionally, it is possible to shake the tree or branch and allow the fruit to fall onto the tarpaulin to be collected.

Collecting from the ground

Collecting from the ground can be a little more complex because fruit and seed can easily be missed without a keen eye. Fruit on the ground may be present as freshly fallen fruit, dried older fruit, seed only, in scats or bird and flying fox spits.

When collecting from the ground it is especially important to check the seed for predation by insects. It is often useful to assume the fruit is affected by insects and to completely submerge all the material in water overnight to kill insects and larvae.

Fruit can be collected from the ground in several ways. Picking each fruit individually from the ground and placing in a container is an effective way of selecting quality material. Placing a well-weighted small tarpaulin or shadecloth under the tree to catch fruit is efficient. Fruit and ground material can be raked into a pile before sorting.

Collecting equipment

- Secateurs/loppers
- Extension pole pruner
- Step ladder
- Small tarpaulin, sheet of plastic, shadecloth
- Plastic bags, large and small
- Paper bags
- Buckets, large and small
- Rake
- Spade
- Permanent marker and plastic tags

Safety equipment

- Gloves
- Hard hat
- Safety glasses
- Roadside signage
- Car-mounted flashing light

WARNING: Seed collecting is a dangerous activity!

Driving while looking for seed is extremely hazardous. It is advisable to have two people in the car, a driver and a seed spotter.

Roadsides are also a danger. Park in a safe place, wear bright clothes and collect well back from the road edge. A flashing light mounted on the car and roadside signs are advisable.

Ladders are safer than climbing trees, though both are hazardous. The use of a quality telescopic pole pruner is a safer alternative.

Falling branches are surprisingly common when working in and around trees. A hard hat is recommended.

Poisonous fruit, stinging leaves and irritating hairs occur on certain species, so gloves are recommended.

Castanospermum australe (Black Bean) flowers

4

Processing

The practice of seed processing requires knowledge of a range of techniques that assist germination, break dormancy, prevent seed damage and contribute to seedling survival. Rainforest seed propagators around the world use a wide range of techniques, equipment and terminology. This chapter identifies and standardises the techniques and terminology used for rainforest species propagated at Firewheel Rainforest Nursery. It is important to note that rainforest seed propagation techniques are constantly developing.

Fruit and seed structure and form (morphology) is the product of millions of years of evolutionary adaption for dispersal, defence and growth. When propagating a species, questioning the purpose of the morphology, and thinking about the natural conditions that would assist germination should determine choice of techniques. For example, fleshy or fibrous fruits attract animals that consume the flesh and spit out the clean seed or stone. Removal of flesh may remove a physical barrier to water absorption, remove chemical growth inhibitors, expose the seed to light or temperature changes needed, and prevent rotting or insect infestation. In the nursery, a technique called macerating mimics this natural process. In addition to assisting germination, macerating seeds allows more seeds to be sown per tray and prevents rotting and insect damage. Similarly, all techniques listed in this chapter are based on natural processes.

After-ripening

Some fruit and seed require time to mature. Collect the fresh fruit or seed and leave in an open container undercover for a time specific to the species. This can

assist germination rates as well as promote even germination, such as for Broad-leaved Lilly Pilly (*Acmena hemilampra*) or Yellow Kamala (*Mallotus discolor*). Seeds that do not germinate after the recommended time may be physically or physiologically dormant and require other treatments.

Blending

Blending with water (wet blend) is a gentle process used to separate material and scarify seeds without damaging them, such as Brown Kurrajong (*Commersonia bartramia*). Blend for between 10 and 60 seconds depending on species in a kitchen blender. Use twice as much water as plant material.

Blending – Brown Kurrajong (*Commersonia bartramia*)

Boiling

Hot water breaks physical dormancy of some species that have hard seed coats. The hot water ruptures the seed coat and allows water entry, such as Blackwood (*Acacia melanoxylon*) and Red Ash (*Alphitonia excelsa*). Immersion times depend on the seed species, size and seed coat hardness. Boiling water is poured over seeds that are then left overnight to absorb water. Boiling water can damage some seed so near-boiling water is recommended. This technique is not used for seeds with a water-permeable seedcoat, because the boiling water may penetrate and damage the embryo.

Dry composting

This technique removes fleshy layers while preserving the seed. It also provides a cycle of wetting and drying that leads to cracking, allowing water entry, such as Ivorywood (*Siphonodon australis*) and Blueberry Ash (*Elaeocarpus reticulatus*). It may also allow time for the enclosed seed to mature. Fruits or stones are placed with compost, or leaf litter (ideally gathered from under the parent tree) in an open container with drainage holes. The container is left undercover and placed in a warm location and watered approximately every 2–4 weeks. Although the process is called dry composting, the material reflects a gradient of dry to moist, without being wet. When signs of germination are evident, all material can be sown. The process, depending on the species, can take from several months to 2 years.

Dry composting – Blue Quandong (*Elaeocarpus grandis*)

Wet composting

This process is like dry composting in that it softens hard fleshy layers to ease seed extraction and trigger germination. However, the fruits are placed in wet compost or leaf litter in a container with restricted drainage. The material is placed in a warm location and watered to maintain high moisture levels. This technique can accelerate seed extraction and germination. However, it is only suitable for species with seed that will not rot under wet conditions, such as Bangalow Palm (*Archontophoenix cunninghamiana*) and Cabbage-Tree Palm (*Livistona australis*).

Crushing

Usually applied to dried capsules, pods and follicles, different techniques will work depending on how hard or closed the fruit is, how durable the seeds are and equipment available. Seeds that need to be dislodged from open or partially open fruits, can be placed in a large bag and crushed by hand, rolling pin or underfoot, such as Silky Oak (*Grevillea robusta*) and Tree Lomatia (*Lomatia arborescens*).

De-winging

The wings of samarae, while not inhibiting germination, can later obstruct the growth of the neighbouring germinating seedlings, causing deformation, such as Black Booyong (*Argyrodendron actinophyllum*). De-wing by hand or by using scissors or secateurs. Care must be taken not to damage the seeds, which are often small, light and fragile. Selection of seeds for de-winging depends on sowing density and size of wing.

Drying

Most pods, follicles and capsules will open or be brittle enough to be broken open for seed extraction if dried. The time taken for drying can be anywhere from 2 days to 3 months. This depends on the fruit density, structure, size, maturity and moisture content, and season. Spreading the fruit out in an open container or on a tarpaulin or shadecloth is the simplest method. Some species suit drying in direct sun, such as Blackwood (*Acacia melanoxylon*). Other fruits will case-harden in the full sun, such as Foambark (*Jagera pseudorhus*), and need to be dried in the shade. If fruits are explosively dehiscent, place in a breathable bag, such as Long-leaved Bitterbark (*Petalostigma triloculare*).

Fermenting

Used to soften hard fruit pulp to ease seed extraction, fermenting differs from wet composting because there is no drainage and no added compost material. Fruit can be stored in a sealed bag or container until germination is visible, such as Bangalow Palm (*Archontophoenix cunninghamiana*), or until pulp is soft enough for macerating, such as Bauerella (*Sarcomelicope simplicifolia*). Care must be taken not to let seeds ferment for too long, because formation of acetic acid can damage seed and reduce viability.

Floating

After fruits have been macerated, all material is placed in a container of water. Usually, the heavy viable seeds will sink, and the lighter pulp and non-viable seeds will float. Agitate the material to encourage more separation. Skim off the surface material, and drain the water, leaving the viable seeds behind. Repeated agitation of the pulp, and skimming, will result in maximum separation and cleaner seed, such as Brush Cherry (*Syzygium australe*). There are exceptions to this rule, especially with small-seeded species, such as White Aspen (*Acronychia oblongifolia*) and Blue Flax Lily (*Dianella caerulea*).

Leaching

Washing to remove chemical inhibitors may break chemical dormancy. Macerate fruit by hand or in a blender with water, then, in a bucket of water agitate manually, scooping off inhibitory residue and repeating until water is clear and seeds are left on the bottom of the bucket, such as Celerywood (*Polyscias elegans*).

Macerating

Separating pulp from seed by rubbing fruit on trays or through screens is called macerating. As the pressure of your hand can be adjusted by feel for small or fragile seeds, this method prevents seed damage, such as Smooth Clerodendrum (*Clerodendrum floribundum*) and Hairy Psychotria (*Psychotria loniceroides*). In combination with macerating, and to assist with de-pulping and sorting seed, hosing with various pressures is often needed, such as with Cunjevoi Lily (*Alocasia brisbanensis*). Varying screen sizes and types can also greatly help in the macerating process.

Macerating – Giant Water Gum (*Syzygium francisii*)

Macerating – Cunjevoi Lily (*Alocasia brisbanensis*)

Manual extraction

For small seed lots, soft seeds or fruits too big for machinery, extracting seed by squeezing by hand or gently treading underfoot until flesh gently pulls away, is effective, such as Hairy Walnut (*Endiandra pubens*) and Milkbush (*Neisosperma poweri*).

Manual extraction – Small-leaved Tamarind (*Diploglottis campbellii*)

Mechanical scarification

These techniques aim to partially or completely remove hard fruit layers or seedcoats, so that water can enter and start the germination process. Tools including knives, secateurs or needles will pierce, nick or chip the seed/stone. Grinders can nick hard seeds effectively and precisely. Precision nicking with a scalpel to remove the section of the seedcoat covering the radicle, without damaging the embryo, breaks physiological dormancy. Sandpaper can be used for smaller seeds. Rupturing large seeds/stones requires hammers, vices or vehicles. Blenders are effective but can damage seeds. All methods need to be applied with care not to cut too deeply and damage the embryo.

Shaking

Seeds can be separated from dry fruit casing by hand, or by placing material in a bag and shaking vigorously or hitting the bag against a pole or wall until seeds are free, such as Foambark (*Jagera pseudorhus*) and Coast Tuckeroo (*Cupaniopsis anacardioides*).

Sieving

Used to separate fleshy and dry plant material from seeds, a range of different sieves made from plastic or metal, with different apertures to suit seed size, are useful. Flyscreen, rainwater tank filters, wire mesh or nets, geological sieves and seedling trays will provide an effective filter for sorting a range of species, such as Swamp Box (*Lophostemon suaveolens*) and Water Gum (*Tristaniopsis laurina*).

Soaking

In many species, fruit layers are too hard to macerate when fresh and require soaking to soften. Fruit is placed in a container of water until the pulp becomes soft enough to be removed, either by hand or machine. Breaking the fruit skin before soaking can accelerate softening. Time periods also vary depending on the fruit type. Soft, thin flesh may take only 2 hours, such as Glossy Laurel (*Cryptocarya laevigata*), while harder, thick fruits may need 1 week, such as Small-leaved Tamarind (*Diploglottis campbellii*).

Splitting

Seeds of dry fruits can be extracted by splitting open by hand, or by using secateurs or pliers, such as Flame Tree (*Brachychiton acerifolius*). Hard, woody endocarps of indehiscent fleshy fruits can be breached by using a vice. For small seed lots, hammering a nail through the fruit layers is effective, such as Rough-shelled Queensland Nut (*Macadamia tetraphylla*).

Splitting – Rough-shelled Queensland Nut (*Macadamia tetraphylla*)

Winnowing

This method uses airflow and weight to separate dry plant material and seeds, or lighter non-viable seed and heavier viable seed. All material is placed in a large flat basket or tray, and then thrown up quickly while simultaneously blowing using breath, wind or a fan. Lighter material is removed while heavy material remains.

Winnowing – Brown Kurrajong (*Commersonia bartramia*)

5

Storage

The majority of seeds of Australian native species are classified as orthodox, because they tolerate drying to low moisture content and can be stored for long periods of time, such as eucalypts and acacias. However, many rainforest species are classified as recalcitrant, because they produce seeds with high moisture content that cannot be stored for long periods. A number of rainforest species can be dried and successfully stored over a long period because they have small, hard and dry seeds. These species usually fall into the successional class of pioneers and early secondary species. Common examples include Red Ash (*Alphitonia excelsa*), Pink Ash (*Alphitonia petriei*), Brown Kurrajong (*Commersonia bartramia*), Bleeding Heart (*Homalanthus populifolius*) and Blackwood (*Acacia melanoxylon*). Although many late secondary and mature phase successional classes are expected to be recalcitrant, several species such as Australian Teak (*Flindersia australis*) and Red Cedar (*Toona ciliata)* may be stored for several years under household refrigeration. The species that are easily stored either at room temperature or refrigerated are noted in Chapter 7.

It is possible to significantly increase the shelf life of most orthodox species by using specialised equipment to reduce the moisture content of the seed to between 4% and 7%. Orthodox species can also tolerate freezing at sub-zero temperatures (–18°C to –20°C) for long-term storage, such as storing in a seed bank; for short-term storage, these species can be stored in a refrigerator. For recalcitrant seeds, it is more practical for nurseries to store the seed as germinated seedlings in a nutrient-poor medium. Sensitivity to drying out and intolerance to freezing

A colourful mix of subtropical rainforest seeds

prevents recalcitrant species' seeds from being stored for any length of time, so storage as seedlings is the only way to ensure availability of more seed.

Seeds that can be dry-stored need to be removed from the fruiting body, air-dried and then placed in a sealed container. There is a wide range of small to medium-size sealed containers commercially available that are suitable for long-term storage, including plastic, glass and metal products. The containers can then be placed in a cool, dry location. It is important that all seed stored is labelled with the species name, location and date of collection. Placing the label on a tag inside the container with the seed avoids the problem of the label fading or being rubbed off.

6

Propagation

Vegetative propagation

Most rainforest plants are propagated by seed, but sometimes it is more efficient and effective to propagate certain species by cuttings or division. Plants such as Native Ginger (*Alpinia caerulea*) can be simply divided at the rhizome and planted directly into the ground. Cutting sections of plants such as palm lilies (*Cordyline* spp.) can be also taken and placed directly into the ground. Ground covers such as lomandras (*Lomandra* spp.) and pollias (*Pollia* spp.) can be divided and planted. This propagation technique is best carried out in a wet period of the year.

Most rainforest species can be propagated as a stem cutting grown in a nursery, but for large-scale projects this is an expensive way to propagate plants. Some species are easily propagated from cutting such as Blue Tongue (*Melastoma affine*) and Figs (*Ficus* spp.), though most require a controlled misting system.

Direct seeding

Planting the seeds directly into the ground is called 'direct seeding'. This can be successful for large fruited species such as Black Bean (*Castanospermum australe*) and Hairy Walnut (*Endiandra pubens*). Hardy smaller fruited species such as Bangalow Palm (*Archontophoenix cunninghamiana*) have also been successful. This process works well if the seeds are plugged or dug into the soil under an existing canopy during the wet season.

Seed propagation

Seed raising medium

When sowing seed, a critical component for successful germination is the growing medium. The medium must be free draining yet retain enough moisture to nurture the seeds. A mix that retains too much moisture may cause the seeds to rot, while a mix that drains and dries out too quickly may prevent germination or cause germinating seeds to wither and die. The growing medium also needs to provide good aeration for the developing root system by containing a variety of particle sizes. Particles such as composted bark or other material should not be more than ~5 mm diameter because this may restrict the germination of very small seed by smothering them.

Seed raising mixes should contain low levels of nutrients, providing the opportunity to retain and store seedlings for a longer period. Nutrients may be added to the trays at a later date to stimulate growth, or plants may be potted with fertiliser, facilitating more rapid development.

Seed trays

Commercial growers generally have a standardised system of container use for the germination of seeds and the development of seedlings. Different nurseries may use different seed tray sizes to suit the dimensions of their benches, rows and irrigation systems. The depth of the trays is also important for rainforest seeds. Large seeds need deep trays to allow root development. For the backyard grower, these commercial trays are readily available at hardware or rural stores. However, seed can be successfully germinated in a variety of containers that are readily at hand. Home growers have used foam boxes, pots of all sizes, milk cartons and empty plastic bottles. The only important factors are that they provide adequate

A variety of species in seedling trays in the nursery

drainage, do not dry out too quickly and that they are physically stable until the seedlings are potted on.

Seed sowing depth

Seeds and fruits come in sizes ranging from tennis ball size to barely detectable with the human eye. As a general rule, seed should be just covered by the growing medium with the top of the seed at or very close to the surface. Information on sowing depth for each species is provided in Chapter 7. The seeds of many species can be slightly exposed through the medium, with the underside of the seed just below the surface.

Seed sowing density

Sowing density refers to the distance between seeds. Many species can be sown at high density without any adverse effects during their development. In addition, the competition created in crowded trays allows for longer storage periods. High density sowing is where seeds are at a distance from each other equal to their own diameter, which is not suitable for all species because some are prone to damping off, or some will compete by growing rapidly, leaving seedlings tall, lanky and too weak to stand on their own when potted up. These species should be sown at medium density, where seed spacing is approximately double their own diameter from each other. There are a few species where the size of the leaves may prevent neighbouring seedlings from being adequately watered. These species should be sown at a low density. More detailed information is provided in Chapter 7.

Watering in

Once seeds have been sown, the tray should be gently watered until water drains evenly through the bottom. Care should be taken with small seeds that could be washed or moved across the tray by heavy watering.

Nursery conditions

In the rainforest, most seeds of mature phase and later secondary species germinate in the shade or in an area with limited direct sunlight. Ideally seed trays should initially be in a warm place with good light but also good protection from direct sun and heavy rain. They should be located where they can be regularly watered and readily inspected. It is highly recommended to keep the seed trays off the ground. This ensures good drainage and helps to keep slugs, snails and worms out of the trays.

Germination

It is important that water is available to the seeds at all times for germination to occur. If too little water is available the seeds will not germinate, and if water

becomes unavailable after the germination process begins the germinants may die. On the other hand, if too much water surrounds the germinating seed, rotting can occur and kill the germinating seedlings. Any moss, algae or water pooling on the top of the trays indicates the trays are too wet. Conversely, dry trays can become 'hydrophobic' and resist attempts to rewet the growing medium. If this occurs, the trays need to be immersed in water till the medium becomes evenly moist. Choosing the correct watering regime is critical to the germination success of rainforest seeds.

Germination times for the different species vary from days to years. However, the process is accelerated in the warmer months, and especially when night temperatures are at their highest. This warmth can be artificially created with heat beds and hothouses.

Seedling management

Once the seeds have germinated, the tray may contain tens or hundreds of seedlings. Several options are available to manage these plants:

1. If the plants are big enough they can be potted immediately.
2. If the plants are too small to be potted they can be fertilised, allowed to grow and then potted up. It is important to know that these seedlings will compete for light, nutrients and space. This competition will reduce the number of seedlings in the tray over time. For example, a tray may have 400 seedlings when they germinate, then have 200 seedlings left at a height of 60 mm, and at 120 mm tall there may be only 50 seedlings remaining.
3. If the seedlings are not required immediately they can be 'stored' by reducing light and nutrients. Many rainforest species have developed the capacity to sit as seedlings on the forest floor and wait years for an opportunity to develop into a large specimen. This capacity allows most species to be maintained as small seedlings quite healthily in trays for 1–3 years before they need to be potted on. Some species, particularly slow growers, can occupy a seedling tray for an extended period. The suppressed seedlings can then be eventually potted on, and then they will green up and grow into healthy plants.

Pests and disease

Trays should be kept weed free, ensuring that when weeding the fresh germinating seedlings are not mistakenly removed.

Many seeds are very palatable to rats and mice, and entire trays may be lost if left unprotected. Problems with possums, cane toads, dogs and bandicoots have also been encountered. Covering or enclosing trays with vermin mesh is recommended for some species, but most species do not require this specific attention.

A seedling tray of Riberry (*Syzygium luehmannii*)

Seedlings in trays can be prone to many other pests and diseases, including scale, psyllids, mites, aphids and myrtle rust. Slugs and snails can be easily missed with certain rainforest species of freshly germinating seedlings so constant checking and baiting is necessary. In wet times, crowded seedling trays are prone to damping off, a fungal problem that can cause most or all the seedlings to die. Regular inspection of seed and seedlings trays is required to ensure seedlings are kept healthy. Chapter 7 indicates which species are liable to have these problems and online horticultural pest and disease sites recommend many useful treatments.

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7

A–Z species guide

Key to the A–Z species guide

Species names

The botanical authority used for this publication is PlantNET NSW Flora Online.

Within this guide, subspecies, variations, races and forms of species have not been used except where the identification, fruit, collecting or processing differs significantly between them: for example, *Acmena smithii* and *Acmena smithii* (narrow-leaved form) and *Cryptocarya triplinervis* var. *triplinervis* and *Cryptocarya triplinervis* var. *pubens*.

Fruit and seed description

The seed and fruit information are a combination of information from: the Australian Rainforest Trait Database by RM Kooyman; *Rainforest Trees and Shrubs* by G Harden, B McDonald and J Williams; *Rainforest Trees of Mainland South-Eastern Australia* by A Floyd; and information collated at Firewheel Rainforest Nursery.

Conservation status

Threatened species have been listed according to the categories under the *New South Wales Biodiversity Conservation Act 2016*:

- **Critically Endangered** – face an **extremely high** risk of extinction in Australia in the immediate future
- **Endangered** – face a **very high** risk of extinction in Australia in the near future, as determined by the criteria prescribed in the regulation

- **Vulnerable –** face a **high** risk of extinction in NSW in the medium-term future, as determined by the criteria prescribed in the regulation.

  Species may also be listed as **Extinct** or **Extinct in the wild**.

Note: In all Australian states, it is illegal to collect from threatened species without an appropriate permit, and penalties apply (see Chapter 3).

Fruiting interval

Three classes of fruiting interval have been used to describe the general fruiting pattern of each species. This can vary in years of extreme temperatures, drought or rain.

- **Annual** – Species fruits every year. Not every individual tree fruits every year. However, fruit is readily available every year from several trees within the population.
- **Regular –** Species fruits every 2–3 years. Some years, fruit is not available or very hard to find.
- **Sporadic** – No discernible pattern recognised. Fruits occasionally. Fruiting intervals may vary from 1 to 5 years or more.

Fruiting period

The fruiting period is the time, by the months indicated, in which a species can potentially have fruit on the plant. The fruiting period also includes the months in which it is possible to collect viable fruit from the ground beneath the tree.

The fruiting period given is specific for the far north coast of NSW. Trees in other regions may fruit outside this range. Extreme weather events may cause a species to fruit outside the given period. As global warming trends continue, many species are changing their fruiting period and will likely continue to do so into the future.

Processing and sowing

A detailed description of each processing technique is provided in Chapter 4.

Storage of seed is outside the scope of this book, but certain species that are known to be stored either at room temperature or in a standard refrigerator are noted.

Germination

Three categories have been used to indicate expected germination.

- **High germination –** indicates greater than 70% germination
- **Medium germination –** indicates between 30% and 70% germination
- **Low germination –** indicates less than 30% germination

Timeframes such as ‘from 4 to 8 weeks’ specifies the expected germination period.

A germination limit such as ‘allow up to 12 weeks’ is also indicated for each species. This gives the outer range of the germination period where it is safe to say no more germination will occur. If no plants have germinated it is safe to discard the tray.

Seedling storage

A seedling storage time is indicated, if known. For example, ‘seedlings store for at least 1 year’ indicates that the seedlings for that species can be held in a nutrient poor medium in a tray, often closely spaced, for at least that time and remain in a healthy state.

Abrophyllum ornans

ESCALLONIACEAE

Common name: Native Hydrangea

Fruit: Berry, purple-black, ovoid, 8–12 mm long, 6–7 mm wide.

Seed: Numerous, 0.5 mm diameter.

Fruiting interval: Annual

Fruiting period: Feb–Oct

Collecting: Collect purple-black fruit from tree. Fruit can stay on tree for months undisturbed, drying out, but still contains viable seeds.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by floating. Carefully remove pulp and pour off water; seeds will remain. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 1 year.

Acacia bakeri

FABACEAE, Subfamily Mimosoideae

Status: Vulnerable

Common name: Marblewood

Fruit: Pod, green-brown, thin, flat, 120–200 mm long, 12–13 mm wide.

Seed: Several seeds, 3–6 mm long, 3–4 mm wide.

Fruiting interval: Sporadic

Fruiting period: Dec–Feb

Collecting: Collect green-brown pods from tree when starting to open or use a shadecloth on the ground to catch the seed and pods.

Processing and sowing: Separate pods and seeds by sieving or shaking. Sow at medium density to avoid damping off. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 6 months, although they do not store well in too moist conditions.

Acacia disparrima

FABACEAE, Subfamily Mimosoideae

Common name: Ironbark Wattle

Fruit: Pod, brown, woody, straight or curved, rounded ends, 60–140 mm long, 15–45 mm wide.

Seed: Several seeds, 4–6 mm diameter.

Fruiting interval: Annual

Fruiting period: Sep–Nov

Collecting: Collect grey/fawn pods from tree when drying and starting to open, before seeds fall.

Processing and sowing: Dry pods in paper bag or open container in a warm, dry location until all pods open. Crush all material underfoot. Separate material and seeds by sieving, or by hand. Pour boiling water over seeds and soak for 1 hour. Sow densely. Cover lightly with seed raising mix. Seed can be stored at room temperature for at least 1 year.

Germination: Expect high germination. Takes 1–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 6 months.

Acacia melanoxylon

FABACEAE, Subfamily Mimosoideae

Common name: Blackwood

Fruit: Pod, brown, flat, twisted, 30–150 mm long, 4–8 mm wide.

Seed: Several seeds, 3–5 mm long, 2–3 mm wide, connected by long red thread (aril) circling the seed in a double fold.

Fruiting interval: Annual

Fruiting period: Sep–Feb

Collecting: Collect brown pods from tree when dried and some opening, before seeds fall.

Processing and sowing: Dry pods in paper bag or open container in a warm, dry location until pods open. Crush all material underfoot. Separate material and seeds by sieving, or by hand. Pour boiling water over seeds and soak for 1 hour. Sow densely. Cover lightly with seed raising mix. Seed can be stored at room temperature for at least 1 year.

Germination: Expect high germination. Takes 3–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 6 months.

Ackama paniculosa

CUNONIACEAE

Common name: Soft Corkwood

Fruit: Capsule, red, globular, 1–2 mm diameter, opening into 2 valves.

Seed: Single seed, 1 mm diameter.

Fruiting interval: Regular

Fruiting period: Feb–Jun

Collecting: Collect red capsules from tree when starting to open. Don't collect early – the pods must be ripe for seeds to be viable.

Processing and sowing: Dry in open container until capsules open fully. Separate plant material and seeds by sieving. Mix seed with fine medium and spread evenly across tray.

Germination: Expect high germination. Takes 3–6 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 1 year.

Acmena hemilampra

MYRTACEAE

Common name: Broad-leaved Lilly Pilly

Fruit: Berry, white-cream, globular, 11–22 mm diameter, circular rim of the calyx at the top.

Seed: Single seed, 7–17 mm diameter.

Fruiting interval: Regular

Fruiting period: May–Aug

Collecting: Collect white fruit from ground. Higher percentage of viable fruit occurs towards end of fruit drop when fruit is larger. Fruit falls over a 2 month period

Processing and sowing: Soak for 24 hours to kill insect larvae. Remove water, and leave to dry in open container undercover for 1 month. Sow densely. Cover lightly with seed raising mix. Note: Do not sow fresh seed.

Germination: Expect medium to high germination. Takes 4–12 weeks following the 1 month drying period. Allow up to 6 months.

Seedling storage: Seedlings store for at least 2 years.

Acmena ingens

MYRTACEAE

Common name: Red Apple

Fruit: Berry, red, globular, 25–40 mm diameter, circular scar of the calyx rim at the top.

Seed: Single seed, 20–25 mm long, 10–12 mm wide.

Fruiting interval: Regular

Fruiting period: May–Sep

Collecting: Collect red fruit from ground. Fruit can drop over a 2 month period, and remain viable on the ground for up to a month.

Processing and sowing: Soak for 24 hours to kill insect larvae. Ferment for 2–3 weeks to soften pulp. Place fruit in a bucket. De-pulp fruit by hosing and/or by hand. Separate remaining pulp and seed by agitating and floating. Carefully remove pulp and pour off water; seeds will remain. Sow densely in a deep tray. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–12 weeks. Allow up to 8 months.

Seedling storage: Seedlings store for at least 2 years.

Acmena smithii

MYRTACEAE

Common name: Common Lilly Pilly

Fruit: Berry, white-purple, globular, 8–20 mm diameter, circular rim of the calyx at the top.

Seed: Single seed, 5–12 mm diameter.

Fruiting interval: Annual

Fruiting period: Apr–Aug

Collecting: Collect white-purple fruit from tree or ground. Fruit remains on tree for several weeks.

Processing and sowing: Soak for 24 hours to kill insect larvae. Sow directly. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 1–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 2 years.

Acmena smithii (Narrow-leaved form)

MYRTACEAE

Common name: Narrow-leaved Lilly Pilly

Fruit: Berry, white-purple, globular, 5–20 mm diameter, circular rim of the calyx at the top.

Seed: Single seed, 3–12 mm diameter.

Fruiting interval: Annual

Fruiting period: Apr–Aug

Collecting: Collect white-purple fruit from tree or ground.

Processing and sowing: Soak for 24 hours to kill insect larvae. Sow directly. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 1–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 2 years.

Acronychia imperforata

RUTACEAE

Common name: Beach Acronychia

Fruit: Drupe, yellow, pear-shaped, tapering towards the petiole, 10–12 mm long, 12–15 mm wide.

Seed: 1–4 seeds, 4–6 mm long, 2–3 mm wide.

Fruiting interval: Annual

Fruiting period: Jun–Oct

Collecting: Collect fruit from ground for up to 6 months after fruit drop.

Processing and sowing: Dry compost fruit in sandy mulch mix from the collection site for 6–12 months until some germination is visible. Sow all material at medium density. Lightly cover with seed raising mix. Seed can be stored at room temperature for at least 1 year.

Germination: Expect medium germination. Takes 2–12 weeks following the dry composting period. Allow up to 6 months.

Seedling storage: Seedlings store for at least 2 years.

Acronychia littoralis

RUTACEAE

Status: Endangered

Common name: Scented Acronychia

Fruit: Drupe, white-yellow, lumpy, roundish with indent at the petiole attachment, 4 lobes, 10–15 mm diameter.

Seed: 4–8 seeds, 1–2 mm long, 1 mm wide.

Fruiting interval: Annual

Fruiting period: May–Aug

Collecting: Collect white-yellow fruit from ground for up to 2 months after fruit drop.

Processing and sowing: Dry compost fruit in sandy mulch mix from the collection site for 6–12 months until germination is visible. Sow all material at medium density. Lightly cover with seed raising mix. Seed can be stored at room temperature for at least 6 months.

Germination: Expect medium germination. Takes 2–12 weeks following the dry composting period. Allow up to 6 months.

Seedling storage: Seedlings store for at least 2 years.

Acronychia oblongifolia

RUTACEAE

Common name: White Aspen

Fruit: Drupe, white, globular, succulent, 12–13 mm diameter, 4 lobes.

Seed: 4–8 seeds, 3–5 mm long, 1–2 mm wide.

Fruiting interval: Regular

Fruiting period: May–Oct

Collecting: Collect fruit from tree when fruit is large, white and puffy.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by hosing through sieve and rinsing. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 8–16 weeks. Allow up to 6 months.

Seedling storage: Seedlings store for at least 2 years.

Acronychia octandra

RUTACEAE

Common name: Doughwood

Fruit: Capsule, brown, 3–4 mm diameter, 4 lobes, persistent recurved petals, papery when ripe and open.

Seed: 4 seeds, 1–2 mm long, 1 mm wide.

Fruiting interval: Annual

Fruiting period: Mar–Jun

Collecting: Collect grey and drying capsules from tree, while minimising stem and stalk material. Green material will not release the seed on drying and may not be viable.

Processing and sowing: Separate capsules and stalks by gently crushing. Remove as much stalk material as possible. Gently rub capsules by hand to extract seeds. Sow all material at medium density. Cover lightly with seed raising mix. Note: seed can be easily damaged.

Germination: Expect low germination. Takes 8–12 weeks. Allow up to 18 months.

Seedling storage: Seedlings store for at least 2 years.

Acronychia pubescens

RUTACEAE

Common name: Hairy Acronychia

Fruit: Drupe, yellow, ribbed, hairy, 22–25 mm diameter.

Seed: 1–3 canoe-shaped seeds, 4–5 mm long, 4 mm wide.

Fruiting interval: Regular

Fruiting period: Jun–Sep

Collecting: Collect creamy yellow fruit from tree or ground. Rotting fruit can still contain viable seed.

Processing and sowing: For small seed lots, extract seeds by hand. For bulk processing, ferment by placing in sealed plastic bag until fruit turns black and softens. Place all material in fine sieve. De-pulp by hosing and by hand. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 months. Allow up to 1 year.

Seedling storage: Seedlings store for at least 18 months.

Acronychia suberosa

RUTACEAE

Common name: Corky Acronychia

Fruit: Drupe, white-yellow, ribbed, succulent, 12–13 mm diameter.

Seed: Several seeds, 4 mm long, 3–4 mm wide.

Fruiting interval: Regular

Fruiting period: Mar–Jun

Collecting: Collect cream fruit from tree and ground. Rotting fruit can still contain viable seed.

Processing and sowing: For small seed lots, extract seeds by hand. For bulk processing, ferment by placing in sealed plastic bag until fruit turns black and softens. Place all material in fine sieve. Depulp by hosing and by hand. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 months. Allow up to 1 year.

Seedling storage: Seedlings store for at least 18 months.

Acronychia wilcoxiana

RUTACEAE

Common name: Silver Aspen

Fruit: Drupe, white, globular, 10–20 mm diameter, succulent, 4–5 segments.

Seed: 4–5 seeds, 4 mm long, 3–4 mm wide.

Fruiting interval: Annual

Fruiting period: Mar–May

Collecting: Collect white fruit from ground or tree. Rotting fruit on the ground can still contain viable seed. Prone to insect infestation, check fruit for seed quality.

Processing and sowing: For small seed lots, extract seeds by hand. For bulk processing, ferment by placing in sealed plastic bag until fruit turns black and softens. Place all material in fine sieve. De-pulp by hosing and by hand. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 months. Allow up to 1 year.

Seedling storage: Seedlings store for at least 18 months.

Acrotriche aggregata

ERICACEAE, Subfamily Epacridoideae

Common name: Tall Groundberry

Fruit: Drupe, red, depressed-globular, 4–7 mm diameter.

Seed: 1–5 seeds, 2–3 mm long, 2–3 mm wide.

Fruiting interval: Regular

Fruiting period: Nov–Feb

Collecting: Collect red fruit from plant by hand-picking.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by floating. Carefully remove surface material and pour off water; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–6 months. Allow up to 18 months.

Seedling storage: Seedlings store for at least 2 years.

Actephila lindleyi

PHYLLANTHACEAE

Common name: Actephila

Fruit: Capsule, green to brown, depressed-globular, 12 mm diameter, 3 rounded lobes, each lobe splitting and or exploding in two.

Seed: 3–6 seeds, 3–4 mm diameter.

Fruiting interval: Regular

Fruiting period: Jul–Oct

Collecting: Collect green/brown mature capsules from shrub, when ~10 mm diameter. Place in a sealed container or bag.

Processing and sowing: Dry in a container with lid, in a warm location, until fruit explodes. Separate material and seed by hand. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–8 weeks. Allow up to 4 months.

Seedling storage: Seedlings store for at least 2 years.

Ailanthus triphysa

SIMAROUBACEAE

Common name: White Bean

Fruit: Samara, green-brown, flat, 50 mm long, 18 mm wide.

Seed: Single seed, somewhat flattened, in middle of wing, 4–6 mm diameter.

Fruiting interval: Regular

Fruiting period: Mar–May

Collecting: Collect green-brown, winged fruit from tree. Difficult to collect as ripe fruits are easily dislodged and may drift in the wind. Using a pole pruner with an attached bag is advised. Seed dispersal period can be less than 1 week.

Processing and sowing: Soak for 24 hours to kill insect larvae. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–8 weeks. Allow up to 4 months.

Seedling storage: Seedlings can be stored for at least 6 months.

Akania bidwillii

AKANIACEAE

Common name: Turnipwood

Fruit: Capsule, red, pear-shaped, pointed at tip, 20–25 mm long, 10–17 mm wide, three-celled.

Seed: 3–6 seeds, 10–12 mm long, 6–10 mm wide.

Fruiting interval: Sporadic

Fruiting period: Dec–May

Collecting: Collect red capsules from tree when starting to open, by hand-picking or cutting branchlets.

Processing and sowing: Dry in a bag until capsules open. Sow at medium density. Cover lightly with seed raising mix. Protect from rodents.

Germination: Expect high germination. Takes 2–6 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 1 year.

Alangium villosum

CORNACEAE

Common name: Muskwood

Fruit: Drupe, maroon-black, oval, fleshy, 10–20 mm long, 9–10 mm wide.

Seed: Single, 10–17 mm long, 5–7 mm wide, pointed.

Fruiting interval: Sporadic

Fruiting period: Sep–Feb, May

Collecting: Collect dark purple fruit from tree or ground. Due to low viability, additional fruit may need to be collected.

Processing and sowing: Limited success with this. Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by hosing through sieve and rinsing. Sow densely. Cover lightly with seed raising mix.

Germination: Expect low germination due to low viability.

Seedling storage: Seedlings store for at least 1 year.

Alchornea ilicifolia

EUPHORBIACEAE

Common name: Native Holly

Fruit: Capsule, brown-black when mature, depressed-globular, 4–8 mm long, 7–10 mm wide. Immature green capsules can contain viable seed.

Seed: 2–4 seeds, 3–5 mm diameter.

Fruiting interval: Regular

Fruiting period: Nov–Jan

Collecting: Collect brown capsules from tree when starting to open. Some unripe capsules will turn brown and contain viable seeds.

Processing and sowing: Dry the capsules in a paper bag or open container until they open. Extract seeds by hand. Sow densely. Cover lightly with seed raising mix.

Germination: Expect low to high germination. Takes 3–6 months. Allow up to 9 months.

Seedling storage: Seedlings store for at least 1 year.

Alectryon coriaceus

SAPINDACEAE

Common name: Beach Bird's Eye

Fruit: Capsule, green, 6–12 mm diameter, 3–5 lobes.

Seed: 1–5 seeds, 1 per lobe, 4–6 mm diameter, bright red aril.

Fruiting interval: Regular

Fruiting period: Mar–Jun

Collecting: Collect green capsules from tree when most are open and red arils on fruit are visible. Closed capsules will not open once removed from tree. Fresh seed with aril intact, collected from the ground, may also be viable.

Processing and sowing: Split open any closed capsules by hand. Soak seeds for 24 hours to kill insect larvae. Remove aril by macerating by hand on sieve. Separate seeds and arils by floating. Carefully remove surface material; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–6 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 1 year.

Alectryon subcinereus

SAPINDACEAE

Common name: Wild Quince

Fruit: Capsule, brown, smooth, 1–3 rounded leathery lobes, 8–9 mm long, 18–22 mm wide.

Seed: 1–3 seeds, 1 per lobe, 5–6 mm long, 4–5 mm wide, half enclosed in a bright red, fleshy aril.

Fruiting interval: Regular

Fruiting period: Mar–Sep

Collecting: Collect brown-black seed from tree when most capsules are open and red arils are visible. Most unopened capsules will not open once harvested.

Processing and sowing: Split any closed capsules open by hand. Soak seeds for 24 hours to kill insect larvae. Remove aril by macerating by hand on sieve. Separate seeds and arils by floating. Carefully remove surface material; seeds will remain. Sow densely.

Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–6 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 1 year.

Alectryon tomentosus

SAPINDACEAE

Common name: Hairy Bird's Eye

Fruit: Capsule, brown, hairy, 8–12 mm long, 6–22 mm wide.

Seed: 1–3 seeds, 5–8 mm long, 4–7 mm wide, red aril.

Fruiting interval: Regular

Fruiting period: Feb–Sep

Collecting: Collect brown capsules from tree when open and red arils are visible. Most unopened capsules will not open. Additional seed may need to be collected over the fruiting period, as many seeds will not be viable. Fresh seeds with aril intact, collected from the ground, may also be viable.

Processing and sowing: Split any closed capsules open by hand. Soak seeds for 24 hours to kill insect larvae. Remove aril by macerating by hand on sieve. Separate seeds and arils by floating. Carefully remove surface material, seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect erratic germination. Takes 2–6 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least to 1 year.

Alocasia brisbanensis

ARACEAE

Common name: Cunjevoi Lily

Fruit: Berry, red, ovoid, 8–15 mm long, 7–12 mm wide, clustered on single spike.

Seed: Round, 2–3 mm diameter.

Fruiting interval: Annual

Fruiting period: Nov–Feb

Collecting: Collect by cutting off cluster of red fruit. Note: Gloves are recommended because sap is an irritant and fruit is toxic.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Gloves are recommended. Separate seeds and pulp by hosing through sieve, and rinsing. Sow sparsely to prevent damping off. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–5 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year, though may drop all their leaves in winter or if tray dries slightly.

Alphitonia excelsa

RHAMNACEAE

Common name: Red Ash

Fruit: Drupe-like capsule, grey-black, globular, 5–10 mm diameter, containing 2 hard cells in a powdery red covering.

Seed: 1–3 seeds, 4–7 mm long, 2–3 mm wide, covered with a thin dark red skin.

Fruiting interval: Annual

Fruiting period: Aug–May

Collecting: Ideally collect from tree after fruit coverings have completely fallen away, exposing shiny red seeds. Can also be collected when some fruit covering is still attached.

Processing and sowing: If some fruit covering is still attached, place in direct sun until fruit material falls away, exposing seeds (may take 1–3 months). Remove stems by hand, then sieve to separate most fruit material and seeds. Pour boiling water over seeds and soak for

5 minutes. Pour into blender and wet blend for 30 seconds. Pour off water. Sow sparsely. Cover lightly with seed raising mix. Seed can be stored at room temperature for at least 1 year.

Germination: Expect medium germination. Takes 2–6 weeks. Allow up 12 weeks.

Seedling storage: Seedlings store for at least 1 year.

Alphitonia petriei

RHAMNACEAE

Common name: Pink Ash

Fruit: Drupe-like capsule, grey-black, tabular, 7–8 mm long, 7–15 wide, containing 3 hard cells with a powdery red-brown covering, cupped in the ring-like scar of the calyx rim.

Seed: 3 seeds, 2–5 mm long, 2–3 mm wide, covered with thin orange-red skin.

Fruiting interval: Annual

Fruiting period: Feb–Jul

Collecting: Collect from tree after fruit coverings have completely fallen away, exposing shiny red seeds. Can also be collected when some fruit covering is still attached, as they will fall away when dried

Processing and sowing: If some fruit covering is still attached, place in direct sun until fruit material falls away, exposing seeds. Depending on conditions, may take 2 weeks to 2 months.

Remove stems by hand, then sieve to separate most fruit material and seeds. Pour boiling water over seeds and soak overnight. Pour off water. Sow sparsely. Cover lightly with seed raising mix. Seed can be stored at room temperature for at least 1 year.

Germination: Expect high germination. Takes 2–6 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 1 year.

Alpinia arundelliana

ZINGIBERACEAE

Common name: Dwarf Native Ginger

Fruit: Cluster of capsules, blue, oval, 10–15 mm long, 8–10 mm wide.

Seed: Numerous seeds, 1 mm diameter.

Fruiting interval: Annual

Fruiting period: Mar–Jun

Collecting: Collect bright blue fruit from plant. Collect from several plants, because seed is susceptible to insect infestation and may have low viability.

Processing and sowing: Soak for 24 hours to kill insect larvae. Macerate fruit by hand on sieve, then sow all material. Sow sparsely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Alpinia caerulea

ZINGIBERACEAE

Common name: Native Ginger

Fruit: Cluster of capsules, blue, round, 10 mm.

Seed: Numerous seeds, 1 mm diameter.

Fruiting interval: Annual

Fruiting period: Mar–Jun

Collecting: Collect bright blue fruit from plant.

Processing and sowing: Soak for 24 hours to kill insect larvae. Macerate fruit by hand on sieve, then sow all material. Sow sparsely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Alstonia constricta

APOCYNACEAE

Common name: Quinine Bush

Fruit: Follicle, fawn, 80–200 mm long, 5–9 mm wide.

Seed: Numerous seeds, 6–7 mm long, 1–5 mm wide, downy with long hairs at the ends.

Fruiting interval: Annual

Fruiting period: Oct–Feb

Collecting: Collect fawn follicles from tree when some are open.

Processing and sowing: Split follicles and shake to extract seeds. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–6 months. Allow up to 9 months.

Seedling storage: Seedlings store for at least 1 year.

Alyxia ruscifolia

APOCYNACEAE

Common name: Prickly Alyxia

Fruit: Drupe, orange, 5–12 mm long, 4–10 mm wide, joining end to end to form a chain.

Seed: Single seed, 3–10 mm diameter.

Fruiting interval: Regular

Fruiting period: Mar–Jul

Collecting: Collect bright orange fruit from shrub by hand or cutting branchlets.

Processing and sowing: De-pulp and scarify by blending with water until flesh is removed. Note: Gloves recommended due to sticky sap. Sow densely. Cover lightly with seed raising mix.

Germination: Expect medium germination. Takes 3–18 months. Allow up to 2 years.

Seedling storage: Seedlings store for at least 2 years.

Anopterus macleayanus

ESCALLONIACEAE

Common name: Macleay Laurel

Fruit: Capsule, brown, 30–40 mm long, 10–12 mm wide, tapering to a long fine point, 2 valves that curve backwards after opening.

Seed: 8–16 winged seeds, 20–30 mm long, 8–10 mm wide (wing), 8–10 mm long, 2–3 mm wide (seed).

Fruiting interval: Regular

Fruiting period: Apr–Oct

Collecting: Collect dry, brown capsules from tree when starting to open, before seeds fall out.

Processing and sowing: Place capsules in paper bag in warm, dry location until most capsules open and release seeds. Split remaining capsules open by hand. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect medium to high germination. Takes 3–4 months. Allow up to 6 months.

Seedling storage: Seedlings store for at least 6 months.

Aphananthe philippinensis

ULMACEAE

Common name: Rough-leaved Elm

Fruit: Drupe, green-yellow, 6–12 mm long, 6–8 mm wide.

Seed: Single seed, 5–7 mm long, 3 mm wide.

Fruiting interval: Regular

Fruiting period: Feb–Jun

Collecting: Collect only yellow fleshy fruit from tree or ground. Important to collect mature fruit that contains viable seed.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by hosing through sieve and rinsing. Sow densely. Cover lightly with seed raising mix.

Germination: Expect medium to high germination. Takes 3–8 weeks. Allow up to 4 months.

Seedling storage: Seedlings store for at least 1 year.

Araucaria bidwillii

ARAUCARIACEAE

Common name: Bunya Pine

Fruit: Cone, green turning brown, ovoid, up to 40 cm long, opens to shed seeds.

Seed: 30–40 mm long, slightly flattened.

Fruiting interval: Regular

Fruiting period: Jan

Collecting: Collect very large intact green and brown cones from ground, or individual seeds if cone has fallen apart.

Processing and sowing: Leave intact cone to soften and fall apart. Manually extract seeds from cone. Sow any germinants. Sow at medium density, with pointed end facing down, leaving top half exposed. Sow in a deep tray or individual pots, due to deep tap root. Prone to rat predation.

Germination: Expect medium germination. Takes 2–4 months for root to establish,

indicated by seed rising up from medium or shifting position. Allow up to 9 months.

Seedling storage: Seedlings store for at least 1 year.

Araucaria cunninghamii

ARAUCARIACEAE

Common name: Hoop Pine

Fruit: Cone, green-brown, round to ovoid, 50–100 mm long, 50–70 mm wide.

Seed: Numerous, 8–10 mm long, 4–5 mm wide, with papery lateral wings on wedge-shaped woody seed casing.

Fruiting interval: Regular

Fruiting period: Dec–Feb

Collecting: Collect brown cones or individual seeds from ground.

Processing and sowing: Leave intact cones to soften and fall apart. Soak seeds for 24 hours to kill insect larvae. Pour off water. Sow densely. Lightly cover with seed raising mix. Seed can be stored dry for at least 1 year.

Germination: Expect high germination. Takes 2–10 weeks. Allow up to 4 months.

Seedling storage: Seedlings store for 2 years.

Archidendron grandiflorum

FABACEAE, Subfamily Mimosoideae

Common name: Pink Laceflower

Fruit: Pod, bright orange, spiral, flattened, 100–200 mm long, 22–25 mm wide, leathery, curling when open to expose orange-red inner surface.

Seed: Several, 12–14 mm long, 7–9 mm wide.

Fruiting interval: Sporadic

Fruiting period: Apr–May

Collecting: Collect orange pods from tree when they start to open and before seeds drop. Can also be collected from ground.

Processing and sowing: Manually remove seeds from pods. Soak seeds for 24 hours to kill insect larvae. Sow at medium density. Cover lightly with seed raising mix. Note: seed susceptible to rotting if too wet.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 6 months.

Archidendron hendersonii

FABACEAE, Subfamily Mimosoideae

Status: Vulnerable

Common name: White Laceflower

Fruit: Pod, red-orange, semicircle, 40–100 mm long, 12–15 mm wide, distinctive pinch on pod between each seed, yellow inner surface.

Seed: Several, 5–14 mm long, 4–6 mm wide.

Fruiting interval: Regular

Fruiting period: Aug–Jan

Collecting: Collect orange pods from tree by cutting branchlets when pods start to open, or by shaking branches and collecting from the ground.

Processing and sowing: Manually remove seeds from pods. Soak seeds for 24 hours to kill insect larvae. Sow at medium density. Cover lightly with seed raising mix. Note: seed susceptible to rotting if too wet.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 6 months.

Archidendron muellerianum

FABACEAE, Subfamily Mimosoideae

Common name: Veiny Laceflower

Fruit: Pod, orange, 60–130 mm long, 15–40 mm wide, very twisted, inner part deep orange.

Seed: Several, 12–15 mm long, 6–8 mm wide.

Fruiting interval: Sporadic

Fruiting period: Jun–Dec

Collecting: Collect orange pods from tree when they start to open and before seeds drop. Can also be collected from ground.

Processing and sowing: Manually remove seeds from pods. Soak seeds for 24 hours to kill insect larvae. Sow at medium density. Cover lightly with seed raising mix. Note: seed susceptible to rotting if too wet.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 6 months.

Archirhodomyrtus beckleri

MYRTACEAE

Common name: Rose Myrtle

Fruit: Berry, yellow-red, round, 5–12 mm diameter, with persistent style.

Seed: 20–40 seeds, 0.5–1 mm long, 0.5 mm wide.

Fruiting interval: Regular

Fruiting period: Nov–Feb

Collecting: Collect soft, yellow to red fruit from tree. Fruit contains many seeds so a small amount of fruit provides a large amount of seed.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by hosing through sieve and rinsing. Sow at low to medium density to avoid damping off. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 1–8 weeks. Allow up to 4 months.

Seedling storage: Seedlings store for at least 1 year.

Archontophoenix cunninghamiana

ARECACEAE

Common name: Bangalow Palm

Fruit: Cluster of berries, red, oval, 10–15 mm long, 8–10 mm wide.

Seed: Single seed, 8–10 mm long, 6–8 mm wide.

Fruiting interval: Annual

Fruiting period: Nov–Feb

Collecting: Bangalow Palm has been hybridising with Alexandra Palm (*Archontophoenix alexandrae*). Seed needs to be collected away from villages, towns and cleared rural areas. Collect in upper rainforest valleys where *A. cunninghamiana* naturally dominates. Collect red fruit from ground or tree. Old fruit may be damaged by insect infestation.

Processing and sowing: Ferment fruit in a sealed plastic bag in a warm location, not in direct sun, until fleshy coating can be easily removed by macerating. Return seeds to the bag until germinants appear. Alternatively, apply wet composting technique. Sow all material. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 1–6 weeks after the processing period has been completed. Allow up to 6 months.

Seedling storage: Seedlings store for at least 2 years.

Argophyllum nullumense

ARGOPHYLLACEAE

Common name: Silver Leaf

Fruit: Capsule, brown, hemispherical, 3–5 mm diameter.

Seed: 20–30 seeds, <1 mm diameter.

Fruiting interval: Annual

Fruiting period: May–Sep

Collecting: Collect light brown capsules from tree when starting to open and place in a paper bag. Unopened capsules still contain viable seed and will open later.

Processing and sowing: Place bag in warm, dry location until most capsules open. Gently crush capsules to release seed. Sow all material after mixing with fine medium. Sow at medium density to prevent damping off. Cover very lightly with seed-raising mix.

Germination: Expect high germination. Takes 4–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for less than 6 months.

Argyrodendron actinophyllum

MALVACEAE

Common name: Black Booyong

Fruit: Samara, brown, ovate-pointed, 20–60 mm long, 10–50 mm wide, wing looking like crumpled coppery paper.

Seed: Single seed, variable sizes, 5–12 mm long, 4–5 mm wide, soft, mucilaginous.

Fruiting interval: Regular

Fruiting period: Sep–Nov

Collecting: Collect from tree or ground, when seed and wing is coppery brown and falling from the tree. Seeds stay viable on ground for several weeks.

Processing and sowing: Remove wing by macerating fruit on sieve or manually by scissors. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 1–5 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Argyrodendron trifoliolatum

MALVACEAE

Common name: White Booyong

Fruit: Samara, yellow-brown, ovate-pointed, 20–35 mm long, 10–15 mm wide wing is silvery brown.

Seed: Single seed, variable size, 3–8 mm diameter.

Fruiting interval: Regular

Fruiting period: Nov–Jan

Collecting: Collect from tree or ground, when seed and wing is silvery brown and falling from the tree.

Processing and sowing: Sow seeds with wings attached. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 1–3 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 2 years.

Arytera distylis

SAPINDACEAE

Common name: Twin-leaved Coogera

Fruit: Capsule, yellow, 1–3 distinct ovoid lobes, 9–13 mm long.

Seed: 1–3 seeds, 7–9 mm long, 4–5 mm wide, partly covered by orange-red aril.

Fruiting interval: Sporadic

Fruiting period: Oct–Feb

Collecting: Collect from tree by cutting branchlets when yellow capsules start to open and red aril is visible.

Processing and sowing: Soak for 24 hours to kill insect larvae. Separate capsules from seeds by agitating in a bucket of water. Carefully remove surface material and pour off water; seeds will remain. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–8 weeks. Allow up to 6 months.

Seedling storage: Seedlings store for at least 1 year.

Arytera divaricata

SAPINDACEAE

Common name: Coogera

Fruit: Capsule, orange-yellow drying to brown, 13–16 mm long.

Seed: 1–4 seeds, 10–15 mm long, 5–7 mm wide, almost completely enclosed in a red aril.

Fruiting interval: Regular

Fruiting period: Dec–Feb

Collecting: Collect from tree by cutting branchlets when yellow-brown capsules start to open and red aril is visible. Short viability once seed has fallen on ground.

Processing and sowing: Soak for 24 hours to kill insect larvae. Separate capsules from seeds by agitating in a bucket of water. Carefully remove surface material and pour off water; seeds will remain. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–8 weeks. Allow up to 6 months.

Seedling storage: Seedlings store for at least 1 year.

Atalaya multiflora

SAPINDACEAE

Common name: Broad-leaved Whitewood

Fruit: Fawn, papery, paired samarae, 20–35 mm long, 12–14 mm wide.

Seed: Single seed per wing, 5–6 mm long, 4–5 mm wide.

Fruiting interval: Sporadic

Fruiting period: Feb–Mar

Collecting: Collect fawn winged fruit from tree. Difficult to collect because ripe fruits are easily dislodged and may drift in a wind. Using a pole pruner with an attached bag is advised. Seed dispersal period can be less than 1 week.

Processing and sowing: Soak for 24 hours to kill insect larvae. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 1 year.

Atractocarpus benthamianus

RUBIACEAE

Common name: Large-leaved Gardenia

Fruit: Berry, red, 15–25 mm long, 12–20 mm wide.

Seed: 14–18 seeds, 3–5 mm long, 3 mm wide.

Fruiting interval: Sporadic

Fruiting period: Mar–Sep

Collecting: Collect red fruit from tree or ground. Stays viable on the ground, even when fruit is rotting and seed turns black.

Processing and sowing: Leave fruit in a container to soften. Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by hosing through sieve and rinsing. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–8 weeks. Allow up to 4 months.

Seedling storage: Seedlings store for at least 1 year.

Atractocarpus chartaceus

RUBIACEAE

Common name: Narrow-leaved Gardenia

Fruit: Berry, orange-red, oval, 17–20 mm long, 7–10 mm wide, distinct calyx lobes.

Seed: Numerous seeds, 4–5 mm long, 2–3 mm wide.

Fruiting interval: Regular

Fruiting period: May–Sep

Collecting: Collect orange-red fruit from tree or from ground.

Processing and sowing: Leave fruit in a container to soften. Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by hosing through sieve and rinsing. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–8 weeks. Allow up to 4 months.

Seedling storage: Seedlings store for at least 1 year.

Auranticarpa rhombifolia

PITTOSPORACEAE

Common name: Hollywood

Fruit: Capsule, orange, pear-shaped, 4–10 mm long, 5–8 mm wide.

Seed: 1–3 shiny black seeds, 3–6 mm long, 3 mm wide.

Fruiting interval: Annual

Fruiting period: Apr–Aug

Collecting: Collect from tree by cutting branchlets when yellow-orange capsules start to open.

Processing and sowing: Dry in bag in warm location until capsules open. Beat bag against wall to release seeds from capsules, and shake to extract remaining seeds. Separate seed by sieving. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 8–12 weeks. Allow up to 4 months.

Seedling storage: Seedlings store for at least 18 months.

Austromyrtus dulcis

MYRTACEAE

Common name: Midyim Berry

Fruit: Berry, white-purple with black speckles, round, 4–10 mm diameter.

Seed: Numerous seeds, 0.5 mm diameter.

Fruiting interval: Annual

Fruiting period: Mar–Jul

Collecting: Collect white fruit from shrub by hand.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by floating. Carefully pour off water, seeds will remain. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 1 year.

Backhousia myrtifolia

MYRTACEAE

Common name: Cinnamon Myrtle

Fruit: Capsule, brown, papery, conical, 1.5–3 mm diameter, surrounded by 5 brown sepals.

Seed: Several seeds, 1 mm long.

Fruiting interval: Regular

Fruiting period: Dec–May

Collecting: Collect fawn capsules from tree before they drop.

Processing and sowing: Gently crush capsules to release seed. Sow all material. Sow at medium to high density. Cover lightly with seed raising mix.

Germination: Expect medium germination. Takes 3–6 months. Allow up to 1 year.

Seedling storage: Seedlings store for at least 1 year.

Baloghia inophylla

EUPHORBIACEAE

Common name: Brush Bloodwood

Fruit: Capsule, green turning brown, round, 10–17 mm long, 12–20 mm wide.

Seed: 3–6 seeds, 7–10 mm long, 6–7 mm wide.

Fruiting interval: Regular

Fruiting period: Dec–May

Collecting: Collect green turning brown capsules from tree when of mature size (20 mm). Note: Place in closed container or bag because capsules dehisce explosively.

Processing and sowing: Dry in a paper bag until capsules open. Split unopened capsules by hand. Separate capsules and seeds by sieving or by hand. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect medium to high germination. Takes 2–4 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 1 year.

Baloghia marmorata

EUPHORBIACEAE

Status: Vulnerable

Common name: Jointed Baloghia

Fruit: Capsule, fawn with dark red spots, round, 15–20 mm diameter.

Seed: 3–4 seeds, 12–15 mm long, 6–8 mm wide.

Fruiting interval: Sporadic

Fruiting period: Jul–Oct

Collecting: Collect green turning fawn capsules from tree when of mature size (20 mm). Note: Place in closed container or bag because capsules dehisce explosively.

Processing and sowing: Dry in a paper bag until capsules open. Split unopened capsules by hand. Separate capsules and seeds by sieving or by hand. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect medium to high germination. Takes 2–4 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 1 year.

Banksia integrifolia

PROTEACEAE

Common name: Coast Banksia

Fruit: Multiple fruit of follicles, brown, 7–15 mm long, 3–10 mm wide.

Seed: 2 seeds per follicle, 6–10 mm long, 3–4 mm wide, wedge-shaped, brown wing attached.

Fruiting interval: Annual

Fruiting period: Sep–Apr

Collecting: Collect from tree when flowers have died back and follicles on the cone are visible and turning brown.

Processing and sowing: Dry cone in the sun until follicles open and release seeds. Separate material and seeds by shaking in a bag. Sow at medium density. Cover lightly with seed raising mix. Seed can be stored dry for at least 6 months

Germination: Expect high germination. Takes 2–3 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 6 months.

Beilschmiedia elliptica

LAURACEAE

Common name: Grey Walnut

Fruit: Drupe, black, round, 10–13 mm diameter.

Seed: Single seed, 6–8 mm diameter, with slight point at tip.

Fruiting interval: Sporadic

Fruiting period: Feb–Apr

Collecting: Collect black fruit from ground.

Processing and sowing: Sow directly. Sow at medium to high density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 2 years.

Beilschmiedia obtusifolia

LAURACEAE

Common name: Blush Walnut

Fruit: Drupe, black, ovoid, 18–24 mm long, 11–15 mm wide.

Seed: Single seed, oval-pointed, 14–20 mm long, 8–10 mm wide.

Fruiting interval: Sporadic

Fruiting period: Dec–Jul

Collecting: Collect black fruit from ground.

Processing and sowing: Sow directly. Sow at medium to high density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 2 years.

Brachychiton acerifolius

MALVACEAE

Common name: Flame Tree

Fruit: Follicle, black, woody, boat-shaped, 80–120 mm long, 35–40 mm wide.

Seed: 12–26 seeds, 10–12 mm long, 7–8 mm wide, enclosed in a hairy yellow covering.

Fruiting interval: Regular

Fruiting period: Feb–Aug

Collecting: Collect black follicles from tree, when starting to open. Follicles containing viable seeds may remain on tree for many weeks. Follicles are prone to insect damage and infested follicles may have sticky exudate and grub holes.

Processing and sowing: Extract seeds from open follicles by hand. Note: Gloves are recommended due to irritating hairs. Hard fruits may require opening with pliers. Sow at medium density. Cover lightly with seed raising mix. Note: Seed highly prone to rat predation. Dry seeds store well for at least 2 years at room temperature.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 6 months.

Brachychiton bidwillii

MALVACEAE

Common name: Dwarf Kurrajong

Fruit: Follicle, woody, brown, boat-shaped, 80–120 mm, 35–40 mm wide, soft densely hairy.

Seed: 18–30 seeds, 10–12 mm long, 7–8 mm wide, black, enclosed in a hairy yellow covering.

Fruiting interval: Regular

Fruiting period: Apr–Aug

Collecting: Collect fawn follicles from tree, when starting to open. Follicles containing viable seeds may remain on tree for many weeks. Seeds are prone to insect damage and infested follicles may have sticky exudate and grub holes.

Processing and sowing: Extract seeds from open fruits by hand. Gloves are recommended due to irritating hairs. Hard fruits may require opening with pliers. Separate papery seed covering and seed by crushing by hand and

blowing lighter material away. Sow at medium density. Cover lightly with seed raising mix. Note: Seed highly prone to rat predation. Dry seeds store well for at least 1 year at room temperature.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 6 months.

Brachychiton discolor

MALVACEAE

Common name: Lacebark Tree

Fruit: Follicle, woody, brown, boat-shaped, 60–200 mm long, 20–50 mm wide, densely hairy.

Seed: 30–50 seeds, 9–10 mm long, 5–6 mm wide, enclosed in a hairy yellow covering.

Fruiting interval: Regular

Fruiting period: Dec–Jul

Collecting: Collect fawn/brown follicles from tree, when starting to open. Follicles containing viable seeds may remain on tree for many weeks. Seeds are prone to insect damage and infested follicles may have sticky exudate and grub holes.

Processing and sowing: Extract seeds from open fruits by hand. Gloves are recommended due to irritating hairs. Hard pods may require opening with pliers. Separate papery seed covering and seed by crushing by hand and

blowing lighter material away. Sow at medium density. Cover lightly with seed raising mix. Note: Seed highly prone to rat predation. Dry seeds store well for at least 1 year at room temperature.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 6 months.

Breynia oblongifolia

PHYLLANTHACEAE

Common name: Coffee Bush

Fruit: Berry, orange-black, globose, 5–10 mm diameter.

Seed: 2–6 seeds, 1–2 mm diameter.

Fruiting interval: Regular

Fruiting period: Dec–Feb

Collecting: Collect fruit from plant as it ripens to black and seeds are brown.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by hosing through sieve and rinsing. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect low to medium germination. Takes 3–4 weeks. Allow up to 3 months.

Seedling storage: Seedlings store for at least 6 months.

Bridelia exaltata

PHYLLANTHACEAE

Common name: Brush Ironbark

Fruit: Drupe, black, round, 9–10 mm diameter.

Seed: 1–2 seeds, 6–8 mm diameter.

Fruiting interval: Regular

Fruiting period: Mar–Jul

Collecting: Collect fallen fruit from ground because seed stays viable for several weeks.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate viable and non-viable seeds by floating. Carefully remove surface material and pour off water, viable seeds will remain. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–4 months. Allow up to 6 months.

Seedling storage: Seedlings store for at least 2 years.

Bursaria spinosa

PITTOSPORACEAE

Common name: Blackthorn

Fruit: Capsule, brown, flattened, 4–10 mm long, 5–8 mm wide.

Seed: Single seed, 3 mm long, 2–3 mm wide.

Fruiting interval: Annual

Fruiting period: Oct

Collecting: Collect brown capsules from shrub.

Processing and sowing: Gently crush capsules to release seed. Sow all material. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 6–16 weeks. Allow up to 6 months.

Seedling storage: Seedlings store for at least 2 years.

Callicarpa pedunculata

LAMIACEAE

Common name: Velvet Leaf

Fruit: Drupe, globose, purple, 2–4 mm diameter.

Seed: 2–4 seeds, 1–2 mm diameter.

Fruiting interval: Annual

Fruiting period: Dec–Apr

Collecting: Collect purple fruit from shrub.

Processing and sowing: Separate pulp and seed by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp. Sow sparsely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–6 weeks. Allow up to 4 months.

Seedling storage: Seedlings store for at least 1 year.

Callicoma serratifolia

CUNONIACEAE

Common name: Black Wattle

Fruit: Round head of capsules, brown, 8–10 mm diameter, 8–10 carpels.

Seed: 1–2 seeds per carpel, <1 mm diameter.

Fruiting interval: Annual

Fruiting period: Dec–Jun

Collecting: Collect brown capsule-heads from tree, ensuring cells are unopened and still contain seed.

Processing and sowing: Dry in paper bag in warm location until capsules open. Shake to release seeds from capsules. Mix with fine medium and sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 1 year.

Callitris columellaris

CUPRESSACEAE

Common name: Coastal Cypress

Fruit: Cone, grey-black, ovoid, <20 mm diameter.

Seed: Numerous seeds, 4–5 mm diameter, with 6–10 mm wing.

Fruiting interval: Annual

Fruiting period: Sep–Dec

Collecting: Collect from tree as cones start to open before winged seed blow away. In some locations the fallen seed can be raked up.

Processing and sowing: Dry in paper bag in warm location until cones release seeds. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 2 years.

Callitris macleayanus

CUPRESSACEAE

Common name: Stringybark Pine

Fruit: Cone, dark brown, ovoid, 15–30 mm long, 10–15 wide.

Seed: Numerous seeds, flattened, 3–4 mm wide, 5–6 mm long, 10–14 mm long, including wing.

Fruiting interval: Annual

Fruiting period: Apr–Jun

Collecting: Collect from tree as cones start to open before winged seeds blow away. In some locations the fallen seed can be raked up.

Processing and sowing: Dry in paper bag in warm location until cones release seeds. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 2 years.

Capparis arborea

CAPPARACEAE

Common name: Brush Caper Berry

Fruit: Berry, green to orange-red, round, smooth, 20–50 mm diameter.

Seed: 2–4 seeds, 7–10 mm long, 5–6 mm wide.

Fruiting interval: Sporadic

Fruiting period: Dec–Mar

Collecting: Collect from shrub when turning orange-red. Use a pole pruner, if needed, because shrub is very prickly.

Processing and sowing: Place in container until fruit softens. Remove pulp by scooping out by hand. Separate sticky pulp and viable seed by hosing through sieve and rinsing. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 8 weeks to 6 months. Allow up to 9 months.

Seedling storage: Seedlings store for at least 1 year.

Castanospermum australe

FABACEAE, Subfamily Faboideae

Common name: Black Bean

Fruit: Pod, brown, woody, 90–250 mm long, 40 mm wide.

Seed: 1–5 seeds, 30–50 mm long, 30–40 mm wide.

Fruiting interval: Regular

Fruiting period: May–Aug

Collecting: Collect brown pods, or detached seeds, from ground, where they may remain viable for several months.

Processing and sowing: Sow directly into individual pots. Sow seed on surface of seed raising mix, leaving half of the seed exposed, with groove running vertically, and indented end up, nipple facing down. Seed can be stored for up to 1 year in dry container at room temperature.

Germination: Expect high germination. Takes 2–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings are not stored in trays (see 'Processing and sowing').

Castanospora alphandii

SAPINDACEAE

Common name: Brown Tamarind

Fruit: Berry, dull cream-pink, round, 25–30 mm long, 30–60 mm wide.

Seed: 1–2 shiny brown seeds, 17–25 mm long, 20–30 mm wide.

Fruiting interval: Regular

Fruiting period: Nov–Feb

Collecting: Collect cream-pink to light brown fruits from tree or ground.

Processing and sowing: Soak for 24 hours to kill insect larvae. Leave in container until fruit softens and seed is easily extracted by hand. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination after 1–2 weeks. Allow up to 4 weeks.

Seedling storage: Seedlings store for at least 18 months.

Celtis paniculata

ULMACEAE

Common name: Native Celtis

Fruit: Drupe, green turning black, ovoid, 7–10 mm long, <5 mm wide.

Seed: Single seed, 6–9 mm long, <4 mm wide.

Fruiting interval: Sporadic

Fruiting period: Dec–Feb

Collecting: Collect black fruit from tree or ground. Repeated visits are often necessary due to high bird predation.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by floating. Carefully remove pulp and pour off water; seeds will remain. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 6–16 weeks. Allow up to 6 months.

Seedling storage: Seedlings store for at least 1 year.

Ceratopetalum apetalum

CUNONIACEAE

Common name: Coachwood

Fruit: Nut, brown, papery, ovoid, 5–10 mm diameter, woody with persistent red sepals.

Seed: Single seed, 1–2 mm long, 1 mm wide.

Fruiting interval: Regular

Fruiting period: Jan–Mar

Collecting: Collect dried brown fruits from tree or ground. Seed is held within fruit and is not released.

Processing and sowing: Gently crush nuts to release seed. Sow all material. Sow densely. Cover lightly with seed raising mix.

Germination: Expect low germination. Takes 8 weeks to 6 months.

Seedling storage: Seedlings store for at least 1 year.

Cinnamomum oliveri

LAURACEAE

Common name: Oliver's Sassafras

Fruit: Drupe, green-black, oval, 12–18 mm long, 10–14 mm wide, resting in cupule.

Seed: Single seed, 12–14 mm long, 10–11 mm wide.

Fruiting interval: Sporadic

Fruiting period: Dec–Apr

Collecting: Collect black fruit from tree or ground, avoiding galled fruit covered in yellow fungus.

Processing and sowing: Soak for 24 hours to kill insect larvae. Remove pulp by macerating fruit by hand on sieve. Separate viable and non-viable seeds by floating. Carefully remove pulp and non-viable seeds and pour off water; viable seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 2 years.

Cinnamomum virens

LAURACEAE

Common name: Red-barked Sassafras

Fruit: Drupe, black, oval, 10–12 mm diameter, smooth, fleshy, resting in cupule.

Seed: Single seed, 6–8 mm diameter.

Fruiting interval: Sporadic

Fruiting period: Nov–Dec

Collecting: Collect black fruit from tree by cutting branchlets, or from ground.

Processing and sowing: Soak for 24 hours to kill insect larvae. Remove pulp by macerating fruit by hand on sieve. Separate viable and non-viable seeds by floating. Carefully remove pulp and non-viable seeds and pour off water; viable seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–8 weeks. Allow up to 16 weeks.

Seedling storage: Seedlings store for at least 2 years.

Citronella moorei

CARDIOPTERIDACEAE

Common name: Churnwood

Fruit: Drupe, black, oval, 15–24 mm long, 17–20 mm wide, fleshy.

Seed: Single seed, 15–21 mm long, 12–16 mm wide, with long dent in one side.

Fruiting interval: Sporadic

Fruiting period: Dec–Jun

Collecting: Collect black fruit from ground.

Processing and sowing: Manually remove flesh from fruit. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 5–14 months. Allow up to 18 months.

Seedling storage: Seedlings store for 2 years.

Citrus australasica

RUTACEAE

Common name: Finger Lime

Fruit: Berry, yellow-green-purple, 20–100 mm long, 5–18 mm wide.

Seed: Several seeds, 5–6 mm long, 3–5 mm wide.

Fruiting interval: Regular

Fruiting period: Feb–Aug

Collecting: Collect fruit from tree or ground when yellow-green to purple. Note: Check fruit has seed because it can have low rate of seed presence.

Processing and sowing: Extract seeds by hand or knife. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect low to high germination. Allow up to 4 months.

Seedling storage: Seedlings store for 1 year.

Claoxylon australe

EUPHORBIACEAE

Common name: Brittlewood

Fruit: Capsule, purple-black, round, 5–6 mm diameter, 3 round lobes.

Seed: 3 seeds, 1 per lobe, 3–4 mm diameter.

Fruiting interval: Regular

Fruiting period: Jan–Mar

Collecting: Collect black capsules from tree before they dehisce explosively and release seeds.

Processing and sowing: Place in paper bag in dry warm location until capsules open. Separate capsules and seeds by sieving. Sow sparsely to avoid damping off. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–6 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 1 year.

Cleistanthus cunninghamii

PHYLLANTHACEAE

Common name: Cleistanthus

Fruit: Capsule, green to red, globular–flattened, 3 lobes, 8–12 mm diameter.

Seed: 1–6 seeds, 3–4 mm long, 2–3 mm wide.

Fruiting interval: Sporadic

Fruiting period: Dec–May

Collecting: Collect red capsules from tree before they dehisce explosively and release seeds.

Processing and sowing: Place in paper bag in dry warm location until capsules open. Separate capsules and seeds by sieving. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect medium to high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Clerodendrum floribundum

LAMIACEAE

Common name: Smooth Clerodendrum

Fruit: Drupe, black, shining, globular, 8–12 mm diameter, resting in persistent red calyx <20 mm diameter.

Seed: 1–4 seeds, 4–5 mm long, 2–3 mm wide.

Fruiting interval: Regular

Fruiting period: Dec–Feb

Collecting: Collect black fruit from tree when calyx is red or collect fallen black fruit from ground.

Processing and sowing: Remove pulp and calyx by macerating fruit by hand on sieve. Separate seeds and pulp by floating. Carefully remove pulp and pour off water; seeds will remain. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 6 months.

Clerodendrum tomentosum

LAMIACEAE

Common name: Hairy Clerodendrum

Fruit: Drupe, purple-black, oval-pointed, 5–8 mm diameter, resting in persistent red calyx <20 mm diameter.

Seed: 1–4 seeds, 5–7 mm long, 2–4 mm wide.

Fruiting interval: Regular

Fruiting period: Dec–Feb

Collecting: Collect black fruit from tree when calyx is red or collect fallen black fruit from ground.

Processing and sowing: Remove pulp and calyx by macerating fruit by hand on sieve. Separate seeds and pulp by floating. Carefully remove pulp and pour off water; seeds will remain. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 6 months.

Commersonia bartramia

MALVACEAE

Common name: Brown Kurrajong

Fruit: Capsule, brown, globose, 10–25 mm diameter, soft bristles and starry hairs.

Seed: 5–10 seeds, 1–2 mm long, <0.5 mm wide, with yellow basal aril.

Fruiting interval: Annual

Fruiting period: Mar–Sep

Collecting: Collect from tree by cutting branchlets when brown capsules open. Check for seed presence.

Processing and sowing: Separate capsules and seed by blending with water for 30 seconds. Pour through sieve to separate woody capsules. Separate remaining material from viable seeds by floating. Carefully remove surface material and pour off water; seeds will remain. Sow at medium to high density. Cover lightly with seed raising mix. Seeds can be dry stored in pods in an open container for at least 2 years at room temperature.

Germination: Expect medium to high germination. Takes 3–6 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 6 months.

Cordyline congesta

ASTELIACEAE

Common name: Coast Palm Lily

Fruit: Berry, orange-red, round, 5–15 mm diameter.

Seed: Numerous, black, shiny, 1 mm diameter.

Fruiting interval: Annual

Fruiting period: Dec–May

Collecting: Collect orange-red fruit from plant. Cut off bunches.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate viable and non-viable seeds by floating. Carefully remove pulp and non-viable seeds and pour off water; viable seeds will remain. Note: Waxy coating can cause viable seed to float. If in doubt, sow all seeds. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 18 months.

Cordyline petiolaris

ASTELIACEAE

Common name: Broad-leaved Palm Lily

Fruit: Berry, orange-red, round, 5–15 mm diameter.

Seed: Numerous, black, shiny, 1 mm diameter.

Fruiting interval: Annual

Fruiting period: Dec–Jul

Collecting: Collect red fruit from plant. Cut off bunches.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate viable and non-viable seeds by floating. Carefully remove pulp and non-viable seeds and pour off water; viable seeds will remain. Note: Waxy coating can cause viable seed to float. If in doubt, sow all seeds. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–6 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 18 months.

Cordyline rubra

ASTELIACEAE

Common name: Red-fruited Palm Lily

Fruit: Berry, orange-red, round, 5–15 mm diameter.

Seed: Numerous, black, shiny, 1 mm diameter.

Fruiting interval: Annual

Fruiting period: Jan–May

Collecting: Collect red fruit from plant. Cut off bunches.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate viable and non-viable seeds by floating. Carefully remove pulp and non-viable seeds and pour off water; viable seeds will remain. Note: Waxy coating can cause viable seed to float. If in doubt, sow all seeds. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 18 months.

Cordyline stricta

ASTELIACEAE

Common name: Narrow-leaved Palm Lily

Fruit: Berry, purple-black, round, 5–15 mm diameter.

Seed: Numerous, black, shiny, 1 mm diameter.

Fruiting interval: Annual

Fruiting period: Jan–May

Collecting: Collect purple-black fruit from. Cut off bunches.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate viable and non-viable seeds by floating. Carefully remove pulp and non-viable seeds and pour off water; viable seeds will remain. Note: Waxy coating can cause viable seed to float. If in doubt, sow all seeds. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 18 months.

Crinum pedunculatum

AMARYLLIDACEAE

Common name: River Lily

Fruit: Berry, green turning fawn, irregular shape, variable size from 10–80 mm diameter.

Seed: Variable amount of seed (1–20) and seed size (10–70 mm diameter).

Fruiting interval: Annual

Fruiting period: Dec–Feb

Collecting: Collect green turning fawn fruit from plant or ground. Seed stays viable for a few months.

Processing and sowing: Sow into trays or in separate pots. Place on surface or partially covered.

Germination: Expect high germination. Takes 2–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 2 years.

Croton verreauxii

EUPHORBIACEAE

Common name: Green Native Cascarilla

Fruit: Capsule, orange-brown, round, 5–6 mm diameter.

Seed: 1–3 seeds, red-brown, angular, 2 mm diameter.

Fruiting interval: Regular

Fruiting period: Apr–Sep

Collecting: Collect orange-brown capsules from tree before they open.

Processing and sowing: Place in paper bag in dry warm location until capsules open. Separate capsules from seeds by sieving. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect medium germination. Takes 3–12 weeks. Allow up to 6 months.

Seedling storage: Seedlings store for at least 1 year.

Cryptocarya erythroxylon

LAURACEAE

Common name: Pigeonberry Ash

Fruit: Drupe, black, ovoid, 12–15 mm long, 8–11 mm wide.

Seed: Single seed, pointed, 9–12 mm long, 5–8 mm wide.

Fruiting interval: Sporadic

Fruiting period: Apr–Oct

Collecting: Collect black fruit from tree or ground. Seed stays viable for a few weeks.

Processing and sowing: Soak for 24 hours to soften, if necessary. Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 2 years.

Cryptocarya foetida

LAURACEAE

Status: Vulnerable

Common name: Stinking Cryptocarya

Fruit: Drupe, black, globose, 8–12 mm diameter.

Seed: Single seed, 6–10 mm diameter.

Fruiting interval: Sporadic

Fruiting period: Jul–Nov

Collecting: Collect purplish-black fruit from tree or ground.

Processing and sowing: Sow seed densely on surface, plugging half-way into seed raising mix.

Germination: Expect medium germination. Takes 3–6 months. Allow up to 9 months.

Seedling storage: Seedlings store for at least 2 years.

Cryptocarya glaucescens

LAURACEAE

Common name: Jackwood

Fruit: Drupe, black, 12–18 mm long, 15–20 mm wide, globular–flattened, vertical ribs.

Seed: Single seed, 10–12 mm long, 8–9 mm wide.

Fruiting interval: Regular

Fruiting period: Mar–Sep

Collecting: Collect black fruit from tree or ground.

Processing and sowing: Sow directly, plugging half-way into seed raising mix. Do not over-water as susceptible to rotting.

Germination: Expect high germination. Takes 3–6 weeks. Allow up to 4 months.

Seedling storage: Seedlings store for at least 2 years.

Cryptocarya laevigata

LAURACEAE

Common name: Glossy Laurel

Fruit: Drupe, red, ovoid-round, 17–33 mm long, 17–38 mm wide.

Seed: Single seed, 11–24 mm long, 10–19 mm wide, woody, ribbed.

Fruiting interval: Annual

Fruiting period: Jan–May

Collecting: Collect red fruit from shrub or ground.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 months. Allow up to 8 months.

Seedling storage: Seedlings store for at least 2 years.

Cryptocarya microneura

LAURACEAE

Common name: Murrogun

Fruit: Drupe, black, round to oval-pointed, 8–12 mm diameter, succulent flesh.

Seed: Single seed, 6–10 mm diameter.

Fruiting interval: Regular

Fruiting period: Dec–Jul

Collecting: Collect black fruit from tree by cutting branchlets, or by hand if fruiting densely.

Processing and sowing: Soak to soften pulp. Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 6 weeks to 4 months. Allow up to 8 months.

Seedling storage: Seedlings store for at least 2 years.

Cryptocarya obovata

LAURACEAE

Common name: Pepperberry

Fruit: Drupe, black, round, 10–12 mm diameter, thin flesh.

Seed: Single seed, 8–10 mm diameter.

Fruiting interval: Regular

Fruiting period: Mar–May

Collecting: Collect black fruit from tree or ground.

Processing and sowing: Sow directly. Sow densely, plugging half-way into seed raising mix.

Germination: Expect medium germination. Takes 4 weeks to 6 months. Allow up to 8 months.

Seedling storage: Seedlings store for at least 2 years.

Cryptocarya rigida

LAURACEAE

Common name: Forest Maple

Fruit: Drupe, black, oval-shaped, 21–24 mm long, 11–15 mm wide, succulent flesh.

Seed: Single seed, 15–20 mm long, 8–10 mm wide, pointed.

Fruiting interval: Regular

Fruiting period: Jan–Mar

Collecting: Collect black fruit from shrub by cutting branchlets, or by hand-picking.

Processing and sowing: Soak for 24 hours to soften if necessary. Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow seed densely on surface, plugging half-way into seed raising mix. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–12 weeks. Allow up to 6 months.

Seedling storage: Seedlings store for at least 1 year.

Cryptocarya triplinervis var. *pubens*

LAURACEAE

Common name: Hairy Three-veined Laurel

Fruit: Drupe, black, oval-globose, 8–12 mm long, 5–7 mm wide.

Seed: Single seed, 5–8 mm long, 5–7 mm wide.

Fruiting interval: Sporadic

Fruiting period: Feb–May

Collecting: Collect greenish-black to black fruit from tree by cutting branchlets.

Processing and sowing: Soak black fruit for 24 hours to soften if necessary. Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix. Greenish-black fruit can be kept in a sealed plastic bag for several weeks until it ripens fully.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 2 years.

Cryptocarya triplinervis var. *triplinervis*

LAURACEAE

Common name: Smooth Three-veined Laurel

Fruit: Drupe, black, oval-pointed, 10–12 mm long, 10 mm wide.

Seed: Single seed, 8–10 mm long, 6–8 mm wide.

Fruiting interval: Regular

Fruiting period: Feb–May

Collecting: Collect greenish-black to black fruit from tree by cutting branchlets.

Processing and sowing: Soak black fruit for 24 hours to soften if necessary. Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds

will remain. Sow densely. Cover lightly with seed raising mix. Greenish-black fruit can be kept in a sealed plastic bag for several weeks until it ripens fully.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 2 years.

Cupaniopsis anacardioides

SAPINDACEAE

Common name: Tuckeroo

Fruit: Capsule, dull yellow-orange, round, tapering at the base, 15–30 mm long, 15–22 mm wide, lobed, hairy inside, smooth outside.

Seed: 3 seeds, 1 per lobe, 10–12 mm long, 5–6 mm wide, orange-red aril.

Fruiting interval: Annual

Fruiting period: Oct–Jan

Collecting: Collect yellow-orange capsules from tree when starting to open, before seeds fall out.

Processing and sowing: Leave in bag in shade until capsules open. Beat bag against wall to release seeds from capsules. Extract seeds from plant material by sieving. Separate aril and seed by macerating by hand on sieve. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Cupaniopsis flagelliformis

SAPINDACEAE

Common name: Brown Tuckeroo

Fruit: Capsule, yellow-brown, obovoid, 12–25 mm diameter, wrinkled, covered with yellowish brown hairs.

Seed: 3 seeds, 8–12 mm long, 6–10 mm wide, bright orange aril.

Fruiting interval: Sporadic

Fruiting period: Nov–Dec

Collecting: Collect yellow-brown capsules from tree when starting to open, before seeds fall out.

Processing and sowing: Leave in bag in shade until capsules open. Beat bag against wall to release seeds from capsules. Extract seeds from plant material by sieving. Separate aril and seed by macerating by hand on sieve. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Cupaniopsis newmanii

SAPINDACEAE

Common name: Long-leaved Tuckeroo

Fruit: Capsule, orange-red, 15–20 mm, round and tapering to a short stalk.

Seed: 3 seeds, 12–18 mm long, 7–8 mm wide, half enclosed in a yellow aril.

Fruiting interval: Annual

Fruiting period: Oct–Nov

Collecting: Collect orange-red capsules from tree or ground when capsules open.

Processing and sowing: Extract seeds from capsules by hand. Separate aril and seed by macerating by hand on sieve. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 1–2 weeks. Allow up to 4 weeks.

Seedling storage: Seedlings store for at least 18 months.

Cupaniopsis parvifolia

SAPINDACEAE

Common name: Small-leaved Tuckeroo

Fruit: Capsule, yellow, round, 8–10 mm long, 8–12 mm wide, lobed, rough outside, densely rusty hairy inside.

Seed: 3 seeds, 6–9 mm long, 4–5 mm wide, almost enclosed in orange aril.

Fruiting interval: Regular

Fruiting period: Nov–Feb

Collecting: Collect yellow capsules from tree when starting to open, before seeds fall out.

Processing and sowing: Leave in bag in shade until capsules open. Beat bag against wall to release seeds from capsules. Extract seeds from plant material by sieving. Separate aril and seed by macerating by hand on sieve. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 1–2 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 18 months.

Cyclophyllum longipetalum

RUBIACEAE

Common name: Coast Canthium

Fruit: Drupe, dark red, 6–20 mm wide, 2 lobes.

Seed: 1–2 seeds, 1 per lobe, 6–8 mm long, 3–5 mm wide, pointed at one end.

Fruiting interval: Regular

Fruiting period: Oct–Dec

Collecting: Collect red fruit from tree or red-black fruit from ground. Black fruit still contains viable seed.

Processing and sowing: Dry compost fruit in mulch mix from the collection site for 6–12 months until some germination is visible. Sow all material at medium density. Lightly cover with seed raising mix.

Germination: Expect medium germination.

Takes 2–18 months following the dry composting period.

Seedling storage: Seedlings store for at least 2 years.

Daphnandra apatela

ATHEROSPERMATACEAE

Common name: Socketwood

Fruit: Achene, green, 12–25 mm long, 8–10 mm wide, splitting down one side.

Seed: 3–5 seeds, 1–3 mm diameter.

Fruiting interval: Regular

Fruiting period: Oct–Dec

Collecting: Collect fruits from tree when green receptacle starts turning brown and begins to open to reveal single seeded feathery achenes. Seed tends to stick to receptacle and not float away when harvested.

Processing and sowing: Dry on shadecloth until fruits fully open and release seed. Separation of seed and hairs is not necessary. Sow densely near surface. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–12 months. Allow up to 18 months.

Seedling storage: Seedlings store for at least 1 year.

Davidsonia jerseyana

CUNONIACEAE

Status: Endangered

Common name: Davidson's Plum

Fruit: Drupe, blue-black, obovoid, 30–50 mm long, 20–40 mm wide, plum-like, fleshy.

Seed: 2 seeds, 15–20 mm long, 12–15 mm wide.

Fruiting interval: Annual

Fruiting period: Dec–Feb

Collecting: Collect purple fruit from tree or ground. King parrots can destroy all seed before they are ripe, so fruit may need protecting.

Processing and sowing: Leave fruits in container to soften. Extract seeds by squeezing by hand, or macerate fruit by hand on sieve. Sow densely. Cover lightly with seed raising mix. Seeds are prone to rat predation.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Davidsonia johnsonii

CUNONIACEAE

Status: Endangered

Common name: Smooth Davidson's Plum

Fruit: Drupe, purple-black, ovoid, 20–40 mm long, 30–55 mm wide, plum-like, fleshy.

Seed: 1–2 seeds, 15–20 mm long, 12–15 mm wide. Note: No viable seeds have yet been found.

Fruiting interval: Regular

Fruiting period: Jan–Mar

Collecting: Collect purple fruit from ground or tree.

Processing and sowing: Leave fruits in container to soften. Extract seeds by squeezing by hand, or macerate fruit by hand on sieve. Sow densely. Cover lightly with seed raising mix.

Germination: To date, no plants have been grown due to unviable seed. Can be grown from cuttings.

Seedling storage: Unknown

Davidsonia pruriens

CUNONIACEAE

Common name: Queensland Davidson's Plum

Fruit: Drupe, purple, 30–50 mm diameter, plum-like.

Seed: 2 seeds, 15–20 mm long, 12–15 mm wide.

Fruiting interval: Annual

Fruiting period: Jun–Aug

Collecting: Collect purple fruit from tree or ground. King parrots can destroy all seed before they are ripe, so fruit may need protecting.

Processing and sowing: Leave fruits in container to soften. Extract seeds by squeezing by hand, or macerate fruit by hand on sieve. Sow densely. Cover lightly with seed raising mix. Seeds are prone to rat predation.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Decaspermum humile

MYRTACEAE

Common name: Silky Myrtle

Fruit: Berry, red turning purple-black, round, 4–8 mm diameter, crowned by persistent calyx.

Seed: 2–10 seeds, tiny.

Fruiting interval: Regular

Fruiting period: Jan–Mar

Collecting: Collect bunches of black fruit from tree by cutting branchlets. Collect from ground within a week, depending on conditions. Note: Myrtle rust has reduced flowering/fruiting in some areas.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and fruit material by floating. Carefully remove surface material and pour off water; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Dendrocnide excelsa

URTICACEAE

Common name: Giant Stinging Tree

Fruit: Achene, 2 mm long, 2–3 mm wide, attached to green-white or pink-purple fleshy stalks, with scattered stinging hairs.

Seed: 1 seed, black, tiny.

Fruiting interval: Regular

Fruiting period: Mar–Aug, Nov–Dec

Collecting: Note: Use gloves due to stinging hairs. Collect fruit from tree by cutting branchlets, or by cutting fruit from ends of branchlets into bag. Fruit can be collected from ground if fresh.

Processing and sowing: Note: Gloves recommended due to stinging hairs. Remove pulp by macerating fruit by hand on sieve. Separate seeds and fruit material by floating. Carefully remove surface material and pour off water; seeds will remain. Sow sparsely to avoid damping off. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–6 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 6 months.

Dendrocnide photinophylla

URTICACEAE

Common name: Shiny-leaved Stinging Tree

Fruit: Achene, 2 mm long, 2 mm wide, attached to yellow-white fleshy stalks, with scattered stinging hairs.

Seed: 1 seed, black, tiny.

Fruiting interval: Regular

Fruiting period: Jan–Mar

Collecting: Note: Use gloves due to stinging hairs. Collect from tree by cutting branchlets, or by cutting fruit from ends of branchlets into bag. Fruit can be collected from ground if fresh.

Processing and sowing: Note: Gloves recommended due to stinging hairs. Remove pulp by macerating fruit by hand on sieve. Separate seeds and fruit material by floating. Carefully remove surface material and pour off water; seeds will remain. Sow sparsely to avoid damping off. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–6 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 6 months.

Denhamia celastroides

CELASTRACEAE

Common name: Orange Boxwood

Fruit: Capsule, yellow, round, 8–12 mm long, 10–15 mm wide, pointed at the top.

Seed: 3–6 seeds, 5–6 mm long, 3–4 mm wide, surrounded by a fleshy bright red aril.

Fruiting interval: Regular

Fruiting period: Feb–Jun

Collecting: Collect from tree by cutting branchlets when full-size orange capsules start to open. Small orange capsules will not contain viable seed.

Processing and sowing: Dry in paper bag until capsules open. Separate seeds from capsules by sieving. Separate aril and seed by macerating by hand on sieve. Sow at high density. Cover lightly with seed raising mix.

Germination: Expect low germination. Takes 1–6 months. Allow up to 8 months.

Seedling storage: Seedlings store for at least 1 year.

Desmodium acanthocladum

FABACEAE, Subfamily Faboideae

Common name: Thorny Pea

Fruit: Pod, grey-brown, straight, 30–50 mm long, 4–5 mm wide.

Seed: 5–7 seeds, 3–4 mm long, 2–3 mm wide.

Fruiting interval: Annual

Fruiting period: Mar–Jun

Collecting: Collect pods from shrub when turning brown, drying and splitting.

Processing and sowing: Dry in bag until pods open. Extract seeds by hand. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Dianella caerulea

PHORMIACEAE

Common name: Blue Flax Lily

Fruit: Berry, blue, round, 7–12 mm diameter.

Seed: Several seeds, <1 mm diameter, angular.

Fruiting interval: Annual

Fruiting period: Nov–Mar

Collecting: Collect blue fruit from plant. Green fruit does not contain viable seed.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by hosing in a bucket. Remove surface material and pour off water; seeds will remain. Note: Waxy coating may cause some viable seed to float. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–10 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 2 years.

Diospyros australis

EBENACEAE

Common name: Black Plum

Fruit: Drupe, red-black, oval-shaped, 10–20 mm long, 8–12 mm wide, lobed calyx encloses the base.

Seed: Single seed, 8–10 mm long, 6–8 mm wide.

Fruiting interval: Regular

Fruiting period: Feb–Jul

Collecting: Collect black fruit from tree or ground or older brown seeds from ground.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by sieving and floating. Carefully remove pulp and pour off water; seeds will remain. Sow densely. Lightly cover with seed raising mix.

Germination: Expect high germination. Takes 2–6 weeks. Allow up to 10 weeks.

Seedling storage: Seedlings store for at least 2 years.

Diospyros fasciculosa

EBENACEAE

Common name: Grey Ebony

Fruit: Berry, red-black, in small clusters, oval-rounded, 12–15 mm diameter, calyx encloses the base.

Seed: 2–6 seeds, 10–12 mm long, 3–4 mm wide.

Fruiting interval: Sporadic

Fruiting period: Apr–Jul

Collecting: Collect red-black fruit from tree or ground or the brown seeds from ground.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by sieving and floating. Carefully remove pulp and pour off water; seeds will remain. Sow densely. Lightly cover with seed raising mix.

Germination: Expect low to high germination. Takes 3–18 weeks. Allow up to 18 months.

Seedling storage: Seedlings store for at least 2 years.

Diospyros pentamera

EBENACEAE

Common name: Myrtle Ebony

Fruit: Berry, red-black, 12–16 mm long, 10–15 mm wide, with persistent 5-lobed calyx.

Seed: 1–5 seeds, 7–10 mm long, 3–4 mm wide.

Fruiting interval: Sporadic

Fruiting period: Jan–Dec

Collecting: Collect red-black fruit from tree or ground or the brown seed from ground.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by sieving and floating. Carefully remove pulp and pour off water; seeds will remain. Sow densely. Lightly cover with seed raising mix.

Germination: Expect low to high germination. Takes 3–18 weeks. Allow up to 18 months.

Seedling storage: Seedlings store for at least 2 years.

Diploglottis australis

SAPINDACEAE

Common name: Native Tamarind

Fruit: Capsule, orange-brown, 10–25 mm diameter, 2–3 lobed.

Seed: 1–3 seeds, 1 per lobe, 6–10 mm diameter, disc-shaped, enclosed in yellow juicy aril.

Fruiting interval: Annual

Fruiting period: Oct–Jan

Collecting: Collect brown fruit from tree or ground. Fruit is susceptible to infestation.

Processing and sowing: Soak for 24 hours to kill insect larvae. Remove pulp by macerating fruit by hand on sieve. Blast with hose to remove remaining pulp; seeds will remain. Sow at medium density due to large leaves. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 1–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 18 months.

Diploglottis campbellii

SAPINDACEAE

Status: Endangered

Common name: Small-leaved Tamarind

Fruit: Capsule, yellow-brown, globular–flattened, 30–40 mm diameter.

Seed: Single seed, 20 mm long, 15 mm wide, with red aril.

Fruiting interval: Regular

Fruiting period: Oct–Mar

Collecting: Collect red fruit, when capsules open, from tree or ground. Collect fresh because seed has short viability and is susceptible to insect predation.

Processing and sowing: Soak for 24 hours to kill insect larvae and soften pulp. Remove pulp by macerating fruit on sieve. Blast with hose to remove last of pulp; seeds will remain. Sow at medium density in deeper tray due to seed size and tap root. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 1–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Doryanthes palmeri

DORYANTHACEAE

Status: Vulnerable

Common name: Spear Lily

Fruit: Capsule, black, 80–100 mm long, pointed at one end, many capsules on a long spike.

Seed: Numerous seeds, thin, papery, 10 mm wide, 15 mm long, 25 mm long including wing.

Fruiting interval: Annual

Fruiting period: Apr–May

Collecting: Collect black capsules from plant when dry and opening.

Processing and sowing: Place in bag until capsules open and seeds are released. Extract remaining seeds by hand. Sow at medium density. Cover lightly with seed raising mix. Dry seed can be stored in a refrigerator for at least 1 year.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 18 months.

Doryphora sassafras

ATHEROSPERMATACEAE

Common name: Sassafras

Fruit: Capsule, green-brown, 6–20 mm long, 3–5 mm wide, splits open down one side when ripe.

Seed: Several seeds, 2 mm long, 1–2 mm wide, surrounded by silky hairs.

Fruiting interval: Regular

Fruiting period: Dec–Jan

Collecting: Collect from tree by cutting branchlets when green-brown capsules start to open.

Processing and sowing: Place in bag in shade until capsules open. Beat bag against wall to release seeds from capsules, and shake to extract remaining seeds. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 7–18 months.

Seedling storage: Seedlings store for at least 2 years.

Drypetes deplanchei

PUTRANJIVACEAE

Common name: Yellow Tulip

Fruit: Drupe, pink-red, oval, 10–20 mm long, 8–11 mm wide.

Seed: Single seed, 8–15 mm long, 6–8 mm wide.

Fruiting interval: Sporadic

Fruiting period: Feb–Aug

Collecting: Collect orange-red fruits from tree or ground by hand.

Processing and sowing: Dry compost until some germinants are visible. Sow densely. Cover lightly with seed raising mix.

Germination: Expect low to high germination. Takes 1–9 months. Allow up to 1 year.

Seedling storage: Seedlings store for at least 18 months.

Duboisia myoporoides

SOLANACEAE

Common name: Corkwood

Fruit: Berry, black, round, 5–8 mm diameter.

Seed: Several seeds, dark brown, 3 mm long, 1–2 mm wide.

Fruiting interval: Annual

Fruiting period: Oct–Jan

Collecting: Collect from tree when fruit is turning from green to black, and seed is grey to brown. Fruit ripens asynchronously, so branches will have ripe and unripe fruit, and some flowers. Trees may need to be revisited because ripe fruits are extremely attractive to birds. Collect maturing fruit by cutting small branchlets. Note: Fruit is toxic and may cause skin/eye irritations.

Processing and sowing: Place fruit in a plastic bag to soften. Remove pulp by macerating fruit by hand on sieve. Note: Gloves and goggles are recommended because juice from the pulp may be an extreme irritant. Seeds that are

dark grey to dark brown will germinate. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–10 weeks. Allow up to 18 weeks, because there can be a second wave of germination. Note: Young seedlings are very susceptible to slugs.

Seedling storage: Seedlings store for at least 1 year.

Dysoxylum fraserianum

MELIACEAE

Common name: Rosewood

Fruit: Capsule, pink-red, round, 20–40 mm diameter, 3–4 cells.

Seed: 1–2 seeds per cell, 5–7 mm long, 4–7 mm wide, with red seed coat.

Fruiting interval: Regular

Fruiting period: Jan–May, Sep–Oct

Collecting: Collect from tree by cutting branchlets when reddish-brown capsules start to open.

Processing and sowing: Place in plastic bag until capsules soften and open. Separate capsules and seeds by macerating by hand on sieve. Gently remove arils from seeds. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 2 years.

Dysoxylum mollissimum

MELIACEAE

Common name: Red Bean

Fruit: Capsule, orange-brown, globose, 15–30 mm long, 15–25 mm wide, 2–5 cells.

Seed: 1 seed per cell, 8–12 mm long, 5–6 mm wide, red-brown.

Fruiting interval: Regular

Fruiting period: Nov–Mar

Collecting: Collect from tree by cutting branchlets when brown capsules start to open.

Processing and sowing: Place in plastic bag until capsules soften. Separate capsules and seeds by macerating by hand on sieve. Gently remove arils from seeds. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 2 years.

Dysoxylum rufum

MELIACEAE

Common name: Hairy Rosewood

Fruit: Capsule, orange-brown, globose, 20–40 mm long, 18–40 mm wide, 5 cells, covered with dense irritating yellowish brown hairs.

Seed: 1–2 seeds per cell, 5 mm diameter.

Fruiting interval: Regular

Fruiting period: Sep–Nov

Collecting: Collect brown capsules from tree when starting to open. Collect brown seed from ground. Seed may still have cream aril attached. Note: capsules are densely covered in very irritating hairs, so wear gloves and protect eyes.

Processing and sowing: Dry in bag until pods open. To avoid irritating hairs soak all material for 24 hours. Separate seeds and capsules by hand under water. Sow at medium density.

Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–5 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Ehretia acuminata

BORAGINACEAE

Common name: Koda

Fruit: Drupe, yellow-orange, round, 4–7 mm diameter, 2 cells.

Seed: 1 seed per cell, 1–2 mm diameter.

Fruiting interval: Annual

Fruiting period: Jan–Apr

Collecting: Collect yellow-orange fruit from tree by cutting branchlets or by picking up small fallen bunches from the ground.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Sow at low to medium density to avoid damping off. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 6 months.

Elaeocarpus eumundi

ELAEOCARPACEAE

Common name: Eumundi Quandong

Fruit: Drupe, green-blue, ovoid, 14–20 mm long, 10–12 mm wide, deeply pitted hard stone.

Seed: 1–2 seeds, 10–16 mm long, 5–8 mm wide.

Fruiting interval: Regular

Fruiting period: May–Jun

Collecting: Collect from ground. Collecting freshly fallen blue fruit will mean a germination period of 9–15 months. Ideally collect last year's seed just before fruit fall. Collecting the previous year's seed of older, partly decomposed fruit with no blue coating is preferred due to the shorter germination period.

Processing and sowing: Dry compost until some germinants are visible, between 4 months (decomposed woody stones) and up to 15 months (fresh blue fruit). Sow densely. Cover lightly with seed raising mix.

Germination: Following the dry composting period, expect low to high germination from remainder of seeds. Takes up to 9 months. Allow up to 1 year.

Seedling storage: Seedlings store for at least 1 year.

Elaeocarpus grandis

ELAEOCARPACEAE

Common name: Blue Quandong

Fruit: Drupe, blue, 18–30 mm diameter, deeply pitted hard stone.

Seed: 1–4 seeds, 8–12 mm long, 3–4 mm wide.

Fruiting interval: Annual

Fruiting period: Jan–Dec

Collecting: Collect from ground. Collecting freshly fallen blue fruit will mean a germination period of 12–18 months. Ideally collect last year's seed just before fruit fall. Collecting the previous year's seed of older, partly decomposed fruit with no blue coating is preferred due to the shorter germination period.

Processing and sowing: For large seedlots, dry compost until some germinants are visible, between 3 months (decomposed woody stones) and up to 15 months (fresh blue fruit). Sow densely. Cover lightly with seed raising mix. For small seedlots, each woody stone can be split open by tapping a nail into the small visible indent. Remove seeds. Sow densely. Cover lightly with seed raising mix.

Germination: Following the dry composting period, expect high germination from remainder of seeds. Takes up to 6 months. Allow up to 9 months.

Seedling storage: Seedlings store for at least 1 year.

Elaeocarpus kirtonii

ELAEOCARPACEAE

Common name: Silver Quandong

Fruit: Drupe, blue, pointed-oval, 10–13 mm long, 7–10 mm wide, pitted hard stone with distinct rib on one side.

Seed: 1–2 seeds, 5–7 mm long, 3–4 mm wide.

Fruiting interval: Regular

Fruiting period: Apr–Jan

Collecting: Collect from ground. Collecting freshly fallen blue fruit will mean a germination period of 9–15 months. Ideally collect last year's seed just before fruit fall. Collecting the previous year's seed of older, partly decomposed fruit with no blue coating is preferred due to the shorter germination period.

Processing and sowing: Dry compost until some germinants are visible, between 4 months (decomposed woody stones) and up to 15 months (fresh blue fruit). Sow densely. Cover lightly with seed raising mix.

Germination: Following the dry composting period, expect low to medium germination from remainder of seeds. Takes up to 6 months. Allow up to 9 months.

Seedling storage: Seedlings store for up to 1 year.

Elaeocarpus obovatus

ELAEOCARPACEAE

Common name: Hard Quandong

Fruit: Drupe, blue, globose, 8–12 mm long, 7–9 mm wide, pitted hard stone.

Seed: Single seed, 3–5 mm long, 3–4 mm wide.

Fruiting interval: Regular

Fruiting period: Jan–May

Collecting: Collect from ground. Collecting freshly fallen blue fruit will mean a germination period of 7–12 months. Collecting older, partly decomposed fruit with no blue coating will result in a shorter germination period.

Processing and sowing: Dry compost until some germinants are visible, between 4 months (decomposed woody stones) and up to 15 months (fresh blue fruit). Sow densely. Cover lightly with seed raising mix.

Germination: Following the dry composting period, expect low to medium germination from remainder of seeds. Takes up to 6 months. Allow up to 9 months.

Seedling storage: Seedlings store for up to 1 year.

Elaeocarpus reticulatus

ELAEOCARPACEAE

Common name: Blueberry Ash

Fruit: Drupe, blue, globose-ovoid, 8–12 mm long, 6–10 mm wide, pitted hard stone.

Seed: Single seed, 4–5 mm diameter.

Fruiting interval: Annual

Fruiting period: Apr–Oct

Collecting: Collect from ground. Collecting freshly fallen blue fruit will mean a germination period of 7–12 months. Collecting older, partly decomposed fruit with no blue coating will result in a shorter germination period.

Processing and sowing: Dry compost until some germinants are visible, between 4 months (decomposed woody stones) and up to 15 months (fresh blue fruit). Sow densely. Cover lightly with seed raising mix.

Germination: Following the dry composting period, expect low to high germination from remainder of seeds. Takes 6 months or longer. Allow up to 9 months.

Seedling storage: Seedlings store up to 2 years.

Elaeocarpus sedentarius

ELAEOCARPACEAE

Status: Endangered

Common name: Minyon Quandong

Fruit: Drupe, blue with slight glaucous bloom, round, 15–25 mm long, 12–20 mm wide, thick fibrous layer around hard stone.

Seed: Several seeds, 4–5 mm long, 3–4 mm wide.

Fruiting interval: Regular

Fruiting period: Apr–Aug

Collecting: Limited success growing this. Collect purple fruit from ground.

Processing and sowing: Dry compost as for others in this genus.

Germination: No known germination has occurred under cultivation.

Seedling storage: Unknown

Elaeocarpus williamsianus

ELAEOCARPACEAE

Status: Endangered

Common name: Hairy Quandong

Fruit: Drupe, blue, round, 20–30 mm diameter, fleshy fibrous layer around hard stone, with brown papery shell when dried.

Seed: Several seeds, 5–10 mm long, 2–5 mm wide.

Fruiting interval: Annual

Fruiting period: Apr–Jul

Collecting: No fruit with viable seed has yet been collected.

Processing and sowing: To date, no plants have germinated due to unviable seed. Can be grown from cuttings.

Germination: No known germination has occurred.

Seedling storage: Unknown

Elaeodendron australe

CELASTRACEAE

Common name: Red Olive Plum

Fruit: Drupe, orange-red, rounded to ovoid, 10–25 mm long, 9–15 mm wide, hard stone.

Seed: Single seed, 5–6 mm long, 3–4 mm wide.

Fruiting interval: Regular

Fruiting period: Jan–Aug

Collecting: Collect red-orange fruit from ground or tree.

Processing and sowing: Wet blend to scarify and de-pulp seeds. Separate seeds and pulp by floating. Carefully remove surface material and pour off water; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect low to medium germination. Takes 2 weeks to 9 months,

depending on seed freshness. Fresh seed is likely to germinate relatively rapidly. Allow up to 1 year.

Seedling storage: Seedlings store for at least 2 years.

Elattostachys nervosa

SAPINDACEAE

Common name: Green Tamarind

Fruit: Capsule, pink-red, globose, 12–18 mm long, 25–35 mm wide, woody, surface wrinkled and uneven.

Seed: 3 glossy black seeds, 8–10 mm long, 5–6 mm wide, with red aril.

Fruiting interval: Sporadic

Fruiting period: Jan–Dec

Collecting: Collect only mature pink-red capsules with glossy black seeds from tree. Fruit ripens asynchronously, so branches will have ripe and unripe fruit, and some flowers.

Processing and sowing: Place in bag in a warm, dry location until capsules open fully. Shake in bag to release seeds. Separate capsules and seeds by sieving. Sow densely. Lightly cover with seed raising mix.

Germination: Expect medium germination. Takes 3–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store up to 1 year.

Elattostachys xylocarpa

SAPINDACEAE

Common name: White Tamarind

Fruit: Capsule, yellow to brown, globose, 15–20 mm diameter, 3–4 woody valves.

Seed: 3–4 glossy black seeds, 6–8 mm long, 3–4 mm wide, with white-purple aril.

Fruiting interval: Sporadic

Fruiting period: Mar–Jun

Collecting: Collect only mature yellow capsules from tree when starting to open.

Processing and sowing: Place in bag in warm, dry location until capsules open fully. Shake in bag to release seeds. Separate capsules and seeds by sieving. Sow densely. Lightly cover with seed raising mix.

Germination: Expect medium germination. Takes 3–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store up to 1 year.

Emmenosperma alphitonioides

RHAMNACEAE

Common name: Yellow Ash

Fruit: Capsules, yellow-orange, round, 4–11 mm diameter, 2 cells.

Seed: 1–2 seeds, 3–6 mm long, 2–3 mm wide, with red aril.

Fruiting interval: Sporadic

Fruiting period: Mar–Aug

Collecting: Collect from tree when capsule falls away and exposes red seeds. Branchlets can also be collected from the ground.

Processing and sowing: Separate plant material and seeds by floating. Wet blend for 30 seconds. Carefully remove surface material and pour off water; seeds will remain. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect medium germination. Takes 3–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 1 year.

Endiandra discolor

LAURACEAE

Common name: Rose Walnut

Fruit: Drupe, blue-black, oval, 16–17 mm long, 10–13 mm wide.

Seed: Single, 12–14 mm long, 7–9 mm wide.

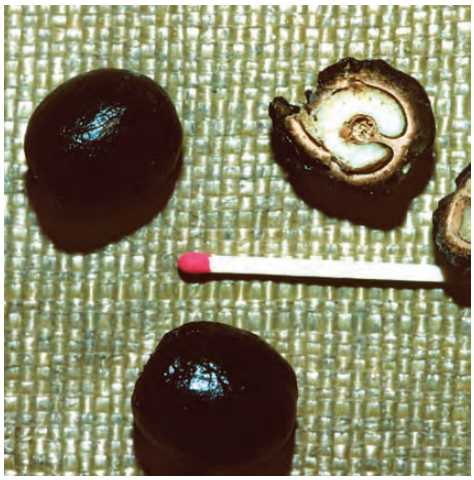
Fruiting interval: Sporadic

Fruiting period: Jan–Mar

Collecting: Collect black fruit from ground. Fallen fruits stay viable for several weeks.

Processing and sowing: Soak for 24 hours to soften flesh and kill insect larvae. Remove pulp by macerating fruit by hand on sieve. Extract remaining seeds by hand. Sow densely. Cover lightly with seed raising mix.

Germination: Expect medium to high germination. Takes 2–6 months. Allow up to 9 months.



Seedling storage: Seedlings store for at least 2 years.

Endiandra floydii

LAURACEAE

Status: Endangered

Common name: Crystal Creek Walnut

Fruit: Drupe, red-black with glaucous gloom, pear-shaped, 70–100 mm long, 40–60 mm wide.

Seed: Single seed, 30–50 mm diameter.

Fruiting interval: Sporadic

Fruiting period: Dec–Feb

Collecting: Collect blue-black fruit from ground. Fallen fruits stay viable for several weeks.

Processing and sowing: Remove leathery skin by hand. Sow densely with top of seed just visible. Sow in deep tray or individual pots due to tap root.

Germination: Expect medium to high.

germination. Takes 4–12 weeks. Allow up to 6 months.

Seedling storage: Seedlings store for at least 2 years.

Endiandra globosa

LAURACEAE

Common name: Black Walnut

Fruit: Drupe, black, globose, 50–70 mm diameter.

Seed: Single seed, 40–60 mm diameter.

Fruiting interval: Sporadic

Fruiting period: Feb–May

Collecting: Collect black fruit from ground, when at least 5 cm diameter. Fallen fruits stay viable for several weeks.

Processing and sowing: Remove leathery skin by hand. Sow densely, with micropyle facing down with the top of seed just visible. Sow in deep tray or individual pots due to tap root.

Germination: Expect medium to high germination. Takes 6–10 weeks. Allow up to 4 months.

Seedling storage: Seedlings store for at least 2 years.

Endiandra hayesii

LAURACEAE

Status: Vulnerable

Common name: Rusty Rose Walnut

Fruit: Drupe, black, 28–30 mm long, 10–12 mm wide, shiny, shaped like a limp balloon.

Seed: Single seed, 15–20 mm long, 7–10 mm wide.

Fruiting interval: Sporadic

Fruiting period: Mar–Aug

Collecting: Collect purple-black fruit from ground or from tree by cutting branchlets. Very rarely fruits heavily.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect medium germination. Takes 2–10 months. Allow up to 18 months.

Seedling storage: Seedlings store for at least 2 years.

Endiandra muelleri

LAURACEAE

Common name: Green-leaved Rose Walnut

Fruit: Drupe, black with bluish bloom, oval, 15–25 mm long, 12–18 mm wide.

Seed: Single seed, 12–20 mm long, 8–12 mm wide.

Fruiting interval: Sporadic

Fruiting period: Mar–Apr

Collecting: Collect purple-black fruit from ground or from tree by cutting branchlets. Very rarely fruits heavily.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect medium germination. Takes 2–10 months. Allow up to 18 months.

Seedling storage: Seedlings store for at least 2 years.

Endiandra pubens

LAURACEAE

Common name: Hairy Walnut

Fruit: Drupe, red, globose, 50–55 mm diameter.

Seed: Single seed, 30–40 mm diameter.

Fruiting interval: Sporadic

Fruiting period: Dec–Mar

Collecting: Collect red fruit from ground. Fallen fruits stay viable for several weeks.

Processing and sowing: Remove leathery skin by hand. Sow densely with top of seed just visible. Sow in deep tray or individual pots due to tap root.

Germination: Expect high germination. Takes 6–12 weeks. Allow up to 6 months.

Seedling storage: Seedlings store for at least 2 years.

Endiandra sieberi

LAURACEAE

Common name: Hard Corkwood

Fruit: Drupe, black, shiny, oval, 20–30 mm long, 12–15 mm wide.

Seed: Single seed, 18–25 mm long, 10–13 mm wide, pointed with brown longitudinal lines.

Fruiting interval: Regular

Fruiting period: Mar–Oct

Collecting: Collect black fruit from ground when still glossy. Fallen seed is prone to insect infestation.

Processing and sowing: Soak for 24 hours to soften flesh and kill insect larvae. Remove pulp by macerating fruit by hand on sieve. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect low to high germination. Takes 2–10 months. Allow up to 18 months.

Seedling storage: Seedlings store for at least 2 years.

Endiandra virens

LAURACEAE

Common name: White Apple

Fruit: Drupe, yellow, globose, 70–100 mm long, 60–90 mm wide.

Seed: Single seed, 30–40 mm diameter.

Fruiting interval: Sporadic

Fruiting period: Apr–Aug

Collecting: Collect mature cream/yellow fruit from tree or ground. Fallen fruits stay viable for several weeks.

Processing and sowing: Remove leathery skin by hand. Sow densely with top of seed just visible. Sow in deep tray or individual pots due to tap root.

Germination: Expect high germination. Takes 6–12 weeks. Allow up to 4 months.

Seedling storage: Seedlings store for at least 2 years.

Erythrina numerosa

FABACEAE, Subfamily Faboideae

Common name: Bat's Wing Coral Tree

Fruit: Pod, fawn, 80–100 mm long, 15–18 mm wide, pinched between seeds, tapering both ends.

Seed: Several seeds, red, hard, 7–8 mm long, 5–6 mm wide.

Fruiting interval: Regular

Fruiting period: Dec–Jan

Collecting: Collect brown pods from tree or ground when starting to open.

Processing and sowing: Extract seeds from pods by hand. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 6 months.

Eupomatia bennettii

EUPOMATIACEAE

Common name: Small Bolwarra

Fruit: Berry-like aggregate fruit with many achenes, green-brown, 24–40 mm long, 15–45 mm wide.

Seed: Numerous, 4–6 mm long, 2–3 mm wide.

Fruiting interval: Regular

Fruiting period: Jun

Collecting: Collect green-brown fruit from shrub when fruit is softening, because only mature soft fruit contains viable seed.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Sow at medium density to avoid damping off. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 months. Allow up 6 months.

Seedling storage: Seedlings store for at least 1 year.

Eupomatia laurina

EUPOMATIACEAE

Common name: Bolwarra

Fruit: Berry-like aggregate fruit with many achenes, green-brown, 24–40 mm long, 15–45 mm wide.

Seed: Numerous seeds, 4–6 mm long, 2–3 mm wide.

Fruiting interval: Annual

Fruiting period: Apr–Aug

Collecting: Collect from shrub when green-brown fruit is softening. Collect fresh because seeds can lose viability if too dry.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Sow at medium density to avoid damping off. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 months. Allow up 6 months.

Seedling storage: Seedlings store for at least 1 year.

Euroschinus falcatus

ANACARDIACEAE

Common name: Ribbonwood

Fruit: Drupe, blue-purple, oval-rounded, 7–9 mm diameter.

Seed: Single seed, 4–5 mm long, 1.5–2 mm wide.

Fruiting interval: Regular

Fruiting period: Dec–Jan

Collecting: Collect from ground when black, or cut branchlets with ripening fruit. Check fruit for viable seed.

Processing and sowing: If collected from ground, and pulp is mostly removed, sow directly. If collected from tree, place fruits in a bag for 1–2 weeks to after-ripen. Remove pulp by macerating fruit by hand on sieve. Note: Gloves are recommended due to caustic sap. Separate seeds and pulp by sieving and floating. Carefully remove pulp and pour off water; seeds will remain. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 1–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Ficus coronata

MORACEAE

Common name: Creek Sandpaper Fig

Fruit: Fig (syconium), red-black, oval, 15–30 mm long, 10–20 mm wide, densely hairy.

Seed: Numerous seeds, <1 mm diameter.

Fruiting interval: Annual

Fruiting period: Jan–Dec

Collecting: Collect red-purple fruit from ground or tree. Check fruit has hard, gritty material within soft flesh, containing individual, viable seeds. Seeds in bat droppings/spits can also be viable.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by sieving and floating. Carefully remove pulp and pour off water; seeds will remain. Mix seeds with seed raising mix and sow all material evenly over tray. Cover very lightly with seed raising mix. Water gently.

Germination: Expect low to high germination, because some seedlots are not viable. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year, unless affected by damping off.

Ficus fraseri

MORACEAE

Common name: Sandpaper Fig

Fruit: Fig (syconium), red-black, ovoid, 10–20 mm diameter, hairless.

Seed: Numerous seeds, <1 mm diameter.

Fruiting interval: Annual

Fruiting period: Jan–Dec

Collecting: Collect red-black fruit from tree by hand-picking. Check fruit has hard, gritty material within soft flesh, containing individual, viable seeds. Seeds in bat droppings/spits can also be viable.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by sieving and floating. Carefully remove pulp and pour off water; seeds will remain. Mix seeds with seed raising mix and sow all material evenly over tray. Cover lightly with seed raising mix. Water gently.

Germination: Expect low to high germination, because some seedlots are not viable. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for 1 year, unless affected by damping off.

Ficus macrophylla

MORACEAE

Common name: Moreton Bay Fig

Fruit: Fig (syconium), red-purple with white spots when mature, oval, 20–25 mm diameter.

Seed: Numerous seeds, <1 mm diameter.

Fruiting interval: Annual

Fruiting period: Jan–Dec

Collecting: Collect red-purple fruit from ground. Check fruit has hard, gritty material within soft flesh, containing individual, viable seeds. Seeds in bat droppings/spits can also be viable.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by sieving and floating. Carefully remove pulp and pour off water; seeds will remain. Mix seeds with seed raising mix and sow all material evenly over tray.

Cover lightly with seed raising mix. Water gently.

Germination: Expect low to high germination, because some seedlots are not viable. Takes 2–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for 1 year, unless affected by damping off.

Ficus obliqua

MORACEAE

Common name: Small-leaved Fig

Fruit: Fig (syconium), yellow to red with some dark spots, round, 4–12 mm diameter.

Seed: Numerous seeds, <1 mm diameter.

Fruiting interval: Annual

Fruiting period: Jan–Dec

Collecting: Collect red fruit from ground. Check fruit has hard, gritty material within soft flesh, containing hard, individual, viable seeds. Seeds in bat droppings/spits can also be viable.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by sieving and floating. Carefully remove pulp and pour off water, seeds will remain. Mix seeds with seed raising mix and sow all material evenly over tray. Cover lightly with seed raising mix. Water gently.

Germination: Expect low to high germination, because some seedlots are not viable. Takes 4–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for 1 year, unless affected by damping off.

Ficus rubiginosa

MORACEAE

Common name: Rusty Fig

Fruit: Fig (syconium), yellow to red, round, 7–18 mm diameter.

Seed: Numerous seeds, <1 mm diameter.

Fruiting interval: Annual

Fruiting period: Jan–Dec

Collecting: Collect red fruit from ground or tree. Check fruit has hard, gritty material within soft flesh, containing individual, viable seeds. Seeds in bat droppings/spits can also be viable.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by sieving and floating. Carefully remove pulp and pour off water; seeds will remain. Mix seeds with seed raising mix and sow all material evenly over tray. Cover lightly with seed raising mix. Water gently.

Germination: Expect low to high germination, because some seedlots are not viable. Takes 4–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for 1 year, unless affected by damping off.

Ficus superba

MORACEAE

Common name: Deciduous Fig

Fruit: Fig (syconium), yellow turning deep purple with pink dots, globose, 15–25 mm diameter.

Seed: Numerous seeds, <1 mm diameter.

Fruiting interval: Annual

Fruiting period: Jan–Dec

Collecting: Collect red-purple fruit from ground or tree. Check fruit has hard, gritty material within soft flesh, containing individual, viable seeds. Seeds in bat droppings/spits can also be viable.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by sieving and floating. Carefully remove pulp and pour off water; seeds will remain. Mix seeds with seed raising mix and sow all material evenly over tray.

Cover lightly with seed raising mix. Water gently.

Germination: Expect low to high germination, because some seedlots are not viable. Takes 4–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for 1 year, unless affected by damping off.

Ficus virens

MORACEAE

Common name: White Fig

Fruit: Fig (syconium), white-brown with red spots, round, 8–20 mm diameter, no stalk, 3 bracts at base of fruit.

Seed: Numerous seeds, 1 mm diameter.

Fruiting interval: Annual

Fruiting period: Jan–Dec

Collecting: Collect white-brown fruit from ground or tree. Check fruit has hard, gritty material within soft flesh, containing individual, viable seeds. Seeds in bat droppings/spits can also be viable.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by sieving and floating. Carefully remove pulp and pour off water; seeds will remain. Mix seeds with seed raising mix and sow all material evenly over tray. Cover lightly with seed raising mix. Water gently.

Germination: Expect low to high germination, because some seedlots are not viable. Takes 4–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for 1 year, unless affected by damping off.

Ficus watkinsiana

MORACEAE

Common name: Strangler Fig

Fruit: Fig (syconium), deep purple with paler spots, ovoid, 20–40 mm long, 15–35 mm wide, with distinct nipple.

Seed: Numerous seeds, <1 mm diameter.

Fruiting interval: Annual

Fruiting period: Jan–Dec

Collecting: Collect purple fruit from ground. Check fruit has hard, gritty material within soft flesh, containing individual, viable seeds. Seeds in bat droppings/spits can also be viable.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by sieving and floating. Carefully remove pulp and pour off water; seeds will remain. Mix seeds with seed raising mix and sow all material evenly over tray. Cover lightly with seed raising mix. Water gently.

Germination: Expect low to high germination, because some seedlots are not viable. Takes 2–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for 1 year, unless affected by damping off.

Flindersia australis

RUTACEAE

Common name: Australian Teak

Fruit: Capsule, brown, woody, prickly, 70–100 mm long, splitting into 5 boat-shaped valves which generally remain united at the base.

Seed: 2–5 winged seeds per valve, 7–8 mm wide, 10–15 mm long, 30–45 mm long including wing.

Fruiting interval: Regular

Fruiting period: Aug–Dec

Collecting: Collect from tree by cutting branchlets when capsules start to open. For taller trees, collect seeds from ground. Seed dispersal period can be less than 1 week.

Processing and sowing: Place in a bag in warm, dry location until pods open. Shake capsules in bag to release seeds. Remove remaining seeds by hand. Remove any fleshy dividing fruit layers. Sow densely. Lightly cover with seed raising mix. Dry seed can be stored in a glass jar in a fridge for at least 2 years.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Flindersia bennettiana

RUTACEAE

Common name: Bennett's Ash

Fruit: Capsule, brown, narrow, woody, prickly, splitting into 5 separate boat-shaped valves, 50–80 mm long.

Seed: 2–5 winged seeds per valve, 7–9 mm long, 4–6 mm wide, 25 mm long including wing.

Fruiting interval: Regular

Fruiting period: Nov–Feb

Collecting: Collect from tree by cutting branchlets when pods start to open. For taller trees, collect seeds from ground. Seed dispersal period can be less than 1 week.

Processing and sowing: Place in a bag in warm, dry location until pods open. Shake capsules in bag to release seeds. Remove remaining seeds by hand. Remove any fleshy dividing fruit layers. Sow densely. Lightly cover with seed raising mix. Dry seed can be stored in a glass jar in a fridge for at least 1 year.

Germination: Expect high germination. Takes 4–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Flindersia schottiana

RUTACEAE

Common name: Cudgerie

Fruit: Capsule, green, narrow, woody, prickly, separating into 5 boat-shaped valves, 80–130 mm long, 30–45 mm wide.

Seed: 3–5 seeds per valve, 15–18 mm long, 5–7 mm wide, 50–60 mm including wing.

Fruiting interval: Regular

Fruiting period: Jan–Feb

Collecting: Collect from tree by cutting branchlets when green pods start to open. For taller trees, collect seeds from ground. Note: Sticky sap can exude from pods. Seed dispersal period can be less than 1 week.

Processing and sowing: Place in a bag in a warm, dry location until pods open. Shake capsules in bag to release seeds. Remove remaining seeds by hand. Remove any fleshy dividing fruit layers. Sow densely. Lightly cover with seed raising mix.

Germination: Expect high germination. Takes 2–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Flindersia xanthoxyla

RUTACEAE

Common name: Yellowwood

Fruit: Capsule, green, woody, prickly, separating into 5 narrow boat-shaped valves, 70–100 mm long, 32–45 mm wide.

Seed: 3–4 seeds per valve, 8–10 mm long, 5–6 mm wide, 40–50 mm including slightly wrinkled wing.

Fruiting interval: Regular

Fruiting period: Jun–Sep

Collecting: Collect from tree by cutting branchlets when green pods start to open. For taller trees, collect seeds from ground. Seed dispersal period can be less than 1 week.

Processing and sowing: Place in a bag in warm, dry location until pods open. Shake capsules in bag to release seeds. Remove remaining seeds by hand. Remove any fleshy

dividing fruit layers. Sow densely. Lightly cover with seed raising mix.

Germination: Expect high germination. Takes 4–6 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 1 year.

Floydia praealta

PROTEACEAE

Status: Vulnerable

Common name: Ball Nut

Fruit: Follicle, brown, woody, rounded, 40–50 mm diameter.

Seed: 1 spherical or 2 hemispherical seeds, 22–30 mm long, 16–18 mm wide.

Fruiting interval: Sporadic

Fruiting period: Jan–Aug

Collecting: Collect brown fruit from tree or ground. Seed can be on the ground for 1 month and still be viable.

Processing and sowing: Sow directly. Sow densely with top of seed just visible. Sow in deep tray due to tap root.

Germination: Expect high germination. Takes 5–10 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 1 year.

Glochidion ferdinandi

PHYLLANTHACEAE

Common name: Cheese Tree

Fruit: Capsule, green turning red, 6–8 mm long, 10–20 mm wide.

Seed: 4–6 pairs of bright red flattened seeds held on stem, 2 mm long, 1 mm wide.

Fruiting interval: Annual

Fruiting period: Jul–Sep, Nov–Feb

Collecting: Trees with ripe fruit are often highly impacted by insect larvae and have little or no viable seed. Collect from tree by cutting branchlets when red capsules start to dehisce, revealing seeds.

Processing and sowing: Place in bag in a warm, dry location until all capsules open. Place all material in large bag, and beat against a wall to release seeds. Sieve to extract seeds from material. Remove aril by macerating by hand on sieve. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 18 months.

Glochidion sumatranum

PHYLLANTHACEAE

Common name: Umbrella Cheese Tree

Fruit: Capsule, pink-purple, 4 mm long, 6–9 mm wide, with fine hairs.

Seed: 4–6 pairs of bright red flattened seeds held on stem, 1 mm diameter.

Fruiting interval: Annual

Fruiting period: Dec–Jun, Sept

Collecting: Trees with ripe fruit are often highly impacted by insect larvae and have little or no viable seed. Collect from tree by cutting branchlets when purple capsules start to dehisce, revealing seeds.

Processing and sowing: Place in bag in a warm, dry location until all capsules open. Place all material in large bag, and beat against a wall to release seeds. Sieve to extract seeds from material. Remove aril by macerating by hand on sieve. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 18 months.

Gmelina leichhardtii

LAMIACEAE

Common name: White Beech

Fruit: Drupe, purple-black, depressed-globose, 15–20 mm diameter, hard stone with 1 or 2 caps.

Seed: 1–2 seeds, 5–10 mm long, 3–8 mm wide.

Fruiting interval: Regular

Fruiting period: Dec–May

Collecting: Collect blue fruit from ground. Older fruit is still viable for up to 1 year.

Processing and sowing: For fresh, pulpy fruit, separate pulp from stone by crushing underfoot or running over with car while under shadecloth, or by peeling. Then dry the stones for 4–5 months over winter, in an open container in a warm, dry place until they become brittle. Sow all material in deep trays. Cover lightly with seed raising mix. Best sown in hottest months.

Germination: Following the drying period, expect high germination. Takes 1–6 weeks after the long drying process. Allow up to 4 months.

Seedling storage: Seedlings store for at least 1 year.

Gossia acmenoides

MYRTACEAE

Common name: Scrub Ironwood

Fruit: Berry, purple-black round, 4–6 mm long, 4–7 mm wide.

Seed: 1–5 seeds, <2 mm diameter.

Fruiting interval: Regular

Fruiting period: Feb–Apr

Collecting: Collect black fruit from tree by hand-picking. To avoid bird predation, fully formed green fruit can also be collected. Note: Myrtle rust has reduced fruit set.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by hosing in bucket and floating off. Carefully remove pulp and pour off water; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–8 weeks. Allow up to 6 months.

Seedling storage: Seedlings store for at least 2 years.

Gossia bidwillii

MYRTACEAE

Common name: Python Tree

Fruit: Berry, purple-black, round, 5–6 mm diameter, crowned by 5 persistent calyx lobes.

Seed: 1–5 seeds, <2 mm diameter.

Fruiting interval: Regular

Fruiting period: Jan–May

Collecting: Collect black fruit from tree by hand-picking.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by hosing in bucket and floating off. Carefully remove pulp and pour off water; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect low to medium germination. Takes 3 to 8 weeks. Allow up to 6 months.

Seedling storage: Seedlings store for at least 2 years.

Gossia fragrantissima

MYRTACEAE

Status: Endangered

Common name: Sweet Myrtle

Fruit: Berry, orange-red, round, 4–6 mm diameter, crowned by 4 persistent calyx lobes.

Seed: Single seed, <1 mm diameter.

Fruiting interval: Regular

Fruiting period: Jan–Feb

Collecting: Collect red fruit from tree by hand-picking. To avoid bird predation, fully formed green fruit can also be collected.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by hosing in bucket and floating. Carefully remove pulp and pour off water; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–8 weeks. Allow up to 6 months.

Seedling storage: Seedlings store for at least 2 years.

Gossia hillii

MYRTACEAE

Common name: Scaly Myrtle

Fruit: Berry, purple-black, 7–9 mm diameter, crowned by 5 persistent calyx lobes.

Seed: Single seed, <1 mm diameter.

Fruiting interval: Regular

Fruiting period: Jan–May

Collecting: Collect black fruit from tree by hand-picking. To avoid bird predation, fully formed green fruit can also be collected. Note: Myrtle rust has reduced fruit set.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by hosing in bucket and floating. Carefully remove pulp and pour off water; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–6 weeks. Allow up to 4 months.

Seedling storage: Seedlings store for at least 2 years.

Gossia punctata

MYRTACEAE

Common name: Dotted Myrtle

Fruit: Berry, black, rounded, 7–9 mm diameter.

Seed: Single seed, 2–3 mm diameter.

Fruiting interval: Regular

Fruiting period: Jun–Aug

Collecting: Collect black fruit from tree by hand-picking. Prone to bird predation. Collect from ground within a week of falling.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by hosing in bucket and floating. Carefully remove pulp and pour off water; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–6 weeks. Allow up to 4 months.

Seedling storage: Seedlings store for at least 2 years.

Grevillea hilliana

PROTEACEAE

Status: Endangered

Common name: White Yiel Yiel

Fruit: Follicle, brown, 17–30 mm long, 14–20 mm wide.

Seed: 2 seeds, 6–10 mm long, 4–8 mm wide, surrounded by a papery wing.

Fruiting interval: Regular

Fruiting period: Feb–Jul

Collecting: Collect from tree by cutting branchlets when brown follicles start to open and before seeds release. Place a tarpaulin under the tree to catch the falling seeds. Green-brown follicles can still contain viable seed. Seed dispersal period can be less than 1 week.

Processing and sowing: Place in bag or open container in warm, dry location until capsules open and release seeds. Place all material in large bag, and beat against a wall to release seeds. Sow seeds at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 6 months.

Grevillea robusta

PROTEACEAE

Common name: Silky Oak

Fruit: Follicle, brown, 15–20 mm long (20–25 mm including curling beak), 10–15 mm wide.

Seed: 2 seeds, 11–15 mm long, 8–13 mm wide, surrounded by a papery wing.

Fruiting interval: Regular

Fruiting period: Dec–Jan

Collecting: Collect from tree by cutting branchlets when brown follicles start to open and before seeds release. Place a tarpaulin under the tree to catch the falling seeds. Green-brown follicles can still contain viable seed. Seed dispersal period can be less than 1 week.

Processing and sowing: Place in bag or open container in warm, dry location until capsules open and release seeds. Place all material in large bag, and beat against a wall to release seeds. Sow seeds at medium density. Cover lightly with seed raising mix. Seed can be stored dry for at least 6 months but loses viability.

Germination: Expect high germination. Takes 4–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Guilfoylia monostylis

SURIANACEAE

Common name: Guilfoylia

Fruit: Drupe, brown-black, globose, 14–18 mm long, 10–16 mm wide.

Seed: Single seed, 12–15 mm long, 11–12 mm wide, with a scar two-thirds down one side.

Fruiting interval: Regular

Fruiting period: Mar–Aug

Collecting: Collect fruit from tree or ground when black and glossy.

Processing and sowing: Sow directly. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 1 year.

Guioa semiglauca

SAPINDACEAE

Common name: Guioa

Fruit: Capsule, orange-red to brown, 6–10 mm long, 10–13 mm wide, 2–3 compressed wing-like lobes.

Seed: 1 seed per lobe, 5–6 mm diameter, completely covered by a thin yellow aril.

Fruiting interval: Regular

Fruiting period: Jan–May

Collecting: Collect fruit and exposed seed from tree by cutting branchlets when capsules start to open. Some closed capsules will open and produce viable seed. Fruit and seed can also be collected from the ground if fresh.

Processing and sowing: Place in bag in warm, dry location until capsules open. Place all material in large bag, and beat against a wall to release seeds. Shake to release remaining seeds. Sow densely with yellow aril covering attached.

Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 1 year.

Halfordia kendack

RUTACEAE

Common name: Saffron Heart

Fruit: Drupe, deep purple, 6–15 mm long, 6–10 mm wide.

Seed: 1–4 seeds, 3–4 mm long, 1 mm wide.

Fruiting interval: Sporadic

Fruiting period: Jan–Jun

Collecting: Collect purple fruit from tree by cutting branchlets, or collect from ground for up to 2 weeks after falling. When abundant, collect larger quantities because seed viability is very low.

Processing and sowing: Remove pulp by macerating by hand on sieve, or with blender for 40–50 seconds. Separate seeds and pulp by hosing in bucket and floating. Carefully remove pulp and pour off water; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect low germination due to low viability. Takes 3–6 months. Allow up to 12 months.

Seedling storage: Seedlings store for at least 2 years.

Harpullia alata

SAPINDACEAE

Common name: Wing-leaved Tulip

Fruit: Capsule, yellow, 10–12 mm long, 25–40 mm wide, with brown hairs outside, red inside.

Seed: 2–4 seeds, 1–2 per lobe, 6–7 mm long, 4–5 mm wide, completely covered in an orange-yellow aril.

Fruiting interval: Regular

Fruiting period: Mar–Oct

Collecting: Collect from shrub when orange capsules begin to open.

Processing and sowing: Soak for 24 hours to kill insect larvae. Remove seeds by hand. Remove arils from seeds by hand. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 1–2 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 1 year.

Harpullia hillii

SAPINDACEAE

Common name: Blunt-leaved Tulip

Fruit: Capsule, yellow, 13–20 mm long, 32–40 mm wide, yellow-brown hairs inside and out.

Seed: 2–4 seeds, 1–2 per lobe, 8–12 mm long, 7–8 mm wide, enclosed in a red aril.

Fruiting interval: Regular

Fruiting period: Oct–Dec

Collecting: Collect from tree or ground when capsules open and seeds begin to drop. Fallen seeds lose viability quickly, usually within 2–3 weeks.

Processing and sowing: Soak for 24 hours to kill insect larvae. Separate seeds and capsules by hosing in bucket and floating. Carefully remove capsules and pour off water; seeds will remain. Sow sparsely to avoid damping off. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 1–2 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 18 months.

Harpullia pendula

SAPINDACEAE

Common name: Tulipwood

Fruit: Capsule, orange-red, 13–25 mm long, 15–30 mm wide, 2 lobes.

Seed: 2 seeds, 1 per lobe, 8–10 mm long, 6–8 mm wide, attached near the top of the central axis of the fruit, no aril.

Fruiting interval: Regular

Fruiting period: Jan–Dec

Collecting: Collect fruit from tree or ground or shake fruits from tree onto shadecloth below. Fallen seeds lose viability quickly, usually within 2–3 weeks.

Processing and sowing: Soak for 24 hours to kill insect larvae. Separate seeds and capsules by hosing in deep bucket and floating. Carefully remove capsules and pour off water; seeds will remain. Sow sparsely to avoid damping off. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 1–2 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 18 months.

Hedraianthera porphyropetala

CELASTRACEAE

Common name: Hedraianthera

Fruit: Capsule, brown, 10–30 mm long, 15–40 mm wide, 5 cells.

Seed: 5–20 seeds, 2–3 per cell, 8–12 mm long, 4–6 mm wide.

Fruiting interval: Sporadic

Fruiting period: Mar–May

Collecting: Collect by hand-picking from shrub when capsules turn from green to brown.

Processing and sowing: Place in paper bag in dry warm location until capsules open and release seeds. Break capsules by hand to extract remaining seeds. Separate clustered seeds by hand. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 1–2 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 1 year.

Helicia ferruginea

PROTEACEAE

Common name: Rusty Helicia

Fruit: Drupe, blue-purple turning black, 12 mm long, 10–11 mm wide, persistent style.

Seed: Single seed, ovoid, 9–10 mm long, 7–8 mm wide.

Fruiting interval: Sporadic

Fruiting period: Jan–Mar

Collecting: Collect black fruit from tree by hand-picking.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–3 weeks. Allow up to 5 weeks.

Seedling storage: Seedlings store for at least 1 year.

Helicia glabriflora

PROTEACEAE

Common name: Smooth Helicia

Fruit: Drupe, blue-purple, ovoid, 16 mm long, 10–12 mm wide, grooved down one side.

Seed: Single seed, ovoid, 9–10 mm long, 6–8 mm wide.

Fruiting interval: Regular

Fruiting period: Feb–Nov

Collecting: Collect purple fruit from tree by hand-picking.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Helmholtzia glaberrima

PHILYDRACEAE

Common name: Stream Lily

Fruit: Capsule, brown, 3–7 mm diameter.

Seed: Numerous seeds, <1 mm diameter.

Fruiting interval: Annual

Fruiting period: Feb–Apr

Collecting: Collect from plant when capsules start to open and seeds fall out. To check seed presence shake the flower stalk over open hand. Carefully cut stalks into bag to catch fine seeds.

Processing and sowing: Place in bag in dry warm location until capsules open. Shake capsules to release seeds. Mix seeds with fine medium and sow densely. Cover lightly with seed raising mix. Water with fine spray, taking care not to wash seed off tray.

Germination: Expect high germination. Takes 3–9 months. Allow up to 1 year.

Seedling storage: Seedlings store for at least 2 years.

Hibiscus heterophyllus

MALVACEAE

Common name: Native Hibiscus

Fruit: Capsule, light brown, ovoid, 15–25 mm long, 10–15 mm wide, 5 cells.

Seed: Several seeds in each cells, 3–4 mm long, 2–3 mm wide, with lots of small warts, curved striations.

Fruiting interval: Annual

Fruiting period: Dec–Jun

Collecting: Collect from shrub when capsules start to open. Check capsules contain viable, fully formed seeds (3–4 mm long). Use gloves due to irritating hairs.

Processing and sowing: Place in bag in dry warm location until capsules open. Place all material in large bag, and beat against a wall to release seeds. Extract seeds by sieving. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect low to high germination. The germination period can be highly varied and take 3 weeks to 9 months. Allow 12 months.

Seedling storage: Seedlings store for at least 6 months.

Hibiscus splendens

MALVACEAE

Common name: Pink Hibiscus

Fruit: Capsule, grey-brown, ovoid, 25–30 mm long, 20–28 mm wide.

Seed: Several seeds 3–4 mm long, 2 mm wide, with lots of small warts, curved striations.

Fruiting interval: Annual

Fruiting period: Dec–Apr

Collecting: Collect from shrub when capsules start to open. Check capsules contain viable, fully formed seeds (3–4 mm long). Use gloves due to irritating hairs.

Processing and sowing: Place in bag in dry warm location until capsules open. Place all material in large bag, and beat against a wall to release seeds. Extract seeds by sieving. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect low to high germination. The germination period can be highly varied and take 3 weeks to 9 months. Allow 12 months.

Seedling storage: Seedlings store for at least 6 months.

Hibiscus tiliaceus

MALVACEAE

Common name: Cottonwood Hibiscus

Fruit: Capsule, brown, 15–28 mm long, 15–22 mm wide, velvety hairs.

Seed: Several seeds, 4–5 mm long, 2–3 mm wide.

Fruiting interval: Annual

Fruiting period: Apr–Sep. Dec

Collecting: Collect from tree when capsules start to open. Check capsules contain viable, fully formed seeds (5 mm long). Be aware of irritating hairs inside capsules.

Processing and sowing: Place in bag in dry warm location until capsules open. Place all material in large bag, and beat against a wall to release seeds. Extract seeds by sieving. Soak for 24 hours. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect low to high germination. The germination period can be highly varied and take 3 weeks to 9 months. Allow 12 months.

Seedling storage: Seedlings store for at least 6 months.

Hicksbeachia pinnatifolia

PROTEACEAE

Status: Vulnerable

Common name: Red Bopple Nut

Fruit: Drupe, red, 20–50 mm long, 15–30 mm wide, grooved on one side, curved tip.

Seed: Single seed, 20–25 mm long, 10–15 mm wide.

Fruiting interval: Annual

Fruiting period: Sep–Jan

Collecting: Collect red fruit from tree, or freshly fallen from ground.

Processing and sowing: Sow directly into individual 50 mm tubes due to sensitivity to transplanting. Fill pot with potting mix. Place fruit on side with groove parallel to surface of potting mix. Plug in seed and lightly cover

Germination: Expect high germination. Takes 4–8 weeks. Allow up to 12 weeks. Expect a

percentage of seeds to germinate but fail to develop fully. Delay planting or repotting until plants are at least 200 mm high to minimise damage to fine proteoid roots.

Seedling storage: Seedlings are not stored in trays (see 'Processing and sowing').

Hodgkinsonia ovatiflora

RUBIACEAE

Common name: Hodgkinsonia

Fruit: Drupe, black, shiny, 5–7 mm long, 3–4 mm wide, woody stone.

Seed: Several seeds, <2 mm diameter.

Fruiting interval: Sporadic

Fruiting period: Jan–Apr

Collecting: Collect black fruit from tree by cutting branchlets.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by floating. Carefully remove surface material and pour off water; seeds will remain. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect low to high germination. Takes 1–2 months. Allow up to 6 months.

Seedling storage: Seedlings store for at least 1 year.

Homalanthus populifolius

EUPHORBIACEAE

Common name: Bleeding Heart

Fruit: Capsule, blue-purple, 8–10 mm diameter, 2 cells.

Seed: 2 seeds, 1 per cell, 4–5 mm long, 2 mm wide, half-covered with fleshy yellow aril.

Fruiting interval: Annual

Fruiting period: Dec–Mar

Collecting: Collect individual fruits from tree when starting to turn purple, and splitting open and dehiscing, to reveal seeds. For collecting larger quantities, cut branches with high percentage of purple fruit.

Processing and sowing: Gently remove capsule and aril by macerating by hand on sieve. Separate material and seeds by sieving and rinsing. Sow at low to medium density to avoid damping off.

Germination: Expect low to high germination, depending on maturity of seed collected. Takes 3–6 weeks. Allow up to 3 months.

Seedling storage: Seedlings store for at least 6 months.

Hymenosporum flavum

PITTOSPORACEAE

Common name: Native Frangipani

Fruit: Capsule, brown, 20–40 mm long, 25–30 mm wide, flattened.

Seed: Numerous flat winged seeds, 5–6 mm long, 3–4 mm wide, 15 mm long including wing.

Fruiting interval: Annual

Fruiting period: Dec–Apr

Collecting: Collect fruit from tree as green capsules turn brown and start to open. Opening capsules will persist on the tree for several weeks with the winged seeds held within.

Processing and sowing: Extract seeds from capsules by hand. Sow directly. Sow at medium density. Cover lightly with seed raising mix. Dry seed can be stored in a sealed container in a refrigerator for at least 2 years.

Germination: Expect high germination. Takes 4–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 1 year.

Jagera pseudorhus

SAPINDACEAE

Common name: Foambark Tree

Fruit: Capsule, yellowish brown, 14–20 mm long, 12–18 mm wide, 3 cells, irritating hairs.

Seed: 3 seeds, 1 per cell, 7–8 mm long, 3–4 mm wide, enclosed at base by yellow aril.

Fruiting interval: Annual

Fruiting period: Apr–Feb

Collecting: Collect from tree with pole pruner as hairy brown capsules start to open. Seed may also be collected from ground if fresh. Note: Wear gloves due to irritating hairs.

Processing and sowing: Place in open container in warm, dry location until capsules open, although some capsules may not open. Place all material in large bag, and beat against wall to release seeds. Separate material and seeds by sieving. Extract remaining exposed seeds using tweezers. Sow at medium density.

Cover lightly with seed raising mix. Note: Wear gloves due to irritating hairs.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 6 months.

Karrabina benthamiana

CUNONIACEAE

Common name: Red Carabeen

Fruit: Capsule, brown, 15–18 mm long, 6–8 mm wide, split down middle into 2 cells.

Seed: Several flat, winged seeds in each cell, 1 mm diameter, 4 mm long including wing.

Fruiting interval: Regular

Fruiting period: May–Sep

Collecting: Collect from tree by cutting branchlets when capsules start to open. Check capsules contain viable, fully formed seeds (4 mm including wing). Put capsules in paper bag to further dry, mature and open.

Processing and sowing: Shake capsules to release seed. Mix seeds and seed raising mix 50:50 and sow all material evenly over tray. Cover lightly with seed raising mix. Water lightly. Dry seed can be stored in a sealed container in a refrigerator for at least 1 year.

Germination: Expect high germination. Takes 2–6 weeks. Allow up to 8 weeks. Note: Young seedlings are very susceptible to slugs

Seedling storage: Seedlings store for at least 1 year.

Lenwebbia prominens

MYRTACEAE

Common name: Velvet Myrtle

Fruit: Berry, black, 7–13 mm diameter, crowned by 4 persistent calyx lobes.

Seed: Several seeds, <2 mm diameter.

Fruiting interval: Regular

Fruiting period: May–Nov

Collecting: Collect black fruit from tree by hand-picking. Note: Myrtle rust has reduced fruit set.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Extract seeds by rinsing pulp through sieve. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Lepiderema pulchella

SAPINDACEAE

Status: Vulnerable

Common name: Fine-leaved Tuckeroo

Fruit: Capsule, orange, pear-shaped 8–11 mm long, 7–9 mm wide, 3 lobes.

Seed: 3 seeds, 1 per lobe, 6–8 mm long, 3–4 mm wide, with yellow aril covering two-thirds.

Fruiting interval: Regular

Fruiting period: Dec–Feb

Collecting: Collect from tree by cutting branchlets when capsules start to open.

Processing and sowing: Place in bag to prevent drying out. When capsules are open beat bag against wall to release seeds. Extract seeds by sieving. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Lepidozamia peroffskyana

ZAMIACEAE

Common name: Shining Burrawang

Fruit: Cone, brown-red, up to 1 m long.

Seed: Numerous seeds, red, 35–60 mm long, 20–40 mm wide.

Fruiting interval: Regular

Fruiting period: Jun–Jan

Collecting: Collect from ground as fruits break away from cone, or pull red fruits away from cone on plant.

Processing and sowing: Dry compost fruits in warm location. No need to remove fruit pulp. Check once a month, for up to 1 year, and pot up any germinants. Sow with pointy end facing down. Sow in a deep tray or individual pot, due to deep tap root.

Germination: Expect low to high germination after 4–6 months. Allow up to 12 months.

Seedling storage: Seedlings store for at least 1 year.

Linospadix monostachyos

ARECACEAE

Common name: Walking Stick Palm

Fruit: Drupe, red, 10–12 mm long, 8–10 mm wide, hanging on pendant spike.

Seed: Single seed, 3–5 mm long, 2–4 mm wide.

Fruiting interval: Annual

Fruiting period: Dec–Apr

Collecting: Collect red fruit from plant by hand-picking.

Processing and sowing: Ferment fruit in a sealed plastic bag in a warm location, not in direct sun, until fleshy coating can be easily removed by macerating. Return seeds to the bag until germinants appear. Sow all material. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4 months to 8 months. Allow up to 10 months.

Seedling storage: Seedlings store for at least 2 years.

Litsea australis

LAURACEAE

Common name: Brown Bolly Gum

Fruit: Drupe, black, egg-shaped, 12–15 mm long, 8–10 mm wide, resting in cupule.

Seed: Single seed, 8–10 mm long, 6–8 mm wide.

Fruiting interval: Regular

Fruiting period: Sep–Nov

Collecting: Collect from tree or ground when black or green-black.

Processing and sowing: Sow fresh. Remove pulp by macerating fruit by hand on sieve. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–6 months. Allow up to 9 months.

Seedling storage: Seedlings store for at least 2 years.

Litsea reticulata

LAURACEAE

Common name: Bolly Gum

Fruit: Drupe, black, oval, 10–14 mm long, 6–8 mm wide, resting in cupule.

Seed: Single seed, 9–11 mm long, 6–8 mm wide.

Fruiting interval: Sporadic

Fruiting period: Nov–Apr

Collecting: Collect black fruit from ground or from tree by cutting branchlets.

Processing and sowing: Sow fresh. Remove pulp by macerating fruit by hand on sieve. Sow densely. Cover lightly with seed raising mix.

Germination: Expect medium germination. Takes 2–6 months. Allow up to 9 months.

Seedling storage: Seedlings store for at least 2 years.

Livistona australis

ARECACEAE

Common name: Cabbage Tree Palm

Fruit: Drupe, black, 10–20 mm diameter.

Seed: Single seed, 8–15 mm diameter, with papery covering.

Fruiting interval: Regular

Fruiting period: Mar–Jun

Collecting: Collect from tree or ground when black. Fruit stays viable on ground for up to 3 months.

Processing and sowing: Ferment fruit in a sealed plastic bag in a warm location, not in direct sun, until seeds start to germinate, which may take 6 weeks to 6 months. Alternatively, apply wet composting technique. Sow all material in a deep container. Cover lightly with seed raising mix.

Germination: Expect high germination. Once the sprouting seeds are sown, allow up to

6 months to complete germination. Advanced seedlings can be pricked out and potted up during this period.

Seedling storage: Seedlings store for at least 2 years.

Lomandra hystrix

LOMANDRACEAE

Common name: Creek Mat-rush

Fruit: Capsule, 5 mm long, 4 mm wide, spread out, held in spiny bracts.

Seed: 3–6 seeds, 3–5 mm long, 1–3 mm wide.

Fruiting interval: Annual

Fruiting period: Dec–Jan

Collecting: Collect yellow fruit by cutting stalks when capsules start to open and before seeds are released. Wear gloves due to sharp spikes on stalks.

Processing and sowing: Place in open bag in dry warm location until capsules open. Shake to release seeds from capsules. Sow densely. Cover lightly with seed raising mix. Seed can be dry stored in a sealed container for at least 1 year.

Germination: Expect high germination. Takes 4–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 18 months.

Lomandra longifolia

LOMANDRACEAE

Common name: Spiny-headed Mat-Rush

Fruit: Capsule, 5 mm long, 4 mm wide, held in spiny bracts.

Seed: 3–6 seeds, 3–5 mm long, 1–3 mm wide.

Fruiting interval: Annual

Fruiting period: Dec–Jan

Collecting: Collect yellow fruit by cutting stalks when capsules start to open and before seeds are released. Wear gloves due to sharp spikes on stalks.

Processing and sowing: Place in open bag in dry warm location until capsules open. Shake to release seeds from capsules. Sow densely. Cover lightly with seed raising mix. Seed can be dry stored in a sealed container for at least 1 year.

Germination: Expect high germination. Takes 4–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 18 months.

Lomandra spicata

LOMANDRACEAE

Common name: Rainforest Mat-Rush

Fruit: Capsule, 5 mm long, 4 mm wide, close together, in spiny bracts.

Seed: 3–6 seeds, 3–5 mm long, 1–3 mm wide.

Fruiting interval: Annual

Fruiting period: Aug–Nov

Collecting: Collect orange fruit by cutting stalks when capsules start to open, before seeds are released. Avoid sharp spikes on stalks.

Processing and sowing: Place in open bag in dry warm location until capsules open. Shake to release seeds from capsules. Sow densely. Cover lightly with seed raising mix. Seed can be dry stored in a sealed container for at least 1 year.

Germination: Expect medium germination. Takes 8–12 weeks. Allow up to 5 months.

Seedling storage: Seedlings store for at least 18 months.

Lomatia arborescens

PROTEACEAE

Common name: Tree Lomatia

Fruit: Follicle, dark brown-black, 35–40 mm long, 10–14 mm wide, including persistent style.

Seed: Several triangular winged seeds, 5 mm long, 4–5 mm wide, 8 mm including wing.

Fruiting interval: Regular

Fruiting period: Apr–May

Collecting: Collect brown follicles from tree when they start to open, by picking individuals by hand or cutting small branchlets. Place in paper bag or open container to keep dry.

Processing and sowing: Place in bag in dry, warm location until follicles open and release seeds. Split open any closed follicles by crushing bag underfoot, or beating bag against a wall. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 6 months.

Lophostemon confertus

MYRTACEAE

Common name: Brush Box

Fruit: Capsule, brown, 8–15 mm long, 8–10 mm wide, bell-shaped and flat-topped, 3 cells.

Seed: Several seeds, 1 per cell, <2 mm long, <0.5 mm wide.

Fruiting interval: Annual

Fruiting period: Jan–Dec

Collecting: Collect brown capsules from tree before valves start to open.

Processing and sowing: Place in paper bag and leave for 1–2 weeks until capsules open. Separate plant material and seeds by hand. Sow at medium density. Cover lightly with seed raising mix. Seed can be dry stored in a jar for at least 3 years.

Germination: Expect high germination. Takes 1–3 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 1 year.

Lophostemon suaveolens

MYRTACEAE

Common name: Swamp Box

Fruit: Capsule, brown, 5–8 mm diameter, cup-shaped.

Seed: Several seeds, <2 mm long, <1 mm wide.

Fruiting interval: Annual

Fruiting period: Nov–Jan

Collecting: Collect brown capsules from tree before valves start to open.

Processing and sowing: Place in paper bag and leave for 1–2 weeks until capsules open. Separate plant material and seeds by hand. Sow at medium density. Cover lightly with seed raising mix. Seed viability is less than 6 months.

Germination: Expect high germination. Takes 1–3 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 1 year.

Macadamia tetraphylla

PROTEACEAE

Status: Vulnerable

Common name: Rough-shelled Queensland Nut

Fruit: Follicle, brown, leathery, 20–30 mm diameter, woody, wrinkled stone.

Seed: 1–2 seeds, 12–18 mm diameter (1 seed).

Fruiting interval: Regular

Fruiting period: Feb–Sep

Collecting: Collect fawn/brown fruit from tree or ground.

Processing and sowing: Remove leathery outer layer of fruit by hand once it splits. Float off unviable seed. Gently crack stone with hammer on hard surface, without opening. Sow densely in deep tray. Cover lightly with seed raising mix. Note: Prone to rat predation.

Germination: Expect low to high germination. Takes 3–6 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 6 months.

Macaranga tanarius

EUPHORBIACEAE

Common name: Macaranga

Fruit: Capsule, green, 6–13 mm diameter, 4 cells, with soft prickles

Seed: 1–4 seeds, 1 per cell, 4–5 mm diameter.

Fruiting interval: Annual

Fruiting period: Jan–Feb

Collecting: Collect from tree by cutting branchlets when green capsules start to open, or collect black seeds from ground.

Processing and sowing: Place in bag in warm, dry location until capsules open. Shake bag to release seeds from capsules. Separate capsules and seeds by sieving. Sow sparsely. Lightly cover with seed raising mix. Note: Susceptible to damping off in early stages. Seed can be dry stored for at least 1 year.

Germination: Expect high germination. Takes 3–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 1 year.

Mallotus claoxyloides

EUPHORBIACEAE

Common name: Green Kamala

Fruit: Capsule, brown, 6–8 mm long, 11–13 mm wide, 3-lobed, soft prickles.

Seed: 3 seeds, 1 per lobe, 3–4 mm diameter.

Fruiting interval: Sporadic

Fruiting period: Feb–Jun

Collecting: Collect from tree by cutting branchlets when green/brown capsules start to open and before seeds are released. Visit repeatedly to collect only large, mature, brown capsules. Very short viability period of 1 week. Prone to drying out or rotting quickly.

Processing and sowing: Sow fresh. Place in bag in warm, dry location until capsules open and release seeds. Extract seeds by sieving. Sow at low to medium density to avoid damping off. Lightly cover with seed raising mix.

Germination: Expect high germination. Takes 2–3 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Mallotus discolor

EUPHORBIACEAE

Common name: Yellow Kamala

Fruit: Capsule, yellow-orange, 5–10 mm long, 6–15 mm wide, 1–4 lobes, fleshy.

Seed: 2–4 seeds, 1 per lobe, 3–4 mm diameter.

Fruiting interval: Regular

Fruiting period: Jan–Mar

Collecting: Collect yellow fruit from ground with leaf litter, by raking. Check seed presence. Bird droppings and bat spits containing seed are preferable, and readily available.

Processing and sowing: Place fruit and leaf litter in an open container in a dry location. Check below the surface for germinants over a 4 week period. When first germinants appear, separate plant material from seeds by floating. Carefully remove plant material and floating seeds and pour off water; viable seeds will remain. Sow at low to medium density due to damping off. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–6 weeks. Allow up to 1 year, because there can be a second wave of germination.

Seedling storage: Seedlings store for at least 1 year.

Mallotus philippensis

EUPHORBIACEAE

Common name: Red Kamala

Fruit: Capsule, woody, 4–8 mm long, 5–12 mm wide, mostly 3 lobed, with deep red powdery covering.

Seed: 2–4 seeds, 2–3 mm diameter.

Fruiting interval: Annual

Fruiting period: Aug–Feb

Collecting: Collect from tree by cutting branchlets when red capsules start to open and black seeds are exposed.

Processing and sowing: Place in bag in warm, dry location until most capsules open. Separate capsules and seed by crushing bag underfoot. Separate plant material from seeds by floating. Carefully remove plant material and floating seeds and pour off water; viable seeds will remain. Sow at medium density.

Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 1 year.

Meiogyne stenopetala

ANNONACEAE

Common name: Native Custard Apple

Fruit: Aggregate fruit of berries, yellow-orange, 10–25 mm long, 6–12 mm wide.

Seed: 1–4 seeds per berry, 7–9 mm long, 5–7 mm wide.

Fruiting interval: Sporadic

Fruiting period: Aug–Feb

Collecting: Collect orange-brown fruit from tree. Can be collected from ground.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate pulp and seeds by floating. Carefully remove pulp and non-viable seeds and pour off water; viable seeds will remain. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 6 months.

Melastoma affine

MELASTOMATACEAE

Common name: Blue Tongue

Fruit: Berry, blue, 8–15 mm diameter.

Seed: Numerous seeds, <0.5 mm diameter.

Fruiting interval: Annual

Fruiting period: Jan–Mar

Collecting: Collect dark blue fruit from shrub by cutting branchlets when outer fruit layer starts to split open, or by hand-picking.

Processing and sowing: Place in container of water to soak until soft. Pour off water. Separate pulp and seeds by floating. Mix seeds with seed raising mix and sow all material evenly over tray. Lightly cover with seed raising mix.

Germination: Expect high germination. Takes 2–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 2 years.

Melia azedarach

MELIACEAE

Common name: White Cedar

Fruit: Drupe, yellow, 10–15 mm long, 8–10 mm wide. Hard, ribbed stone with 5 cells. Note: Fruits are poisonous.

Seed: 1–5 seeds, 1 per cell, 4–5 mm long, 2–3 mm wide.

Fruiting interval: Annual

Fruiting period: Jan–Jul

Collecting: Collect white, yellow or brown fruit from ground with leaf litter. Older brown fruit will germinate more quickly than yellow or white fruit. Note: Wear gloves because fruit is poisonous.

Processing and sowing: Separate larger material and seeds by sieving. Dry compost until germinants are visible. Sow remaining material, dispersing stones sparsely, because each stone contains 1–5 seeds. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–12 weeks following the dry composting period. Allow up to 4 months.

Seedling storage: Seedlings store for at least 1 year.

Melicope elleryana

RUTACEAE

Common name: Pink Euodia

Fruit: Capsule, grey-brown, 5–13 mm long, 5–12 mm wide, 4 carpels.

Seed: 1 in each carpel, 3–4 mm diameter.

Fruiting interval: Annual

Fruiting period: Jul–Oct

Collecting: Collect from tree by cutting branchlets when brown capsules start to open. Mature, unopened capsules will open later. Black, ripe seeds can also be collected from the ground.

Processing and sowing: Place in bag in a warm, dry location until capsules open. Separate seeds and capsules by rubbing between hands. Extract seeds by sieving. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 5–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 1 year.

Melicope micrococca

RUTACEAE

Common name: White Euodia

Fruit: Capsule, blue-purple, brown when dried, 5–7 mm long, 5–10 mm wide, flattened, up to 4 carpels.

Seed: 1 seed in each carpel, 1–2 mm diameter.

Fruiting interval: Regular

Fruiting period: Jan–Jun

Collecting: Collect from tree by cutting branchlets when capsules are brown, drying and starting to open. Mature, unopened capsules will open later. Black seeds can be collected from the ground.

Processing and sowing: Place in bag in a warm, dry location until capsules open. Separate seeds and capsules by rubbing between hands. Extract seeds by sieving. Sow at medium to high density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 5–6 weeks. Allow up to 9 months because there may be a second wave of germination.

Seedling storage: Seedlings store for at least 1 year.

Melicope vitiflora

RUTACEAE

Status: Endangered

Common name: Leatherwood

Fruit: Capsule, green turning brown, 5 mm long, 1 to 2 carpels, faintly ribbed.

Seed: 1 seed per carpel, 1–3 mm diameter.

Fruiting interval: Regular

Fruiting period: Jan–May

Collecting: Collect from tree by cutting branchlets when capsules are brown, dry and start to open. Mature, unopened capsules will open later.

Processing and sowing: Place in bag in a warm, dry location until capsules open. Separate seeds and capsules by rubbing between hands. Extract seeds by sieving. Sow at medium to high density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 5–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 1 year.

Micromelum minutum

RUTACEAE

Status: Presumed Extinct in NSW

Common name: Orange Berry

Fruit: Berry, yellow turning bright orange to red, 7–10 mm long, 6–7 mm wide, pointed, clustered in panicles.

Seed: 1–2 seeds, 5–6 mm long, 4–6 mm wide.

Fruiting interval: Annual

Fruiting period: Oct–Jan

Collecting: Collect bright orange fruit from shrub. Fruits densely from low branches.

Processing and sowing: Remove pulp by gently macerating fruit by hand on sieve. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–3 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 1 year.

Mischocarpus australis

SAPINDACEAE

Common name: Red Pear Fruit

Fruit: Capsule, orange-red, 7–17 mm long, 5–8 mm wide, pointed pear-shaped.

Seed: 1–3 seeds, 5–7 mm long, 4–5 mm wide, with purple aril.

Fruiting interval: Regular

Fruiting period: Mar–Jun

Collecting: Collect from tree by cutting branchlets when some red capsules start to open. Capsules will continue to open and unopened capsules contain viable seed.

Processing and sowing: If insect larvae are visible, soak for 24 hours. Place in bag in warm location until capsules open. Separate capsules and seeds by shaking bag, or by hand. Extract seeds by sieving. Remove arils by macerating by hand on sieve. Sow at medium density.

Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 1–6 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 2 years.

Mischocarpus pyriformis

SAPINDACEAE

Common name: Yellow Pear Fruit

Fruit: Capsule, orange, 16–20 mm long, 6–10 mm wide, pear-shaped.

Seed: Single seed, 9–10 mm long, 8–9 mm wide, covered in a red aril.

Fruiting interval: Regular

Fruiting period: Sep–Dec

Collecting: Collect from tree by cutting branchlets when yellow capsules start to open. Capsules will continue to open (unopened capsules contain viable seed).

Processing and sowing: If insect larvae is visible, soak for 24 hours. Place in bag in warm location until capsules open. Separate capsules and seeds by shaking bag, or by hand. Extract seeds by sieving. Remove arils by macerating by hand on sieve. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 1–6 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 2 years.

Myoporum acuminatum

SCROPHULARIACEAE

Common name: Boobialla

Fruit: Drupe, blue-purple, 4–6 mm diameter.

Seed: 2–4 seeds, 2–3 mm long, 2 mm wide.

Fruiting interval: Annual

Fruiting period: Sep–Dec

Collecting: Collect purple fruit from tree by cutting branchlets.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate pulp and seeds by floating. Carefully remove surface material and pour off water; seeds will remain. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect medium germination. Takes 4–12 weeks. Allow up to 6 months.

Seedling storage: Seedlings store for at least 6 months.

Myrsine howittiana

PRIMULACEAE

Common name: Brush Muttonwood

Fruit: Drupe, dark purple, 5–7 mm long, 4–5 mm wide, in clusters along branchlets.

Seed: Single seed, 4–6 mm long, 3–4 mm wide.

Fruiting interval: Regular

Fruiting period: Dec–Jun

Collecting: Collect from tree by cutting branchlets bearing tight clusters of dark purple fruit.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 2 years.

Myrsine variabilis

PRIMULACEAE

Common name: Muttonwood

Fruit: Drupe, blue, 4–7 mm diameter, in clusters along branchlets.

Seed: Single seed, 4 mm diameter, distinctly ribbed.

Fruiting interval: Regular

Fruiting period: Nov–Jan

Collecting: Collect from tree by cutting branchlets bearing clusters of blue fruit. Can also be collected from ground.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–16 weeks. Allow up to 8 months.

Seedling storage: Seedlings store for at least 2 years.

Neisosperma poweri

APOCYNACEAE

Common name: Milkbush

Fruit: Drupe, red, 20–30 mm long, 10–15 mm wide, with longitudinal groove.

Seed: 1–3 seeds, 15–25 mm long, 8–12 mm wide with a small dark groove on the sides.

Fruiting interval: Regular

Fruiting period: Aug–Nov

Collecting: Collect bright red fruit from shrub or ground. Green fruit does not contain viable seed.

Processing and sowing: Remove pulp by hand, or by macerating fruit by hand on sieve. If pulp is too firm, leave to soften. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect medium germination. Takes 2–4 months. Allow up to 6 months.

Seedling storage: Seedlings store for at least 2 years.

Nematolepis squamea

RUTACEAE

Common name: Satinwood

Fruit: Capsule, fleshy green drying to papery brown, 2–4 mm diameter.

Seed: 1–5 seeds, 1 mm diameter.

Fruiting interval: Regular

Fruiting period: Dec–Feb

Collecting: Collect brown, dry capsules from tree by cutting branchlets, or by hand-picking.

Processing and sowing: Sow directly. Sow at medium density. Lightly cover with seed raising mix.

Germination: Expect medium germination. Takes 6–10 weeks. Allow up to 6 months.

Seedling storage: Seedlings store for at least 1 year.

Neolitsea australiensis

LAURACEAE

Common name: Green Bolly Gum

Fruit: Drupe, black, 7–15 mm diameter, sits on small flat receptacle.

Seed: Single seed, 5–13 mm diameter.

Fruiting interval: Regular

Fruiting period: Sep–Dec

Collecting: Collect from tree when green fruit shows first signs of blackening, and fully formed seeds are brown. Note: Extremely prone to insect infestation.

Processing and sowing: Soak fruit for 24 hours to kill insect larvae. Remove pulp by macerating fruit by hand on sieve. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 5–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 1 year.

Neolitsea dealbata

LAURACEAE

Common name: White Bolly Gum

Fruit: Drupe, red-black, 9–11 mm diameter, sits on small flat receptacle.

Seed: Single seed, 5–7 mm diameter.

Fruiting interval: Regular

Fruiting period: Feb–Jul

Collecting: Collect black fruit from tree or ground, by hand-picking.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate viable and non-viable seeds by floating. Carefully remove pulp and non-viable seeds and pour off water. Sow sparsely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–12 weeks. Allow up to 5 months.

Seedling storage: Seedlings store for at least 2 years.

Niemeyera whitei

SAPOTACEAE

Common name: Rusty Plum

Fruit: Drupe, matte purple-black, globose, 20–60 mm diameter.

Seed: Single seed, 10–50 mm diameter.

Fruiting interval: Sporadic

Fruiting period: Sep–Nov

Collecting: Collect purple-black fruit from ground.

Processing and sowing: If insect larvae are visible, soak for 24 hours. Remove pulp by hand. Sow densely in deep tray or individually in pots due to deep tap root. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 8–12 weeks. Allow up to 4 months.

Seedling storage: Seedlings store for at least 2 years.

Notelaea longifolia

OLEACEAE

Common name: Long-leaved Olive

Fruit: Drupe, black, globose-ovoid, 8–16 mm long, 8–12 mm wide.

Seed: Single seed, 6–12 mm long, 5–7 mm wide, pointed.

Fruiting interval: Regular

Fruiting period: Oct–Jan

Collecting: Collect black fruit from tree by cutting branchlets. Collect from ground when fruiting heavily.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect medium to high germination. Takes 3–6 months. Allow up to 18 months.

Seedling storage: Seedlings store for at least 18 months.

Ochrosia moorei

APOCYNACEAE

Status: Endangered

Common name: Southern Ochrosia

Fruit: Drupe, bright red, oblong, 40–80 mm long, 20–40 mm wide.

Seed: 2–3 seeds in each cavity either side of central groove.

Fruiting interval: Sporadic

Fruiting period: Dec–Feb

Collecting: Collect ripe, red fruit from tree or ground.

Processing and sowing: Remove pulp by hand. Cut woody fruit in half along groove. Each half contains 1–3 seeds. Sow half-fruits with seeds embedded because they are difficult to remove without damaging them. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect low germination. Takes 9–15 months. Allow 18 months.

Seedling storage: Seedlings store for at least 1 year.

Olea paniculata

OLEACEAE

Common name: Native Olive

Fruit: Drupe, black, ovoid, 8–16 mm long, 5–12 mm wide.

Seed: Single seed, 5–13 mm long, 3–10 mm wide.

Fruiting interval: Sporadic

Fruiting period: May–Sep

Collecting: Collect black fruit from tree by cutting branchlets. Can be collected from ground.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–12 weeks. Allow up to 6 months.

Seedling storage: Seedlings store for at least 1 year.

Orites excelsus

PROTEACEAE

Common name: Prickly Ash

Fruit: Follicle, brown, 20–30 mm long, 8–10 mm wide, pointed, boat-shaped when open.

Seed: 1–2 papery, winged seeds, 8–9 mm long, 4–5 mm wide, 20–25 mm including wing.

Fruiting interval: Regular

Fruiting period: Dec–Apr

Collecting: Collect from tree by cutting branchlets when follicles turn brown and start to open and before seeds fall out.

Processing and sowing: Note: Sow fresh. Place in paper bag in dry warm location until follicles open and release seeds. Shake bag to release remaining seeds. Remove larger material by hand. Sow at medium to high density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Owenia cepiodora

MELIACEAE

Status: Vulnerable

Common name: Onion Cedar

Fruit: Drupe, red, 15–20 mm diameter.

Seed: 1–2 seeds, 7–12 mm long, 5–8 mm wide.

Fruiting interval: Regular

Fruiting period: Jan–Mar

Collecting: Collect fallen ripe, pink/red fruit from ground. Individual trees drop fruit for only 3–4 weeks.

Processing and sowing: Dry compost fruit over a period of at least 1 year, watering every week or two to maintain a slight degree of moisture. Inspect monthly to prick out any germinants and pot them up into 50 mm tubes.

Germination: Expect low germination. Takes 6 weeks to 14 months.

Seedling storage: Seedlings store for at least 1 year.

Pandanus tectorius

PANDANACEAE

Common name: Pandanus

Fruit: Aggregate fruit of drupes, yellow-brown, 150–300 mm diameter

Seed: Single seed, 40–80 mm long, 30–60 mm wide.

Fruiting interval: Annual

Fruiting period: Apr–Sep

Collecting: Collect yellow fruit from ground. Older, dried seed can still be viable. Note: Susceptible to insect infestation.

Processing and sowing: Sow directly with pointed end facing down, plugging half-way into seed raising mix. Sow in deep trays or individually in pots.

Germination: Expect high germination. Takes 2–6 months. Allow up to 12 months.

Seedling storage: Seedlings store for at least 6 months.

Pararchidendron pruinosum

FABACEAE, Subfamily Mimosoideae

Common name: Snowwood

Fruit: Pod, yellow-orange, drying to brown 80–120 mm long, 10–20 mm wide, curled, flattened.

Seed: Several seeds, 4–8 mm diameter, shiny.

Fruiting interval: Regular

Fruiting period: Feb–Jun

Collecting: Collect from tree by cutting branchlets when pods start to open and dry. Note: Prone to insect infestation, check for seed presence.

Processing and sowing: Place in bag in warm, dry location until pods open. Beat bag against wall to release seeds from pods. Extract remaining seeds by hand. Separate material and seeds by sieving. Sow at medium density to avoid damping off. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–3 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 18 months.

Pennantia cunninghamii

PENNANTIACEAE

Common name: Brown Beech

Fruit: Drupe, black, ovoid, 10–16 mm long, 7–12 mm wide.

Seed: Single seed, 9–15 mm long, 5–9 mm wide.

Fruiting interval: Regular

Fruiting period: Oct–Jul

Collecting: Collect black fruit from tree by cutting branchlets, or collect from ground.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 18 months.

Pentaceras australe

RUTACEAE

Common name: Crow's Ash

Fruit: Samara, green turning grey, winged 20–40 mm long, 12–16 mm wide.

Seed: Single seed, 6–9 mm long, 4–7 mm wide.

Fruiting interval: Annual

Fruiting period: Nov–May

Collecting: Collect dried fawn/grey fruits from tree by cutting branchlets.

Processing and sowing: Place in bag in dry warm location until fruits completely dry. This may take up to 3 months. Wet blend with minimal water for ~5 minutes to remove fibrous material and scarify seed coat. Sow at medium density. Cover lightly with seed raising mix. Alternatively, dry compost for 2 years and/or until germinants begin to appear. Then sow at medium density and cover lightly with seed raising mix.

Germination: Expect low germination. Blended seeds take 6–18 months. Dry composted seeds take 1–18 months following the composting period. Allow up to 2 years.

Seedling storage: Seedlings store for at least 1 year.

Petalostigma triloculare

PICRODENDRACEAE

Common name: Long-leaved Bitterbark

Fruit: Capsule, orange-red, 10–17 mm long, 12–20 mm wide.

Seed: 4–8 seeds, 1–2 per cell, 5–7 mm long, 3–4 mm wide.

Fruiting interval: Regular

Fruiting period: Mar–Oct

Collecting: Collect from tree by cutting branchlets when some orange-red fruits start to split, and before seeds dehisce explosively. Also collect fallen whole fruits. Unopened drupes still contain viable seed and will open later.

Processing and sowing: Place in closed aerated bag in dry warm location until fruits split and release seeds. Separate fruit material and seeds by hand, or winnowing. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect medium to high germination. Takes 4–8 weeks. Allow up to 10 weeks.

Seedling storage: Seedlings store for at least 1 year.

Pilidiostigma glabrum

MYRTACEAE

Common name: Plum Myrtle

Fruit: Berry, purple-black, globose to pear-shaped, 10–17 mm long, 8–12 mm wide.

Seed: Several seeds, 4–5 mm long, 3–4 mm wide.

Fruiting interval: Sporadic

Fruiting period: Mar–Oct

Collecting: Collect from tree by cutting branchlets when fruit purple-black, or by hand-picking. Note: Flowers can be infected with myrtle rust, which may reduce fruit set.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 2 years.

Pipturus argenteus

URTICACEAE

Common name: Native Mulberry

Fruit: Aggregate fruit composed of nuts, white-cream, 4–6 mm diameter

Seed: Several seeds, <0.7 mm diameter, on the outside of the fruit.

Fruiting interval: Annual

Fruiting period: May–Jul

Collecting: Collect from tree by cutting branchlets when fruit translucent white and swollen, or by hand-picking.

Processing and sowing: Crush pulp and separate seeds by hand in a container. Mix all material with a dry seed raising mix and sow evenly over tray. Lightly cover with seed raising mix. Water lightly to avoid pushing seeds around tray. Dried seed can be jar stored in a refrigerator for at least 1 year.

Germination: Expect high germination. Takes 3–6 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 1 year.

Pisonia umbellifera

NYCTAGINACEAE

Common name: Birdlime Tree

Fruit: Nut, green-yellow with brown ribs, 20–40 mm long, 5–6 mm diameter, exuding darky sticky gum.

Seed: Single seed, 15–30 mm long, 1–2 mm wide.

Fruiting interval: Regular

Fruiting period: Feb–May

Collecting: Collect fruit from tree by cutting branchlets. Note: Gloves are recommended due to presence of sticky gum.

Processing and sowing: Sow directly at medium density. Cover lightly with seed raising mix.

Germination: Expect medium germination. Takes 1–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for 6 months.

Pittosporum ferrugineum

PITTOSPORACEAE

Common name: Rusty Pittosporum

Fruit: Capsule, yellow-orange, 7–10 mm long.

Seed: Several bright red, sticky seeds, 2 mm long, 1 mm wide.

Fruiting interval: Annual

Fruiting period: Sep–Nov

Collecting: Collect from tree by cutting branchlets when yellow-orange capsules start to open.

Processing and sowing: Extract seeds from capsules by macerating by hand on sieve and rinsing off pulp. Mix seed material with a fine medium to separate sticky seeds. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–12 weeks. Allow up to 6 months.

Seedling storage: Seedlings store for at least 1 year.

Pittosporum lancifolium

PITTOSPORACEAE

Common name: Narrow-leaved Orange Thorn

Fruit: Berry, black, globose, 5–9 mm diameter.

Seed: Numerous seeds, 2–3 mm long, 1 mm wide.

Fruiting interval: Annual

Fruiting period: Mar–Aug

Collecting: Collect black fruit from tree or ground.

Processing and sowing: Extract seeds from fruits by macerating by hand on sieve and rinsing off pulp. Mix seed material with a fine medium to separate sticky seeds. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–12 weeks. Allow up to 6 months.

Seedling storage: Seedlings store for at least 1 year.

Pittosporum multiflorum

PITTOSPORACEAE

Common name: Orange Thorn

Fruit: Berry, orange, globose, 6–10 mm diameter.

Seed: Several seeds, 1 mm diameter.

Fruiting interval: Regular

Fruiting period: Mar–Aug

Collecting: Collect orange fruit from shrub by hand-picking.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–6 months. Allow up 9 months.

Seedling storage: Seedlings store for at least 1 year.

Pittosporum revolutum

PITTOSPORACEAE

Common name: Hairy Pittosporum

Fruit: Capsule, yellow-orange, 20–40 mm long, 15–25 mm wide, with a small point at the tip.

Seed: Numerous bright red sticky seeds, 5–6 mm long, 2–3 mm wide.

Fruiting interval: Annual

Fruiting period: Feb–May

Collecting: Collect by hand-picking from shrub when yellow-orange capsules start to open.

Processing and sowing: Place in container and leave for 1–2 weeks to allow sticky mucilage to break down. Extract seeds from capsules by macerating by hand on sieve and rinse off pulp. Mix seed material with a fine medium to separate sticky seeds. Sow at medium density to avoid damping off. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–12 weeks. Allow up to 4 months.

Seedling storage: Seedlings store for at least 1 year.

Pittosporum undulatum

PITTOSPORACEAE

Common name: Sweet Pittosporum

Fruit: Capsule, yellow-orange, 8–14 mm diameter, with tiny point at the tip.

Seed: Numerous orange sticky seeds, 1–3 mm long, 1 mm wide.

Fruiting interval: Annual

Fruiting period: Apr–Aug

Collecting: Collect from tree by cutting branchlets when yellow-orange capsules begin to open, or by hand-picking.

Processing and sowing: Place in container and leave for 1–2 weeks to allow sticky mucilage to break down. Extract seeds from capsules by macerating by hand on sieve. Hose remaining pulp through a fine sieve. Mix remaining seed material with a fine medium to separate sticky seeds. Sow at medium density to avoid damping off. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–12 weeks. Allow up to 6 months.

Seedling storage: Seedlings store for at least 1 year.

Planchonella australis

SAPOTACEAE

Common name: Black Apple

Fruit: Drupe, purple-black, 30–60 mm long, 30–45 mm wide.

Seed: 3–5 hard, glossy brown seeds, 15–20 mm long, 8–10 mm wide.

Fruiting interval: Annual

Fruiting period: Sep–Jan

Collecting: Collect black fruit from ground, or seed that has been left exposed after fruit has rotted.

Processing and sowing: Leave fresh hard fruit in bag to soften. Remove seeds from soft fruit by hand. Float test older seed collected from the ground, discard the floating material. Sow at medium to high density. Cover lightly with seed raising mix. Dried seed will store in a refrigerator for at least 1 year.

Germination: Expect high germination. Takes 1–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 2 years.

Planchonella chartacea

SAPOTACEAE

Common name: Thin-leaved Coondoo

Fruit: Drupe, red-black, 15–20 mm long, 5–15 mm wide.

Seed: 2–5 hard, glossy brown seeds, 7–15 mm long, 4–8 mm wide.

Fruiting interval: Sporadic

Fruiting period: Oct–Dec

Collecting: Collect from tree as soon as fruit is red-black, because birds favour the fruit. Collect from ground if fruiting heavily.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve, or squeeze seeds out by hand. Sow at medium to high density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 1–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 2 years.

Planchonella myrsinifolia

SAPOTACEAE

Common name: Blunt-leaved Coondoo

Fruit: Drupe, purple-black, 15–25 mm long, 6–15 mm wide, persistent curved style.

Seed: 1–3 hard, glossy brown seeds, 7–17 mm long, 4–10 mm wide.

Fruiting interval: Sporadic

Fruiting period: Nov–Dec

Collecting: Collect black fruit from tree by hand. Because birds favour the fruit, it is best collected when the fruit is green turning black.

Processing and sowing: Leave green-black fruit in bag to ripen. Remove pulp by macerating fruit by hand on sieve, or squeeze seeds out by hand. Sow at medium to high density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 2 years.

Pleioluma queenslandica

SAPOTACEAE

Common name: Blush Coondoo

Fruit: Drupe, ellipsoid, black, 15–25 mm long, 10–15 mm wide, persistent style.

Seed: 1–2 hard, glossy brown seeds, 12–17 mm long, 8–12 wide.

Fruiting interval: Sporadic

Fruiting period: Sep–Jan

Collecting: Collect black fruit from tree by hand. Because birds favour the fruit, best collected when the fruit is green turning black,

Processing and sowing: Leave green-black fruit in bag to ripen. Remove pulp by macerating fruit by hand on sieve or squeeze seeds out by hand. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 2 years.

Podocarpus elatus

PODOCARPACEAE

Common name: Brown Pine

Fruit: Drupe, blue-black, 12–20 mm long, 10–20 mm wide.

Seed: Single round seed attached at top of fleshy fruit-like receptacle, 8–12 mm diameter.

Fruiting interval: Annual

Fruiting period: Mar–Jul

Collecting: Collect fresh, rotted or dried receptacles with seed from ground.

Processing and sowing: If seed is still attached to receptacle, separate by crushing underfoot, macerating or by hand. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–8 weeks. Allow up to 4 months.

Seedling storage: Seedlings store for at least 2 years.

Polyalthia nitidissima

ANNONACEAE

Common name: Canary Beech

Fruit: Berry, globose-ovoid, yellow-red, 8–10 mm long, 6–9 mm wide.

Seed: Single flattened seed, 6–7 mm long, 5–6 mm wide.

Fruiting interval: Sporadic

Fruiting period: Mar–May

Collecting: Collect red fruit from ground or cut branchlets with clusters of ripe fruit from tree.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Separate viable and non-viable seeds by floating. Carefully remove non-viable seeds and pour off water, viable seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect low to high germination. Takes 3–18 weeks. Allow up to 18 months.

Seedling storage: Seedlings store for at least 2 years.

Polyscias elegans

ARALIACEAE

Common name: Celerywood

Fruit: Drupe, purple-black, 5–7 mm diameter, 2 cells, 2 curved persistent styles.

Seed: 2 flattened, curved seeds, 1 per cell, 2 mm long, 1 mm wide.

Fruiting interval: Annual

Fruiting period: Mar–Jul

Collecting: Collect from tree or ground when black fruit has started to fall. Do not collect too early, when fruit is grey.

Processing and sowing: If dry, first soak fruit until pulp softens. If fresh or softened, remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Place seeds in bucket, agitate by hand, then scoop off foam. Repeat until water is clear. Pour off floating material and water, leaving seeds. Ensure seeds are completely rinsed. Sow at medium density.

Cover lightly with seed raising mix. Seed can be dry stored for at least 1 year.

Germination: Expect low to high germination. Germination period can vary widely and occurs in several waves across 1–18 months. Allow up to 2 years.

Seedling storage: Seedlings store for at least 1 year.

Polyscias murrayi

ARALIACEAE

Common name: Pencil Cedar

Fruit: Drupe, blue, 4–5 mm long, 5–6 mm wide, 3 cells, 1 persistent forked style.

Seed: 2–3 seeds, 1 per cell, 2–3 mm long, 1–2 mm wide.

Fruiting interval: Annual

Fruiting period: Jun–Aug

Collecting: Because this tree has no low branches, collect dark blue ripe individual fruits by placing shadecloth underneath tree before fruit drop, or collect fallen bunches especially after storms.

Processing and sowing: If dry, first soak fruit until pulp softens. If fresh or softened, remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Place seeds in bucket, agitate by hand, then scoop off foam. Repeat until water is clear. Pour off material and water,

leaving seeds. Ensure seeds are completely rinsed. Sow at medium density. Cover lightly with seed raising mix. Seed can be dry stored for at least 1 year.

Germination: Expect low to high germination. Germination period can vary widely and occurs in several waves across 1–18 months. Allow up to 2 years.

Seedling storage: Seedlings store for at least 1 year.

Pseudoweinmannia lachnocarpa

CUNONIACEAE

Common name: Rose Marara

Fruit: Capsule, brown with soft orange-brown hairs, ovoid, 4–8 mm long, 3–5 mm wide, 2 valves.

Seed: Several seeds per valve, <1 mm diameter.

Fruiting interval: Sporadic

Fruiting period: Feb–Apr

Collecting: Collect brown capsules from tree by cutting branchlets, or from ground. Check that tiny seeds are still inside capsules.

Processing and sowing: Limited success growing this. Separate plant material and capsules by hand. Sow capsules with seeds within directly. Sow densely. Cover lightly with seed raising mix.

Germination: Expect low germination. Takes 4 weeks to 6 months. Allow up to 12 months.

Seedling storage: Seedlings store for at least 2 years.

Psychotria daphnoides

RUBIACEAE

Common name: Smooth Psychotria

Fruit: Drupe, cream-white, 5–8 mm diameter, longitudinal ribs.

Seed: 1–3 seeds, 2–3 mm diameter, ribbed.

Fruiting interval: Annual

Fruiting period: Mar–Jul

Collecting: Collect fruit when translucent white and plump by hand-picking from shrub or ground.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–12 weeks. Allow up to 4 months.

Seedling storage: Seedlings store for at least 1 year.

Psychotria loniceroides

RUBIACEAE

Common name: Hairy Psychotria

Fruit: Drupe, yellow-cream, 3–8 mm diameter, with longitudinal ribs.

Seed: 1–2 seeds, 2–6 mm long, 3–4 mm wide, ribbed.

Fruiting interval: Annual

Fruiting period: Feb–Jun

Collecting: Collect fruit when yellow-cream and plump by hand-picking from shrub or from ground.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–6 months. Allow up to 9 months.

Seedling storage: Seedlings store for at least 1 year.

Psychotria simmondsiana

RUBIACEAE

Common name: Small Psychotria

Fruit: Drupe, yellow-white, 5–8 mm diameter, longitudinal ribs.

Seed: 1–3 seeds, 2–5 mm diameter, ribbed.

Fruiting interval: Annual

Fruiting period: Feb–Sep

Collecting: Collect fruit when yellow by hand-picking from shrub or from ground.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 6–16 weeks. Allow up to 6 months.

Seedling storage: Seedlings store for at least 1 year.

Psydrax odorata

RUBIACEAE

Common name: Shiny leaved Canthium

Fruit: Drupe, black, 5–7 mm diameter.

Seed: Single seed, 4–5 mm long, 3–4 mm wide.

Fruiting interval: Regular

Fruiting period: Feb–Jun

Collecting: Collect from tree by cutting branchlets when fruit starts to turn black.

Processing and sowing: Ferment fruit in plastic bag for 1–2 weeks. Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect low to medium germination. Takes 6 weeks to 6 months. Allow up to 12 months.

Seedling storage: Seedlings store for at least 1 year.

Quassia sp. Mt Nardi

SIMAROUBACEAE

Common name: Southern Quassia

Fruit: Drupe, black, ovoid, flattened, 15–20 mm long, 10–13 mm wide.

Seed: Single seed, 12–16 mm long, 6–10 mm wide.

Fruiting interval: Regular

Fruiting period: Dec–Feb

Collecting: Collect from tree when red-purple to black by hand-picking.

Processing and sowing: Sow fresh seed directly. Sow densely. Cover lightly with seed raising mix.

Germination: Expect medium to high germination. Takes 2–4 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 1 year.

Rhodamnia argentea

MYRTACEAE

Common name: Malletwood

Fruit: Berry, black, globose, 6–10 mm diameter, crowned by persistent sepals.

Seed: Several seeds, angular, hard, 1–2 mm diameter.

Fruiting interval: Sporadic

Fruiting period: Mar–May

Collecting: Collect black fruit from tree by cutting branchlets. Note: Rarely fruits due to the effects of myrtle rust.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 6 weeks to 1 year. Allow up to 18 months.

Seedling storage: Seedlings store for at least 18 months.

Rhodamnia maideniana

MYRTACEAE

Common name: Smooth Scrub Turpentine

Fruit: Berry, black, globose, 6–9 mm diameter, crowned by persistent sepals.

Seed: Several seeds, hard, angular, 3 mm long, 2 mm wide.

Fruiting interval: Sporadic

Fruiting period: Jan–May, Nov–Dec

Collecting: Collect black fruit from tree by cutting branchlets. Note: Rarely fruits due to the effects of myrtle rust.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow at medium to high density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–6 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 18 months.

Rhodamnia rubescens

MYRTACEAE

Status: Critically Endangered

Common name: Scrub Turpentine

Fruit: Berry, black, globose, 5–7 mm diameter.

Seed: Several seeds, hard, 2 mm long, 1 mm wide.

Fruiting interval: Sporadic

Fruiting period: Oct–Dec

Collecting: Collect red-black fruit from tree by cutting branchlets. Note: Rarely fruits due to the effects of myrtle rust.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–6 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 18 months.

Rhodomyrtus psidioides

MYRTACEAE

Status: Critically Endangered

Common name: Native Guava

Fruit: Berry, green-yellow, globose, 10–15 mm diameter, crowned by 5 persistent calyx lobes.

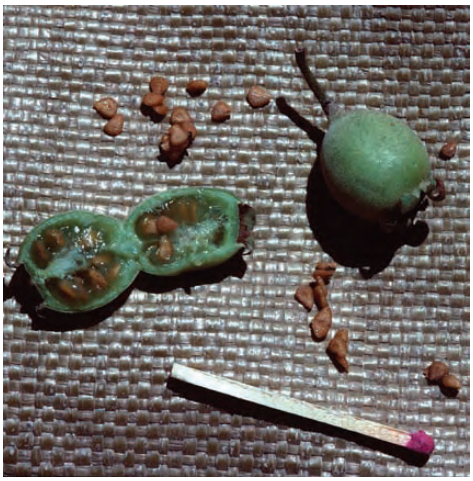
Seed: Numerous seeds, 1–2 mm diameter.

Fruiting interval: Sporadic

Fruiting period: Feb–May

Collecting: Collect yellow fruit from tree or ground. Note: Rarely fruits due to the effects of myrtle rust.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.



Germination: Expect high germination. Takes 4–6 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 18 months.

Rhodosphaera rhodanthema

ANACARDIACEAE

Common name: Deep Yellowwood

Fruit: Drupe, brown, globose, 9–10 mm diameter, with hard woody stone.

Seed: Single seed, 5–7 mm long, 3–4 mm wide.

Fruiting interval: Annual

Fruiting period: Feb–Mar

Collecting: Collect brown fruit from ground. If collecting from tree, pick only bunches with thin dry and easily cracked outer layer.

Processing and sowing: Wet blend seeds for 30–60 seconds to scarify. Alternatively scarify individually with a bench grinder or file, to expose outer layer of kernel. Sow at medium density. Cover lightly with seed raising mix. Seed can be stored in an open container for at least 1 year.

Germination: Expect low to medium germination. Takes 2–10 weeks. Allow up to 16 weeks.

Seedling storage: Seedlings store for at least 18 months.

Rhysotoechia bifoliolata

SAPINDACEAE

Common name: Twin-leaved Tuckeroo

Fruit: Capsule, smooth, orange, 3-lobed, 15–25 mm diameter.

Seed: 1–3 seeds, almost black, glossy, base enclosed in a fleshy yellow-green aril.

Fruiting interval: Sporadic

Fruiting period: Nov–Dec

Collecting: Collect from tree when orange capsules begin to open.

Processing and sowing: Separate capsules and seeds by hand. Remove aril by hand. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 2 years.

Sarcomelicope simplicifolia

RUTACEAE

Common name: Bauerella

Fruit: Drupe, yellow-brown, hard, 10–15 mm diameter, 4 cells, lobed.

Seed: 1–4 black, glossy seeds, 1 per cell, 4–5 mm long, 2–3 mm wide.

Fruiting interval: Annual

Fruiting period: Feb–Nov

Collecting: Collect from tree by cutting branchlets when fruit dull yellow-brown.

Processing and sowing: Ferment in sealed plastic bag for several months, until pulp almost liquefies. Separate pulp from seed by hosing on sieve. Sow at medium to high density. Cover lightly with seed raising mix.

Germination: Expect medium germination. Takes 1–4 months. Allow up to 6 months.

Seedling storage: Seedlings store for at least 18 months.

Sarcopteryx stipata

SAPINDACEAE

Common name: Steelwood

Fruit: Capsule, pink-red, pointed pear-shaped, 14–16 mm long, 12–13 mm wide, 3 cells.

Seed: 3 seeds, 1 per cell, egg-shaped 4–6 mm long, 2–3 mm wide, completely enclosed in thin, fleshy yellow aril.

Fruiting interval: Sporadic

Fruiting period: Nov–Dec

Collecting: Collect from tree by cutting branchlets when pink-red capsules start to open.

Processing and sowing: Place in bag to prevent capsules drying out. Once capsules fully open, beat bag against wall to release seeds and shake to release remaining seeds. Extract seeds from material by sieving. Remove aril by hand or macerate lightly on sieve. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 2 years.

Schizomeria ovata

CUNONIACEAE

Common name: Crabapple

Fruit: Drupe, depressed-globose, cream-white, 15–18 mm long, 10–17 mm wide.

Seed: 1–2 seeds, 9–11 mm long, 6–8 mm wide.

Fruiting interval: Sporadic

Fruiting period: Jan–Apr

Collecting: Collect creamy white fruit from tree or ground.

Processing and sowing: Dry compost in an open container for 18 months to 3 years until some germinants are visible. Sow all material. Cover lightly with seed raising mix.

Germination: Following the dry composting period, expect low to medium germination from remainder of seeds. Takes up to 6 months. Allow up to 9 months.

Seedling storage: Seedlings store for at least 1 year.

Scolopia braunii

SALICACEAE

Common name: Flintwood

Fruit: Berry, red-black, globose, 11–13 mm diameter, with persistent hooked style.

Seed: Several seeds, 3–4 mm long, 2–3 mm wide.

Fruiting interval: Regular

Fruiting period: Dec–Apr

Collecting: Collect from tree by cutting branchlets when fruit turns from yellow-red to black. Collect from ground if fruiting heavily.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 1–3 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 18 months.

Senna acclinis

FABACEAE, Subfamily Caesalpinioideae

Status: Endangered

Common name: Brush Senna

Fruit: Pod, brown, 120–150 mm long, 6–8 mm wide, flat.

Seed: Numerous hard flat seeds, 4–6 mm long, 3–5 mm wide.

Fruiting interval: Annual

Fruiting period: Mar–Jul

Collecting: Collect drying, brown pods from plant by hand and place in paper bag. Check for small holes in pods or seed that indicates insect infestation.

Processing and sowing: Place in container and crush pods by hand to release seeds. Separate material and seeds by sieving. Place seed in container, pour near boiling water over and then leave soaking for 24 hours. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up 8 weeks.

Seedling storage: Seedlings store for at least 6 months.

Siphonodon australis

CELASTRACEAE

Common name: Ivorywood

Fruit: Drupe, yellow-brown, 25–40 mm long, 25–50 mm wide.

Seed: Numerous pointed stones containing seeds, 2–5 mm diameter.

Fruiting interval: Regular

Fruiting period: Dec–Jun

Collecting: Collect from ground when fruit is yellow-brown to grey. Seeds from disintegrating fruits remain viable, inside hard stones.

Processing and sowing: Ferment in sealed plastic bag in warm location until fruit becomes crumbly. Extract seeds by sieving. Sow densely. Cover lightly with seed raising mix. Seed can be dry stored for at least 1 year.

Germination: Expect low to medium germination. Takes 4 months to 1 year. Allow up to 2 years.

Seedling storage: Seedlings store for at least 1 year.

Sloanea australis

ELAEOCARPACEAE

Common name: Maiden's Blush

Fruit: Capsule, brown, globose, 15–20 mm diameter, woody, 3–5 cells. Note: Covered in short brown irritating hairs.

Seed: 3–5 seeds, 1 per cell, 7–9 mm long, 4–5 mm wide, almost completely covered in orange-red fleshy aril.

Fruiting interval: Regular

Fruiting period: Feb–Apr

Collecting: Collect from tree by cutting branchlets when at least some capsules are open and before seeds release. Alternatively, place tarpaulin on ground before seed drop. Fruiting period is short and trees need to be revisited regularly to ensure correct timing of collection.

Processing and sowing: Place in bag in warm, dry location until all capsules open. Beat bag

against wall to release seeds from capsules, and shake to release remaining seeds. Extract seeds by hand if needed. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 2 years.

Sloanea woollsii

ELAEOCARPACEAE

Common name: Yellow Carabeen

Fruit: Capsule, yellow-brown, oval, 12–20 mm long, 8–13 mm wide, woody, covered in prickles, 2 cells.

Seed: 1–2 seeds, 1 per cell, 5–6 mm long, 4 mm wide, dangling, almost completely covered in red aril.

Fruiting interval: Regular

Fruiting period: Feb–May

Collecting: Collect from tree by cutting branchlets when at least some capsules are open and before seeds release. Alternatively, place tarpaulin on ground before seed drop. Fruiting period is short and trees need to be revisited regularly to ensure correct timing of collection.

Processing and sowing: Place in bag in warm, dry location until all capsules open. Beat bag

against wall to release seeds from capsules, and shake to release remaining seeds. Extract seeds by hand if needed. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 2 years.

Stenocarpus salignus

PROTEACEAE

Common name: Scrub Beefwood

Fruit: Follicle, brown, 50–100 mm long, 12–15 mm wide.

Seed: Numerous thin, flat, winged seeds, 10–12 mm long, 4–5 mm wide, including wing.

Fruiting interval: Regular

Fruiting period: Feb–May

Collecting: Collect from tree by cutting branchlets when follicles start to open and before seeds release.

Processing and sowing: Place in a paper bag in dry warm location until follicles open. Beat bag against wall to release seeds from follicles, and shake to release remaining seeds. Extract seeds by hand if needed. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 1 year.

Stenocarpus sinuatus

PROTEACEAE

Common name: Firewheel Tree

Fruit: Follicle, grey-brown, 50–100 mm long, 10–20 mm wide, boat-shaped.

Seed: Numerous thin, flat, winged seeds, 9–11 mm long, 6–8 mm wide (20–35 mm long including papery wing).

Fruiting interval: Regular

Fruiting period: Jan–Jul

Collecting: Collect from tree by cutting branchlets when follicles start to open and before seeds release. Unopened mature follicles still contain viable seed and will open later.

Processing and sowing: Place in a paper bag in dry warm location until follicles open. Beat bag against wall to release seeds from follicles, and shake to release remaining seeds. Extract seeds by hand if needed. Sow densely. Cover

lightly with seed raising mix. Seed can be stored dry for up to 6 months.

Germination: Expect high germination. Takes 3–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Sterculia quadrifida

MALVACEAE

Common name: Peanut Tree

Fruit: Follicle, bright orange-red, 45–80 mm long, 25–50 mm wide.

Seed: 2–8 seeds, blue-black, 13–18 mm long, 7–10 mm wide.

Fruiting interval: Annual

Fruiting period: Nov–Jan

Collecting: Collect from tree by cutting branchlets when some red follicles start to open. Unopened orange-red follicles with black seeds can be collected.

Processing and sowing: Place unopened follicles in a bag in warm dry location until they open. Shake bag to release seeds from pods. Extract seeds by hand if needed. Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 1–2 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 6 months.

Streblus brunonianus

MORACEAE

Common name: Whalebone Tree

Fruit: Berry, yellow, globular–flattened, 4–6 mm diameter, crowned by persistent forked style.

Seed: Single hard seed, globular, 2–3 mm diameter.

Fruiting interval: Regular

Fruiting period: Jan–May

Collecting: Collect yellow fruit from tree by cutting branchlets.

Processing and sowing: Remove pulp by macerating fruit by hand on fine sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–8 weeks. Allow up to 4 months.

Seedling storage: Seedlings store for at least 1 year.

Symplocos thwaitesii

SYMPLOCACEAE

Common name: Buff Hazelwood

Fruit: Drupe, purple-black, 6–15 mm long, 4–8 mm wide, crowned by 5 persistent sepals, with hard, woody stone.

Seed: Single seed inside hard stone, 5–13 mm long, 3–5 mm wide.

Fruiting interval: Regular

Fruiting period: Jan–Mar

Collecting: Collect black fruit from ground, or from tree by cutting branchlets.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect medium germination. Takes 6 weeks to 6 months. Allow up to 1 year.

Seedling storage: Seedlings store for at least 2 years.

Synoum glandulosum

MELIACEAE

Common name: Scentless Rosewood

Fruit: Capsule, pink-red, with 3 lobes 12–20 mm long, 12–27 mm wide.

Seed: 1–2 flattened seeds per lobe, 6–9 mm diameter, covered by fleshy red aril.

Fruiting interval: Annual

Fruiting period: Aug–Dec

Collecting: Collect pink-red capsules from tree by cutting branchlets, or by hand, as some capsules start to open.

Processing and sowing: Place in bag in a warm, dry location until capsules open. Seeds are easily damaged. Extract seeds by squeezing out of capsule by hand. Separate seeds and aril by hand. Sow densely. Lightly cover with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 2 years.

Syzygium australe

MYRTACEAE

Common name: Brush Cherry

Fruit: Berry, red, pear-shaped, 14–23 mm long, 8–17 mm wide, crowned by persistent calyx lobes.

Seed: Single seed, 5–6 mm diameter.

Fruiting interval: Annual

Fruiting period: Oct–May

Collecting: Collect dark red ripening fruit from tree by hand-picking or cutting branchlets.

Processing and sowing: Soak for 24 hours to kill insect larvae. Remove pulp by macerating fruit by hand on sieve. Separate seeds and pulp by floating. Carefully remove surface material and pour off water, seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–3 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 2 years.

Syzygium corynanthum

MYRTACEAE

Common name: Sour Cherry

Fruit: Berry, red, 11–17 mm long, 10–14 mm wide, broader at tip than base, 4 persistent calyx lobes, with persistent style up to 20 mm.

Seed: Single seed, 6–8 mm long, 4–6 mm wide.

Fruiting interval: Sporadic

Fruiting period: Sep–Dec

Collecting: Viability of seed can vary from 0 to 20% between trees. Collect mature red fruit from ground during the latter stages of fruiting period to acquire higher proportion of viable seed.

Processing and sowing: Soak fruit for 24 hours to kill insect larvae. Ferment in plastic bag for 2–4 weeks or until fruit has softened. Place in bucket and blast with hose to remove pulp. Separate pulp and seeds by floating.

Carefully remove surface material and pour off water; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect low germination. Takes 2–12 months. Allow up to 18 months.

Seedling storage: Seedlings store for at least 2 years.

Syzygium crebrinerve

MYRTACEAE

Common name: Purple Cherry

Fruit: Berry, purple, depressed-globose, 15–22 mm long, 17–25 mm wide.

Seed: Single seed, 5–7 mm diameter, irregularly shaped, flattened.

Fruiting interval: Regular

Fruiting period: Dec–Apr

Collecting: Viability of seed can vary from 0 to 50% between trees. Collect purple fruit from ground.

Processing and sowing: Soak for 24 hours to kill insect larvae, and soften pulp. Remove pulp by macerating fruit by hand on sieve or by crushing underfoot in large container. Blast with hose to remove pulp. Separate pulp and seeds by floating. Carefully remove surface material and pour off water; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect low germination. Takes 2–12 months. Allow up to 18 months.

Seedling storage: Seedlings store for at least 2 years.

Syzygium francisii

MYRTACEAE

Common name: Giant Water Gum

Fruit: Berry, light purple-blue, globular–flattened, 10–12 mm long, 10–15 mm wide.

Seed: Single seed, round, 4–6 mm diameter.

Fruiting interval: Regular

Fruiting period: Dec–Apr

Collecting: Collect purple fruit from ground.

Processing and sowing: Soak for 24 hours to kill insect larvae, and soften pulp. Remove pulp by macerating fruit by hand on sieve or by crushing underfoot in large container. Blast with hose to remove pulp. Separate pulp and seeds by floating. Carefully remove surface material and pour off water; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 2 years.

Syzygium hodgkinsoniae

MYRTACEAE

Status: Vulnerable

Common name: Red Lilly Pilly

Fruit: Berry, red, 30–50 mm diameter.

Seed: Single seed, 25–40 mm diameter.

Fruiting interval: Regular

Fruiting period: Sep–Nov

Collecting: Collect red fruit from tree or ground.

Processing and sowing: Remove pulp by hand. Sow at medium density in a deep tray. Lightly cover with seed raising mix.

Germination: Expect high germination. Takes 4–6 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 2 years.

Syzygium luehmannii

MYRTACEAE

Common name: Riberry

Fruit: Berry, pink-red, pear-shaped, 10–13 mm long, up to 6–9 mm wide, broadening at tip.

Seed: Single seed, 4 mm diameter

Fruiting interval: Regular

Fruiting period: Dec–Feb

Collecting: Collect pink-red fruit from tree by cutting branchlets or from ground while still red. Check fruit for seed presence.

Processing and sowing: Soak for 24 hours to kill insect larvae, and soften pulp. Remove pulp by macerating fruit by hand on sieve or remove pulp by crushing underfoot in large container. Blast with hose to remove pulp. Separate pulp and seeds by floating. Carefully remove surface material and pour off water; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 2 years.

Syzygium moorei

MYRTACEAE

Status: Vulnerable

Common name: Coolamon

Fruit: Berry, white, depressed–globose, 40–50 mm long, 40–60 mm wide.

Seed: Single seed, 20–30 mm diameter, flattened, with 2 lobes.

Fruiting interval: Annual

Fruiting period: Feb–Apr

Collecting: Collect white fruit from tree or ground. Strongly discoloured fruit will be unviable due to insect infestation.

Processing and sowing: Soak for 24 hours to kill unseen insect larvae, and soften pulp. Remove pulp by macerating fruit by hand on sieve or by crushing underfoot in large container. Blast with hose to remove pulp. Separate pulp and seeds by floating. Carefully remove surface material and pour off water; seeds will remain. Sow densely in a deep tray. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 4–6 weeks. Allow up to 10 weeks.

Seedling storage: Seedlings store for at least 2 years.

Syzygium oleosum

MYRTACEAE

Common name: Blue Lilly Pilly

Fruit: Berry, pale blue, oval–round, 9–20 mm long, 10–18 mm wide.

Seed: Single seed, 5–9 mm diameter.

Fruiting interval: Annual

Fruiting period: Mar–Aug

Collecting: Collect ripe, light blue fruit from tree or ground. Unripe bluish-green fruit can be collected from tree because they contain viable seed.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 18 months.

Tabernaemontana pandacaqui

APOCYNACEAE

Common name: Banana Bush

Fruit: Follicle, bright yellow, 20–50 mm long, 6–11 mm wide, banana-shaped, hanging individually or in pairs.

Seed: 3–16 seeds, 4–7 mm long, 4 mm wide, in sticky red pulp.

Fruiting interval: Regular

Fruiting period: Feb–Apr

Collecting: Collect yellow follicles from shrub when they begin to open, by hand-picking. Unopened yellow follicles may still contain viable seed. Wear gloves because sap is sticky, caustic and poisonous.

Processing and sowing: Remove pulp by hand. Gloves are recommended because sap is sticky, caustic and poisonous. Macerate by hand on sieve, and rinse through sieve to remove remaining pulp; seeds will remain.

Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect medium to high germination. Takes 8–12 weeks. Allow up to 6 months.

Seedling storage: Seedlings store for at least 1 year.

Tasmannia insipida

WINTERACEAE

Common name: Mountain Pepperbush

Fruit: Berry, varying from white to purple, oval, 12–20 mm long, 9–15 mm wide.

Seed: Numerous seeds, 1 mm long, <1 mm wide.

Fruiting interval: Regular

Fruiting period: May–Jul

Collecting: Collect from shrub by cutting branchlets when white–purple fruit is soft, or by hand-picking.

Processing and sowing: Remove pulp by macerating fruit by hand on fine sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect medium germination. Takes 4–6 months. Allow up to 8 months.

Seedling storage: Seedlings store for at least 2 years.

Toechima dasyrrhache

SAPINDACEAE

Common name: Blunt-leaved Steelwood

Fruit: Capsule, orange-red, globose, 18–20 mm diameter, 1–3 indistinct lobes.

Seed: 3 seeds, 1 per lobe, 6–7 mm long, 4–5 mm wide, with small yellow aril at the base.

Fruiting interval: Regular

Fruiting period: Nov–Dec

Collecting: Collect from tree when red capsules begin to open. If fruiting heavily, collect fallen seed from ground.

Processing and sowing: Separate capsules and seeds by sieving. Place all material in container with water. Remove surface material and non-viable seeds. Carefully pour off water; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 2 years.

Toona ciliata

MELIACEAE

Common name: Red Cedar

Fruit: Capsule, light brown, elliptical, 10–22 mm long, 7–13 mm wide, 5 valves.

Seed: 20–25 winged papery seeds, each valve containing 4–5 seeds, 2 mm wide, 3–4 mm long, 10–17 mm long including wing.

Fruiting interval: Annual

Fruiting period: Jan–Mar

Collecting: Collect from tree when capsules are green turning brown, and drying. Winged seeds fly away, so collect before seeds are released. Fresh seed can be collected from ground.

Processing and sowing: Place in bag in a warm, dry location until capsules open and release seeds. Shake bag to release remaining seeds. Sow at medium density. Cover lightly with seed raising mix. Seed can be dry stored for at least 2 years.

Germination: Expect high germination. Takes 1–3 weeks. Allow up to 6 weeks.

Seedling storage: Seedlings store for at least 1 year.

Trema tomentosa

CANNABACEAE

Common name: Native Peach

Fruit: Drupe, purple-black, globose, 2–3 mm diameter.

Seed: Single seed, 1–2 mm diameter.

Fruiting interval: Annual

Fruiting period: Feb–May, Aug

Collecting: Collect from tree by cutting branches when fruit is turning from green to black. Fruit ripens asynchronously, so branches may have ripe and unripe fruit, and some flowers.

Processing and sowing: Place in bag until fruits fall off branches. Remove branches and larger material. Remove pulp by macerating fruit by hand on fine sieve. Sow at medium density. Cover lightly with seed raising mix. Water lightly to avoid pushing seeds around tray.

Germination: Expect high germination. Takes 2–6 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings can be stored for at least 8 months.

Tristaniopsis laurina

MYRTACEAE

Common name: Water Gum

Fruit: Capsule, green-brown, oval, 5–7 mm long, 4–6 mm wide, 3 valves.

Seed: Numerous rounded, flattened, winged seeds in each valve, 2–3 mm diameter, 4–5 mm long including wing.

Fruiting interval: Annual

Fruiting period: Mar–Sep

Collecting: Collect from tree by cutting branchlets when some green-brown capsules start to open. Unopened capsules will open later.

Processing and sowing: Place in container in warm, dry location until capsules open. Shake to release remaining seeds. Extract seeds by sieving. Sow densely. Cover lightly with seed raising mix. Seed can be dry stored at room temperature for at least 2 years.

Germination: Expect high germination. Takes 1–3 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings can be stored for at least 2 years.

Triunia youngiana

PROTEACEAE

Common name: Native Honeysuckle

Fruit: Drupe, red, 12–15 mm diameter, pointed both ends and grooved on one side. Note: Use gloves because fruit is reportedly highly poisonous.

Seed: Single seed, 5–6 mm long, 3–4 mm wide.

Fruiting interval: Sporadic

Fruiting period: Apr–Jul

Collecting: Collect red fruit from shrub or ground by hand.

Processing and sowing: Extract seeds by squeezing by hand (wear gloves because fruit is reportedly highly poisonous). Sow at medium density. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Trochocarpa laurina

ERICACEAE, Subfamily Epacridoideae

Common name: Tree Heath

Fruit: Drupe, dull blue-black, depressed–globose, 4–6 mm diameter, 10 cells.

Seed: 1–10 seeds, 1 per cell, 1 mm diameter.

Fruiting interval: Regular

Fruiting period: Mar–Oct

Collecting: Collect black fruit from tree by hand-picking or cutting branchlets.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect low to medium germination. Takes 6 weeks to 2 years.

Seedling storage: Seedlings store for at least 2 years.

Uromyrtus australis

MYRTACEAE

Status: Endangered

Common name: Peach Myrtle

Fruit: Berry, black, globose, 7–9 mm diameter.

Seed: Several, 3–4 mm long, 1–2 mm wide.

Fruiting interval: Regular

Fruiting period: Mar–May

Collecting: Collect individual black fruit from tree by hand. Collect from ground if fruiting heavily.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Separate seeds and fruit material by floating. Carefully remove surface material and pour off water; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3–4 weeks. Allow up to 8 weeks.

Seedling storage: Seedlings store for at least 1 year.

Vitex lignum-vitae

LAMIACEAE

Common name: Lignum-vitae

Fruit: Drupe, pink-red, depressed–globose, 8–18 mm diameter.

Seed: 1–4 seeds, 4–12 mm diameter.

Fruiting interval: Sporadic

Fruiting period: Nov–Apr

Collecting: Collect bright pink-red fruit from tree or ground.

Processing and sowing: Limited success with this. De-pulp and scarify by blending with water for 30 seconds. Carefully pour off water and pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect low germination. Takes 6–15 months. Allow up to 2 years.

Seedling storage: Seedlings store for at least 2 years.

Waterhousea floribunda

MYRTACEAE

Common name: Weeping Lilly Pilly

Fruit: Berry, white, variable size from 10–20 mm diameter, slightly flattened.

Seed: Single seed, 8–18 mm diameter.

Fruiting interval: Regular

Fruiting period: Jan–Mar

Collecting: Collect from tree by cutting branchlets when fruit turns from green to white. Collect only freshly fallen fruit from ground because they are susceptible to insect infestation and rotting.

Processing and sowing: Soak for 24 hours to kill insect larvae. Sow directly. Sow densely. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 2–8 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 2 years.

Wikstroemia indica

THYMELAEACEAE

Common name: Tie Bush

Fruit: Drupe, orange-red, ovoid, 5–10 mm long, 5–7 mm wide.

Seed: Single seed, 4–8 mm long, 3–5 mm wide.

Fruiting interval: Annual

Fruiting period: Apr–Jul

Collecting: Collect red fruit from shrub by hand-picking.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow densely. Cover lightly with seed raising mix.

Germination: Expect medium germination. Takes 6 weeks to 6 months. Allow up to 8 months.

Seedling storage: Seedlings store for at least 6 months.

Wilkiea austroqueenslandica

MONIMIACEAE

Common name: Smooth Wilkiea

Fruit: Drupe, glossy black, oval–pointed, 12–15 mm long, 8–12 mm wide, silky hairy receptacle.

Seed: Single seed, 10–13 mm long, 6–10 mm wide.

Fruiting interval: Regular

Fruiting period: May–Jul

Collecting: Collect by picking bunches of black fruit by hand from tree, or from ground if freshly fallen.

Processing and sowing: Sow directly. Sow at medium density. Cover very lightly with seed raising mix.

Germination: Expect low to high germination. Takes 3 weeks to 6 months.

Seedling storage: Seedlings store for at least 2 years.

Wilkiea huegeliana

MONIMIACEAE

Common name: Veiny Wilkiea

Fruit: Drupe, matte black, oval–pointed, 10–13 mm long, 7–10 mm wide.

Seed: Single seed, 8–11 mm long, 5–8 mm wide.

Fruiting interval: Regular

Fruiting period: May–Sep

Collecting: Collect by picking bunches of black fruit by hand from tree, or from ground if freshly fallen.

Processing and sowing: Sow directly. Sow at medium density. Cover very lightly with seed raising mix.

Germination: Expect low to high germination. Takes 3 weeks to 6 months.

Seedling storage: Seedlings store for at least 2 years.

Wilkiea macrophylla

MONIMIACEAE

Common name: Large-leaved Wilkiea

Fruit: Drupe, glossy black, 15–20 mm long, 10–14 mm wide, hairless receptacle.

Seed: Single seed, 13–18 mm long, 8–12 mm wide.

Fruiting interval: Regular

Fruiting period: Apr–Sep

Collecting: Collect black fruit from ground or tree when seed starts to fall.

Processing and sowing: Sow directly. Sow at medium density. Cover very lightly with seed raising mix.

Germination: Expect low to high germination. Takes 3 weeks to 6 months.

Seedling storage: Seedlings store for at least 2 years.

Xylosma terrae-reginae

SALICACEAE

Status: Endangered

Common name: Xylosma

Fruit: Berry, red, globose, 4–6 mm diameter, in clusters.

Seed: 1–4 seeds, 1–2 mm diameter.

Fruiting interval: Sporadic

Fruiting period: Apr

Collecting: Collect red fruit from tree by cutting branchlets.

Processing and sowing: Remove pulp by macerating fruit by hand on sieve. Rinse through sieve to remove remaining pulp; seeds will remain. Sow at medium density to avoid damping off. Cover lightly with seed raising mix.

Germination: Expect high germination. Takes 3 to 6 weeks. Allow up to 12 weeks.

Seedling storage: Seedlings store for at least 12 months.

Syzygium luehmannii (Riberry) seedlings store for at least two years.

Glossary

achene Dry indehiscent fruit, one-seeded, formed from one carpel, with the seed not fused to the fruit wall.

aggregate fruit Many fleshy or dry individual fruits formed together from a single flower with many carpels.

angiosperms Plants that are flowering and fruit-bearing, with ovules enclosed in the ovary.

aril An expansion of the stalk of a seed, growing partly or completely over the seed, usually fleshy and often brightly coloured.

berry A fleshy indehiscent fruit, containing one or many seeds, usually with soft fruit layers.

calyx The outer whorl of the flower, composed of sepals, usually green and enclosing the bud during flower stage, and sometimes persistent in the fruit.

capsule Dry or fleshy, many-seeded, dehiscent fruit composed of two or more fused carpels that split along varying suture lines.

carpel A unit of the female part of the flower, consisting of an ovary bearing one or more ovules, a pollen-receptive stigma, and often a stalk-like style between them.

case-hardening The sealing of dry fruits or setting of cone scales as a result of over-rapid drying and high temperatures, before seeds are released.

combinational dormancy Seeds are both physically and physiologically dormant, and require multiple cues to germinate.

cone (1) The fruit of gymnosperms (conifers and cycads), formed from a female strobilus, consisting of many cone-scales containing seeds; (2) The cone-like woody multiple fruits of Casuarinaceae.

cotyledon(s) The first seed leaf (mono) or pair of seed leaves (di), part of the embryo that acts as a food storage organ.

cupule A cup-like structure at the base of fruits, formed by the persistent floral parts.

damping off A soil-borne fungal condition that can spread through a tray of small seedlings, often killing some or all of the plants.

dehiscent Fruits that split open spontaneously at maturity to release seeds.

diaspore The dispersal unit for the seed, which may be the seed, fruit or fruit part.

dispersal The movement of seeds or fruits away from the parent plant, by mechanisms such as wind, water or animals.

dormant Seed is viable but will not germinate even in ideal environmental conditions due to one or more limiting factors.

drupe Fleshy indehiscent fruit with leathery or thick skin, a fleshy or leathery pulp and a hard woody stone enclosing one or more seeds.

embryo The rudimentary plant present in a mature seed consisting of an axis and one or two cotyledons (leaves).

endocarp The innermost fruit layer, usually a woody stone in drupes, but in other fruit types can be indistinct.

endosperm The nutritive tissue in developing and mature seeds, which is as a food source for the embryo.

exocarp The outermost fruit layer, usually a thin or thick skin, or woody outer layer.

follicle Dry dehiscent fruit, formed from a single carpel, splitting along one side only.

fruit The seed-bearing structure in angiosperms, formed by one or more ripened ovaries, sometimes with persistent flower parts.

funicle The stalk of an ovule or seed, attaching it to the ovary wall.

germination (1) The process of a seed developing into a seedling; (2) The first phase of growth of a seed shown by the cotyledons (first true leaves) protruding from the seed and the radicle emerging to become the primary root.

globose Nearly spherical.

gymnosperms Plants, such as conifers and cycads, with naked seeds, where the ovules are not enclosed in an ovary.

hilum A scar on one side of the seed coat showing where the seed was attached to the placenta.

inbreeding depression The reduction of vigour, survival and fertility of offspring of individuals as population and genetic variation is reduced.

indehiscent Fruits that do not open at maturity to release their seeds.

inflorescence Many flowers arranged together, including bracts and branchlets.

integument The covering of the central tissue of the ovule, which hardens to form the seedcoat.

legume (1) A pod; (2) Any leguminous plant that produces a pod.

longevity The period of time a seed can stay viable in storage.

mast year A year in which a species fruits heavily.

masting The strategy of some plant species to produce large crops of seeds at variable intervals.

mature species Rainforest species that generally are long lived, tolerate low light conditions, with seeds that stay viable for short periods.

mesocarp The middle fruit layer, usually pulp in berries, but can be woody in dry fruits.

micropyle A pore on the seed that provides an indication of the point of emergence of the radicle (first root) during germination.

morphological dormancy Seeds where embryo is underdeveloped, needing time to mature before germination.

morphology The structure and form of (plants).

morphophysiological dormancy Seeds where the embryo is underdeveloped, and is also prevented from breaking through seed/fruit structures by low growth potential.

multiple fruit Compound fruit made up of individual fruits from single flowers of an inflorescence.

non-dormant A seed that is viable and can germinate over the widest range of environmental conditions.

nut A dry, indehiscent, one seeded fruit, usually with a hard pericarp.

obovoid Egg-shaped in three dimensions (fruit) with narrow end connected to stalk.

orthodox species Species with seeds that can tolerate drying out to 4–7% critical moisture content, and can maintain longevity in sub-zero storage temperatures.

outbreeding The mating of individuals within genetically distinct populations, species or subspecies, which can lead to outbreeding depression though more commonly causes a decrease in genetic diversity.

ovary The part of the carpel containing the ovule/s, and that develops into the fruit wall.

ovule The structure in the female part of the flower that contains the egg cell and develops into a seed following fertilisation.

parthenocarpy When mature fruit develop without ovule fertilisation, and so contain no seeds.

pedicel The stalk of a flower.

perianth The collective term for sepals and petals together.

pericarp The fruit wall, composed of three layers: exocarp (outer), mesocarp (middle), endocarp (inner). Sometimes the layers are distinct, while sometimes two or three layers form a homogenous blend of similar texture.

physical dormancy Seeds that have a hard seed coat, or woody endocarp, that is impermeable to water and/or gases.

physiological dormancy Seeds are permeable to water, but the embryo is prevented from breaking through the seed/fruit structures by low growth potential.

pioneer species Rainforest species that generally grow rapidly but have a short lifespan, are short in stature and intolerant of shade, with seeds that stay viable for long periods.

pistil The female part of the flower, consisting of one or many carpels.

placenta The ovary tissue to which the ovules attach.

pod A dry dehiscent fruit, formed from one carpel and having two longitudinal lines of dehiscence; mature fruit splits in half to release seeds.

primary dormancy An umbrella term for any type of dormancy present in seeds upon maturation and shedding from the parent plant.

propagation The multiplication of plants by seed (sexual reproduction) or vegetative (asexual reproduction) means, such as seedlings, cuttings or division.

quiescent Seed that is non-dormant but not germinating due to one or more limiting environmental factors.

radicle The embryonic root that develops into the primary root system of the plant.

raphe A longitudinal ridge on the seed showing the position of the funicle.

recalcitrant species Species with seeds with a high moisture content that cannot tolerate drying out and have short viability in cold temperatures.

receptacle The usually expanded top of the stalk where the fruit arises; can sometimes appear as a cup-like structure.

samara A dry indehiscent fruit, with one seed, with a specialised wing formed from an expanded fruit wall.

secondary dormancy When dormancy is induced again after a seed has broken through a class of primary dormancy.

secondary species Rainforest species between pioneer and mature phase species, that generally have moderate growth rate, life spans and shade tolerance.

seed (1) The mature ovule that contains the embryo plus possible nutritive tissue (endosperm), enclosed in a protective seed coat (testa); (2) The whole dispersal unit. See diaspore.

seed coat One or two protective outer layers on a seed derived from the integuments of the ovule. A single layer is referred to as the testa, and two layers, the testa (outer) and tegmen (inner).

sepals The whorl of leaf-like structures surrounding the petals, usually green.

simple fruit Fruit developed from a simple flower with one carpel.

stamens Male organs of the flower, consisting of a pollen-bearing anther on the end of a filament.

stigma Part of the carpel that receives pollen, usually at the end of the style.

style Part of the carpel between the stigma and ovary.

syconium A fleshy indehiscent multiple fruit that looks like a simple fruit, where the 'skin' is the persistent inflorescence stalk that contains numerous tiny fruits.

tepals When similar in size, texture and colour, petals and sepals are termed tepals.

viable A seed that is live, mature and will germinate in ideal environmental conditions.

wing The thin membranous part of a fruit or seed, which aids wind dispersal.

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