

City of Greater Geraldton Community Nursery

# Native Plant Propagation Guide

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GTN

This Guide was produced by the City of Greater Geraldton

## **Contents**

Introduction	5
Using this guide	8
Propagation key	9
Groundcovers	. 10
Grasses	. 11
Herbs	. 13
Rushes	. 14
Sedges	. 15
Strap-leaf plants	. 16
Twining plants	. 17
Shrubs (small to medium)	. 21
Shrubs (tall)	36
Shrubs/Trees	. 44
Trees	. 48
Seed collection times	52
Notes	56
Useful resources	58
Acknowledgements	59





## Introduction

The State of Western Australia (WA) is outstanding in many ways. As Australia's largest State, it covers an area of over 2.5 million square kilometres endowing it with a wide range of climatic and environmental conditions. Its native flora is also unique possessing both high biodiversity and a high degree of endemism - meaning many of its plants are found nowhere else in the world. Whilst this creates a tourism drawcard for the State, it also poses a challenge for any revegetation and bushland management efforts with modern revegetation techniques now recognising the benefits of using local provenance native plants.

The geographical expanse of WA also means the distribution of any single plant species can range over a large area. For example, Orange Wattle (Acacia saligna) occurs from Shark Bay in the north to Esperance in the south. When grown from local provenance seed, native plants have a better survival chance since they are acclimated to local temperature and rainfall conditions. Therefore, local provenance Orange Wattle seed collected for arevegetation project in the hotter, drier conditions of the Shark Bay area will give a much better outcome than using Orange Wattle seed collected in the cooler, wetter Esperance area.

Collection of **mature** seed is critical to any restoration effort. Whilst some native plants retain their seed on the plant, most plants shed their seed annually. Given the size of WA, the timing for the collection of mature seed will vary depending on the locality with plants in the north of the State producing seed earlier than plants further south. Thus, timing is critical to seed collection and this highlights the value in acquiring seed collection data on a local scale.

In addition, the high biodiversity and varying environmental conditions across the State means it's also of great benefit to collect germination and propagation data on a local scale as this will also vary depending on locality.

This booklet compiles seed collection data as well as germination and propagation techniques used by the City of Greater Geraldton's Community Nursery over the past five years, with additional information from other local sources. It is intended as an iterative catalogue of knowledge which is regularly updated when new knowledge comes to hand and scientific names change.

#### When using this booklet, it's important to note that:

- Unless otherwise stated, all seed is sown into trays of propagation soil
  mix and treated with smoke water as it has slight antifungal properties
  and assists uniform germination.
- Seed collection timing will vary from year to year depending on the weather. For instance, lower than usual temperatures may delay seed ripening, whilst sudden heat waves can accelerate seed ripening and shedding.
- Some plants are opportunistic in their flowering so that an
  unseasonal rainfall event can induce flowering and seeding
  production. For example, Olearia axillaris usually produces seed in
  April/May, however a heavy rainfall event in early December will result
  in opportunistic flowering followed by seed production in mid-January.
- All seed collection must be carried out under license available from the Department of Biodiversity, Conservation and Attractions and permission of the landholder must be obtained prior to collection.

#### This book aims to assist:

- With the identification of local native plants and their seed.
- Community and other groups to identify and collect seed for their revegetation purposes.
- Seed collection by providing data on seed collection timing.
   Flower timing has been included as an indicator to help predict collection "windows". As a general "rule of thumb" for plants that shed seed as this seed is likely to be ripe approximately three months after flowering.
- Revegetation efforts by creating a permanent record of germination knowledge that can be shared and updated in the future.





## **Using this guide**

#### Common name

Please note that not all native plants have a common name.

#### **Growth forms**

Growth forms types are sorted by height; Groundcovers, Grasses, Herbs, Rushes, Sedges, Strap-leaf Plants, Twining Plants, Shrubs (Small to Medium), Shrubs (Tall), Shrubs/Trees and Trees.

#### Seed collection & flower timing

A simple visual calendar has been provided for seed collection and flowering periods. An annual seed collection calendar is also provided to help plan collection trips over the calendar year.

#### **Propagation details**

Abbreviated notes on propagation techniques are provided. See the propagation key for a full description of the abbreviations.

#### Scale

Scale is shown for each seed with the use of a square. The number displayed inside the square indicates the length of each side in mm.



## **Propagation key**

**Abrade** Remove the wing off the seed before sowing.

**Bird** Seed collected from bird droppings and treated with GA + SS.

Boil Boil 1 minute then leave in hot water 24 hours.BW Boiling Water. Pour boiling water over planted seed.

**Cuttings** Propagation by cuttings.

**DH** Dry Heat. Bake seed on a tray at 100°C for 3 hours.

**Ferment** Soak fleshy seed in water for 4 - 5 days without changing the

water, then wash away the pulp using a sieve. Dry the seed.

**GA + SS** Soak seed in Gibberellic Acid 1 part per thousand for 24

hours then smoke water for 24 hours.

**HW** Simmer seed at 95°C for 2 minutes before pouring the hot

water over seed. Soak for 24 hours. Ensure that the volume of water to seed used is at least 10:1, to ensure the correct

temperature is reached and maintained.

**HW60** Hot water 60°C for 30 seconds.

**HW70** Soak seed in water 70°C for 1 minute.

**LIGHT** Sow very shallowly as the seed needs light to germinate.

Using a cloth bag or pillow case, soak the seed in a bucket of water for 4 days. Change the water at least 3 times daily.

Alternatively, if the amount of seed being germinated is small, soaking in a toilet cistern that is frequently flushed

will suffice.

SJ Spice Jar. Dilute the seed with sterile yellow sand and use a

spice jar to sprinkle seed evenly over the propagation soil. Yellow sand allows the spread of seed to be easily seen.

Soak seed for 24 hours in Smoke Water prior to planting

(dilution 1:9 in water).

**Stocking** Place a stocking over the flowering spike and tie off with

string as the seed is starting to brown off to catch the seed. Remove the stocking after the seed has been released.

**SW** When planting seed in trays or pots, water them initially

with Smoke Water.

**WW4D** Soak the seed for 4 days in 50°C water. This can be best

achieved with a thermos flask or yoghurt maker.

#### Groundcovers



## Carpobrotus virescens

Common Name Coastal Pigface

Height (metres) 0.2m

Flower Timing JFMAMJJASOND

Seed Collecting Timing J F M A M J J A S O N D

Propagation Details Ferment + SW + SJ

Days to Germination 6 - 8



## Kennedia prostrata

Common Name Scarlet Runner

Height (metres) 0.1m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details HW + SS

Days to Germination 8



## Sporobolus virginicus

Common Name Marine Couch

Height (metres) 0.2m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SW
Days to Germination 13 - 18

Collect older paler seed from plant. If collecting fresh seed, it may need to be stored at room temperature for a year before planting.



#### Grasses



### Austrostipa elegantissima

Common Name Feather Speargrass

Height (metres) 0.35 - 2m

Flower Timing

JFMAMJJASOND

Seed Collecting Timing

JFMAMJJASOND

Propagation Details SS
Days to Germination 5

Older seed (1-2 years) achieves higher germination rates. When only fresh seed is available, a higher germination rate can be achieved by using GA in addition to SW.



#### Austrostipa flavescens

Common Name Coast Speargrass

Height (metres) 0.2 - 1.2m

Flower Timing

JFMAMJJASOND

Seed Collecting Timing

JFMAMJJASOND

Propagation Details SW + LIGHT

Days to Germination 21



#### Chloris truncata

Common Name Windmill Grass
Height (metres) 0.16 - 0.45 m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SW + LIGHT



#### Grasses



### Neurachne alopecuroidea

Common Name Foxtail Mulga Grass

Height (metres) 0.15 - 0.5m

Flower Timing

JFMAMJJASOND

Seed Collecting Timing

JFMAMJJASOND

Propagation Details SW
Days to Germination 7 - 13

Subject to damping off - keep dry after pricking out.



## Spinifex longifolius

Common Name Beach Spinifex

Height (metres) 0.3 - 1m

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details SW
Days to Germination 10

Collect seed from female plants situated close to male plants for higher seed viability. Separate out seed and cut off awns. Plant en masse.



#### Themeda triandra

Common Name Kangaroo Grass

Height (metres) 0.3 - 2m

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details SW
Days to Germination 5



#### Herbs



#### Ptilotus nobilis

Common Name Tall Mulla Mulla

Height (metres) 0.3 - 0.6m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SW
Days to Germination 6 - 10

Seed needs to be collected when very dry and easily removed from the plant before it's ripe.



## Senecio pinnatifolius

Common Name Variable Groundsel

Height (metres) 0.35m

Flower Timing

JFMAMJJASOND

Seed Collecting Timing

JFMAMJJASOND

Propagation Details SW

Days to Germination 13 - 20



#### Threlkeldia diffusa

Common Name Coast Bonefruit

Height (metres) 0.1 - 0.4m

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details SS

Days to Germination 10 - 15

Germinates in cooler weather.



## **Rushes**



#### Ficinia nodosa

Common Name Knotted Club Rush

Height (metres) 1m

Flower Timing J F M A M J J A S O N D
Seed Collecting Timing J F M A M J J A S O N D

Propagation Details SW + SJDays to Germination 15 - 19

Grows up to 0.8m wide.



#### Juncus kraussii

Common Name Sea Rush
Height (metres) 0.3 - 1.2m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SW + LIGHT

Days to Germination 8 - 13

Cover lightly with sand or vermiculite.



## **Sedges**



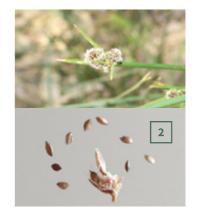
## Cyperus gymnocaulos

Common Name Spiny Flat-sedge

Height (metres) 0.35 - 1m

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details SW + LIGHT



## Strap-leaf plants



#### Anigozanthos manglesii

Common Name Mangles Kangaroo Paw

Height (metres) 0.2 - 1.1m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details DH Days to Germination 20

Use seed kept at room temperature for several years or apply dry heat treat 100 °C for 3 hours to fresh seed.



#### Dianella revoluta

Common Name Blueberry Lily
Height (metres) 0.3 - 1.5 m

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details GA + SSDays to Germination 58 - 75

Doesn't germinate until cooler weather in late April.





#### Aphanopetalum clematideum

Common Name (no common name)

Height (metres) N/A

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SS
Days to Germination 90

Doesn't germinate until cooler weather in late April.



#### Clematicissus angustissima

Common Name Native Grape

Height (metres) N/A

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SS
Days to Germination 100+

Doesn't germinate until cooler weather in late April.



#### Clematis linearifolia

Common Name Old Man's Beard

Height (metres) N/A

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details SS

Days to Germination 40 - 50

Seed needs to be collected when very dry and easily removed from the plant before it's ripe. Doesn't germinate until cooler weather in late April.





#### Convolvulus remotus

Common Name (no common name)

Height (metres) N/A

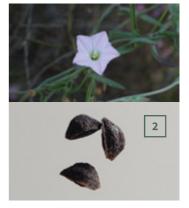
Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SS
Days to Germination 8



#### Dioscorea hastifolia

Common Name Warrine
Height (metres) N/A

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details GA + SSDays to Germination 40 - 50

Doesn't germinate until cooler weather in late April.



## Glycine canescens

Common Name Silky Glycine

Height (metres) N/A

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details SS
Days to Germination 5 - 8



→ INDEX → CONTENTS

### Hardenbergia comptoniana

Common Name Native Wisteria

Height (metres) N/A

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

HW + SS

Seed Collecting Timing Propagation Details

Days to Germination 10



#### Marianthus bicolor

Common Name Painted Marianthus

Height (metres) N/A

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SW
Days to Germination 24



## Marianthus ringens

Common Name Chapman River Creeper

Height (metres) N/A

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Seed Collecting Timing Propagation Details

SW





## Roepera fruticulosa

Common Name Shrubby Twinleaf

Height (metres) N/A

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details GA + SS

Days to Germination 14

Seed is myxogenic and will stick together if allowed to get wet.



## Tetragonia implexicoma

Common Name Bower Spinach

Height (metres) N/A

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details WW2D + GA + SS

Days to Germination 32

Variable germination. Germination increases in cooler weather.





#### Acacia alata

Common Name Winged Wattle
Height (metres) 0.3 - 2.1m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details HW

Days to Germination 20



#### Acacia ericifolia

Common Name (no common name)

Height (metres) 0.2 - 1.2m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details HW + SSDays to Germination 6 - 8

Direct seed into pots as subject to damping off after pricking out.



## Acacia guinetii

Common Name Guinet's Wattle

Height (metres) 0.3 - 2m

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details HW + SS





#### Acacia idiomorpha

Common Name (no common name)

Height (metres) 0.2 - 1m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details HW + SS

Days to Germination 8



#### Acanthocarpus preissii

Common Name Prickle Lily
Height (metres) 0.2 - 0.7 m

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details SS

Days to Germination 28 - 56



## Angianthus cunninghamii

Common Name Coast Angianthus

Height (metres) 0.2 - 0.5m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SW
Days to Germination 7 - 13

 $Cover\ lightly.\ Requires\ fresh\ seed\ annually\ for\ a\ high\ germination\ rate.$ 





#### Anthobolus foveolatus

Common Name (no common name)

Height (metres) 1 - 1.8m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details GA + SSDays to Germination 47 - 60

*Germinates readily but slow grower.* 



## Atriplex amnicola

Common Name Swamp Saltbush

Height (metres) 0.3 - 1.7m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details S4D + SWDays to Germination 8-12



## Atriplex cinerea

Common Name Grey Saltbush
Height (metres) 0.2 - 1.5m

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details S4D + SWDays to Germination 7 - 21

Cool conditions favour germination. Seed can be soaked and dried for later use.





#### Atriplex isatidea

Common Name Coast Saltbush
Height (metres) 0.5 - 2.5m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details S4D + SWDays to Germination 11 - 20

Cool summer favours germination. Seed can be soaked and dried for later use. Germinates more quickly when presoaked.



## Atriplex semibaccata

Common Name Berry Saltbush
Height (metres) 0.1 - 0.5m

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details S4D + SWDays to Germination 2 - 6

Grows up to 1.8m wide.



## Bossiaea spinescens

Common Name (no common name)

 $\mbox{Height (metres)} \mbox{0.2 - 1.7m}$ 

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details HW + SSDays to Germination 6 - 10





### Calothamnus blepharospermus

Common Name (no common name)

Height (metres) 0.3 - 2.5 m

J F M A M J J A S O N D Flower Timing J F M A M J J A S O N D

7 - 10

Seed Collecting Timing

Days to Germination

**Propagation Details** SW + SJ



## Calothamnus quadrifidus subsp homalophyllus

Common Name Murchison Clawflower

Height (metres) 0.9 - 2m

Flower Timing J F M A M J J A S O N D

Seed Collecting Timing J F M A M J J A S O N D

**Propagation Details** SW + SIDays to Germination 7 - 10



## Chenopodium gaudichaudianum

Cottony Saltbush Common Name

0.3 - 2mHeight (metres)

J F M A M J J A S O N D Flower Timing Seed Collecting Timing J F M A M J J A S O N D

**Propagation Details** SS Days to Germination 6





## Diplopeltis huegelii

Common Name (no common name)

Height (metres) 0.1 - 1.5m

Flower Timing

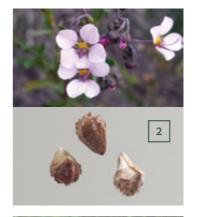
JFMAMJJASOND

Seed Collecting Timing

JFMAMJJASOND

Propagation Details HW + SS Days to Germination 13

Store seed at room temperature for at least 1 year before sowing.



### Diplopeltis petiolaris

Common Name (no common name)

Height (metres) 0.3 - 2m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details Cuttings
Days to Germination 13

Poor germination.



## Enchylaena tomentosa

Common Name Barrier Saltbush

Height (metres) 0.1 - 0.6m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SW Days to Germination 6

Use fresh berries, squash flesh and plant immediately.





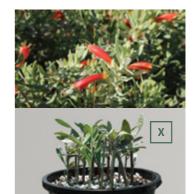
### Eremophila glabra

Common Name Tar Bush 0.1 - 2.5 mHeight (metres)

J F M A M J J A S O N D Flower Timing N/A, PROPAGATE FROM CUTTING

**Seed Collecting Timing** 

**Propagation Details** Cuttings N/A Days to Germination



#### Grevillea biternata

Common Name (no common name)

0.3 - 1.8 mHeight (metres)

Flower Timing J F M A M J J A S O N D Seed Collecting Timing J F M A M J J A S O N D

**Propagation Details** SS Days to Germination 9 - 11

Stocking September. If poor germination first year, keep seeded trays for second year germination.



#### Grevillea triloba

Common Name (no common name)

0.9 - 1.5 mHeight (metres)

J F M A M J J A S O N D Flower Timing Seed Collecting Timing J F M A M J J A S O N D

SS **Propagation Details** Days to Germination 17 +

If poor germination first year, keep seeded trays for second year germination. Stocking October.





#### Guichenotia ledifolia

Common Name (no common name)

Height (metres) 0.4 - 1.5m

Flower Timing

JFMAMJJASOND

Seed Collecting Timing

JFMAMJJASOND

Propagation Details BW Days to Germination 30+



#### Guichenotia macrantha

Common Name Large-flowered Guichenotia

Height (metres) 0.2 - 1.5m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details BW
Days to Germination 21



#### Guichenotia micrantha

Common Name Small-flowerered Guichenotia

Height (metres) 0.2 - 2m

Flower Timing J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details BW
Days to Germination 21





#### Hibiscus drummondii

Common Name Native Hibiscus

Height (metres) 1 - 1.5m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SW
Days to Germination 5 - 7



#### Lechenaultia linarioides

Common Name Yellow Leschenaultia

Height (metres) 1 - 1.5m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SS or Cuttings

Days to Germination 46

Keep seeded tray to second year for better germination.



## Melaleuca campanae

Common Name (no common name)

Height (metres) 1 - 1.5m

Flower Timing

JFMAMJJASOND

Seed Collecting Timing

JFMAMJJASOND

Propagation Details SW + SJ





### Melaleuca cardiophylla

Common Name Tangling Melaleuca

Height (metres) 0.4 - 2m

J F M A M J J A S O N D Flower Timing J F M A M J J A S O N D

Seed Collecting Timing

**Propagation Details** SW + SJDays to Germination 10



## Melaleuca depressa

Common Name (no common name)

Height (metres) 0.6 - 2m

Flower Timing J F M A M J J A S O N D J F M A M J J A S O N D

Seed Collecting Timing **Propagation Details** SW + SI

Days to Germination



#### Melaleuca radula

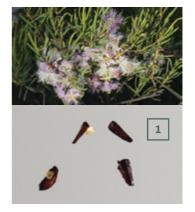
Common Name Graceful Honeymyrtle

0.3 - 2.4 mHeight (metres)

J F M A M J J A S O N D Flower Timing Seed Collecting Timing

**Propagation Details** 







#### Melaleuca systena

Common Name Coastal Honeymyrtle

Height (metres) 0.5 - 2m

Flower Timing JFMAMJJASOND

Seed Collecting Timing JFMAMJJASOND

Propagation Details SW + SJ

Days to Germination 7



#### Nitraria billardierei

Common Name Nitre Bush Height (metres) 0.5 - 2m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details Bird + GA + SS

Days to Germination 7 - 10

Cut off watering early and hand water twice weekly from early April as subject to damping off.



## Pimelea microcephala

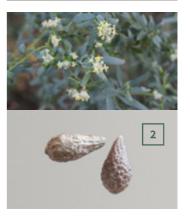
Common Name Shrubby Riceflower

Height (metres) 0.8 - 2.5m

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details Ferment + GA + SS

Days to Germination 15 - 30





#### Ptilotus divaricatus

Common Name Climbing Mulla Mulla

Height (metres) 0.3 - 1.5m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SW
Days to Germination 7 - 9

Seed needs to be collected when very dry and easily removed from the plant before it's ripe.



## Rhagodia preissii

Common Name Red Berry Saltbush

Height (metres) 0.5 - 2.5m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details Ferment + SS

Days to Germination 7 - 14



#### Scaevola crassifolia

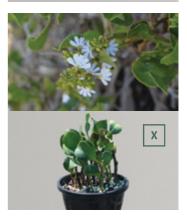
Common Name Thick-leaved Fan-flower

Height (metres) 0.1 - 1.5m

Flower Timing J F M A M J J A S O N D

Seed Collecting Timing N/A, PROPAGATE FROM CUTTING

Propagation Details Cuttings
Days to Germination N/A





#### Scaevola tomentosa

Common Name Raggedleaf Fanflower

Height (metres) 0.2 - 2m

J F M A M J J A S O N D Flower Timing J F M A M J J A S O N D Seed Collecting Timing

Ferment + GA + SS **Propagation Details** 

Days to Germination 12



## Sida calyxhymenia

Common Name Tall Sida Height (metres) 0.2 - 1.5 m

Flower Timing J F M A M J J A S O N D Seed Collecting Timing J F M A M J J A S O N D

**Propagation Details** SS 6 - 10 Days to Germination



#### Solanum oldfieldii

Common Name (no common name)

0.3 - 1mHeight (metres)

J F M A M J J A S O N D Flower Timing Seed Collecting Timing J F M A M J J A S O N D

**Propagation Details** SS





#### Stylobasium australe

Common Name (no common name)

Height (metres) 0.5 - 2m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details HW for 1 minute + SS

Days to Germination 8 - 12



## Stylobasium spathulatum

Common Name Pebble Bush Height (metres) 0.5 - 2.5m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details HW + SS
Days to Germination 8 - 13

For better germination use old seed collected from the ground underbushes that has lost it's outer hard seed coat.



## Verticordia chrysanthella

Common Name Feather Flower

Height (metres) 0.2 - 1m

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details Seed or Cuttings

Days to Germination 30+

Propagation is best by cuttings. If using seed, keep seeded trays for a second year to achieve germination.





## Westringia dampieri

Common Name (no common name)

Height (metres) 0.2 - 1.5m

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details GA + SS



## Shrubs (tall)



## Acacia cyclops

Common Name Coastal Wattle

Height (metres) 0.8 - 4m

J F M A M J J A S O N D Flower Timing J F M A M J J A S O N D **Seed Collecting Timing** 

HW + SS**Propagation Details** 

Days to Germination 20



#### Acacia rostellifera

Common Name Summer-scented Wattle

Height (metres) 1 - 6m

Flower Timing J F M A M J J A S O N D J F M A M J J A S O N D Seed Collecting Timing

**Propagation Details** HW + SSDays to Germination 6 - 8



## Acacia saligna

Common Name Orange Wattle Height (metres) 1.5 - 6m

J F M A M J J A S O N D Flower Timing

Seed Collecting Timing J F M A M J J A S O N D **Propagation Details** Boil + SS





### Acacia scirpifolia

Common Name (no common name)

Height (metres) 1 - 4m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details HW + SSDays to Germination 3 - 5

Direct seed into pots as subject to damping off after pricking out.



### Acacia spathulifolia

Common Name (no common name)

Height (metres) 0.5 - 3m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details HW + SS

Days to Germination 6

Direct seed into pots as subject to damping off after pricking out.



### Acacia xanthina

Common Name White-stemmed Wattle

Height (metres) 1 - 4m

Flower Timing

JFMAMJJASOND

Seed Collecting Timing

JFMAMJJASOND

Propagation Details HW + SS

Days to Germination 5





### Allocasuarina campestris

Common Name Shrubby She-oak

Height (metres) 1 - 3m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SW
Days to Germination 7 - 14

Direct seed into pots as subject to damping off after pricking out. Seed is myxogenic and will stick together if allowed to get wet. Sprinkle sterile yellow sand before planting seed to allow black seed to be seen against a dark coloured propagation mix.

### Alyogyne hakeifolia

Common Name Native Hibiscus

Height (metres) 1 - 3m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details WW4D + SS or cuttings

Days to Germination 8

Soaking hastens germination, grows more slowly.







### Alyogyne huegelii

Common Name Lilac Hibiscus

Height (metres) 2 - 4m

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details WW4D + SS or cuttings

Days to Germination 8

Soaking hastens germination, fast grower.





### Alyxia buxifolia

Common Name Dysentery Bush

Height (metres) 1 - 3m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details Bird or Cuttings

Days to Germination 40

Very slow to produce roots and slow growing.



### Chamelaucium uncinatum

Common Name Geraldton Wax

Height (metres) 0.5 - 4m

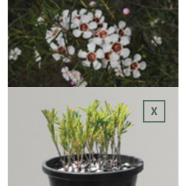
Flower Timing J F M A M J J A S O N D

Seed Collecting Timing

N/A, PROPAGATE FROM CUTTING

Propagation Details Cuttings

Days to Germination N/A



### Diplolaena grandiflora

Common Name Wild Rose
Height (metres) 0.5 - 3m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details GA + SSDays to Germination 21 - 35

Keep seeded tray to second year for further germination.





### Dodonaea inaequifolia

Common Name Hopbush 0.7 - 5mHeight (metres)

J F M A M J J A S O N D Flower Timing J F M A M J J A S O N D Seed Collecting Timing

HW60 + SS**Propagation Details** Days to Germination 14 - 21



### Grevillea candelabroides

Common Name (no common name)

Height (metres) 1.2 - 4m

Flower Timing J F M A M J J A S O N D Seed Collecting Timing J F M A M J J A S O N D

**Propagation Details** Abrade + SS 8 - 10 Days to Germination

Direct seed into pots as subject to damping off after pricking out.



### Grevillea leucopteris

White Plume Grevillea Common Name

1 - 4m Height (metres)

J F M A M J J A S O N D Flower Timing Seed Collecting Timing J F M A M J J A S O N D

SS **Propagation Details** 

Days to Germination 10 - 14





### Grevillea petrophiloides

Common Name Pink Pokers
Height (metres) 1 - 4m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SS

Days to Germination 14 - 30



### Grevillea pinaster

Common Name (no common name)

Height (metres) 0.5 - 3m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SS or Cuttings

Days to Germination 21+

If poor germination first year, keep seeded trays for second year germination.



### Jacksonia cupulifera

Common Name (no common name)

Height (metres) 1.2 - 4m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details HW + SS

Days to Germination 5





### Labichea lanceolata

Common Name Tall Labichea

Height (metres) 1 - 3m

Flower Timing

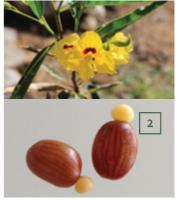
JFMAMJJASOND

Seed Collecting Timing

JFMAMJJASOND

Propagation Details HW + SS

Days to Germination 6



### Melaleuca megacephala

Common Name (no common name)

Height (metres) 0.5 - 3m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SW + SJ

Days to Germination 7



### Myoporum montanum

Common Name Native myrtle

Height (metres) 3 - 4m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details Ferment + GA + SS

Days to Germination 14 - 24

 $Low\ germination\ rate.$ 





### Olearia axillaris

Common Name Coastal Daisybush

Height (metres) 0.5 - 3m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SW
Days to Germination 7 - 16

Requires fresh seed each year. Seeds need 3 months airing before storage or sowing. Plants produce seed 6 weeks after rainfall event so seed collection time can vary if summer rain occurs.



### Senna glutinosa subsp chatelainiana

Common Name (no common name)

Height (metres) 0.6 - 3m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details HW70
Days to Germination 6

Variable germination.



### Templetonia retusa

Common Name Cockies Tongues

Height (metres) 0.3 - 4m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details HW + SS
Days to Germination 8 - 12





### Acacia acuminata

Common Name Jam
Height (metres) 1 - 7m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details Boil
Days to Germination 5 - 7



### Acacia tetragonophylla

Common Name Kurara
Height (metres) 1.4 - 5m

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details Boil + SS

Days to Germination 4



### Banksia sessilis

Common Name Parrot Bush
Height (metres) 0.5 - 5m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SS
Days to Germination 14

Sow when weather cools down after March.





### Grevillea argyrophylla

Common Name Silvery-leaved Grevillea

Height (metres) 1 - 6m

Flower Timing

JFMAMJJASOND

Seed Collecting Timing

JFMAMJJASOND

Propagation Details SS

Days to Germination 7 - 14

Stocking October.



### Grevillea eriostachya

Common Name Flame Grevillea

Height (metres) 1 - 5m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details Abrade + SS
Days to Germination 20 - 25

Direct seed into pots as subject to damping off after pricking out.



### Hakea preissii

Common Name Needle Tree
Height (metres) 2 - 6m

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details SS
Days to Germination 14

Germinates in cooler weather, sow when weather cools down after March.





### Hakea recurva

Common Name Djarnokmurd

Height (metres) 1 - 6m

Flower Timing

J F M A M J J A S O N D

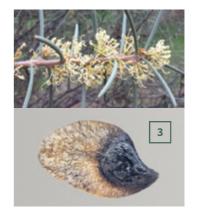
Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SS

Days to Germination 8 - 15

Germinates in cooler weather, sow when weather cools down after March.



### Melaleuca huegelii

Common Name Chenille Honeymyrtle

Height (metres) 0.5 - 5m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SW + SJ

Days to Germination 9



### Melaleuca viminea

Common Name Mohan
Height (metres) 0.6 - 5m

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details SW + SJ

Days to Germination 8





### Myoporum insulare

Common Name Blueberry Tree

Height (metres) 0.25 - 5m

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details Ferment + SS

Days to Germination 15 - 30

Use darkest purple berries only.



### **Trees**



### Casuarina obesa

Common Name Swamp Sheoak
Height (metres) up to 10m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SW
Days to Germination 7 - 10



### **Eucalyptus camaldulensis**

Common Name River Gum
Height (metres) up to 20m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SW + SJDays to Germination 4 - 9



### Eucalyptus eudesmioides

Common Name Malallie
Height (metres) up to 8m

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details SW

Days to Germination 6 - 10



### **Trees**



### **Eucalyptus loxophleba**

Common Name York Gum
Height (metres) up to 15m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SW + SJDays to Germination 6 - 10



### **Eucalyptus oraria**

Common Name Ooragmandee
Height (metres) up to 15m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details SW + SJDays to Germination 6 - 10



### Melaleuca lanceolata

Common Name Rottnest Teatree

Height (metres) up to 8m

Flower Timing

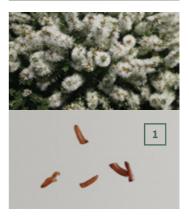
J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

 $\begin{array}{ll} \mbox{Propagation Details} & \mbox{SW} + \mbox{SJ} \\ \mbox{Days to Germination} & \mbox{11} \\ \end{array}$ 

Seedlings are slow growing once germinated.



### Trees



### Melaleuca rhaphiophylla

Common Name Swamp Paperbark

Height (metres) up to 10m

Flower Timing JFMAMJJASOND
Seed Collecting Timing JFMAMJJASOND

Propagation Details SW + SJ

Days to Germination 8



### Pittosporum phillyreoides

Common Name Weeping Pittosporum

Height (metres) up to 5m

Flower Timing

J F M A M J J A S O N D

Seed Collecting Timing

J F M A M J J A S O N D

Propagation Details GA + SSDays to Germination 27 - 35

Seed needs to be scarified with coarse river sand or allowed to go slightly mouldy prior to planting.



"If you plan for a year, plant a seed.

If for ten years, plant a tree.

If for a hundred years, teach the people.

When you sow a seed once, you will reap a single harvest.

When you teach the people, you will reap a hundred harvests."

Kuan Chung

# **Seed collection times**

Acacia acuminata	J F M A M J J A S O N D
Acacia alata	J F M A M J J A S O N D
Acacia cyclops	J F M A M J J A S O N D
Acacia ericifolia	J F M A M J J A S O N D
Acacia guinetii	J F M A M J J A S O N D
Acacia idiomorpha	J F M A M J J A S O N D
Acacia rostellifera	J F M A M J J A S O N D
Acacia saligna	J F M A M J J A S O N D
Acacia scirpifolia	J F M A M J J A S O N D
Acacia spathulifolia	J F M A M J J A S O N D
Acacia tetragonophylla44	J F M A M J J A S O N D
Acacia xanthina	J F M A M J J A S O N D
Acanthocarpus preissii	J F M A M J J A S O N D
Allocasuarina campestris	J F M A M J J A S O N D
Alyogyne hakeifolia38	J F M A M J J A S O N D
Alyogyne huegelii	J F M A M J J A S O N D
Alyxia buxifolia39	J F M A M J J A S O N D
Angianthus cunninghamii	J F M A M J J A S O N D
Anigozanthos manglesii	J F M A M J J A S O N D
Anthobolus foveolatus	J F M A M J J A S O N D
Aphanopetalum clematideum	J F M A M J J A S O N D
Atriplex amnicola	J F M A M J J A S O N D
Atriplex cinerea	J F M A M J J A S O N D
Atriplex isatidea24	J F M A M J J A S O N D
Atriplex semibaccata	J F M A M J J A S O N D
Austrostipa elegantissima11	J F M A M J J A S O N D
Austrostipa flavescens	J F M A M J J A S O N D
Banksia sessilis	J F M A M J J A S O N D
Bossiaea spinescens	J F M A M J J A S O N D
Calothamnus blepharospermus25	J F M A M J J A S O N D
Calothamnus quadrifidus subsp homalophyllus 25	J F M A M J J A S O N D
Carpobrotus virescens	J F M A M J J A S O N D
Casuarina obesa	J F M A M J J A S O N D
Chamelaucium uncinatum	N/A, PROPAGATE FROM CUTTING
Chenopodium gaudichaudianum25	J F M A M J J A S O N D
Chloris truncata11	J F M A M J J A S O N D
Clematicissus angustissima	J F M A M J J A S O N D
Clematis linearifolia	J F M A M J J A S O N D

Convolvulus remotus	18	J F M A M J J A S O N D	
Cyperus gymnocaulos		J F M A M J J A S O N D	
Dianella revoluta		J F M A M J J A S O N D	
Dioscorea hastifolia		J F M A M J J A S O N D	
Diplolaena grandiflora	39	J F M A M J J A S O N D	
Diplopeltis huegelii		J F M A M J J A S O N D	7
Diplopeltis petiolaris		J F M A M J J A S O N D	7
Dodonaea inaequifolia		J F M A M J J A S O N D	7
Enchylaena tomentosa	26	J F M A M J J A S O N D	
Eremophila glabra	27	N/A, PROPAGATE FROM CUTTING	
Eucalyptus camaldulensis	48	J F M A M J J A S O N D	,
Eucalyptus eudesmioides	48	J F M A M J J A S O N D	
Eucalyptus loxophleba	49	J F M A M J J A S O N D	
Eucalyptus oraria	49	J F M A M J J A S O N D	,
Ficinia nodosa	14	J F M A M J J A S O N D	
Glycine canescens	18	J F M A M J J A S O N D	,
Grevillea argyrophylla	45	J F M A M J J A S O N D	,
Grevillea biternata	.27	J F M A M J J A S O N D	,
Grevillea candelabroides	40	J F M A M J J A S O N D	,
Grevillea eriostachya	45	J F M A M J J A S O N D	,
Grevillea leucopteris	40	J F M A M J J A S O N D	,
Grevillea petrophiloides	41	J F M A M J J A S O N D	,
Grevillea pinaster	41	J F M A M J J A S O N D	,
Grevillea triloba	.27	J F M A M J J A S O N D	,
Guichenotia ledifolia	28	J F M A M J J A S O N D	,
Guichenotia macrantha	28	J F M A M J J A S O N D	,
Guichenotia micrantha	28	J F M A M J J A S O N D	,
Hakea preissii	45	J F M A M J J A S O N D	,
Hakea recurva	46	J F M A M J J A S O N D	
Hardenbergia comptoniana	19	J F M A M J J A S O N D	,
Hibiscus drummondii	29	J F M A M J J A S O N D	,
Jacksonia cupulifera	41	J F M A M J J A S O N D	,
Juncus kraussii	14	J F M A M J J A S O N D	,
Kennedia prostrata	10	J F M A M J J A S O N D	,
Labichea lanceolata	42	J F M A M J J A S O N D	,
Lechenaultia linarioides	29	J F M A M J J A S O N D	
Marianthus bicolor	19	J F M A M J J A S O N D	
Marianthus ringens	19	J F M A M J J A S O N D	

Melaleuca campanae	J F M A M J J A S O N D
Melaleuca cardiophylla	J F M A M J J A S O N D
Melaleuca depressa	J F M A M J J A S O N D
Melaleuca huegelii	J F M A M J J A S O N D
Melaleuca lanceolata	J F M A M J J A S O N D
Melaleuca megacephala	J F M A M J J A S O N D
Melaleuca radula	J F M A M J J A S O N D
Melaleuca rhaphiophylla 50	J F M A M J J A S O N D
Melaleuca systena	J F M A M J J A S O N D
Melaleuca viminea	J F M A M J J A S O N D
Myoporum insulare	J F M A M J J A S O N D
Myoporum montanum	J F M A M J J A S O N D
Neurachne alopecuroidea	J F M A M J J A S O N D
Nitraria billardierei	J F M A M J J A S O N D
Olearia axillaris	J F M A M J J A S O N D
Pimelea microcephala31	J F M A M J J A S O N D
Pittosporum phillyreoides	J F M A M J J A S O N D
Ptilotus divaricatus	J F M A M J J A S O N D
Ptilotus nobilis	J F M A M J J A S O N D
Rhagodia preissii	J F M A M J J A S O N D
Roepera fruticulosa	J F M A M J J A S O N D
Scaevola crassifolia	N/A, PROPAGATE FROM CUTTING
Scaevola tomentosa	J F M A M J J A S O N D
Senecio pinnatifolius	J F M A M J J A S O N D
Senna glutinosa subsp chatelainiana43	J F M A M J J A S O N D
Sida calyxhymenia	J F M A M J J A S O N D
Solanum oldfieldii	J F M A M J J A S O N D
Spinifex longifolius	J F M A M J J A S O N D
Sporobolus virginicus	J F M A M J J A S O N D
Stylobasium australe	J F M A M J J A S O N D
Stylobasium spathulatum	J F M A M J J A S O N D
Templetonia retusa	J F M A M J J A S O N D
Tetragonia implexicoma	J F M A M J J A S O N D
Themeda triandra	J F M A M J J A S O N D
Threlkeldia diffusa	J F M A M J J A S O N D
Verticordia chrysanthella	J F M A M J J A S O N D
Westringia dampieri	J F M A M J J A S O N D



The City of Greater Geraldton Community Nursery's plants are grown to help revegetate our beautiful local environment and the community love to get involved. Takako and Sakura Furukawa are helping to plant our coastal dunes.



# **Notes**

# **Notes**

## **Useful Resources**

### **Books**

Inland Garden Guide <a href="https://www.nacc.com.au/wp-content/uploads/2015/08/">https://www.nacc.com.au/wp-content/uploads/2015/08/</a>

Inland-Garden-Guide-Aug-2015-compressed.pdf

Coastal Garden Guide https://www.nacc.com.au/wp-content/uploads/2015/11/

 ${\color{blue} Coastal-Garden-Guide-September-2015-compressed.pdf}$ 

Midlands and Northern Trees-Shrubs-for-the-Midlands-and-Northern-

Wheatbelt 2nd edition Wheatbelt-2nd-edition.pdf

### Websites

Florabase https://florabase.dpaw.wa.gov.au/

### **Apps**

Coastal Plants (Northern Agricultural Catchments Council)

iPhone https://itunes.apple.com/AU/app/id1224462865

Android https://play.google.com/store/apps/details

?id=com.appiphany.coastalplants&hl=en%20

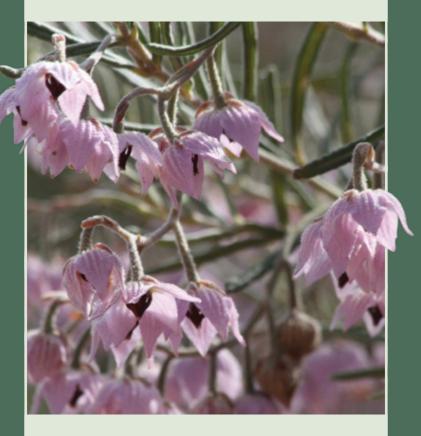
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natural resource management program

