



**Transforming**  
our landscapes

## **Grassy Box Gum Woodland Seed Collection Guide**

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*for the ACT and NSW districts of the South West Slopes, Central West Slopes and Plains,  
Central Tablelands, Eastern Riverina Regions and parts of the Southern Tablelands*

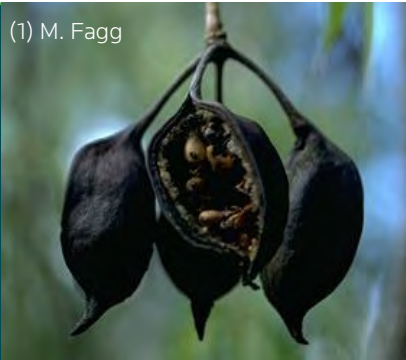
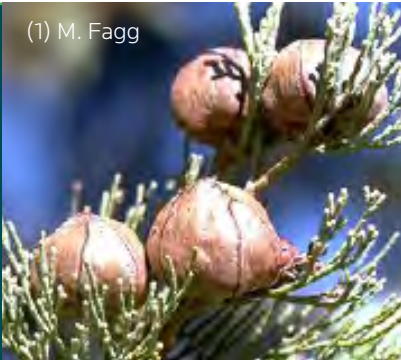

## **Factors to consider when using this guide**


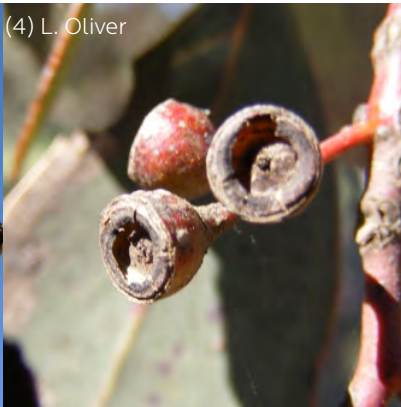

- This guide includes a broad geographic area covering the ACT and NSW districts of South West Slopes, Central West Slopes and Plains, Central Tablelands and Eastern Riverina and parts of the Southern Tablelands regions. As a result:
  - All species listed will not necessarily be local to an area; and
  - Seed collection times suggested are quite broad. Seed will ripen in warmer climates faster than in cooler districts. As a general rule, the further west you are, the earlier in the season the seed ripens. For example, Box Leaf Wattle (*Acacia buxifolia*) in the Wagga Wagga region will be ready to collect in early December but further east in the Canberra region seed may not be ready to harvest until around mid- December through to January.
- Seasonal influences and local variation in seed development may result in information differing to what is presented.
- Information about “direct seeding suitability” includes both hand and machine direct seeding methods. It will be specified when seeds are only suitable for one of the two techniques.
- The numbers of seeds per gram are approximate values.
- Corrections or additional information to improve this guide can be sent to [admin@act.greeningaustralia.org.au](mailto:admin@act.greeningaustralia.org.au)




All information presented in the Grassy Box Gum Woodland Seed Collection Guide was sourced to the best of Greening Australia’s ability to ensure that the contents are factually correct. Greening Australia does not accept responsibility for the accuracy or completeness of the contents, and shall not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on, the contents of this guide. Every effort was made to seek permission from photographers for use of imagery.




This guide was written, edited and compiled by Greening Australia staff: Juliette Grimaldi, Stephen Bruce, Bindi Vanzella, Tatjana Leontjeva and Nicki Taws.



Trees >15 m	(1) M. Fagg	(1) M. Fagg	
			
Species	<i>Brachychiton populneus</i>	<i>Callitris glaucophylla</i>	<i>Eucalyptus albens</i>
Common Name	Kurrajong	White Cypress Pine	White Box
Collection method	hand pick	hand pick cones	Shooting, hand pick, cut branches. To extract seed, place capsules on ground-sheets or drying racks. Sieve to clean.
Collection time	December to January	November to April	January to May
Direct seeding suitability	highly suitable	highly suitable	highly suitable
Optimum germination temperature	25°C	25-30°C	25°C
Weeks to germinate	2 to 4	2 to 6	2 to 4
Germination pre-treatment	Soak seeds in boiling water for 1 min or scarify.	none required	none required
No. seeds/gram	37 to 69	10 to 20	150
Precautions / comments	Irritant hairs in pods: use gloves and face mask.	use within 12 months	

Trees >15 m	(4) M. Frawley	(4) L. Oliver	(1) M. Fagg
			
Species	<i>Eucalyptus blakelyi</i>	<i>Eucalyptus melliodora</i>	<i>Eucalyptus microcarpa</i>
Common Name	Blakely's Red Gum	Yellow Box	Grey Box
Collection method	Shooting, hand pick, cut branches. To extract seed, place capsules on groundsheets or drying racks. Sieve to clean.	Shooting, hand pick, cut branches. To extract seed, place capsules on groundsheets or drying racks. Sieve to clean.	Shooting, hand pick, cut branches. To extract seed, place capsules on groundsheets or drying racks. Sieve to clean.
Collection time	October to March	January to June	January to August
Direct seeding suitability	highly suitable	highly suitable	highly suitable
Optimum germination temperature	25°C	25°C	25°C
Weeks to germinate	2 to 4	2 to 4	2 to 4
Germination pre-treatment	none required	none required	none required
No. seeds/gram	600 to 700	200-400	870

Small Trees to tall shrubs 3-15 m	(1) D. Greig	(4) E. Donoghue	(1) M. Fagg
			
Species	<i>Acacia gunnii</i>	<i>Acacia implexa</i>	<i>Acacia deanei</i> subsp. <i>deanei</i>
Common Name	Ploughshare Wattle	Hickory Wattle	Deane's Wattle
Collection method	Hand pick seed pods into buckets or woolpacks.	Hand pick seed pods into buckets or woolpacks.	Hand pick seed pods into buckets or woolpacks.
Collection time	November to January	October to March	November to December
Direct seeding suitability	highly suitable but difficult to source seeds in large quantities	highly suitable	highly suitable
Optimum germination temperature	25°C	25°C	25°C
Weeks to germinate	3	3	1 to 3
Germination pre-treatment	Pour boiling water over seeds and soak for several hours or scarify seeds.	Pour boiling water over seeds and soak for several hours or scarify seeds.	Pour boiling water over seeds and soak for several hours; or scarify seeds.
No. seeds/gram	140	45	45

Small Trees to tall shrubs 3-15 m	(3) B. Vanzella	florabank (2) L. Oliver	(2) GACR
			
Species	<i>Dodonaea viscosa</i> subsp. <i>cuneata</i>	<i>Hibbertia obtusifolia</i>	<i>Indigofera adesmiifolia</i>
Common Name	Wedge Leaf Hop Bush	Hoary Guinea Flower	Tick Indigo
Collection method	Hand rake or hand pick capsules before dehiscence and sun-dried.	Propagation is usually done by cuttings. Collect softwood or semi-softwood cuttings.	Hand pick the pods, place them in warm place to ripen and extract seeds.
Collection time	October to February		November to January
Direct seeding suitability	highly suitable		moderately suitable
Optimum germination temperature	20°C		20°C
Weeks to germinate	2 to 4		2 to 4
Germination pre-treatment	Heating for 30 sec in hot water hastens germination or scarification.		Pour boiling water over seeds, soak for 30 seconds then dry; or scarify seeds.
No. seeds/gram	100-200		about 160
Precautions / comments			Plants are frost sensitive if not under a canopy layer.

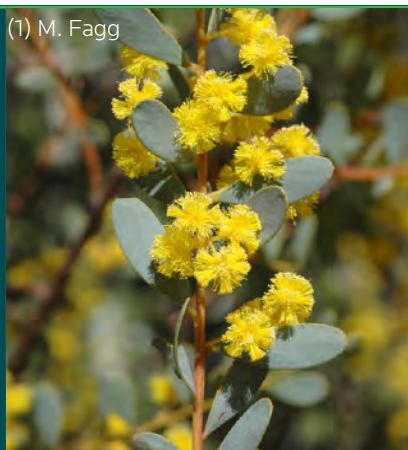


## Small Trees to tall shrubs 3-15 m




Species	<i>Indigofera australis</i>	<i>Pittosporum angustifolium</i>	<i>Pultenaea foliolosa</i>
Common Name	Hill Indigo	Weeping Pittosporum	Small-leaf Bush Pea
Collection method	Hand pick the pods, place them in warm place to ripen and extract seeds.	Pick berries/fruit.	Hand pick the pods when turning brown (just before or as the pods open) and fully dry in a warm area.
Collection time	November to February	December to May	November to February
Direct seeding suitability	moderately suitable	moderately suitable	moderately suitable as hard to source large quantities
Optimum germination temperature	20°C	25°C	20°C
Weeks to germinate	2 to 4	2 to 4	3 to 5
Germination pre-treatment	Pour boiling water over seeds, soak for 30 seconds then dry; alternatively scarify seeds.	Cold moist stratification, leaching, remove from fruit.	Pour boiling water over seeds, soak for 30 seconds then dry. Alternatively scarify.
No. seeds/gram	160	20-70	unknown
Precautions / comments		Use within 3 months.	Also propagated from soft-wood cuttings.

## Shrubs 1-3 m









Species	<i>Acacia buxifolia</i>	<i>Acacia decora</i>	<i>Acacia hakeoides</i>
Common Name	Box-leaf Wattle	Western Golden Wattle	Hakea Wattle
Collection method	Hand pick seed pods.	Hand pick seed pods.	Hand pick seed pods.
Collection time	November to January	December to January	November to January
Direct seeding suitability	highly suitable	highly suitable	highly suitable
Optimum germination temperature	25°C	25°C	25°C
Weeks to germinate	1 to 3	1 to 3	1 to 3
Germination pre-treatment	Pour boiling water over seeds and soak for several hours; or scarify seeds.	Pour boiling water over seeds and soak for several hours; or scarify seeds.	Pour boiling water over seeds and soak for several hours; or scarify seeds.
No. seeds/gram	45	66	32




<b>Shrubs 1-3 m</b>			
<b>Species</b>	<i>Acacia paradoxa</i>	<i>Bursaria spinosa</i>	<i>Daviesia latifolia</i>
<b>Common Name</b>	Kangaroo Thorn	Sweet Bursaria	Hop Bitter Pea
<b>Collection method</b>	Hand pick seed pods into buckets or woolpacks (with gloves).	Hand pick papery capsules (rattling pods).	Hand pick the rattling pods just before they open and fully dry in a warm area.
<b>Collection time</b>	December to January	January to May	December to January
<b>Direct seeding suitability</b>	highly suitable	not suitable	highly suitable
<b>Optimum germination temperature</b>	25°C	5°C over night/ 20°C day time	25°C
<b>Weeks to germinate</b>	3	4 to 8 (during spring or autumn)	2 to 6
<b>Germination pre-treatment</b>	Pour boiling water over seeds and soak for several hours; or scarify seeds.	none required	Pour boiling water over seeds, soak for 30 seconds then dry; or scarify seeds.
<b>No. seeds/gram</b>	75	80	100
<b>Precautions /comments</b>	prickly bush	Spiky plant. Use fresh seeds. Slow to germinate.	




<b>Groundcover &lt;1.2 m e.g. lilies, daisies and broad leaves</b>			
<b>Species</b>	<i>Ajuga australis</i>	<i>Brachyscome</i> spp.	<i>Brunonia australis</i>
<b>Common Name</b>	Austral Bugle	Daisies	Blue Pincushion
<b>Collection method</b>	Harvest stalks by hand or secateurs and place upside down inside paper bags. Dry until capsules have opened. Thresh lightly. Sieve clean the seeds.	Collect heads by hand into a paper bag. Allow to dry. Extract by hand any unreleased seeds.	Cut stalks containing the seed-heads with secateurs. Extract seeds by breaking up the seed-heads, then clean by sieving.
<b>Collection time</b>	December to January	December to February	December to March
<b>Direct seeding</b>	not suitable as sourcing seed in large quantities is difficult	not suitable	not suitable as sourcing seed is difficult
<b>Optimum germination temperature</b>	unknown	21°C	21°C
<b>Weeks to germinate</b>	unknown	2 to 7	4 to 8
<b>Germination pre-treatment</b>	none required	Store seeds below 15°C.	Place seeds in refrigerator to stratify 2 weeks before sowing.
<b>No. seeds/gram</b>	unknown	about 5000	unknown
<b>Precautions / comments</b>		Don't mistake dried outer flowers (florets) for small seed. Florets fall off, leaving mature seeds clustered in the centre of the head.	



<b>Groundcover</b> <b>&lt;1.2 m e.g.</b> <b>lilies, daisies</b> <b>and broad</b> <b>leaves</b>	 <p>(4)</p>	 <p>(2) B. Vanzella</p>	 <p>(3) J. Lindner</p>
<b>Species</b>	<b><i>Bulbine bulbosa</i></b>	<b><i>Burchardia umbellata</i></b>	<b><i>Calocephalus citreus</i></b>
<b>Common Name</b>	Bulbine Lily	Milkmaids	Lemon Beautyheads
<b>Collection method</b>	Harvest stalks by hand or secateurs when papery capsules turn brown and brittle. Place stems upside down inside paper bags. Dry until capsules have opened. Thresh lightly. Sieve clean the seeds.	Hand pick capsules when red-brown and brittle. Dry in paper bag and thresh lightly when they have opened. Sieve to clean.	Collect entire seedheads by hand into large paper bag. Allow to dry. Break up the seedhead by hand and sieve to clean.
<b>Collection time</b>	December to January	November to February	January to March
<b>Direct seeding</b>	moderately suitable	not suitable	highly suitable for hand seeding
<b>Optimum germination temperature</b>	20°C	Not over 18°C, may be critical for germination.	20°C
<b>Weeks to germinate</b>	2 to 8	4 to 8	3 to 7
<b>Germination pre-treatment</b>	none required	Smoking seeds enhances germination.	none required
<b>No. seeds/gram</b>	500	unknown	about 1200
<b>Precautions / comments</b>	Needs light to germinate. High temperatures inhibit germination. Store seeds 2 to 3 months before sowing.	Store 2-3 months and sow in autumn. May require soil fungi or soil from under parent plants.	

<b>Groundcover</b> <b>&lt;1.2 m e.g.</b> <b>lilies, daisies</b> <b>and broad</b> <b>leaves</b>	 <p>(1) M. Fagg</p>	 <p>(2) C. Miller</p>	 <p>(3)</p>
<b>Species</b>	<b><i>Calotis lappulacea</i></b>	<b><i>Chrysocephalum apiculatum</i></b>	<b><i>Chrysocephalum semipapposum</i></b>
<b>Common Name</b>	Yellow Burr-Daisy	Common Everlasting	Clustered Everlasting
<b>Collection method</b>	Hand pick capsules when red-brown and brittle. Dry seed capsules in paper bag. Break up the seed head by hand and sieve to clean.	Hand pick capsules when red-brown and brittle. Dry seed capsules in paper bag. Break up the seed head by hand and sieve to clean.	Hand pick capsules when red-brown and brittle. Dry seed capsules in paper bag. Break up the seed head by hand and sieve to clean.
<b>Collection time</b>	January to February	December to January	December to January
<b>Direct seeding</b>	highly suitable for hand seeding	moderately suitable	moderately suitable
<b>Optimum germination temperature</b>	20°C	20°C	20°C (not over 25°C)
<b>Weeks to germinate</b>	2 to 8	2 to 4	2 to 4
<b>Germination pre-treatment</b>	none required	none required	none required
<b>No. seeds/gram</b>	500	about 11 600	about 11 600
<b>Precautions / comments</b>		Needs light to germinate, sow at surface.	Needs light to germinate, sow at surface.

Groundcover <1.2 m e.g. lilies, daisies and broad leaves	  		
	(1)	(1) G. Manley	(3) B. Vanzella
Species	<i>Dichondra repens</i>	<i>Dichopogon fimbriatus</i>	<i>Dichopogon strictus</i>
Common Name	Kidneyweed	Nodding Chocolate Lily	Chocolate Lily
Collection method	Hand pick the capsules.	Harvest stalks by hand or secateurs when papery capsules turn brown and brittle. Place upside down in paper bags. Dry until capsules have opened. Thresh lightly to extract seeds. Sieve to clean.	Harvest stalks by hand or secateurs when papery capsules turn brown and brittle. Place upside down in paper bags. Dry until capsules have opened. Lightly thresh to extract seeds. Sieve to clean.
Collection time	unknown	December to January	December to January
Direct seeding suitability	moderately suitable	moderately suitable as hard to source large quantities	moderately suitable as hard to source large quantities
Optimum germination temperature	21°C (not under 20°C)	not over 18°C	not over 18°C
Weeks to germinate	unknown	2 to 6	4 to 8
Germination pre-treatment	Soak in hot water (60°C) for 30 min.	Store 2-3 months before sowing (after-ripening period).	Store 2-3 months before sowing (after-ripening period). For seeds over 12-month old, stratify for 6-7 weeks.
No. seeds/gram	300	400	400
Precautions /comments	Usually grown by division.	Also classified as <i>Arthropodium</i> . Sow in autumn as high temperatures inhibit germination.	Also classified as <i>Arthropodium</i> . Sow in autumn as high temperatures inhibit germination.

Groundcover <1.2 m e.g. lilies, daisies and broad leaves	  		
	(1) M. Fagg	(1) M. Fagg	(4) L. Oliver
Species	<i>Einadia nutans</i>	<i>Eremophila debilis</i>	<i>Eryngium ovinum</i>
Common Name	Climbing Saltbush	Winter Apple	Blue Devil
Collection method	Vacuum or hand pick berries/fruit.	Hand pick fresh fruits from the plant or the ground. Clean berry to the woody hard stone.	When seedheads are ripe, harvest entire stalks by secateur wearing gloves. Dry fully. Extract seed by pressuring seedheads or beating dried stems against hard surface.
Collection time	April to May	February to March	January to February
Direct seeding	highly suitable	not suitable	moderately suitable
Optimum germination temperature	15-25°C	20-25°C	20-25°C
Weeks to germinate	1 to 4	1 to 4	2 to 6
Germination pre-treatment	none required	Split fruits in halves and quarter (some seeds are inevitably damaged).	none required
No. seeds/gram	1000	10	unknown
Precautions/comments		Difficult to germinate by seed, mostly done by cuttings. Prick out the seedlings immediately after germination.	extremely prickly







<b>Groundcover &lt;1.2 m e.g. lilies, daisies and broad leaves</b>	(3) J. Lindner	(1) M. Fagg	(1) T. Leontjeva
<b>Species</b>	<i>Geranium solanderi</i>	<i>Goodenia pinnatifida</i>	<i>Linum marginale</i>
<b>Common Name</b>	Native Geranium	Cutleaf Goodenia	Native Flax
<b>Collection method</b>	Hand pick the well developed fruits and allow to dry in a warm spot.	Observe the base of dried flowers. If they look mature and swollen at the base, nip off and fully dry in warm position to release the seeds.	Hand pick tan brown capsules. Remove seeds by rubbing capsules against a fine wire screen.
<b>Collection time</b>	December to February	November to December	November to February
<b>Direct seeding suitability</b>	moderately suitable as hard to source large quantities	moderately suitable	moderately suitable as hard to source large quantities
<b>Optimum germination temperature</b>	unknown	20°C	20°C
<b>Weeks to germinate</b>	1 to 4	2 to 6	3 to 4
<b>Germination pre-treatment</b>	Soak in hot water at 60°C for 30 min.	none required	None required
<b>No. seeds/gram</b>	unknown	unknown	unknown
<b>Precautions / comments</b>	Surface sow or lightly cover as light enhances germination.		Leaching may hasten germination.





<b>Groundcover &lt;1.2 m e.g. lilies, daisies and broad leaves</b>	(1) R. Hill	(2) C. Miller	(1) M. Fagg
<b>Species</b>	<i>Lotus australis</i>	<i>Microseris lanceolata</i>	<i>Pimelea glauca</i>
<b>Common Name</b>	Australian Trefoil	Yam Daisy	Smooth Rice Flower
<b>Collection method</b>	Place a sheet under the plant. Hand pick mature brown pods and store in a warm place until pods open to release seeds.	Hand pick the fluffy aschenes.	Hand pick slightly immature fruits. Allow to mature in a warm spot. Rub seeds against a fine wire screen to remove the outer coverings.
<b>Collection time</b>	December to February	October to November	October to February
<b>Direct seeding</b>	highly suitable	moderately suitable for hand seeding	not suitable
<b>Optimum germination temperature</b>	15°C	not above 20°C	unknown
<b>Weeks to germinate</b>	2 to 4	2 to 4	unknown
<b>Germination pre-treatment</b>	Pour boiling water and soak seed until it cools. Dry before sowing.	Stratification at 4°C for 2 to 3 weeks before sowing improves germination.	May respond to a combination of heat and smoke treatment.
<b>No. seeds/gram</b>	600	unknown	340
<b>Precautions / comments</b>		Timing is important with collection. Use within 6 months.	<i>Pimelea glauca</i> is very difficult to grow from seeds, easier from cuttings.




Groundcover <1.2 m e.g. lilies, daisies and broad leaves			
	<i>Stackhousia monogyna</i>	<i>Thysanotus tuberosus</i>	<i>Tricoryne elatior</i>
Species			
Common Name	Creamy Candles	Common Fringe Lily	Yellow Rush Lily
Collection method	Usually propagated from cuttings.	Harvest stalks by hand or secateurs when papery capsule turns brown and brittle. Place stems upside down inside wide paper bags. Dry until capsules open. Thresh lightly. Sieve clean seeds.	Collect capsules by hand and put upside-down into a paper bag. Thresh lightly to release seeds once capsules are dry. Sieve to clean.
Collection time	December	December to February	January to February
Direct seeding	not suitable	moderately suitable as hard to source large quantities of seeds	not suitable
Optimum germination temperature	unknown	below 20°C	below 20°C
Weeks to germinate	unknown	4 to 6	unknown
Germination pre-treatment	Smoke treatment: soak for 12 hrs in a 9:1 water/smoke solution.	none required	none required
No. seeds/gram	190	about 400	unkown
Precautions / comments	Propagation is difficult from seeds despite the smoke treatment.	Sow in autumn to avoid high summer temperatures.	Very difficult to grow from seeds. Smoke treatment has no effect. Propagation by division is recommended.




Groundcover <1.2 m e.g. lilies, daisies and broad leaves			
	<i>Vittadinia gracilis</i>	<i>Vittadinia cuneata</i>	<i>Vittadinia muelleri</i>
Species			
Common Name	Wooly New Holland Daisy	Fuzzweed	Narrow Leaf New Holland Daisy
Collection method	Hand collect or vacuum entire seedheads in paper bag. Allow to dry. Rub seedheads against fine wire screens or break up seed heads by hand. Sieve to clean. Store with fluffy pappus attached.	Hand collect or vacuum entire seedheads in paper bag. Allow to dry. Rub seedheads against fine wire screens or break up seed heads by hand. Sieve to clean. Store with fluffy pappus attached.	Hand collect or vacuum entire seedheads in paper bag. Allow to dry. Rub seedheads against fine wire screens or break up seed heads by hand. Sieve to clean. Store with fluffy pappus attached.
Collection time	November to January	November to January	November to January
Direct seeding suitability	highly suitable for hand seeding	highly suitable for hand seeding	highly suitable for hand seeding
Optimum germination temperature	20°C	20°C	20°C
Weeks to germinate	1 to 3	1 to 3	1 to 3
Germination pre-treatment	Soaking or leaching for 10 days before sowing may improve germination.	Soaking or leaching for 10 days before sowing may improve germination.	Light and cold treatments or storage at high alternating temperatures for 1 month promote germination.
No. seeds/gram	980	770	1408
Precautions / comments	Light is required for germination	Light is required for germination	Light is required for germination. Short seed storage life.



Groundcover <1.2 m e.g. lilies, daisies and broad leaves			
	<i>Viola hederacea</i>	<i>Wahlenbergia gracilis</i>	<i>Wurmbea dioica</i>
Species	<i>Viola hederacea</i>	<i>Wahlenbergia gracilis</i>	<i>Wurmbea dioica</i>
Common Name	Ivy-leaved Violet	Australian Bluebell	Early Nancy
Collection method	Allow pods to dry on plant. Break open to collect seeds.	Cut stalks with capsules. Place upside down in paper bags. Allow to dry in a warm spot. Lightly beat or crush capsules to release the fine red-brown seed. Sieve to clean.	Harvest entire flower stalk and place upside down in a large bag. Dry until capsules are fully open, clean by sieving.
Collection time	December to January	December to February	November to December
Direct seeding	not suitable	not suitable as hard to source large quantities of seeds	not suitable as hard to source in large quantities
Optimum germination temperature	22°C	20°C	15-20 °C
Weeks to germinate	2 to 3	3 to 4	3 to 5
Germination pre-treatment	Cold stratify for 2 weeks before sowing.	Stratification at 3-5°C for 3 mths or use 12mth old seed.	none required
No. seeds/gram	1830	unknown	unknown
Precautions / comments	Usually grown by division. Germinates in the dark.	Cover the fine seed lightly as darkness significantly decreases results.	Sow seeds in autumn.




Grass or grasslike			
	<i>Austrodanthonia caespitosa</i>	<i>Austrostipa scabra</i>	<i>Bothriochloa macra</i>
Species	<i>Austrodanthonia caespitosa</i>	<i>Austrostipa scabra</i>	<i>Bothriochloa macra</i>
Common Name	Common Wallaby-grass	Spear Grass	Red-leg Grass
Collection method	Cut stalk with secateurs. To extract seeds, rub the heads between two rubber car mats, or between hands for smaller quantities. Clean by sieving. Use brush harvester for large quantities.	Harvest seedhead when dark brown and hard, using gloves (seeds are spiky), by running hands upwards along the seed-head. Use brush harvester for large quantities.	When culms (grass stems) are reddish-purple in colour, and spikelets at the seed heads tips are just beginning to fall off, harvest seedheads with a brush harvester. Dry immediately.
Collection time	December to March	December to February	December to February
Direct seeding suitability	highly suitable for hand seeding	highly suitable for hand seeding	highly suitable for hand seeding
Optimum germination temperature	15-25°C	20°C	25-30°C
Weeks to germinate	2 to 4	2 to 8	2 to 5
Germination pre-treatment	none required	Store at room temperature for up to 11 months before sowing.	none required
No. seeds/gram	unknown	unknown	300
Precautions / comments	Genus also called <i>Danthonia</i> . Use of fresh seeds is important before some dormancy sets in.	Dry seeds before storage.	Dry seeds before storage.

Grass or grasslike	(4) 	(1)M. Fagg 	(4) 
	<b>Species</b> <i>Chloris truncata</i>	<b>Species</b> <i>Cymbopogon refractus</i>	<b>Species</b> <i>Dianella revoluta</i>
<b>Common Name</b>	Windmill Grass	Barbed Wire Grass	Spreading Flax Lily
<b>Collection method</b>	On ripening, spikelets turn black and seed easily shatters. Harvest by hand, vacuum or machine brush.	Grass harvester or hand pick	Collect ripe fruits by hand into plastic bag. Clean fresh fruit from the seed with sieves (soak in water to soften) or store fruit in cool dry area until ready to use. Once dry, rub fruit firmly to dislodge shiny black seed.
<b>Collection time</b>	November to March	December to February	December to January
<b>Direct seeding</b>	highly suitable for hand seeding	highly suitable for hand seeding	not suitable as too long to germinate
<b>Optimum germination temperature</b>	20 °C	25°C	20°C
<b>Weeks to germinate</b>	2 to 13	unknown	Up to 6 months
<b>Germination pre-treatment</b>	none required	none required	Soak in soapy water (velvet soap) for 24 hrs before sowing or gently scratch with sand paper. Smoke improves germination.
<b>No. seeds/gram</b>	835	1350	150
<b>Precautions / comments</b>	Use within 12 months.		Use fresh seeds. Can also be divided for propagation.




Grass or grasslike	(4) 	(1)M. Fagg 	(4) L. Oliver 
	<b>Species</b> <i>Dicanthium sericeum</i>	<b>Species</b> <i>Lomandra longifolia</i>	<b>Species</b> <i>Lomandra filiformis</i>
<b>Common Name</b>	Silky Bluegrass	Spiny-Headed Mat-rush	Wattle Mat-rush
<b>Collection method</b>	Grass harvester	Using gloves cut off maturing brown capsules. Place in a dry sunny position, when fruits have fully opened, screen off unwanted material to leave clean the seed.	Cut stems with secateurs; place upside down in a large bag. Seed will be easier to extract if capsules are still attached to stems. Threshing may be required to fully extract seed.
<b>Collection time</b>	December to January	December to February	January to February
<b>Direct seeding suitability</b>	moderately suitable for hand seeding	moderately suitable	not suitable because hard to source seed
<b>Optimum germination temperature</b>	25-35°C	25°C	25°C
<b>Weeks to germinate</b>		8 to 10	4 to 12
<b>Germination pre-treatment</b>	Store 6-12 months at ambient temperature before sowing.	none required	Soak seeds in warm water 24 hrs before sowing.
<b>No. seeds/gram</b>	100-300	110	about 100
<b>Precautions / comments</b>	Use within 3 years.	Flowers have spines.	Sow seeds directly after collection.












## Grass or grasslike

	 (1) D. Bruce	 (1) G. Manley	 (5) D. Hardin
<b>Species</b>	<i>Lomandra multiflora</i>	<i>Microleaena stipoides</i>	<i>Poa sieberiana</i> var. <i>sieberiana</i>
<b>Common Name</b>	Many-flowered Mat-rush	Weeping Grass	Poa Tussok
<b>Collection method</b>	Cut stems with secateurs and place upside down in large paper bag. Dry until capsules open then thresh lightly to extract seed. Sieve to clean.	Run stem lightly between fingers.	Cut stalks with secateurs. Collect and dry seedheads; then extract seed by rubbing the heads between hands or between two rubber car mats for larger quantities.
<b>Collection time</b>	October to March	November to December	December to January
<b>Direct seeding suitability</b>	not suitable because hard to source	highly suitable for hand seed-ing	highly suitable for hand seed-ing
<b>Optimum germination temperature</b>	25°C	20°C	20°C
<b>Weeks to germinate</b>	8 to 10	2 to 5	2 to 6
<b>Germination pre-treatment</b>	Soak seeds in warm water 24 hours before sowing.	none required	Cold stratification for 3 weeks improves germination in cold areas.
<b>No. seeds/gram</b>	40	90	1500
<b>Precautions / comments</b>	Use gloves to avoid spines. Sow seeds rapidly after collection	Surface sow.	Use within 2 to 3 years. Surface sow.

## Grass or grasslike

	 (4) R. Rehwinkel	 (1) M. Fagg	 (6) R. Streete
<b>Species</b>	<i>Sorghum leiocladum</i>	<i>Themeda australis</i>	<i>Themeda avenacea</i>
<b>Common Name</b>	Wild Sorghum	Kangaroo Grass	Native Oat Grass
<b>Collection method</b>	Hand pick	Grass harvester, Hand pick	Hand pick
<b>Collection time</b>	December to February	December to February	December to January
<b>Direct seeding suitability</b>	highly suitable for hand seed-ing	highly suitable for hand seed-ing	highly suitable for hand seed-ing
<b>Optimum germination temperature</b>	25°C	20°C	25-35°C
<b>Weeks to germinate</b>	about 2	2 to 4	2 to 4
<b>Germination pre-treatment</b>	Dry storage at alternating temperatures overcomes dormancy.	Store for 6-12 months at room temperature.	Require 10-12 months dry storage at ambient temperature before sowing.
<b>No. seeds/gram</b>		100-300	100-300
<b>Precautions / comments</b>		Also called <i>Themeda triandra</i> .	Use within 3 years. Best sowing results in November.

Scramblers / vines	 florabank		
	 (2) T. Leontjeva	 (4)	 (2) G. Fifield  florabank
Species	<i>Clematis microphylla</i>	<i>Convolvulus angustissimus</i>	<i>Desmodium varians</i>
Common Name	Native Clematis	Pink Bindweed	Slender Tick-trefoil
Collection method	Hand pick or use portable vacuum cleaner. Rub to separate seed from plumes. To clean, first loosen seed putting fruits into plastic bag and beating vigorously; then shake waste through a coarse then a finer sieve until fluff on the surface can be removed and seed remains.	Hand pick the pods. To extract seed, dry and crush pod, sieve to clean.	Monitor fruits closely, bag maturing fruits or place groundsheets under plants to catch seed. Alternatively, pods can be harvested close to maturity (when they turn brown) and fully dried in a warm area.
Collection time	November to December	January	October to April
Direct seeding suitability	moderately suitable for hand seeding	moderately suitable as hard to source large quantities	moderately suitable as hard to source in large quantities
Optimum germination temperature	22°C	25°C	20 °C
Weeks to germinate	8	2 to 3	1 to 3
Germination pre-treatment	none required	Nick thick seedcoat with razor blade to depth of 1 mm as a pre-treatment to germination, or dry heat at 60-70°C for 30 min.	Hot water (just off the boil, then allow to soak for a few hours). Dry before sowing as seeds are prone to rot.
No. seeds/gram	250	100	unknown

Scramblers / vines	 florabank		
	 (3) J. Lindner	 (2) C. Miller	 (4) J. Harding
Species	<i>Glycine clandestina</i>	<i>Glycine tabacina</i>	<i>Hardenbergia violacea</i>
Common Name	Twining Glycine	Vanilla Glycine	Purple Coral-pea
Collection method	Monitor fruits closely, bag maturing fruits or placing groundsheets under plants to catch seed. Pods can also be harvested close to maturity (when they turn brown) and fully dried in a warm area.	Monitor fruits closely, bag maturing fruits or placing groundsheets under plants to catch seed. Pods can also be harvested close to maturity (when they turn brown) and fully dried in a warm area.	Monitor fruits closely, bag maturing fruits or placing groundsheets under plants to catch seeds. Pods can also be hand picked close to maturity (when turning brown) and fully dried in warm area.
Collection time	October to February	October to April	October to February
Direct seeding suitability	moderately suitable as hard to source large quantities of seeds	moderately suitable as hard to source large quantities of seeds	moderately suitable
Optimum germination temperature	20°C	20°C	15 °C
Weeks to germinate	3 to 4	3 to 4	3 to 4
Germination pre-treatment	Soak seeds in just-boiling water. Leave to cool; examine seeds. Dry and sow the ones that have swollen to double their size.	Soak seeds in just-boiling water. Leave to cool; examine seeds. Dry and sow the ones that have swollen to double their size.	Pour boiling wate over seeds and soak for several hours. Dry to prevent rotting. Scarify
No. seeds/gram	unknown	155	35
Precautions / comments			Ensure seeds are insect free before storing.



# Grassy Box Gum Woodland Seed Collection Guide

for the ACT and NSW districts of the South West Slopes, Central West Slopes and Plains,  
Central Tablelands, Eastern Riverina Regions and parts of the Southern Tablelands

## References

### Text

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### Pictures

- (1) Pictures under license from the Australian National Botanic Gardens.
- (2) Florabank pictures
- (3) Greening Australia Capital Territory
- (4) [www.flickr.com](http://www.flickr.com)
- (5) The Royal Botanic Gardens & Domain Trust
- (6) Office of Environment Heritage