We can all play help the health of our local environment by planting a 'bee banquet' in our gardens for bees and other beneficial insects and birds throughout the year. Studies have shown that by increasing the diversity of flowering plants in our gardens, there will be a good balance of predators which eat other insects (ladybirds, birds, lizards, frogs) and pollinators (bees, butterflies, beetles) that facilitate pollination so plants can produce fruits, vegetables and seeds. Pollinators are the foundation of biodiversity and their presence in landscapes creates food for a wide range of other animals. Australia is already one of the most urbanised countries in the world, with a predicted increase to 90% of the population living in cities by 2050. "Urbanisation is a major driver of ecosystem degradation and habitat loss and is a global threat to biodiversity." (Australian Native Bees, 2016 NSW DPI p45)

When land is cleared for urban development, many species lose their homes and food supplies. New developments are often 'all house/ no garden' and so there is an additional need for street plantings to provide a good range of food and habitat. By providing these resources in urban green spaces, native bees and other pollinators populations can be attracted and sustained, which in turn supports the biodiversity within urban landscapes. Many new developments also have sites for 'Community Gardens' which benefit from pollinator friendly plantings surrounding them.

Bees eat nectar and pollen. Nectar gives them energy for growth, breeding, flying and keeping warm. Pollen is the source of bees' protein and fats for muscle growth in brood and young adult bees. For a healthy immune system bees and other pollinators need us to:

- Plant flowers in clumps of up to 1 metre across as it is easier for pollinators to find and reduces foraging distance. Many native bees have limited flight ranges of up to 500 metres. Plants should be of varying size and height to provide shelter for insects in different niches.
- Provide a variety of plants that flower at different times with overlapping so there is something to eat particularly around Jan March when bees are building up their nests and there are fewer flowers around in the extreme heat.
- Choose a range of colours of flowers. **Bees** have good colour vision and are particularly attracted to **blue**, **violet**, **purple**, **yellow and white**. They like petals with nectar guides including stripes and spots.
- Native bees prefer a variety of 'local' native plants. They are largely ground dwelling
  and prefer soil free of pesticides and fertilizers. Leave areas of the ground undisturbed
  for native bee nesting sites. Keep dead wood and trees in paddocks for habitat.
- **Butterflies** prefer **red**, **orange**, **pink and white** flowers with a trumpet shape that hold nectar.
- Plant heirloom varieties of herbs and perennials as hybridisation has reduced the nectar and pollen in many flowers.
- Use organic seeds and seedlings to ensure plants have not been treated with pesticides. For suppliers please go to Organic Suppliers section of actforbees.org website

- Bees and other beneficial insects ladybugs, butterflies, and predatory wasps all need fresh water to drink. Put stones in a bird bath so they don't drown.
- Herbs are the bees medicine chest and great for cooking so include a wide range of herbs in pots or in the garden. Basil, Bee Balm, Calendula, Chamomile, Coriander, Dill, Echinacea, Lavender, Lemon balm, Oregano, Peppermint, Rosemary, Sage, Sunflowers, Thyme and Yarrow are wonderful additions to our gardens and can be grown in pots if limited space. Good for us and good for bees, butterflies. Let them go to flower!

### **ACT FOR BEES.org**

### **GROUNDCOVERS FOR BEES AND POLLINATORS IN ACT**

Name	HXW	Flowering	Nectar/ pollen	Pollinator
Brachyscome multifida, Cut-Leafed Daisy	Small plant for rockeries	Late Winter to early Autumn Long flowering	Nectar Pollen	Native bees
Bracteantha viscosa Sticky everlasting daisy	.8x.8	Golden yellow paper flowers Spring/Summer. Local species.	Nectar Pollen	Bees
Chrystophelium species Paper Daisy	.25m	Spring -Summer	Nectar Pollen	Native Bees, Butterflies
Correa Dusky Bells	Under 1 m	Autumn	Nectar	Bees
Correa glabra	Under 1 m	Green/yellow bell flowers Autumn and Winter.	Nectar	Bees
Dampiera diversifolia	0.1x0.5	Deep blue flowers. Spring Summer	Nectar Pollen	Bees, Butterflies,
Dianella species Native flax	Border plant	Spring/Summer	Nectar Pollen	Variety of native bees
Goodenia species	Border or ground cover	Spring to Autumn	Nectar	Variety of native bees
<i>Grevillea</i> 'Bronze Rambler'	.3x2	Red toothbrush flowers all year	High nectar	Bees
Grevillea laurifolia Royal mantle prostrate	Prostrate ground cover	Autumn/ winter	Nectar	Honey bees
Hardenbergia violacea	Prostrate ground cover	Spring	Nectar Pollen	Bees Butterflies
Hibbertia pedunculata prostrate	.2 x .6m	Late Spring/Summer		Native bees: Teddy bear bee and Blue Banded Bees

Scaevola humilis	.2 X 1.5 m	Sept - Dec	Nectar	Native bees and
Fan Flower				leafcutter bees/
				birds/ butterflies
Salvia species	1x.35	Spring/Summer/Autumn	High Nectar	Native bees and
Sages				leafcutter bees/
				birds/ butterflies
Salvia uliginosa	1-1.5m	All summer	Nectar	native bees &
Bog Sage		vigorous		honey bees
Walhenbergia communis	.23x.1	Blue flowers in Summer	Nectar	Bees
Native Rosemary		and Autumn.		
		Local species.		

# SHRUBS FOR BEES AND POLLINATORS IN ACT

Name	HXW	Flowering	Nectar/ pollen	Pollinator
Abelia x grandiflora Abelia (not native)	Under 1m	Pink flowers in Summer	High Nectar	Honeybees, Native bees, butterflies
Baeckea virgata	3x3	Mass of white summer flowers.	Nectar	Bees
Banksia species Banksia marginata(local)	Range of sizes 5x4m	Early Winter	Good nectar Pollen	Honeybees Native bees
Callistemon Sp. Bottlebrush	2.5- 4 m depending on species	Sept- Nov Feb-Apr Flowers twice a year if good conditions	High nectar/med pollen	Honey Bees, Native bees, Beneficial wasps, moths, birds.
Cassinia longifolia	2x2	Summer	Pollen /nectar	Butterflies, Habitat for birds and other native fauna
Ceanothus 'Blue Pacific'(not native)	2x1.5	Summer Dark blue flowers	Nectar Pollen	Bees
Correa pulchella	1x1	Long flowering season	Nectar Pollen	Bees, Nectar feeding birds
Crowea saligna	1.2x1.2	Autumn-Winter	Nectar Pollen	Bees Other insects
Grevillea victoriae	1-1.5m	rusty red flowers	Nectar	Honey Bees
<i>Grevillea iaspicula</i> Wee Jasper Spider Flower	2m	Cream/pink flowers Winter	Nectar	Honey Bees
Hakea species		Aug-Sept	Med nectar/low pollen	Native bees Honey bees
Hebe species	1m	Summer, Autumn, Winter, Spring	Nectar	Native bees Honey bees

Leptospermum species (Tea- tree)		Oct-Jan	High nectar Pollen	Favourite for native bees
Melaleuca species	1.5 x2.5m	Spring/ Summer	Nectar	Bees Butterflies
Melaleuca wilsonii		- p	Pollen	
Violet Honey-myrtle				
Prostanthera lasianthos	2x2	Spring/ Summer	Nectar	Bees
Alpine Mint Bush				
Rosmarinus officinalis	1x1	Winter	High nectar	Bees, butterflies
Rosemary				

# **ACT for Bees.org**

# TREES FOR BEES AND POLLINATORS IN ACT

Name	Form	Flowering	Nectar/ pollen	Pollinator
Acacia Caerulescens Buchan blue.	12x7	Spring	High Pollen	Bees
Banksia ericifolia	5x5	Autumn/Winter/Spring	High nectar	Bees, Birds
Banksia ericifolia 'Giant Candles'	5x5	Winter	High Nectar High Pollen	Bees, Birds
Banksia integrifolia	6x4	Autumn/ Winter	High Nectar High Pollen	Bees, Bird
Banksia marginata	5x4	Autumn/Winter	High Nectar High Pollen	Bees, Birds
Banksia serrata	6x4	Winter/Spring/ Summer	High Nectar High Pollen	Bees, Birds
Callistemon 'Harkness'	3-6x2-3	Early Spring Dense crimson red flowers	High Nectar Med pollen	Excellent Bees, Birds Useful for wildlife habitat,
Callistemon 'King's Park Special'	4-6x4-5	Spring. Dense crimson red flowers.	High Nectar Med pollen	Excellent Bees, Birds Useful for wildlife habitat,
Callistemon salignus	4x3	Spring	High nectar, pollen	Bees, Birds
Eucalyptus apiculata Narrow-leaved mallee ash	6x4	Late Winter -early Spring	Med Nectar Med Pollen	Bees
Eucalyptus cunninghamii (E. rupicola) Cliff mallee ash	3x4	Autumn Prominent cream/ white flowers.	Nectar pollen	Bees Birds
Eucalyptus gracilis New species White mallee, red mallee.	6-12x4-8	April-Sept	High Nectar High Pollen Seeds	Bees, Yellow tailed Black cockatoo
Eucalyptus parvula Small-leaf gum.	6-10x5- 10	Summer White flowers.	Nectar, pollen	Bees, Good habitat for small birds.
Hakea eriantha	4x4	Spring	Nectar, pollen	Bees, Birds
Hakea salicifolia	5x4	Winter-Spring	Nectar, pollen	Bees, Birds

Melaleucas (Paperbarks)	8x4	Spring Summer	High nectar/high	Bees,
			pollen	Birds
Prunus cerasifera Cherry	<10m	April-Sept	Nectar	Bees
Plum (not native)			Pollen	
Westringia longifolia	2x1.5	Spring	High Nectar	Native Bees,
		White/purple flowers		Birds

### **Plants local to Canberra Region**

http://www.tams.act.gov.au/\_\_data/assets/pdf\_file/0004/389947/Plant\_local\_to\_the\_canberra\_region.pdf

Name	Form	Flowering	Nectar/ pollen	Pollinator
Acacia melanoxylon	10-15 m	May-Oct	Good Pollen	Bees
(Blackwood)				
Brachychiton	10-15 m	Autumn-Summer	Med nectar/ Pollen	Bees
populneus(Kurrajong)				
Eucalyptus blakelyi	10-15 m	Sep-Jan	med nectar/ med	Bees
(Blakely's Red Gum)			pollen	
Eucalyptus mannifera	10-15 m	Sept- Feb	Low nectar/med	Bees
(Brittle Gum)			pollen	
Eucalyptus melliodora	10-15 m	Nov – Feb	High nectar/ nil	Bees
(Yellow Box)			pollen	
Eucalyptus pauciflora	10-15 m	Oct-Dec	High nectar/ High	Local species
(Snow gum)			pollen	that provides
				wildlife habitat
Eucalyptus polyanthemos	10-15 m	Oct-Feb	Med nectar/ Low	Bees
(Red Box)			pollen	
Eucalyptus viminalis	10-15 m	Summer/Autumn	med nectar/ med	Bees
(Manna Gum)			pollen	

#### Michael Mobbs. Native Bee attracting plants

Long-tongued bees will favour tubular blooms such as:

- Correa 1-2m (Native Fushia)
- Westringia (ranges from ground covers, to 2m)
- Prostanthera (Mint Bushes usually around 1-2m)

Reed Bees Love Australian plants in the Fabaceae family such as:

- Wattles
- Peas

Plants that specifically attract the 'Buzz Bees' such as the Teddy Bear, Carpenter and Blue-Banded Bees include:

- Dianella
- Hibbertia scandens (hardy native salt-tolerant climber, Sun or Shade, yellow flowers)
- Leptospermum (T-Tree)
- Pomaderris masses of creamy flower heads are very attractive to native bees, as well as other insects.
- Westringia

Even dead shrubs and trees are home to many creatures. The metallic-green Peacock Carpenter Bee nests in dead dry flowering stalks of grass trees (Xanthorrhoea) or in soft wood such as Banksia and Leptospermum.

### **RESOURCES**

Australia:

**ACT for Bees Gardening for Bees** 

**Bee Friendly - Publications** 

Bees Business. Great information on native bees

Honey and pollen flora suitable for planting in SE NSW

Flora Resource Database for the NSW Apiary Industry Doug Sommerville. NSW RIRDC

Planting and Creating Habitat to Attract Bees

**Attracting Native Bees to Your Garden - Flora for Fauna** 

**Native Bee Attracting Plants** 

Flowers for Native Bees in Sydney

Protein Content and Amino Acid Profiles of Honeybee Collected Pollens

Australian Plants for Canberra region gardens and other cool climate areas. Australian Native Plants society Canberra Region Inc. ANPSCR 2016

The Bee Friendly Garden: Doug Purdie 2016

### Overseas /Introduced species

**Nectar and Pollen Providing Plants for Honey Bees - Duval County** 

**Trees for Bees - British Beekeepers Association** 

The National Gardening Association Database

British Beekeepers: Trees for Bees

Julie Armstrong actforbees.org

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