Powerful pollinators

Encouraging insect pollinators in farm landscapes



Pollinators are an essential component of healthy, biodiverse landscapes and provide critical pollination services to native flora and agriculture production across the country.

This guide provides information on ways to encourage a diverse range of insect pollinators across all properties, and includes a planting calendar to help select plants to support diverse pollinators throughout the year.



The power of pollinators

Pollinators – mostly insects, but also birds and mammals – assist the production of seeds and fruit in many plant species by visiting flowers in search of food (nectar and/or pollen). Whilst foraging they transfer pollen from one flower to another, facilitating fertilisation, which results in fruits and seeds.

Honey bees, native bees and other native insects like hoverflies, wasps and butterflies provide essential pollination services for native plants, pastures, crops, fruits and vegetables.



Native vegetation supports pollinators by providing food and nesting sites. Nearby crops and pastures will benefit from the increased abundance and diversity of pollinators in the landscape.

Pollinators and food security

Without insect pollinators, the quantity and diversity of food grown for humans in contemporary agricultural systems would be severely restricted. Many of the food crops we eat, as well as pasture and fodder crops, benefit from pollination by insects.

Pollinator-dependent crops include almonds, apples, blueberries and vegetables, as well as many crops grown for seed production, such as canola, sunflowers and carrots.

The quantity and diversity of insect pollinators are key drivers of production as they influence both crop yields and quality. Under-pollination results in smaller and misshapen fruit or seed that isn't viable.

Grazing enterprises can also suffer from a reduction in the abundance or diversity of pollinators, due to the role these insects play in the persistence of nitrogen-fixing pasture legumes such as clover.

A diverse and healthy community of pollinators generally provides more effective and consistent pollination than relying on any single species. Insect populations are in decline worldwide due to land clearing, intensive or monocultural agriculture, pesticide use, pollution, colony disease, increased urbanisation and climate change. Low pollinator numbers mean not all flowers are pollinated, leading to low fruit or seed set. This in turn reduces fruit and vegetable harvest yields, and decreases food supply.



Under-pollination results in smaller, misshapen fruit such as this strawberry.

Healthy ecosystems

Pollinators are both essential to, and depend upon, healthy ecosystems. A growing human population and increasing demand for food puts pressure on ecosystems, while declining ecosystem function will in turn negatively impact food production.

Insect pollinators are a prime example of this — without healthy ecosystems and the presence of patches of native vegetation to support insect populations, pollination will decline. This will threaten both crop productivity and the persistence of native, pollinator-dependent flowering plants.

Pollinators require habitat that contains year-round food sources, breeding resources and nesting sites. The presence of pollinator habitat adjacent to food crops has been shown to improve food production by enabling a greater variety and number of pollinators to persist year-round, providing pollination services when required.

Turn to the centre of this brochure for a guide to planting for pollinators.

Diapause or diet? Where are the insects?

Many insect pollinators undergo a diapause during colder winter months. Diapause is a period of suspended development during unfavourable environmental conditions, and during this period insect pollinators do not need flowers. Birds and other small mammals will continue to benefit from available pollen and nectar during this time.

If there are low numbers of insect pollinators in your local area, it is important to determine whether this is because of diapause, or because of an inadequate availability of nectar and pollen, creating a 'food desert' where insect pollinators cannot survive.

There are still many unknowns about insect pollinators in Australia. Take part in Australian Pollinator Week or in the annual Australian Pollinator Count to learn more about pollinators in your area – visit:

AustralianPollinatorWeek.org.au and AustralianPollinatorCount.au

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Encouraging pollinators on your property

Create pollination reservoirs

Pollination reservoirs are areas of native plant species that provide floral resources for pollinators. They can be new plantings or existing habitat, such as shelterbelts or remnant vegetation. A high diversity of plant species is essential to provide nectar, pollen and nesting sites throughout the year. Pollination reservoirs need to be close enough to crops to ensure that pollinators can fly easily to them.

Use existing habitat

Protect and improve existing habitat where possible. Roadsides, shelterbelts, dam margins, woodlands, grasslands, rocky areas, river and creek edges can all be important pollinator-attracting areas, bringing valuable pollination services to your property.

Native vegetation stands provide habitat for pollinators, and special attention should be paid to enhance and protect these areas.

Get to know your local flora

Each property and region will have distinct populations of insects, based on the plants and climate. Identifying and understanding the insects in your area will help you develop better plantings.

The plants growing in nearby bush will be well suited to the climate and soils in your region. Local community groups and specialist native nurseries can provide useful information and usually produce local plant species.

Plant trees, shrubs and groundcovers

Planting a variety of species of groundcovers, shrubs and trees on your property will further attract pollinators to your area. Use a combination of direct seed sowing and planting tube stock to establish new vegetation. Initial watering and protection from grazing will improve the success rate of young plants. Wildflowers, including our native pea species, are excellent at attracting a diverse range of native pollinators.

Connectivity counts

Insect pollinators benefit from greater connectivity of habitat in a landscape, which allows them to forage over a wider radius and increase in numbers in a local area. Encourage neighbours and other landholders to plant for pollinators and create connections across your landscape.

Utilise ecotones

Ecotones are the margins between two different habitats. Ecotones often contain a more diverse mixture of pollinator species because they are inhabited by pollinators from both habitats. Protect and utilise ecotones such as the transition zones between woodland and grassland, or heath and shrubland, to create highly diverse floral and insect communities.

Amplify the flower signal

Plants have evolved large flowers or clusters of smaller flowers which attract more pollinator visits. Large, colourful and diverse plantings attract more pollinators. Ideally, plant in groups that contain different vegetation layers — combine a species-rich mixture of wildflowers, groundcovers, herbs, lilies, rushes, climbers, shrubs and trees.

Plant for the future

When establishing pollinator habitat, consider including species that are indigenous to your area and can tolerate increasingly warmer and drier (or wetter) conditions, to improve resilience to climate change. Rehabilitate weedy areas into managed pollination reservoirs by introducing lots of flowering plant diversity.

Be careful not to plant invasive or listed weeds, and look for suitable replacements.

Double the crop value

Plants that are pollinator-attracting may be commercially viable crop species in their own right and can be used to diversify farm production. Bush foods such as muntries, wirilda (wattle) seed, yam daisy and many more are in high demand for use in fresh and manufactured products. Native plant seed is also needed for revegetation projects. Farmers can also support beekeepers by hosting beehives to increase pollinator numbers on a farm.

Reduce chemical use

Insecticides, fungicides and herbicides all affect the health of bees, bee colonies and native pollinators.
Herbicides can impact pollinators by reducing the availability and diversity of flora and removing vegetation that helps support insect life. Some herbicides can also harm the beneficial microbes in the insect gut. In many circumstances, beneficial insects will, in healthy numbers, help control pest insects, ultimately reducing the need for insecticide use.

When chemical pest control is unavoidable, select products that are least harmful for pollinators and apply insecticides in the evening or at night when pollinators are not active.

Always use according to directions, especially for withholding periods, and notify beekeepers a few days before spraying chemicals so beehives can be safely relocated away from harm.

Be a citizen scientist and do some detective work to discover local pollinators on your property. Visit inaturalist.ala.org.au to be involved.

Safeguard the bees? The best way to 'save the bees' and protect our pollinators is to create an abundance of diverse habitat — from the ground up! There is much interest in keeping a beehive to promote pollinators, but there are serious legal and biosecurity responsibilities that must be considered, and that the introduction of a beehive does not displace existing native pollinators and insects. Be a friend of pollinators and say it with flowers!

A guide to planting for pollinators for the Limestone Coast region, South Australia



Healthy populations of insect pollinators are important for crop yields, orchard production and thriving native vegetation.

This planting guide will help you choose plant species to attract and keep pollinators on your property throughout the year.

The Limestone Coast covers an area of approximately 28,000 km² in the south-east of South Australia, with an average annual rainfall between 450-850mm. The region is distinguished by a series of low dunes and plains that can be inundated after winter rains. The vegetation includes wetlands and a variety of woodlands (e.g. stringy bark, red and blue gum woodlands). The abundant limestone below the soil acts as a filter to produce high quality groundwater. Land use includes agriculture (grain, pasture, sheep and cattle grazing), with some horticulture, viticulture and forestry timber production.

The plants listed in this Guide will help supply rewards to pollinators, with an emphasis on species that are indigenous and suited to local climates.

The eucalypt species in the chart have been selected as high quality honey production species. Most eucalypts do not flower every year, so choosing diverse species will help create continuously flowering habitat.

The pollinator plant list

To create pollinator-attracting plantings, use the Guide to choose a selection of plants with a variety of flower colours, different growth habits and a range of flowering seasons.

For each species, the planting Guide lists:

- life-form/'habit' (climber, herb shrub or tree) and height (m).
- the vegetation type in which they naturally occur
- flower colour and flowering season
- growth requirements (sun/shade, moist/dry)
- insect groups that may visit each plant and the floral reward (pollen and/or nectar).

The coloured bars indicate the flowering months for each species. Darker shading denotes the peak flowering period, with a lighter shading for non-peak flowering months. Flowering dates may

Sourcing plants

Most of the plant species listed are available from retail or wholesale nurseries or native plant growers, and local environment groups. If you can't source these plants at your local garden centre, or indigenous nursery, ask them to contact the local nursery suppliers and plant growers listed online. See the reverse of the Guide for details.

differ between regions and seasons, particularly for non-peak times, if your local climate is consistently warmer or cooler than average, with earlier or



Visitation by pollinator Scientific name Lifeform Common name Family **Vegetation type** Height Hoverflies Wasps Butterflies Moths Beetles Flie Vitis vinifera 1–3 m Grape Vine Vitaceae Horticulture Damp to dry Pasture/Fodde 0.3 m White Trifolium repens Fabaceae Damp to dry Forb Canola Broadacre Croppina 1.5 m Yellow Damp to dry Brassica napus Brassicaceae Medicago sativa Pasture/Fodder 0.8 m Purple Lucerne Fabaceae Forb 0.5 m White-Pale Lupins Lupinus albus Fabaceae **Broadacre Cropping** Damp Forb 0.5 m White Potato Solanum tuberosum Solanaceae Broadacre Croppina Damp to dry Tree Rosaceae Malus domestica Horticulture 2-7 m Pink Damp to dry 2-7 m White Pyrus communis Horticulture Damp to dry Rosaceae Tree Horticulture 2-7 m Pink Peach Prunus persica Damp to dry Rosaceae Climber Old Man's Beard Clematis microphylla Ranunculacea Woodland, Forest, Mallee 0.5-4 m Sun to semi-shad Damp to dry Climber 1-2 m Polygalaceae Heathland and Forest Love Creeper Comesperma volubile Purple Semi-shade Dry to damp Climber Pittosporaceae Sweet Apple Berry Billardiera cymosa Plains, Ranges 1.5 m Blue-May Sun to semi-shade Dry to damp Austral Bugle Coastal, Ranges, Plains, Coastal Shrubla nd 0.3 m Purple Dry to damp Ajuga australis Lamiaceae Forb Forb Forb Chocolate Lily Arthropodium strictum 0.5 m Pink-Mauve Woodland, Forest Asparagaceae Damp to dry Milkmaids Burchardia umbellata Woodland, Ranges, Plains 0.5 m White & Pink Sun to semi-shade Colchicaceae Dry to damp Karkalla Carpobrotus rossii Aizoaceae Coastal 0.2 Pink Woodland, Ranges, Plains Common Everlastina Chrysocephalum apiculatum Yellow Asteraceae 0.5 Sun to semi-shade Dry to mois Forb Coastal Flax Lily Dianella brevicaulis Asphodelaceae Woodland, Forest, Mallee 0.5 m Blue Sun to semi-shade Damp to dry Damp to dry Native Primrose Goodenia geniculata Riverine, Woodland, Forest, Malley 0.4 - 0.8 mSun to semi-shade Goodeniaceae Forb Lavender Grevillea Pink Mallee, Heathland 1-1.5 m Grevillea lavandulacea Proteaceae 0.2-0.5 m Button Everlasting Coronidium scorpioides Asteraceae Coastal, Plains, Ranges Yellov Forb Silky Guinea Flower Hibbertia sericea Coastal, Ranges, Plains, Coastal Shrub 0.2-0.5 m Yellow Damp Dilleniaceae Plains, Ranges Drooping Velvet Bush Lasiopetalum schulzenii Malvaceae 0.5–1.5 m White Semi-shade Dry to damp Native Pelargonium Woodland, Mallee 0.7 m Pink Pelargonium australe Geraniaceae Damp to dry White Smooth Rice Flowe Pimelea alauca Thvmelaeaceae Coastal, Plains 0.1-1 m Sun to semi-shade Dry to damp Forb 0.1-0.1 Blue Trailing Pratia Lobelia pedunculata Campanulaceae Plains, Ranges Pale Fan Flower Scaevola albida Goodeniaceae Coastal Scrublance Forb Coastal Fan Flower 0.1-0.3 m Heath and Dunes, Coastal Limestone Blue Scaevola angustata Goodeniaceae Shiny Swamp Mat Selliera radicans Goodeniaceae Sun to semi-shade Woodland, Forest, Heathland, Mall Large Kangaroo Apple Solanum laciniatum Solanaceae 1-3 m Purple Sun to semi-shade Dry to damp Woodland, Forest, Mallee Stylidium araminifolium 0.3-0.5 m Pink Sun to semi-shade Grass Trigger Plant Stylidiaceae Damp to dry Forb Coast Swainson Pea Swainsona lessertiifolia Fabaceae Woodland, Mallee, Coastal 0.5 m Purple Australian Bluebell Wahlenbergia stricta Campanulaceae Plains, Woodlands 0.3 m Sedge Tussock Sedge 1–1.7 m Damp to wet Carex appressa Cyperaceae Wetland Saw Sedge Gahnia trifida Cyperaceae Riparian, Wetland 1-2 m Brown Wet to damp Common Fringe Myrtle 0.5-1.7 m Calytrix tetragona Myrtaceae Woodland, Heathland, Mallee White-Pink Woodland, Mallee Native Fuchsia Yellow & Red Sun to semi-shade Correa reflexa Rutaceae 1-3 m Shrub 0.3-0.5 m Leafless Bitter Pea Daviesia brevifolia Fabaceae Woodland, Mallee, Heathland Holly-Leafed Bitter Pea Daviesia ulicifolio Fabaceae Woodland, Mallee, Heathland 0.5-1.5 m Shrub 0.2-0.6 m Orange Red Parrot Pea Dillwynia hispida Ranges, Plains, Coastal Fabaceae Wrinkled Hakea Proteaceae Woodland, Mallee, Wetland 0.5-2.5 m \\/hite Woodland, Mallee, Coastal Shrub Muntries Kunzea pomifera Myrtaceae 0.3 m White Dry Silky Tea Tree Woodland, Forest, Heathland, Mallee White-Pink Leptospermum myrsinoides Mvrtaceae 1-3 m Damp to dry Shrub Coastal Beard Hee Ericaceae Woodland, Shrubland, Coastal 0.5-2.5 m White Damp to dry Leucopogon parviflorus Coast Daisy-Bush Asteraceae Coastal, Plains 1–3 m Olearia axillaris Shrub Pultenaea tenuifolia Slender Bush Pec 0.5-1m Fabaceae Dry to damp Scented Groundsel Senecio odoratus Asteraceae Woodland, Mallee, Shrubland 0.5-1.8 m Shrub Pink Bells Tetratheca ciliata Woodland, Forest, Mallee, Heathlo 0.5 m Pink Sun to semi-shade Damp to dry Elaeocarpace Paper Flower Coastal, Ranges, Plains Thomasia petalocalyx Malvaceae 0.6-0.8 m Mauve Xanthorrhoea caespito Shrub Grass Tree Asphodelace Woodland, Forest, Mallee, Ripari 1-2 m Yellow Shrub / Small Tree Coast Golden Wattle Acacia leiophylla Woodland, Mallee, Shrubland 2-3 m Yellow Fabaceae Yellow Shrub / Small Tree Prickly Moses Acacia verticillata Fabaceae Woodland, Forest, Wetland 2-3 m Damp to dry Shrub / Small Tree Slaty She-Oal Allocasuarina muelleriana Casuarinacea Woodland, Forest Sun to shade Shrub / Small Tree Silver Banksia Banksia marginata 2-5 m Pale Yellow Sun to semi-shade Woodland, Forest, Heathland, M Proteaceae Damp to dry Shrub / Small Tree Christmas Rush Bursaria spinosa Pittosporacea Riverine, Forest, Woodland 2-6 m White-Cream Sun to semi-shade Shrub / Small Tree Scarlet Bottlebrush Woodland, Mallee, Wetland 1.5-4 m Callistemon rugulosus Myrtaceae Red Shrub / Small Tree Woodland, Heathland, Mallee Desert Hakea Hakea nodosa 1-4 m Damp to dry Proteaceae Shrub / Small Tree Beaked Hakea Hakea rostrata Proteaceae Woodland, Heathland, Mallee 1-4 m White Sun to semi-shade Shrub / Small Tree Hakea vittata roteaceae Woodland, Forest White Sun to semi-shade Shrub / Small Tree Prickly Tea Tree Riverine, Wetland, Heathland, Fores White-Pink Mvrtaceae 1-4 m Leptospermum continentale Shrub / Small Tree Woolly Tea Tree Leptospermum lanigerum Myrtaceae Riverine, Woodland, Heathland 1-5 m White Sun to semi-shade Wet to damp Melaleuca brevifolia Shrub / Small Tree Woodland, Mallee, Wetland 2-4 m Broom Honey Myrtle Mvrtaceae White Shrub / Small Tree Pink Melaleuca aibbosa Woodland, Forest, Mallee, Wetland, Ripe ın 1–3 m Sun to semi-shade Damp to dry Slender Honey Myrtle Myrtaceae Shrub / Small Tree Dryland Tea Tree Melaleuca lanceolata Mvrtaceae Woodland, Forest, Mallee 2-6 m Cream Sun to semi-shade Shrub / Small Tree Common Boobiallo Myoporum insulare Scrophulariaceae Woodland, Shrubland, Coasta 7–20 m Woodland, Forest Yellow Blackwood Acacia melanoxylon Fabaceae Damp to dry Golden Wattle Acacia pycnantha Fabaceae Woodland, Forest, Mallee 2-5 m Sun to semi-shade Damp to dry 2-7 m Red Swamp Sheoak Allocasuarina paludosa Casuarinace Forest, Woodland, Coasta White-Cream Brown Stringybark Eucalyptus baxteri Woodland, Forest 20 m Damp to dry Mvrtaceae River Red Gum Eucalyptus camaldulensis Myrtaceae Riverine, Forest 30 m \M/hita Damp to dry Woodland, Mallee, Coastal Coastal White Mallee Eucalyptus diversifolia Mvrtaceae White Damp to dry Tree Woodland, Forest, Mallee, Riparian Pink Gum 5-18 m Eucalyptus fasciculosa Mvrtaceae Cream Damp to dry SA Blue Gum Eucalyptus leucoxylon Myrtaceae Riverine, Woodland, Forest 30 m Cream-Pink Damp to dry Messmate Stringybark Eucalyptus obliqua Myrtaceae Woodland, Forest 15-40 m White-Cream Dry Red Mallee Woodland, Coastal 3-12 m White Eucalvotus oleosa Myrtaceae Rough-Barked Manna Gum Eucalyptus viminalis Myrtaceae Woodland, Coastal 6-20 m White Damp to dry SA Swamp Paper Bark Melaleuca halmaturorum Myrtaceae Woodland, Mallee, Wetland 3-6 m

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*Buzz Pollinated

Know your pollinators



European honey bees have two pairs of wings and long, segmented antennae. They are daytime-flying and feed on nectar and pollen. They are generalist pollinators and provide the bulk of pollination services for horticulture and crop plants. Honey bees and native bees are both essential to functioning ecosystems and food security in Australia.

Honey bees have become an important part of the Australian landscape. Honey bees live as colonies, and have a long history of coexistence with humans, including in domestic gardens.



Australian native bees comprise more than 2000 species, which provide essential pollination services. Native bees are generally solitary and live in nests in the ground or in hollow stems, old borer holes and other cracks and crevices, and some have evolved to pollinate particular native flowers through 'buzz pollination'. Although many Australian native bees are generalist foragers, some species have co-evolved with native plants and adapted to be the most effective pollinators of their flowers. Many native plant species, such as Dianella and Grevillea require specially adapted insects to access their nectar and enable the transfer of pollen to the stigma. Most native bees are solitary, but some species found in northern Australia (Tetragonula sp. and Austroplebeia sp.) are social bees and are used for commercial pollination of crops like macadamia nuts.



Fly species number up to 30,000 in Australia, and can be identified by having only one pair of flight wings. A second set of wings are modified into club-shaped paddles that allow flies to hover and stabilise their flight. Unlike bees and wasps, many flies (Brachycera) have very small, clubbed antennae at the front of their head. Flies, including blowflies, are often attracted to flowers that smell like carrion. Some flower-flies, have hairy bodies that easily collect pollen while they are feeding. Flies provide a range of services in the garden, including pollination, decomposition and predation.



Hoverflies are a type of fly, distinguishable by their large eyes, short antennae, bright black and yellow abdomen and their hovering flight behaviour. Adult hoverflies are nectar and pollen feeders. Hoverfly larvae feed on pests such as aphids, thrips and leafhoppers and are excellent biocontrol agents.



Beetles have hard outer wings that form their distinctive beetle shape. Their outer wings form a T-shape where they join at the top, unlike bugs where the outer wings make an X- or Y-shape. Some beetles feed on nectar and pollen, usually by crawling over flower surfaces. There are around 30,000 species of beetles in Australia, with many yet to be formally described.



Butterflies have wings covered in tiny scales. They have clubbed antennae and hold their wings upright when at rest. They are day-flying and have long tongues that they can use to feed on nectar in flowers with deep tubes. Butterflies are usually brightly coloured, with approximately 600 species found in Australia.



Moths also have wings covered in tiny scales and tend to be subtle in colour. They have antennae without clubs and hold their wings flat when at rest. They are generally dusk- and night-flying but there are some exceptions: the grapevine moth is a commonly seen day-flying moth. Moths feed on nectar. Australia has a high diversity of moth species, with up to 22,000 species thought to exist across the continent.

Flower forms



Generalist flowers can be pollinated by many different insects and animals. They are typically saucer shaped with many stamens and have a surface that insects can walk on. Eucalyptus flowers and daisy flowers are generalist flowers — they can be pollinated by bees, flies, beetles and butterflies.



Specialist flowers have modifications to their shape and size that only let certain pollinators access the nectar and pollen. These flowers might have deep flower tubes or narrow entry points so that only a select group of pollinators can access them. The advantage of specialisation is that pollination is very targeted and efficient, with accurate pollen placement made possible by co-evolution between flowers and insects. The disadvantage is that if the correct pollinator isn't there, the flowers aren't pollinated. Often, nectar is produced at the base of the flower, forcing pollinators to enter the flower fully and in the process, become covered in pollen.

Pollinator rewards

Nectar is a sugary solution, rich in carbohydrates, vitamins and minerals, produced by flowers and sometimes by glands on leaves or stems (called extra-floral nectaries). Nectar is attractive to insects, and provides an immediate energy source needed for tasks such as hunting pest insects, laying eggs in decomposing organic matter, collecting pollen, or parasitising other insects.

Carbohydrates alone don't support everything needed for health and growth, so insects also need pollen.

Pollen is rich in protein, fats and nutrients. Bees are vegetarian, and need to collect pollen to feed their offspring.

Buzz pollination

Some flowers do not produce any nectar; they specifically target pollen-collecting bees, and only offer pollen rewards. To limit pollen loss and ensure effective pollination, some plants produce flowers with specialised, tubular anthers, that only open at the tip. To extract pollen, bees use vibrations to 'buzz' the pollen grains out of the pores of these anthers. Many crops are buzz pollinated, including tomatoes, potatoes, eggplants, capsicum, chillies, tomatillo and cranberries.

European honey bees are unable to buzz pollinate flowers, but several native bees, such as the blue-banded bee, teddy bear bee (Amegilla sp.) and carpenter bee (Xylocopa sp.) are exceptionally good large buzz pollinators, and have evolved to pollinate native plants such as flax lilies (Dianella sp.). Many of our smaller, ground nesting bees utilise vibration to help them excavate their burrows, and they also

use that skill to buzz pollen from the anthers of native plants.

Planting buzz-pollinated species will encourage populations of buzz pollinators for successful pollination of food crops and ensure seed set in native plants. Many small ground nesting bees also buzz pollinate native flowers.

Nectar feeding

Grevillea flowers and other tubular flowers are often adapted to be successfully pollinated by birds. Pollen is 'presented' on a floral stigma that extends outside the flower. When birds feed on the nectar, pollen is deposited on their beaks or heads. Bees, also attracted to the sugary nectar, crawl into the side of the flower and feed on the nectar without encountering the pollen-laden stigma. The plant doesn't receive the pollination benefit from the insect, but flowers such Grevillea species can be a very useful source of nectar for insects in the cooler months.





Nurseries

Most of the plants shown in the planting guide will be available at nurseries that have a good stock of native plants. But if your local nursery doesn't stock the plant you're after, ask them to order it in. For a list of nurseries that stock all the plants shown in the planting guide, plus other useful resources, visit the Wheen Bee Foundation website or scan the QR code.

WheenBeeFoundation.org.au/our-work/powerful-pollinators

Wheen Bee Foundation

Powerful Pollinators Planting Guides are produced by Wheen Bee Foundation. We fund vital strategic research and education initiatives that strengthen bees, improve pollination efficiency, and protect our food security and ecosystem health. Visit the website for more information.

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Far left: The spreading flax lily, Dianella revoluta, is buzz pollinated.

Left: This European honey bee is 'side-working': feeding on the nectar-rich flowers without coming into contact with the plant's pollen.

Front cover:

- 1. Australian native bee *Lipotriches flavoviridis*. (Photo: B Jacobi)
- 2. Lucerne field near Lucindale. (Photo: Denisbin)
- 3. European honey bees,

 Apis mellifera. (Photo: Kirrily Hughes)

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