

Australian Native Bees



Native bees are very efficient pollinators. Image by Jean and Fred Hort.

Pollinators in Peril

Bees all around the world are under threat. Without insect pollinators, roughly two thirds of the world's crops would flower, only to fade and then lie barren.

Pollinators ensure abundant crops of fruits and vegetables. Worldwide studies have proved the irreplaceable contribution of wild insects to global food production. Managed honeybees will not be able to fill the gap should native pollinators continue to decline.

The loss of wild pollinators is a serious threat to crop yields in our horticultural and agricultural industries.

Given the chance, native pollinators can be a great benefit to farmers.

Pollinators are being affected by a variety of factors including things like loss of habitat, parasitic mites, disease, inadequate food supplies and some farm management practices, including the use of pesticides.

Australian Native Bees

Australian native bees are important pollinators of numerous fruit and nut crops, vegetables, our valuable wildflowers and native plants.

Most are solitary bees that nest in the ground or inside cavities in vegetation.

Studies have shown that some wild bee species are more effective pollinators on a per-visit basis than honeybees. When managed honeybees have to compete with wild native bees, they are up to five times more efficient in pollinating crop flowers.

Native bees are beautiful, diverse and fascinating to watch. Australia has over 1,600 species ranging from the spectacularly large 24 mm yellow and black carpenter bees down to the tiny 2 mm Quasihesma bees. They have a wide array of shapes, sizes and behaviours.

Native bees are closely tied to their environments health. There are simple and inexpensive things you can do to increase the number of native bees living on your land.



Blue Banded Bee. Image by Jean and Fred Hort.

Attracting Native Bees to your Farm

In order for native bees to thrive, three basic needs must be met:

- Sufficient food sources
- Safe nesting sites
- Protection from pesticides.

Native bee diversity responds positively to increased natural floral areas around orchards and farms.

Food sources

Provide pollinators with a variety of flowering plants that bloom throughout the growing season; you can plant fallow fields, road edges and cover crops with clover or other inexpensive seed that will flower.

Implementing hedgerows, native habitat or windbreaks with a variety of plants that have overlapping flowering periods will provide food for bees throughout the growing season and strengthen populations of natural enemies of crop pests.

Habitat

It is important to know the habitat on your farm. Native bee conservation is habitat conservation. Native bees don't build the structures we associate with honeybees, but they do need places to nest, which vary depending on the species.

Wood-nesting bees are solitary, often nesting in soft-pithed twigs or beetle tunnels in standing dead trees.

Ground-nesting bees include solitary species that construct nest tunnels under bare ground.

When you create a dam or ditch, you can leave the pile of excavated soil. Ground-nesting bees may build nests in stable, bare areas of this mounded earth. Planting clumps of native flowers will attract more pollinators.

If you want to do more to increase the number of native bees pollinating your crops, you can set aside marginal areas and work with your neighbours to protect natural areas like riparian zones around your farm.



Standing dead trees also house native bees. Image by Lachlan Macnaughtan.

Use Pesticides wisely

Most bees are killed by pesticides when flowering crops are sprayed. Avoid or minimize sprays during flowering. Avoid spraying when bees are actively foraging.

Only use pesticides when necessary, consider spot spraying (only applying to infested areas).

Be aware of wind direction and use drift-reduction application equipment that is properly maintained and calibrated.

Don't spray pollinator habitats. Maintain unsprayed flowering plant borders, hedgerows and headlands.

When sowing with insecticide treated seed, control flowering weeds in the field prior to planting so that bees are not attracted to the field for foraging.

Provide pollinator-friendly habitats away from active fields.

More information

www.aussiebee.com.au

www.facebook.com/groups/australiannativebeenetwork

<https://agrifutures.com.au/product/bee-friendly-a-planting-guide-for-european-honeybees-and-australian-native-pollinators/>