

HOW TO MAKE A BEE HOTEL



AUSTRALIAN NATIONAL
BOTANIC GARDENS

Alive with learning

Most native bees are solitary and each female builds her own nest. Native bees make their nests in a variety of places (in soil, hollows in trees, and in pithy/decaying wood).

Native bees will also use man made “bee hotels” which are easy to make.

How to make a bee hotel

PVC Palace

Step 1: Take a piece of white PVC pipe approx. 60 mm (w) x 200 mm (l).

Step 2: Cut tape and cover one end of the pipe with the tape (will need take 2 pieces of tape).

Step 3: Fill the open end of the pipe with paper straws (these are un-coated paper straws, plastic or wax coated paper straws get too hot and the bee larva will die).

Step 4: Securely fix the pipe to a fence post or any other solid surface in a protected location.



Bee Block

Step 1: Find a piece of untreated dry wood, at least 13 cm deep (the denser the wood the better).

Step 2: Drill holes of 3–8 mm in diameter across the grain. Drill to a depth of approximately 10–15 mm but not right through the wood. A variety of diameters will accommodate different bee species.

Step 3: Attach a roof to provide protection from the sun and rain or place it in a sheltered position. Outside surfaces may be painted or stained, but don't use wood preservatives.

Step 4: Place or hang the bee block so bees have open flight access, make sure it's fixed firmly so it doesn't sway or swing.



Mudbrick Mansion

Step 1: Make small block casings using 10 cm stretches of 90 mm square PVC stormwater pipe.

Step 2: Mix a clay soil (without stones or coarse sand grains) with water to make a thick paste. Fill the casings with clay and leave to semi dry.

Step 3: Before completely dry use a sharp, round device to poke holes into the clay, approximately 6–7 mm in diameter and 6–10 cm long.

Step 4: Leave to dry completely and remove blocks from casings. You can now place the blocks into existing stone walls.



Bee Bundles

The easiest and cheapest bee hotel is a bee bundle.

Step 1: Using bamboo, paper straws or twigs with pithy stems make a bundle as big as you like and secure it with string or tape.

Step 2: Securely fix the bundle to a solid surface in a sheltered position (make sure it doesn't swing in the wind).

Once you've made your bee hotel you relax and wait for the bees!!



Maintaining your bee hotel

Bees will use the hotel to lay their eggs in brood cells, a number of eggs will be laid in each hotel resulting in more than one larva emerging as a bee, so don't touch them until they are definitely empty.

Hints for a successful location and upkeep of your bee hotel:

- Attach the hotel so it is horizontal on a branch or other similar place where it is firm, out of the way but easy to still see the holes, make sure it doesn't swing around or the bees will find it difficult to fly in and out.



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- Don't try to attract bees to the hotel, if it is there, and they need it, they will come.
- Other creatures might also like your hotel, like spiders. If something you don't want nests in your hotel try and safely remove them.
- Once bees have laid their eggs and sealed their brood cells you can tell by seeing a small cap at the end made by the bee.
- Once all bees have emerged you can clean out your hotel for the next season of occupancy.

What type of bee is that?

There are many different solitary native bees. Female bees make brood cells to lay their eggs in, sealing each cell with a cap. Different types of bees make different cell caps using resin, pieces of leaf, mud and even small rocks.

Building brood cells

Female bees:

1. Tunnel into their substrate of choice, e.g. directly into the ground, soft wood, pithy stem or a pre-made crevice or hole, like in a bee hotel!
2. Lay an egg and leave a ball of pollen to feed the larvae when it hatches, and then seal the cell.
3. Repeat the process for each egg, usually in a line if using a stem.

Below are some examples of different cell caps for native bees.

Leafcutter bee



Resin bee

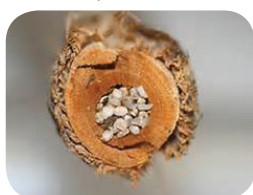


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Mason bee



Carpenter bee



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A bee friendly garden

Here are some tips for a bee friendly garden!

- Leave some areas free of mulch and weed matting as some bees such as the Blue Banded bee make their nests in the soil.
- Plant buzz pollinated plants like senna, fringe, flax and chocolate lilly, trailing Guinea-flower, velvet bushes, and tomato.
- Then plant nectar rich plants nearby like fan flowers, emu bush, Christmas bush and native juniper.
- Choose plants that flower from early spring to late autumn as different bees forage at different times of the year.
- When pruning plants with pithy stems leave at least 10 cm above the node for the bees to burrow into.
- Leave dead wood for bees to burrow into.
- Plan your garden so you will have a diversity of native species that will promote flowering all year round.



Chocolate lilly



Belalla Gold



Aussie Salute



Native Juniper

For more information

There are a number of websites where you can find more information on native bees, how to make bee hotels and creating bee friendly gardens.

- <http://www.buzzaboutbees.net>
- <http://www.aussiebees.com.au>
- <http://australianmuseum.net.au/welcome-to-plant2pollinator>
- <http://flyingdocbees.wix.com/flyingdocbees>