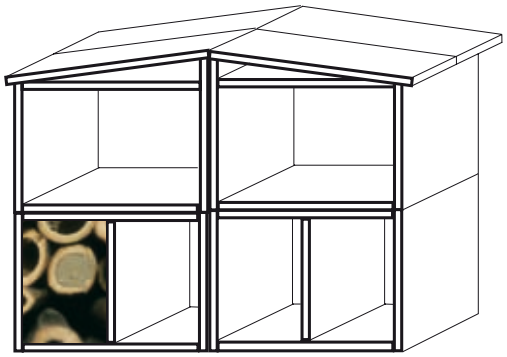
TECHNICAL NOTES - BEE HOUSE

Model for gardens

Made up of a set of stackable box chambers (from 2 to 4 chambers) this large-scale bee house adapts itself to suit all types of weather conditions, as well as whatever materials you have at hand.



Large-scale model

Approximate dimensions

75 cm

60 cm

90 cm

- 4 planks of untreated wood, each 12 m long and no less than 30 cm wide *(choose planks no less than 1 cm thick)*
- 36 to 72 woodscrews

	A	B	C	D	E	F
Main base structure	30	40	40	30	36	-
Main roof structure	40	40	40	30	50	50

Tips

- Stabilize and raise the height of your bee house by mounting it on a base of stones or wood.
- Use a tile or stone... to add roofing.

- To assemble the different parts, lay out 3 screws along the width of the planks of wood.
- Once the structure has been filled and installed, secure your bee house by fixing the chambers together with screws or hooks.

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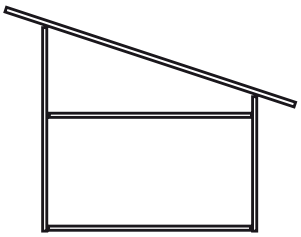
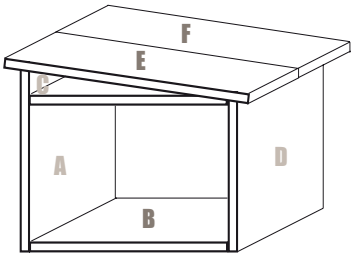
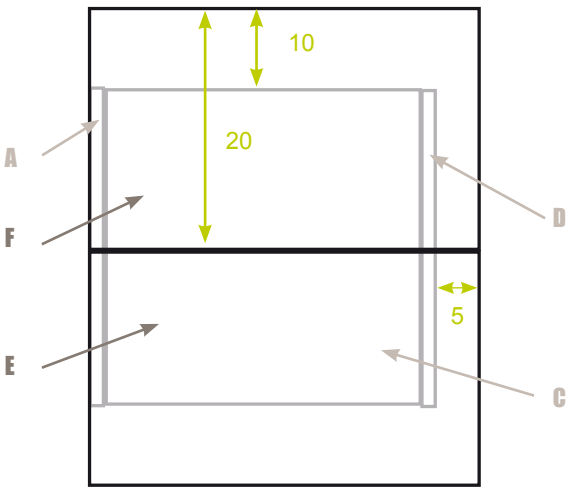
Front view | **Side view** | **Top view**

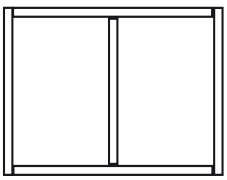
Roof-level box

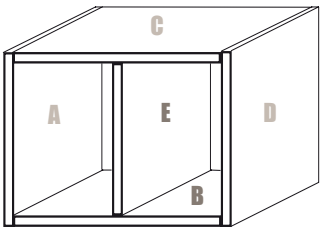






Base-level box





FILLING MATERIALS

Honeybees live in colonies and build a honeycomb of hexagonal cells to store their eggs and food supply. Wild bees are highly diverse species, mainly solitary, and mostly nest in the ground. Yet many wild bee species build their nests in a wide of different materials.

Hollow and pithy stems

Plant stems can provide a home for many beneficial garden species.

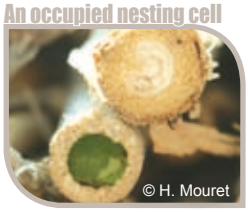
To fill your bee house, simply find hollow plant stems with an internal diameter of less than 12 mm.

Cut the stems to the required length (the depth of your house) at the node, or seal one of the ends **(at least one of the two ends must be left open)**.

Leafcutter bee

You can find a wealth of hollow and pithy stems everywhere around you:

An occupied nesting cell



- **HOLLOW STEMS: hogweed, giant weed, wild carrot, fennel, phragmites (reeds), bamboo, catalpa, paulownia and Japanese knotweed...**
- **PITHY STEMS: raspberry bushes, brambles, rose-trees, sunroot, elder, , ailanthus, buddleia, deutzia and hydrangea...**

⚠ Certain species can be exotic, and even invasive.

Wood

Certain bees and other insects often lay their eggs in cavities dug out of wood by beetles.

You can help speed up the process by boring holes in logs from your woodpile. The holes should be 3 to 10 mm in diameter, and 10 to 20 cm deep, and drilled at a slight upward angle to stop rainwater from getting in.

⚠ Be careful not to pierce any holes in the bark so as to ensure the light is blocked out along the whole length of the log. You can make holes on all the faces, but make sure you don't join up two cavities by mistake.

Builder bee

We will be testing out different wood varieties as part of the URBANBEES programme, and we will update this technical sheet as our results come in. Meanwhile, we discourage you from using resinous wood. As part of our research, we will also be testing out the technique of carving out dents in the wood to form the beginnings of holes, as certain bees dig their own cavities. However we don't have enough information at this stage on which to base any recommendations.

Installation

It is important to choose a **sunny spot** (facing south or south-east) **sheltered from the wind and rain**, or to place the house with its back to the wind and driving rain, or with its back to a wall.

The bee house can be placed between 30 cm and 2 m high (or more) to prevent certain predators from disturbing our friendly foragers.

How can you study bees nesting?

An occupied nesting cell

Each female builds her own nest to lay several eggs. Each egg is enclosed inside a larval cell (chamber) that contains enough food reserves for it to reach full adult growth. These reserves are called bee bread, which is made up of a mixture of nectar and pollen. Once the eggs have hatched, the female closes up the hole with different materials: earth, a mixture of earth and stones, fur, leaves and resin….

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