



# *The Amazing Mason & Leafcutter Bees*

*Safe, non stinging, pollination in your backyard*

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**With the right cues from nature  
your bees will hatch in early spring.**

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## New Bee Kits

Our all in one kits have all the supplies including bees to get pollinating in your yard from spring to summer. The houses provide nesting tunnels for both Mason Bees and summer Leafcutter Bees. The hidden loft hatching nursery protects the developing bees from predators, such as birds and rodents.

Your kit contains: 10 Mason Bee cocoons; 25 Leafcutter Bee cocoons; 25 hand cut nesting reeds; 1 Bee house (you can also buy these components separately).



## How Do the Bees Work?

In the spring you put out suitable housing with nesting reeds or hatching blocks and of course the cocoons.

### Hatching Cocoons

Your bees will arrive safely tucked away in their cocoons inside a small cardboard box. These cocoons have been inspected for pests and other bee ailments. Feel free to open the box to see your cocoons. Pouring them into the palm of your hand, you should see a combination of larger cocoons (females) and smaller cocoons (males). Cocoons must be stored under refrigeration to prevent them from hatching.



If you are hatching both mason bees and leafcutter bees, the cocoons can be placed into the baby bee nursery (loft section) of your bee house. The mason bees will hatch first and once temperatures are warm enough the leafcutter bees will hatch. It is typical in early spring conditions that it will take 6 to 8 weeks for the leafcutter bees to emerge. These bees need mid-to-high 21 C/70 F temperatures to fly, but perform best in 31 C/80 F or higher temperatures.

### Hatching Mason Bees

If you are lucky your Mason Bees will have already hatched by the time you get them home. If so, place the box in the crisper of your fridge overnight, the Mason Bees can survive in the crisper of your fridge for a month without food or water in a sleep state. When the first blossoms appear, place the Bees in the baby bee nursery around dawn, they will be groggy as they awake in their new home. This way they will be connected to where they were born and return to lay the next generation.

### Hatching Leafcutter Bees

Leafcutter bees need a constant temperature of 35 C/84 F and humidity ranging between 40% - 90%, at these temperatures the bees will take 23 days to emerge. At lower temperatures such as 21 C/70 F the emergence will take 4 to 6 weeks.

### Please Note:

In addition to warmer daytime temperatures, there must also be sufficient pollen available (blooming trees/shrubs/flowers) for your new bees.

### Quick Tips:

- The most important thing is location. Place the house where it receives morning sunshine (south or south east facing).
- House should be attached to a wall or solid structure like a fence (you want to cut down the wind).

## *How Do the Bees Work? (continued)*

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- NEVER hang/dangle the house, no bee will enter it.
- There must be a source of clay or mud within 25' of the house (they are called mason bees for a reason). You can provide mud or alternatively dig a small V - shaped hole in your backyard and keep it moist throughout the nesting season, 4 to 6 weeks after hatching.
- The size of the nesting reeds is critically important, they must be a minimal of 6 inches long stopped up at one end and the holes diameter must be 5/16th of an inch.
- Do not use wood blocks with drilled holes for nesting houses. Your bees will fail within a few years due to pest buildup.
- Avoid holding your bees in hibernation past June 1st as they will begin to die in their cocoons or may emerge too weak to fly and forage.

### **Next Season**

September/October your leafcutter or mason bee pupae for next season will be in your reeds. These reeds can be removed from the house and placed into a plastic container stored in a cold place such as an unheated basement or garage until next season. Next season place your reeds into your bee house once temperatures have reached optimal conditions.





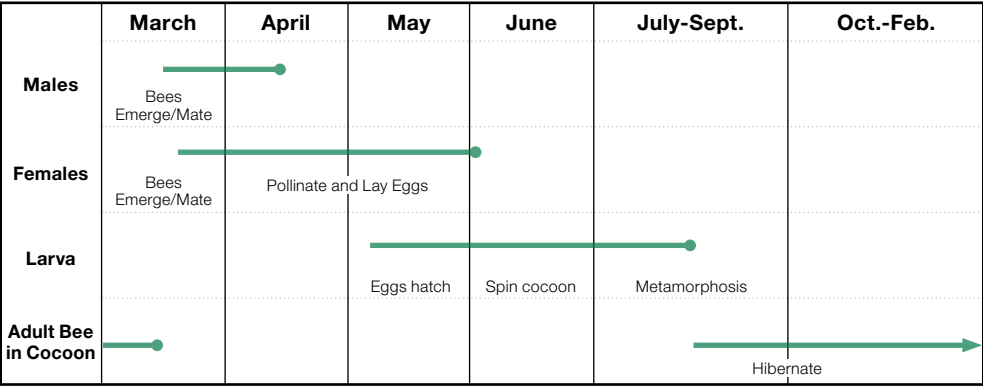
# Mason Bees

Mason Bees are gentle and good natured. They are amazing pollinators for spring fruit, nut trees, berries and blooming plants. They rarely sting (the males have no stinger) and when they do it is similar to a mosquito bite, which makes them a welcome garden companion. It's estimated a single mason bee may visit approximately 2,000 blossoms a day.



The Mason Bee's name comes from using mud to seal the egg chambers within a nesting hole. A female mason bee will collect a pollen ball (as a food source for the larva), lay an egg and seal the chamber with mud, on to the next one and so on, usually laying six eggs to a chamber. They are the first bee to hatch in the season usually in late March to early April. Thee charming ladies love to wake to the warmth of the early morning sun, and will pollinate until the day's end.

## The Mason Bee Lifecycle



# Leafcutter Bees

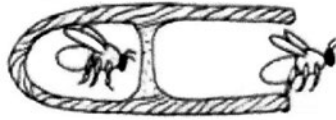
The Leafcutter Bee is a smaller bee than the mason bee but just as gentle and as hard working. They tend to hatch out of their cocoons in mid to late July, being cued to do so by heat and daylight hours. The leafcutter bee is a cavity dwelling bee, so she lays her eggs in existing holes. She does not create holes or damage structures to make holes. Leafcutter bees stay close to home, foraging for pollen and nectar within 100m (300ft) of the nest.



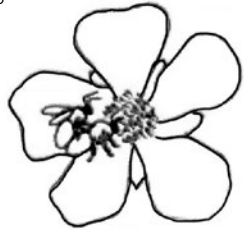
## What Do They Pollinate?

Leafcutters are very efficient pollinators. They prefer legume blossoms, but are not limited to one plant's nectar. These bees are summer generalist that pollinates most flowers as well as melons, peas and other fruits and vegetables.

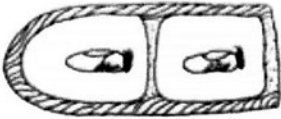
Leafcutter bees forage within 100 meters or 300 feet of their nest. The average yard can use upwards of 100 cocoons.



Adult bees emerge in the early spring when temperatures are above 12°C.



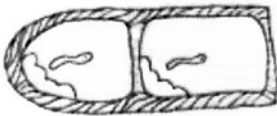
The bees mate and the female finds a place to lay her eggs.



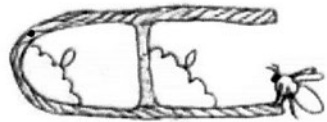
The larvae spin cocoons and become pupae, which develop into adults. The adults hibernate over the winter.

## Mason Bee Life Cycle

(similar for other solitary bees)



The eggs hatch into larvae.



The female puts a mixture of pollen and nectar at the bottom of each cell for the developing bee to feed on. She caps each cell with mud.

# Bee Coverage

## What do they pollinate?

These bees are perfect for spring fruit and nut trees, blueberries, and virtually all flowers in your yard needing pollination.

We recommend 1000 bees per acre.

## Bee friendly plants

Botanical Name	Common Name	Notes
<i>Cercis occidentals</i>	Western Redbud	Eastern, Chinese and Mexican Redbud may also be useful
<i>Cytisus scoparius</i>	Broom	
<i>Prunus</i>	Plum, prune, peach, nectarine, chokecherry	
<i>Ribes</i>	Current, gooseberry	
<i>Rubus</i>	blackberry, raspberry, thimbleberry	
<i>Salix</i>	Willows	

## Bee friendly perennials

Botanical Name	Common Name	Notes
<i>Amsinckia</i>	Fiddleneck	Wildflower
<i>Brassica</i>	Mustards	Annual; let them flower (bolt)
<i>Clarkia</i>	Godetia and others	Snowy flowers; nice in a garden. Pollen may be too large for <i>Osmia</i> to collect.
<i>Hydrophyllum</i>	Waterleaf	Wildflower
<i>Nemophila exilis, menziesii</i>	Baby blue eyes	
<i>Penstemon</i>	Beard tongue	Not the red flowered species. Purples, blues may be ok.
<i>Phacelia</i>	Phacelia	Used by Phil Torchio to rear <i>Osmia</i> in the greenhouse, so it must be good.
<i>Raphanus sativus</i>	Radish	Let them bloom!
<i>Salvia carduacea</i>	Salvia, sage	Avoid reds, long-tubed flowers. Species grown as herbs
<i>Senecio</i>	Cineraria, Dusty Miller	Daisy-like flowers. Some are vines or shrubs.
<i>Taraxacum vulgare</i>	Dandelion	Mow them while your fruit trees are in bloom, let them flower after.
<i>Trifolium repens</i>	White clover	
<i>Vicia californicum</i>	Vetch	

(Source: Krombein et al., 1979, *Catalog of Hymenoptera in America North of Mexico. Vol. 2 Smithsonian Institution Press p. 2032. Common names were taken from the Sunset Western Garden Book, 1995, and Peterson Guide to Eastern Wildflowers*).

