

**Leafcutter Bees (*Megachile rotundata*)**  
**CARE INSTRUCTIONS**

**Things to Know:**

- Leafcutter bees are native to Europe, and were domesticated in Canada in the early 60's to respond to a need for alfalfa pollination (which honey bees are not capable of). They are now naturalized here
- Pollinates in the summer (great for vegetables, herbs, berries, summer crops)
- They are a solitary bee; they do not build hives, but females nest in groups
- Females use pieces of leaves mixed with saliva to line their nests
- Leafcutters are tiny - only a quarter the size of a honeybee, and striped.
- Are cute & friendly (very unlikely to sting), considered "gentle bees"



**Preparing For Your Bees, and What You Need to Make Them Happy**

- A place for the bees to hide (nearby debris, log pile, etc)
- A place for the female bees to lay her eggs and build her nest (A Nesting Blok, or build one of your own)
- Flowers that are in bloom in the summer! This is your bee's food.

**When They Arrive:**

Your bees have arrived in advance, and will be in a pre-pupa stage, so they will not hatch right away. They need warm temperatures to continue their development into an adult and guarantee survival, which will take around 20-31 days. So, you have some options:

- If the weather is above 18 degrees daily and not freezing at night, you can place them outside near a nesting site and they will hatch in around 20-31 days.
- Hatch them indoors: a mesh pop up or flight cage can be used. Simply open the box inside the habitat, and then be patient. Keep them warm, in a sunny spot, and away from anything that would cause insects harm (cleaning products, pesticides, essential oils, cedarwood, the kitchen). Hatching usually takes 20-31 days, perhaps a bit more. They can then be released outside.

If you are interested in making your own nesting box, keep in mind the bees are driven by their needs, and will be attracted to nesting holes of the correct size and length. For leafcutter bees, drill holes of around 4-6 mm in diameter, and at least 7 cm in length. Make sure the back of the hole is closed: they will not nest in something with openings on each end.

If you're doing both mason and leafcutter bees, they don't share holes: leafcutter bees use smaller holes and tubes.

Regardless of which method you use, please consider the following:

- If you have purchased a Nesting Block, or have one of your own making, place the cocoons near the nesting box but not inside it
- Lightly conceal any outdoor cocoons from predators with leafy shelter or sticks
- Open one end of the small box that contains the cocoons.
- There is no need to remove the cocoons from the box.
- Once you have your house or lodge in place, leave it alone throughout the summer, even if things look empty. Jarring the nests can kill the developing bees.
- Never feed a bee honey. Use sugar water at a 10% strength, or cut some nectar-bearing flowers.

**The Leafcutter Bee Life Cycle:**

**In Summer** gravid females hunt for nesting holes, and begin to lay both fertilized and unfertilized eggs into the nesting holes along with a lump of pollen and some nectar for the developing offspring to feed on. Each egg will be sealed off with leaf and saliva into its own little compartment inside the tube holes. The unfertilized eggs serve as a decoy for potential parasites and predators. Help your bee mothers out by planting late spring and summer flowers for them to feed from; and not disturbing the tube nest. The larvae develop and consume all of its provisions, whereupon it enters the pupa stage. Protect your bees from dangers like wind, rain, and predators if you can.

**In Fall and Winter** the young bee has become a fully developed adult and enters hibernation inside of its cocoon, still in the tube, for the duration of the winter. They may not survive the cold Alberta winters on their own, so you will want to harvest the cocoons to ensure high survival. Store them in a mouse-protected box (like a plastic shoebox), in a cool garage or shed that will be around 0 Celsius (but not warmer) until springtime.

**The Following Late Spring**, the cycle repeats itself. Place your cocoons outside in a sunny but sheltered spot, facing south-southwest, and any viable cocoons should emerge. New mother bees do not like to lay new eggs in old, used tubes, so she will look for new ones. If you cleaned your cocoon tubes out in the fall/winter, the holes will be re-used.

**Keep in Mind:**

Your bees are driven by their needs. If they have what they need in the vicinity of their emergence, they will stay. If not, they may range in order to find it. Either way, you may not see too much of these shy creatures, but you have contributed to helping out both your local ecology and the populations of potentially threatened organisms.

**If you are interested in pursuing mason bees further (such as breeding and hibernating them successfully), please purchase a copy of the book "Pollination with Mason Bees" from our website. Those are specialized for Mason Bees, but your leafcutter bees are very similar: they just do everything later in the summer. This book is an excellent resource for anyone interested in saving the bees.**

*Butterfly Wings N' Wishes respectfully acknowledges that we operate on Treaty 6 territory, a traditional gathering place for diverse Indigenous peoples whose histories, languages, and cultures continue to influence our business, our way of life, and our community.*

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