



Mason Bees (*Osmia lignaria*)

Male orchard bees do not have stingers and since there is no queen to protect, they are non-aggressive, making them the perfect garden companion when kids are around. They are easily observable to young ones too, especially later at night and early in the morning before the bees emerge.

Mason bees require very little to make their house a home.

Water

Pollinator trees within a 300 foot radius of their home

Mud



Place your mason bee house on the Southeast most corner of a structure to ensure the warmest early and midday temperatures. Bees need to warm up to get their bodies started in the morning, so the best place for their box is on a house, garage, and garden shed wall facing the morning sun. Bees need to warm up to 80 degrees for their wings to function. Mason bees' black bodies can soak up rays even when it's only 58-64 degrees outside, making exposure to direct sunlight very important. These structures are also ideal because they will have an eave to keep the bees dry and protected. Bee boxes should be well secured so as not to sway in the wind, and should be at least 3 feet from the ground.

Mud is very important to the female bee, she needs it to protect her young. Make mud easily accessible to the little bees by clearing a small area close to the bee house and keeping it evenly wet for them. Don't keep it too close to the openings of the house, because the little bees could fall out and drown. Lucky for us, the best kind of mud for the bees is clay, and we have an abundance in West Seattle.

Deciding on the kind of mason bee house for you really depends on how much work you are willing to put into keeping your bees.

Build a bee house using a piece of untreated 4"x6" lumber. Bees REQUIRE a specific diameter for the nesting holes, a 5/16" drill bit will do the job. Drill the holes to the back of the box, either stopping just 1/2 shy of the back, or attach a 1/2 inch piece to back of the house if you choose to drill all the way through which will make for much easier cleaning in the fall. Attach a "roof" to your structure to further protect from the rain.

Purchase a bored, pull apart house which will require a yearly purchase of paper straws

Purchase or make a teardrop style house which will also require straws

The second two choices are the best choices because they do not need to be cleaned, the paper straws stay very dry and are porous, allowing moisture to escape.

November is the magic moment to move your bees. At least it usually is. Activity will halt when the females have loaded their last larvae and have sealed up the final nest. At this point, the adult female has done her job and will shuffle off to die as the baby bees morph into adults in the cocoons they have formed in the nests.

Carefully inspect your tubes for mildew and mold and replace any tubes that are damaged. Carefully unroll the tubes to reveal your cocoons and store them in a nice paper box for their long winter's nap.

Your bees can be stored for the winter in the garage or in a water tight tool shed where they will receive adequate ventilation and remain safe from predators. If it is an especially wet fall, you can move the bee box, being very careful to keep it upright so as not to disturb the larvae before it has had a chance to build a cocoon. If you wish to prolong the hibernation of your bees because you may have specific plants that you wish to pollinate you can do so by keeping them in your refrigerator. If this is the route you take, understand that the refrigerator is very dry and your bees need some type of moisture to stay hydrated. Use an old plastic clamshell with a piece of damp sponge kept in the clamshell with your box of cocoons.



Nesting materials must be set out before nesting begins in mid to late March. To release your cocoons in the spring, simply place your open box of cocoons next to your bee straws as the days get warmer and the bees will emerge and find the straws. A good indicator for this warm weather is to keep close attention to the first buds of spring. Some people use a bee attractant, or paint the ends of the tubes yellow or blue to ensure nesting. Both are good tricks, but not totally necessary.

Predators can be a problem for mason bees. Birds will lie in wait for the bees to emerge early in the morning. The bees will be sleepy and cold and sit at the entrance of the nest as their body temperature rises. This looks like a candy dispenser to predatory birds. Attach chicken wire to the front of the house to keep your bees off the menu.

Plant a variety of flowering plants near the nest to ensure good food sourcing. Bees prefer flowers in colors such as blue, purple and yellow. Clover, dandelions, viburnum, and hazel are also great bee plants.

Here is a great list of plants to include in your pollinator garden:

<http://www.honeybeesuite.com/wp-content/uploads/2015/02/Master-Plant-List-by-USDA-Hardiness-Zone.pdf>

Pollinators are not exclusively bees in any garden. Pollinators may also be other flying insects. To attract these insects to your garden, an attractive bug hotel can be constructed from natural materials you may already have available at your disposal.

Different sizes of holes can be drilled in a block of wood and larger and smaller reeds and sticks can be used as habitat.



Insects are an absolute necessity to your backyard habitat and the greatest thing you can do to reward all of their hard work is provide an excellent habitat.

