

Honey Bees Can't Pollinate Tomatoes—Useful Info

By: Paige Embry

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Tips for Gardening for Bees

- **No insecticides** (or if you *must* spray, do so before or after bloom time or at night when bees are in bed).
- **Plants**
 - Many lists exist; most are fairly generic. To find what works well in your area, take a walk and look for plants with lots of pollinators that aren't just honey bees. If you can't id a plant, snap a picture and take it to a nursery.
 - **Variety over the season is key.** Unlike some other insects, many bees don't need native plants. For example, over 50 bee species have been found on *Lavandula x intermedia* 'Provence' in CA.
 - **Think about trees.** The quantity of flowers available for pollinators dwarfs typical herbaceous plantings. A particularly large example is *Acer macrophyllum* (big leaf maple) which is beloved by *Osmia lignaria* (BOBs).
 - Seattle-area plants that I've noticed as being particularly good for bees are *Ceanothus*, *Coreopsis* (various cultivars), *Salvia* 'Indigo Spires', and my neighbor's purple *Hebe* (an old one, cv unfortunately unknown). A local bee guy likes rosemary.
 - Some science-based lists for other areas are worth perusing: UC Berkeley's Urban Bee Lab, Penn State pollinator trial (<http://ento.psu.edu/pollinators/resources-and-outreach/bees-bugs-blooms-2013-a-pollinator-trial>) and University of Kentucky's study on woody pollinator plants (<http://growwise.org/wp-content/uploads/2017/02/HRI-Pollinator-BeePlantLists-February2017.pdf>)
- **Provide nest sites!**
 - Leave some ground un-mulched—sunny, dry patches are probably best.
 - Don't compost pithy stems; they are common nest sites. If you need to cut them down stash them somewhere so the bees can survive until it is time to emerge.
 - Consider adding wood blocks drilled with different sized holes.
- If buying *Osmia lignaria* (blue orchard bees or BOBs) make sure you have mud for the walls of their nest cells by testing your soil. Super sandy soils won't work. WSU has a video on how to estimate your soil texture. (Estimating Soil Texture by Hand) https://puyallup.wsu.edu/soils/video_soiltexture/. If yours is too sandy, mud can be bought and a small mud pit put in if needed.

USEFUL BEE FACTS AND RESOURCES

Bee ID Sources and Classes

The Bees in Your Backyard, Wilson and Carril. 2015, book

Bees of the Puget Sound Lowlands, pamphlet available through The Common Acre,

Bumble Bees of the Western United States, web

A Citizen Science Guide to Wild Bees and Floral Visitors in Western WA, WSU EM110E, web

A Field Guide to Common Puget Sound Native Bees: Southern Region, Elias Bloom, web

Other Websites

Bee Basics: An Introduction to or Native Bees.

The Great Sunflower Project. Multiple citizen science options

Discover Life, interactive key to bees, potential for photo id of bees.

Bug Guide, bee photos posted here may also be identified for you.

Quick Guide to Common Bees (FYI, ~100 bee species in 22 genera found in Seattle)

Andrena—mining bees—spring to early summer, darkish, nest in the ground, sometimes in large groups (aggregations). Nest areas may be re-used for decades. Pollen carrying hairs high up on the hind leg. (May be confused with honey bees (hind legs very different) *Colletes*, *Lasioglossum* or *Halictus*.)

Osmia—mason bees—nest in aboveground holes like beetle burrows, reeds, or paper tubes. Spring to summer. Body parts rounded, often with a metallic sheen. Females carry pollen on the underside of the abdomen. Commonly bought species *O. lignaria* (BOB) needs mud to make nest cells for their babes.

Lasioglossum* and *Halictus—dark sweat bees of varying sizes, often nondescript. Very common, especially as summer progresses, easy to overlook. Most nest in the ground. Some *Lasioglossum* may nest in large aggregations with 100 nests in a square yard. Some *Halictus* may nest in the same area for decades so if you get some nesting in your yard, try to leave that area alone. There is often a little hill like an anthill at the entrance to the nest. (These bees may be confused with each other, *Andrena* or *Colletes*.)

Agapostemon—green sweat bees—glorious. Nest in the ground but not usually in large groups.

Melissodes—stoutish bees, tending to the hairy. Females have very hairy lower hind legs—it looks like they are wearing leg warmers. Ground nesters, may nest in aggregations. Summer into fall bees. One of the group referred to as “long-horned” bees because the males have very long antennae. (May be confused with *Bombus* [hind legs very different], *Anthophora* and *Habropoda*. The latter two uncommon or haven’t been found in recent Seattle bee survey.)

Bombus—bumble bees, big, fat and hairy. The queens come out in spring and the you’ll see bumble bees around until the cold weather hits. Often with colorful hair bands and patches. Females carry pollen as tidy packets on shiny patches on their hind legs. Around here, there aren’t many bees that look like a bumble bee once you start paying attention.

Megachile—leafcutting bees, summer. The females carry pollen, dry, on the underside of their abdomen. Lengths vary but tend to look stout with noticeably striped abdomens. The heads are often big and strong and the mandibles (part of their mouthparts, like pincers) large. Most nest in pre-existing aboveground holes and use leaf or petal parts in their nest making.

Go to USGS Bee Inventory Flickr website and search for above names for great close-ups.

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