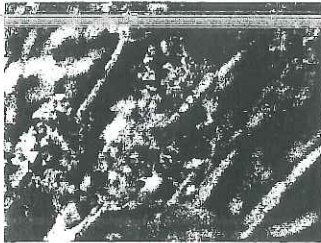


Buzzworthy Plants That Attract Bees

There is a wide array of common plants that support bees, from annual flowers to popular perennials, garden vegetables, shrubs and even trees.



It isn't difficult to make your yard, garden or even patio space a haven for beneficial bees. You'll be helping these important insects, as well as bringing more nature to your backdoor.

The greater the plant diversity, the more bees you will attract and support. Always try to choose as many native plants as possible, and consult with nursery staff or other experts to find vegetation that will thrive in your specific conditions.

Here is a partial list of tried-and-true bee attractors:

Annuals

Asters
Calliopsis
Clover
Marigolds
Poppies
Sunflowers
Zinnias

Perennials

Buttercups
Clematis
Cosmos
Crocuses
Dahlias
Echinacea
English Ivy
Foxglove
Geraniums
Germander
Globe Thistle
Hollyhocks
Hyacinth
Rock Cress
Roses
Sedum
Snowdrops
Squills

Tansy
Yellow Hyssop

Garden Plants

Blackberries
Cantaloupe
Cucumbers
Gourds
Peppers
Pumpkins
Raspberries
Squash
Strawberries
Watermelons
Wild Garlic

Herbs

Bee Balm
Borage
Catnip
Coriander/Cilantro
Fennel
Lavender
Mints
Rosemary
Sage
Thyme

Shrubs

Blueberry
Butterfly Bush
Button Bush
Honeysuckle
Indigo
Privet

Trees

Alder
American Holly
Basswood
Black Gum
Black Locust
Buckeyes
Catalpa
Eastern Redbud
Fruit Trees
(especially
Crabapples)
Golden Rain Tree
Hawthorns
Hazels
Linden
Magnolia
Maples
Mountain Ash
Sycamore

Tulip
Poplar
Willows

Read more:

<http://www.thedailygreen.com/green/tips/2790#ixzz0iFkIqJUy>

OVER → How you can help

General Gardening Advice for Attracting Bees and Other Pollinators

1. **Don't use pesticides.** Most pesticides are not selective. You are killing off the beneficial bugs along with the pests. If you must use a pesticide, start with the least toxic one and follow the label instructions to the letter.
2. **Use local native plants.** Research suggests native plants are four times more attractive to native bees than exotic flowers. They are also usually well adapted to your growing conditions and can thrive with minimum attention. In gardens, heirloom varieties of herbs and perennials can also provide good foraging.
3. **Chose several colors of flowers.** Bees have good color vision to help them find flowers and the nectar and pollen they offer. Flower colors that particularly attract bees are blue, purple, violet, white, and yellow.
4. **Plant flowers in clumps.** Flowers clustered into clumps of one species will attract more pollinators than individual plants scattered through the habitat patch. Where space allows, make the clumps four feet or more in diameter.
5. **Include flowers of different shapes.** There are four thousand different species of bees in North America, and they are all different sizes, have different tongue lengths, and will feed on different shaped flowers. Consequently, providing a range of flower shapes means more bees can benefit.
6. **Have a diversity of plants flowering all season.** Most bee species are generalists, feeding on a range of plants through their life cycle. By having several plant species flowering at once, and a sequence of plants flowering through spring, summer, and fall, you can support a range of bee species that fly at different times of the season.
7. **Plant where bees will visit.** Bees favor sunny spots over shade and need some shelter from strong winds.

Native Plants for Bees

- Aster *Aster*
- Black-eyed Susan *Rudbeckia*
- Caltrop *Kallstroemia*
- Creosote bush *Larrea*
- Currant *Ribes*
- Elder *Sambucus*
- Goldenrod *Solidago*
- Huckleberry *Vaccinium*
- Joe-pye weed *Eupatorium*
- Lupine *Lupinus*
- Oregon grape *Berberis*
- Penstemon *Penstemon*
- Purple coneflower *Echinacea*
- Rabbit-brush *Chrysothamnus*
- Rhododendron *Rhododendron*
- Sage *Salvia*

- Scorpion-weed *Phacelia*
- Snowberry *Symphoricarpos*
- Stonecrop *Sedum*
- Sunflower *Helianthus*
- Wild buckwheat *Eriogonum*
- Wild-lilac *Ceanothus*
- Willow *Salix*

Garden plants for bees

- Basil *Ocimum*
- Cotoneaster *Cotoneaster*
- English lavender *Lavandula*
- Giant hyssop *Agastache*
- Globe thistle *Echinops*
- Hyssop *Hyssopus*
- Marjoram *Origanum*
- Rosemary *Rosmarinus*
- Wallflower *Erysimum*
- Zinnia *Zinnia*

NOT A BEE!



Bald-faced Hornet *Dolichovespula maculata*

NOT A BEE!

By Alex Surrice



European Hornet *Vespa crabro*

NOT A BEE!



German Yellowjacket - *Vespula germanica*

NOT A BEE!



European Paper Wasp
Polistes dominula

Bees, Wasps, and Other Beneficials
www.facebook.com/4wasps



Honey Bee
Apis mellifera

BEE

0.5 inch
1.25 cm



Common Eastern Bumblebee *Bombus impatiens*

BEE

Suggestions for Hiving Your Package Bees



1 Place package on its side. To keep bees from flying, dip bee brush in syrup and brush gently onto screen wire.



2 Using hive tool, pry open top of package bees.



3 While holding top of package, lift from ground a few inches and then set back on ground to knock bees to bottom.



4 Once opened remove syrup can and remove, queen cage. Cover package hole while preparing queen for install.



5 Remove cork/candy cover. Place queen cage between top bars, candy end up slightly. Use wire or push two frames together to hold.



6 Pour the bees directly over the queen cage. Tap package to get the remaining bees together.



7 Place inner cover gently back on hive being careful not to crush the bees. The bees will begin to cluster now.



8 Be sure to reduce entrance to a small opening. This will help the bees guard their entrance until the colony grows.



9 Pour any remaining syrup into feeder jar. Any shortage of feed causes reduction in brood rearing.

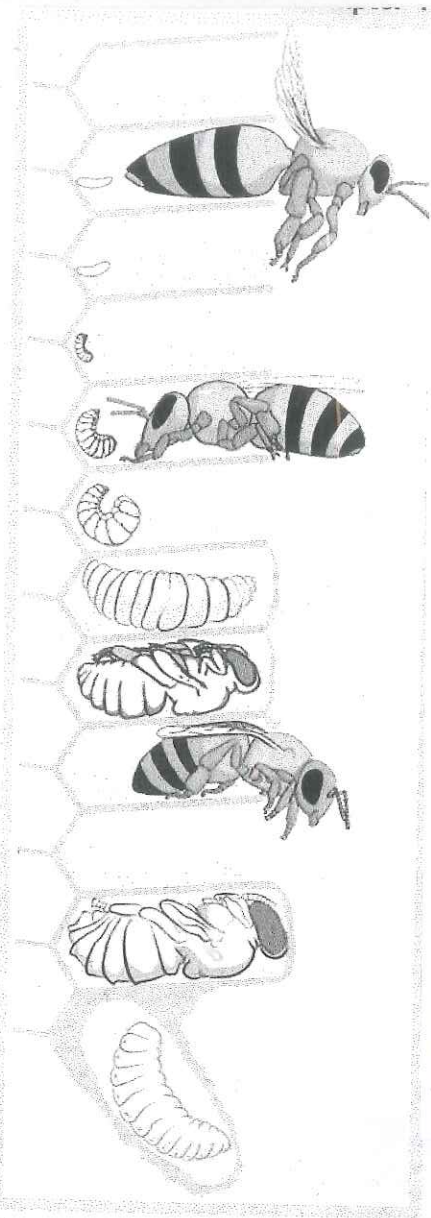


10 In 4-5 days after installation, check colony making sure queen was accepted. Remove queen cage and refill feeder.

Entrance feeder is shown installed on photo #7. Hive top feeders may be used. Division board feeders are not recommended for use with package bees.

***** It is essential that you keep feed on the bees until they have an abundance of nectar available. *****

www.dadant.com



Queen laying egg

larva (female)

Nurse bee (young bee) feeding
3 day old larva

growing larva

capped (pupa stage)

Adult bee emerging

capped drone (male)

Queen larva (4-5 days old)

Figure 4-25.

Top: Adult queen laying egg.

Middle: Nurse bee provisioning 3-day-old larva.

Lower middle: Prepupa above pupa (capped stage); adult worker emerging head first.

Bottom: Capped drone cell immediately above vertical queen cell with 4-5-day-old queen larva.

J. Zawislak drawing.



Cross-cut of queen cell (larva flooded in royal jelly).



Prickly Pollinator

“What are mosquitoes good for?” It’s a question entomologist and photographer Mark Moffett hears often. When he learned that a species of *Aedes* mosquito pollinates a rare orchid, *Platanthera obtusata*, he finally had an answer—and an opportunity to show “a less clichéd example of an animal fertilizing a flower.” But making this image of the mosquito lifting off the orchid in Minnesota—with pollen stuck to its snout and a red mite nearby—proved perilous. Unable to wear mosquito repellent near his subjects, Moffett says he “ended up with so many bites it looked like I had *Moby Dick* written in braille on my skin.” ❖

OVER BAT

Hoping for a midair meal, a lesser long-nosed bat flicks its tongue at an agave bloom near Tucson, Arizona. These bats feast on nectar and pollen from flowers of native cacti and agaves. To make this photo, Greg Tucker mounted his camera on a tripod focused on the flower, then fired his shutter remotely when the bat approached. "Lacking the ability to hover, the bat used its long tongue to extract as much nectar as possible with each passing," Tucker says.



OVER MOSQUITO

NATIVE Bees

Bees choose nesting sites that provide protection from predators, parasitoids and the elements. The types of nesting materials vary depending on the bee species: leafcutter bees often use pieces of leaves to create and divide brood cells; other bees divide cells with mud, pith and saliva or line their cells with resin or a cellophane-like gland secretion.

Cavities - 30%

Approximately thirty percent of bees nest in cavities, usually preexisting cavities. Small carpenter bees, *Ceratina* spp., chew the pith from the center of plant stems to excavate nesting cavities. Mason bees, *Osmia* spp., rely on preexisting woodpecker or beetle larvae holes in wood, often in standing dead trees.

CAVITY-NESTING BEES

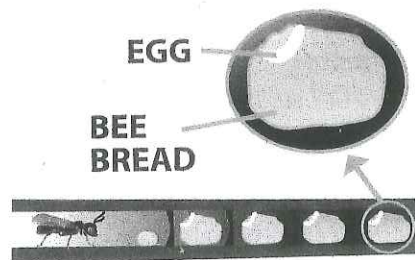
Hollow Stems

- | | |
|----------------------|-----------------|
| Small Carpenter Bees | Mason Bees |
| Large Carpenter Bees | Carder Bees |
| Small Resin Bees | Leafcutter Bees |
| Yellow-Faced Bees | |

Holes in Wood

- | | |
|----------------------|------------------|
| Leafcutter Bees | Mason Bees |
| Small Carpenter Bees | Digger Bees |
| Large Carpenter Bees | Small Resin Bees |

Figure 2.2 Cavity Nest



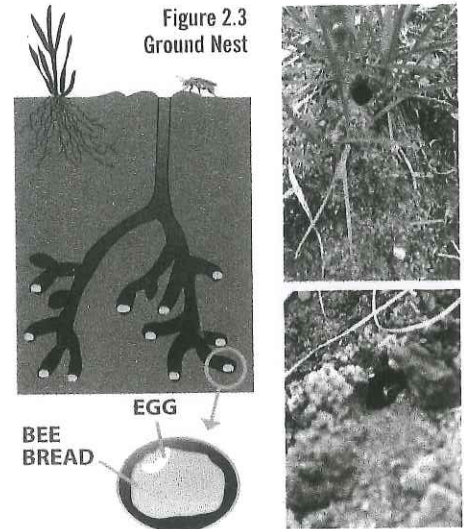
Ground - 70%

Approximately seventy percent of bees nest in the ground, typically excavating nests in bare soil or sparsely vegetated places under plants. All ground nests are excavated by females, preferring sandy, loose, well-drained soils. Nest tunnels can be perpendicular to the soil surface, angled, or built horizontally into slopes or banks.

GROUND-NESTING BEES

- | | |
|------------------|----------------|
| Mining Bees | Digger Bees |
| Cellophane Bees | Alkali Bees |
| Squash Bees | Sweat Bees |
| Green Sweat Bees | Sunflower Bees |
| Long-Horned Bees | Bumble Bees |
| Leafcutter Bees | |

Figure 2.3 Ground Nest

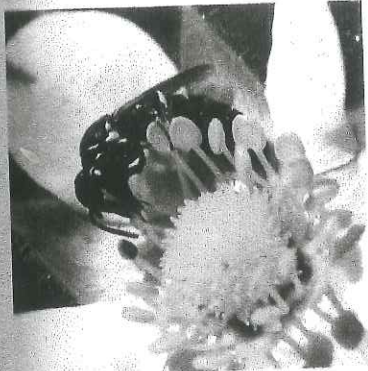


To encourage ground-nesting bees, leave existing nesting sites, areas of bare soil and rodent holes in the landscape. Heavy layers of mulch or landscape fabric can restrict access to new nesting sites. *More information about nesting sites, p. 34.*

BEES - SOLITARY NEST PROVISIONING & LIFE CYCLE

Solitary or Communal Bees

An adult female solitary or communal bee's entire life span (usually two to six weeks) is dedicated to creating and providing for the next generation of offspring. She focuses most of her effort foraging on flowers for pollen and nectar. Pollen is transported on pollen-collecting structures on her abdomen or leg. Nectar is held in the crop until it is regurgitated and combined with pollen to form a mixture known as bee bread.



A Yellow-faced bee, *Hylaeus* sp. collects pollen and nectar, stores it in her crop and regurgitates both provisions when she returns to the nest.

An exception to this collection method is the yellow-faced bee, *Hylaeus* sp., that lacks external pollen-collecting structures and stores both pollen and nectar in the crop. Depending on the species, adult female bees may augment the bee bread with secretions from their own body or resin or oil collected from plants.

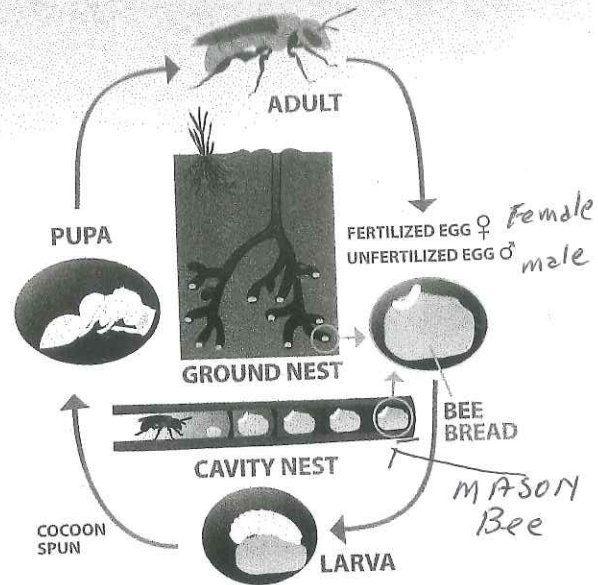


Figure 2.1 Life Cycle of a Solitary or Communal Bee

Bumble Bee (ground)

Once enough provisions have been collected, an egg is laid on each bee bread. A fertilized egg produces a female offspring and an unfertilized egg produces a male offspring. An egg usually hatches within one to five days and the tiny larva begins feeding on the bee bread. As it grows, it molts four or five times, defecates, then spins a cocoon to pupate within. After pupation, the bee emerges from the nest as an adult.

Males typically have a shorter egg-to-adult development period. Male eggs are laid near the entrance of cavity and tunnel nests so the males develop and emerge first (**protandry**), followed by the females that are at the back of the cavity or tunnel. Adult males primarily search for suitable mates and obtain their energy from nectar. Females mate, forage for nectar and pollen, construct and provision the nest, then lay eggs.

Oh, no, he didn't.
Oh, yes, he did.

You can't explain risk to your dog.

Bee Swarm

