

## DIY Bee Hotels

About 30% of the 5,000 native bee species in North America build nests in a variety of above ground cavities or tunnels. These solitary, nesting bees pollinate fruits, flowers, and vegetables. By providing wild bees with nesting places, you are participating in bee conservation. Solitary bees are nonaggressive; they rarely sting unless threatened or caught in clothing.

When you use appropriate nesting materials and careful management at key times of year, bee hotels can provide an important resource for wild bees in your landscape. Bee hotels can also be a great way to learn more about wild bees and help pollinate nearby flowers or produce.



## Instructions



Bee Hotels can be as easy or complicated as you want them to be. They can be made out of expensive materials or recycled or scrap materials. There are also a variety styles and looks. Use non-chemically treated lumber. Provide a variety of size and shape nesting tubes. Plan regular cleaning and maintenance of your bee hotel.

Here are instructions for the bee hotels we made at the library.

### Materials Used

1. Use a saw to cut 3 pieces of plywood to the desired size. The image show is 4 inch by 6 inch.
  2. Use a drill to make holes along the short edge of the plywood.
  3. Use scissors to cut pieces of twine. Then use a crafting needle to thread through the pieces of plywood and connect into a triangle.
  4. Use a saw to cut bamboo sticks to the depth of the triangle.
  5. Use a hot glue gun and glue sticks to secure the cut bamboo sticks into the triangle frame.
- Plywood
  - Saw
  - Drill
  - Twine
  - Crafting needle
  - Scissors
  - Bamboo sticks
  - Hot Glue gun
  - Glue sticks

## Location

Nests should be placed in a location facing southeast to receive direct sunlight in the morning. Elevate the nest about 4-5 feet above the ground and attach it to a visible landmark such as a post, building, or isolated tree. Mount the nest firmly so they do not move or shake in the wind because it may disturb developing larvae. Be sure that there are flowering plants nearby that bloom in early spring and throughout the summer.

In early spring, place nest boxes outside at your chosen location and leave them until late October.

## Pesticide Safety

If possible, do not use any pesticide in your garden. If you use insecticide in your lawn or garden, be sure to protect your bee hotel from drift. Avoid spraying when bees are active and do not spray any flowering plants.



## Maintenance

If nests are never cleaned, they can harbor bee pests and diseases. We recommend rotating two sets of tubes of nesting structures for the bees; one set that you put out in the spring and another set that you clean after bees from the previous season have emerged.

You should clean tubes each winter to prepare them for the following year. Use pipe cleaners to clean out previous nests, replace paper inserts, or replace with entirely new nesting material. You can also clean wood blocks using a bleach solution during winter cleaning to prevent up of disease. Mix a half cup of bleach per gallon of water in a well-ventilated location, cover the surfaces with the solution, rinse and then dry. Replace natural reeds and wood block nests every 2 years as pathogens spread easily when tubes are close together.

## Monitoring

Throughout the summer check for the following:

- Moisture getting into the nest box
- Ant infestations (they are attracted to protein-rich pollen provisions and eveloping bee larvae but can be prevented using sticky spray or ant bat at the foundation of the bee hotel)
- Paper wasp nests
- Predatory birds
- Spider webs (Their presence may indicate the nest location is too dark)

*Information adapted from Michigan State University Extension document:*

<https://pollinators.msu.edu/publications/building-and-managing-bee-hotels-for-wild-bees/>