

BEE BLOCK Installation and Management Instructions

Introduction

There are 4,000 species of native bees in North America. Together they form the most important group of pollinators. Approximately 30% of our native bee species make their nests in old beetle tunnels, in snags (standing, dead or dying trees) or similar locations. These wild bee species are mainly solitary, meaning they don't nest in groups like honey bees and bumble bees. Population numbers of bees are declining, mainly as a result of decreasing habitat [1]. In addition, research has implicated Neonicotinoid pesticides, also known as Neonics, as contributing factors in high native bee mortalities. These Neonics are found as a coating on a variety of crop seeds to deter pests, but remain in the soil for varying amounts of time and can negatively affect many beneficial animals, including native bees.

Installing a 'Bee Block' provides an alternative habitat source and a safe haven for solitary bees. Solitary wild bee females lay their eggs in Bee Block tunnels and use the tunnels for resting and to escape poor weather conditions and predators. In addition to a Bee Block for nesting, bees also need a source of water. You can provide them with this resource by filling a small water basin or bowl, and adding rocks so they are half submerged. The rocks remain dry on top so they provide a place for the bees to land while they have a drink of water.

Bee Block Construction

Material: A variety of types of lumber can be used, however cedar or redwood are ideal materials to use.

NOTE: Ensure that all types of wood have not been treated with chemicals

Material Thickness: 6" (15.2cm)

Design: Rectangular in shape with a slanted roof

Entrance Hole: 5/16" to 3/8" (7.93mm to 9.52mm) in diameter



Mounting a Bee Block

- Bee Blocks can be placed anywhere between 3 feet (91.44 cm) to 15 feet (4.57m) off the ground.
- Attach them on a building, fence, or stake, or place them in a tree. Fix them firmly so they don't shake in the wind.
- Position the entrance holes towards the east or southeast direction.

Bee Block Location and Placement

Habitat Preference and Placement: Mount your Bee Block near flowers or trees in a sunny location that is sheltered from wind and weather elements. Including a Bee Block in your garden that contains pollinator friendly plant species would be ideal. Examples of native flowers that bear plenty of nectar and pollen that attract bees are: Black-Eyed Susan's, Bee Balm and Sunflowers. Examples of native trees are the Red Maple, Horse Chestnut, Canadian Plum, and Ohio Buckeye.

Monitoring and Maintenance

Monitoring: Check your Bee Block once every 2-3 months from a distance to see if any bees are flying in/out.

Maintenance: After several years, redrill the holes and soak the nest block for 30 minutes in a solution of water and bleach (1 part bleach to 10 parts water). Rehang them after it's dry.

References & Further Information

 Shepherd, Matthew. (2012). The Xerces Society for Invertebrate Conservation. <u>http://www.xerces.org/wp-</u> <u>content/uploads/2008/11/nests for native bees fact sheet xerces society.pdf</u>

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