

Attracting Native Bees to Your Garden

WHY BEES?

ABOUT
SFC

Honeybees
vs.
Native bees

Types of
Native Bees

Attracting
Native Bees

Liz Cardinal
Sustainable Food Center



OUR MISSION

To cultivate a healthy community by strengthening the local food system and improving access to nutritious, affordable food.

SHARE

PREPARE

GROW

SHARE

- SFC Farmers' Markets
- Community and School Farm Stands
- Double Dollars on SNAP, WIC, FMNP
- Farm to School and Farm to Work
- Farmer Advocacy

PREPARE

- Affordable cooking classes
- Free cooking class series for those who qualify
- Private group cooking classes
- Company team building experiences



GROW

- School and community garden leadership trainings
- Food gardening classes
- Free gardening resources and classes for those who qualify
- Teaching Garden field trips and tours

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Why bees?

- Play major role in agricultural systems
- Help pollinate our teaching garden
- Reduce fear of bees
- Increases awareness of the importance of honeybees as pollinators, and encourage gardeners to incorporate bee-friendly plants in their home, community, and school gardens.

Honeybees

Native Bees

**Other
Pollinators**



Teaching Apiary

- Two top bar hives and one Langstroth hive tended by professional beekeepers
- Offer classes on backyard beekeeping
- Beekeepers keep excess honey

Native Bee Habitat



Native bees have two basic needs:
food in the form of nectar and
pollen from flowers and a suitable
place to nest and lay eggs.
(and no pesticides!)

Other Pollinators

- Wasps
- Hummingbirds
- Butterflies and moths
- Others?

But, they do not collect pollen....



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Honeybees

- Brought to America around 380 years ago by European colonists.
- Well-documented decline since the 1950's as a result of agricultural intensification, disease, parasites and pesticides.
- Responsible for pollinating around 400 agricultural crops globally. They are an agricultural animal.
- The colony is a superorganism with a caste system.
- Hives can be moved and managed for pollination.
- Produce honey.
- May compete with native bees for nectar sources.

What's the difference?

Native Bees

- 90% are solitary with individual females establishing and provisioning nest sites.
- Evolved with the native flora and fauna
- More effective at pollination
- Keystone species - essential to reproductive cycle of most flowering plants that animals rely on for food and shelter
- Species of conservation concern

* All bees exhibit flower constancy; they visit one particular plant species while foraging = super pollinators!

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Types of Native Bees

You might see some of these busy bees



Sweat Bee

Some social, some solitary
Nest in underground tunnels



Mason Bee

Nests in hollow stems or holes in wood
caps each cell with....?



Leaf Cutter

Nest in hollow stems or holes
caps each cell with...?



Bumble Bee

Social bees, living in colonies
Nest in dry cavities
First bees active in spring, last bees active in fall

* 70% of North America's native bee species are solitary ground nesters

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Nesting sites



Native Bee Hotel

SFC Teaching Garden

70% are ground nesters - they need access to the soil surface. Sandy or loamy soils are preferable to rich soils. An undisturbed landscape is the simplest approach.

Tunnel nesters need hollow stems, snags or natural tubes (smooth) 3" - 6" long. Wooden nest blocks, bamboo bundles, or combination "hotels". Keep dry and predator-safe.

Construct wooden bumble bee boxes or preserve cavities like old rodent nests.

Provide habitat for native bees

Leave ground nesting sites undisturbed



Leave dead wood for nesting tunnels



Incorporate hollow tunnels



A diversity of plants, preferably native

Provide overlapping bloom times for foraging throughout seasons.

Native flowers provide best sources of nectar and pollen.

- salvia
- gregg's mist flower
- zexmenia
- aster
- evening primrose

No pesticides or herbicides

Provide a water source

Create a 'pollinator garden' area



Sensory Garden

SFC Teaching Garden

Native Plants

Esperanza



Fall Aster



Zexmenia



Flowering Plants

Zinnia



Hollyhock



Larkspur



Sunflower



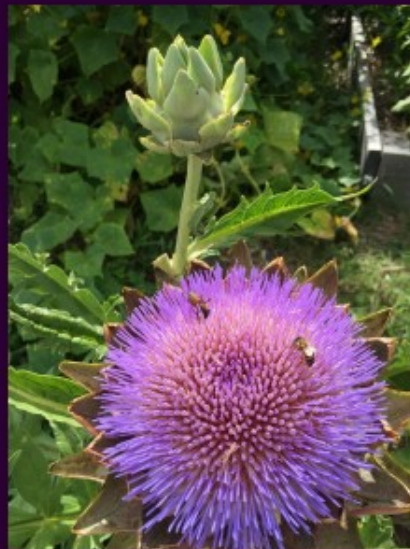
Vegetables & Fruits



Squash



Cucumber



Artichoke



Apple

Herbs

Basil



Fennel



Cilantro



Shelter



Fall Garden

Xerces Society Blog

When hibernating, dormant or overwintering, bees need safe, undisturbed sites.

- Don't tidy up your yard too much
- Cover or move bee habitat

Pesticide-free landscape

Control weeds and pests by hand

Use organic pest control

- neem oil
- garlic-pepper spray

Invite beneficial insects and allies

- birds
- chickens
- predatory wasps and beetles

Maintain healthy soil

Be an attentive gardener



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