

#### **POLLINATION**

# WHAT IS POLLINATION?

- To transfer pollen from a stamen to an ovule

#### **POLLINATORS**

# WHO ARE THE POLLINATORS?



# POLLINATORS









## **Hand Pollination**



What foods need pollination?



QUIZZ TIME!

#### **POLLINATED CROPS**



Alfalfa
Apple
Almond
Artichoke
Asparagus
Blackberry
Blueberry
Broccoli
Brussels
sprouts

## Some crops pollinated by bees<sup>3</sup>

Cabbage Cacao Cantaloupe Carrot Cashew Cauliflower Celery Cherry Citrus Dill Eggplant/ Aubergine Fennel Garlic

Kale Kola nut Leek Lychee Macadamia Mango Mustard Nutmeg Onion Passion fruit Peach Pear Plum Pumpkin

Raspberry Sapote Squash Sunflower Tangerine Tea Watermelon



Without bees they'll all be off the menu

# WHAT PLANTS DO NOT NEED POLLINATION?

- All leafy greens
- Below ground root veggies and tubers such as carrots, parsnips, potatoes, sweet potatoes, horseradish
- Ground level root veggies such as beets, turnips, rutabagas
- Most legumes including peas and beans
- Corn—like other wind-pollinated veggies, giving them a little shake helps distribute the pollen
- Celery
- · Rice, wheat





# NATIVE VS. NON-NATIVE



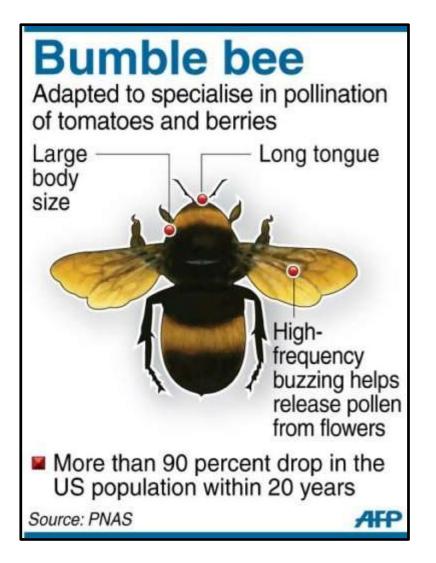
#### **NATIVE BEES**

In the United States, there are over 4,000 species of native bees.

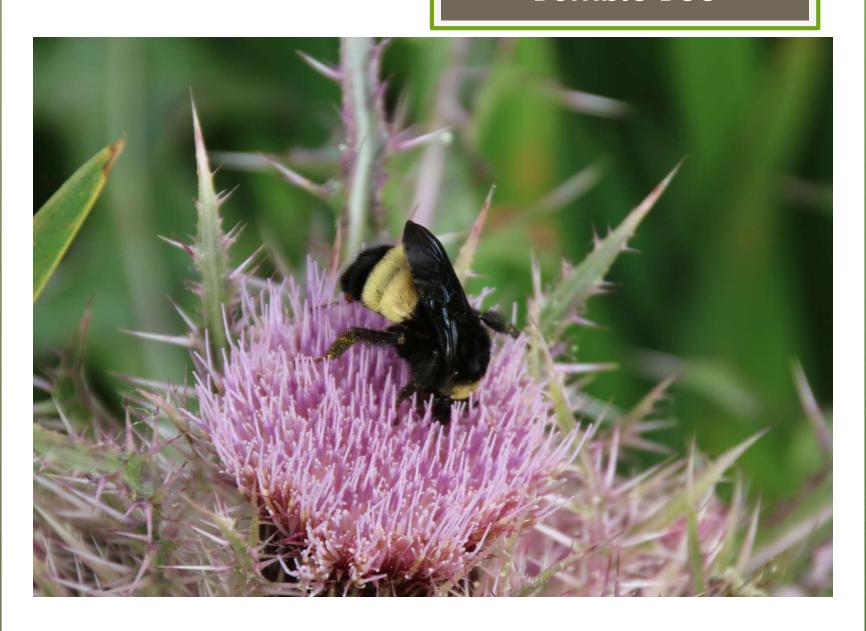


#### **BUMBLE BEES**

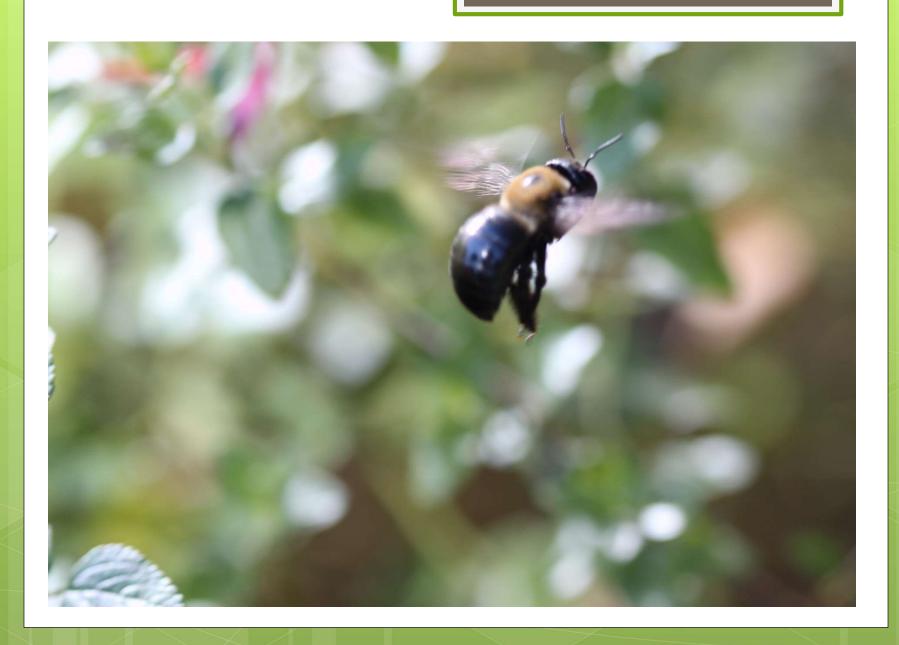




## Bumble Bee



# Carpenter Bee



#### **MASON BEES**

- Quite small
- Bluish/black metallic
- Solitary
- Can sting but usually do not – non aggressive
- Do not make holes –
   use pre-existing holes
   (Carpenter Bee is the
   drilling culprit)
- Do not make honey

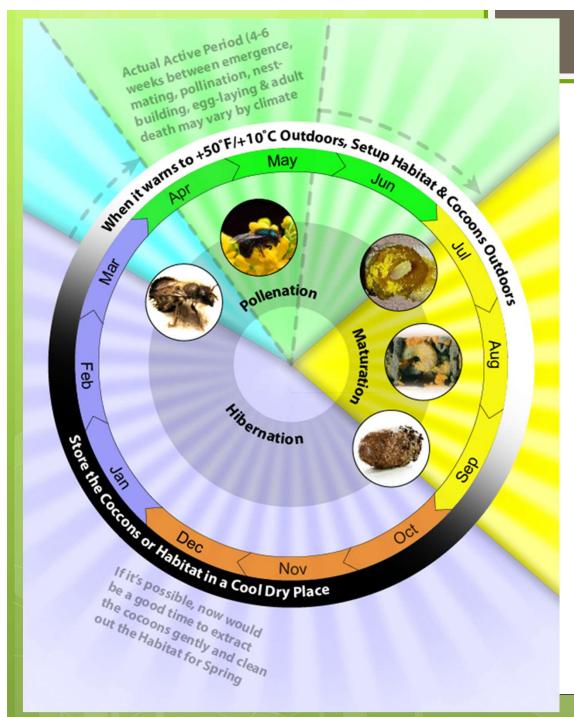


#### **MASON BEES**

- Will lay female eggs first
  (2) and then lay 4 males
- Each cell is filled with pollen bread and an egg

 Caps the end of the tube with mud





#### MASON BEE LIFE CYCLE

- Super pollinators
- Active April June
- Out pollinate honey bee 80 to 1
- Belly flop onto the flower
- 250 Mason bees to pollinate 1 acre of apple trees vs. 20,000 honey bees
- Females live around 8 to 10 weeks; drones (males) 2 to 3 weeks

#### **BUILD YOUR OWN HOTEL**



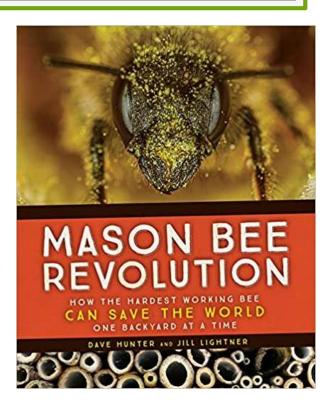
- 5-6" Deep
- Capped on one end
- Bamboo works well
- Cardboard tubes
- PVC tubes
- 3/8" or 5/16" is best
- 25-50 holes/ backyard
- Face east or SE
- Morning sun
- Sheltered
- Do Not Move until AFTER holes are filled (after August)

Google search "Mason Bees" – you will find lots of useful and helpful information.



Crown Bees Mason Bee Accessories Mud Mixture by Crown Bees

\$8 45 + \$4.54 shipping





The Mason Bees: Taking the Sting Out of Beekeeping 2001

by Christopher O'Toole

Paperback

\$7.24 (8 used & new offers)

#### Resources:

#### Sherian A. Wright - \$19.84



by Sherian A. Wright (Author)

12 customer reviews

See all formats and editions

Paperback \$19.84 \(\frac{Prime}{}{}\)

7 Used from \$19.20 24 New from \$15.74

In the beginning...it was all about the honeybee, but there's another bee out there that deserves equal - if not more - recognition. A true native American, she is called the mason bee (scientific name: Osmia lignaria). She does not produce honey, but she is a master pollinator whose skills far exceed those of the honeybee. If you've got fruit trees and want more fruit, then this is the bee for you! Mason Bees for the Backyard Gardener contains wonderful color photographs and illustrations. Step-by-step instructions get you started, choosing between an almost no-work method to a more involved method of winterizing your bees. In an era when people are asking "What's happening to the bees?" this book is indeed timely by focusing on a bee that requires no special equipment for its "beekeeping" criteria. This book contains

▼ Read more





<

#### Customers Who Bought This Item Also Bought



The Orchard Mason Bee: The Life History,... Brian L. Griffin





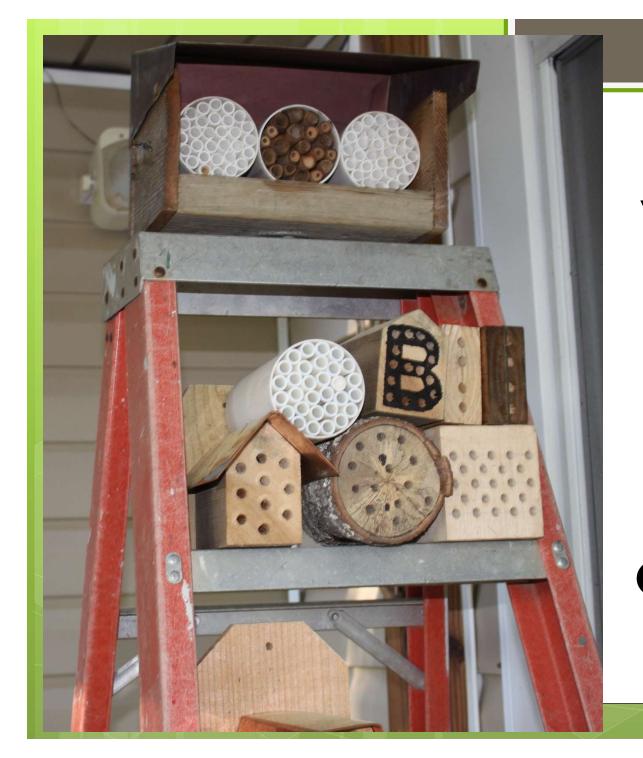


Schrodt Designs Model
MB-L Mason Bee Lodge
16
\$39.07 \rightarrow Prime





Pollination
Bees: A (
Margriet E



Try a variety of kinds of bee boxes. Bee creative!

#### One minute later....



#### One year later....





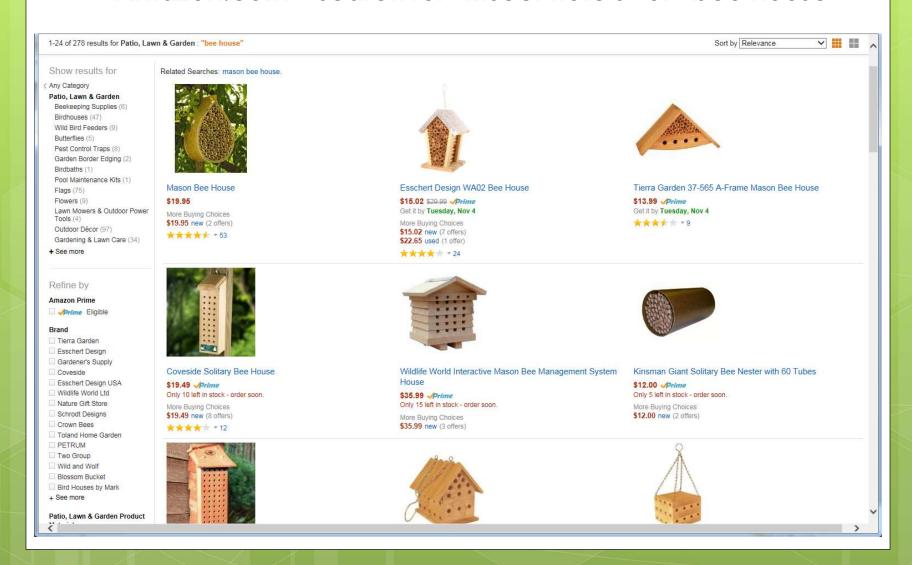






#### Where to find Insect Hotels

#### Amazon.com – search for "insect hotels" or "bee house"





# What do I plant to attract pollinators?

### Native plants are best:

Best adapted to our climate and rainfall

 Bees and butterflies are familiar with these plants

# Bee Smart Pollinator App for Smartphones



#### **MASON BEES**

#### **FAVORITE COLORS:**

- WHITE
- PURPLE
- YELLOW
- PINK

They cannot see red.





As we see it.....



As bees see it.....

1)Protect and create habitat



2) Provide housing



3) Avoid or limit pesticide use





Stacy Blomquist, Kisatchie National Forest, 318-473-7242 <a href="mailto:stacy.blomquist@usda.gov">stacy.blomquist@usda.gov</a> or <a href="mailto:fsbuglady@gmail.com">fsbuglady@gmail.com</a>