Honeybees

The importance of pollination for the garden and beyond

Protecting the pollinators

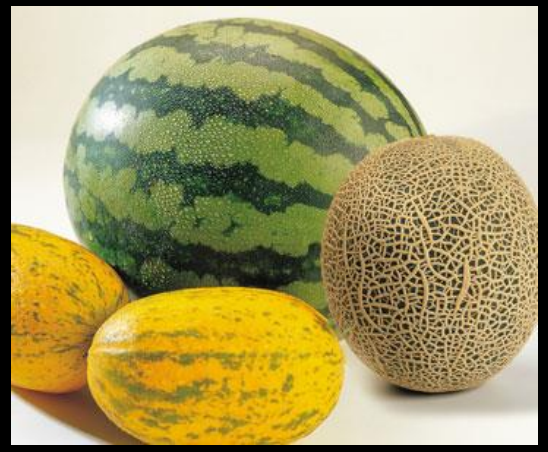
My Background:

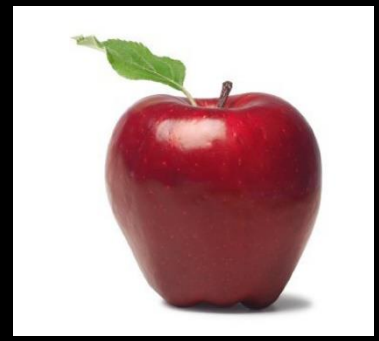
- Grew up in beekeeping family in Kansas
- Father purchased commercial operation in South Dakota in 1982
- Joined him in the business in 1983
- Only worked with Honey production until 1997
- In 1997, started pollinating Almonds in California, & apples and cherries in Washington
- Produce an average 250,000 – 300,000 pounds of honey annually

Why do bees visit flowers?

Bees Do Big Things

- Make Honey
- Single worker bee makes 1/12th of a teaspoon
- Producing 1 pound of honey = bees fly over 55,000 miles
- In a flight to collect honey, a bee will visit 50 – 100 flowers
- Bees dance to communicate where the flowers are



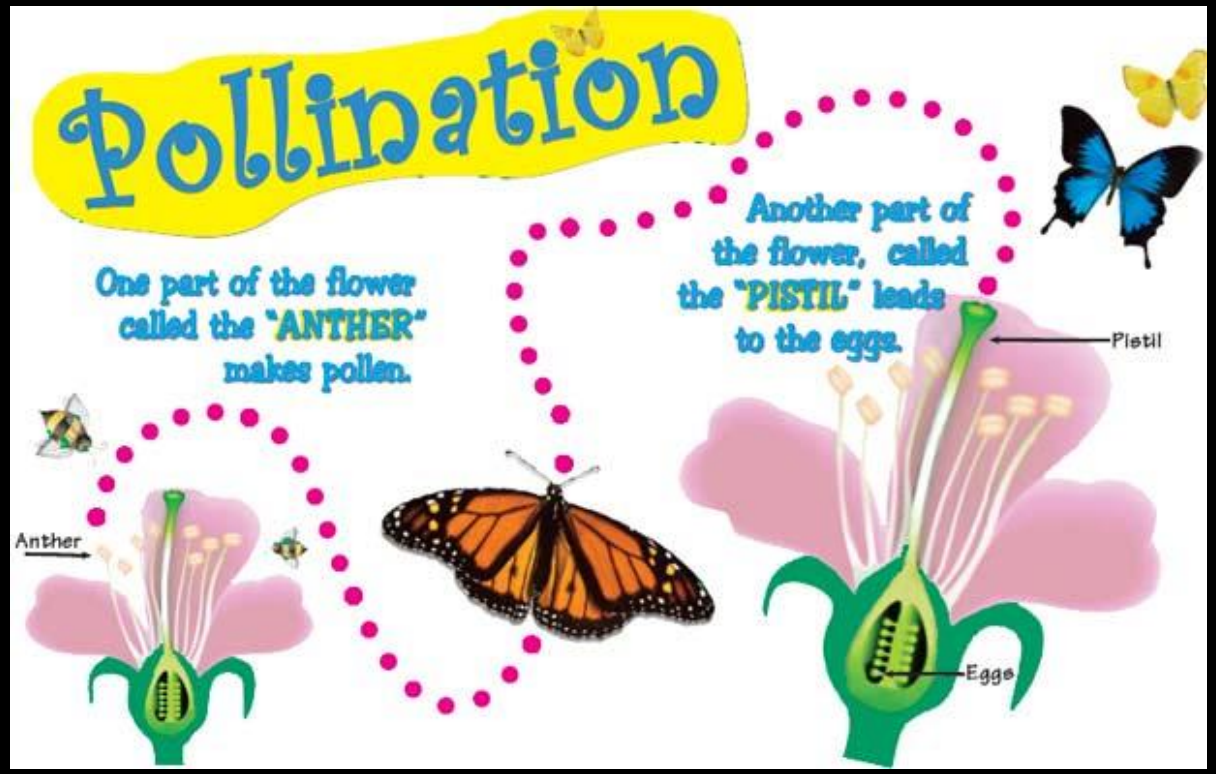


Bees Pollinate Plants

Honeybees Pollinate

Pollination is the process by which pollen from the male reproductive organ is transferred to the female reproductive organs of a plant, thereby enabling fertilization to take place.

Bees are premier pollinators because they are available throughout the growing season, and pollinate a wide-range of crops.



Pollinators

Honeybees are the most efficient pollinators.
They have hairs on their bodies, and when they brush against the anthers of flowers, pollen collects in these hairs. When its body is covered and moves to a female flower, some of the pollen drops.
Honeybees normally forage within ¼ mile of their hive.
If nectar and pollen are scarce, bees will travel up to three miles.

Do you know of other Pollinators?

Other Pollinators:

Wasps
Butterflies
Ants
Flies
Mosquitoes
Moths
Beetles

Bumblebees, sweat bees, and wild solitary bees pollinate the same as Honeybees, but aren't as reliable or as efficient. Moths and butterflies are inefficient pollinators.

*none of which are colonized by humans

Did you know?

1/3rd of the US diet is derived from insect-pollinated plants and Honeybees are responsible for an impressive 80 % of that process.

An estimated increase in crop value of $15 Billion is derived from Bee Pollination

This process is done when beekeepers are able to move bee colonies to crops that need pollinated.

Number of Colonies needed for pollinating Crops per Acre:

Almond (in California) 2.5
Apples 1.5
Blueberry 3
Blackberry 2.5
Cranberry 3
Cherry 2
Pear 1.5
Clover 2
Vegetable seed (carrot, onion, etc.) 3
Meadowfoam 2

Have you heard of the increasing amount of bee losses?

Last 15 years
Beekeepers are losing bees due to several factors:

1. Mites (varroa)

2. Diseases

Threat #3:

Pesticides
(Neonicotinoid)

Threat #4 - #6:

* Bee Pasture (Habitat loss)
* Nutrition
* Other Chemicals
  (lubricant for planter)

Protecting the Pollinators

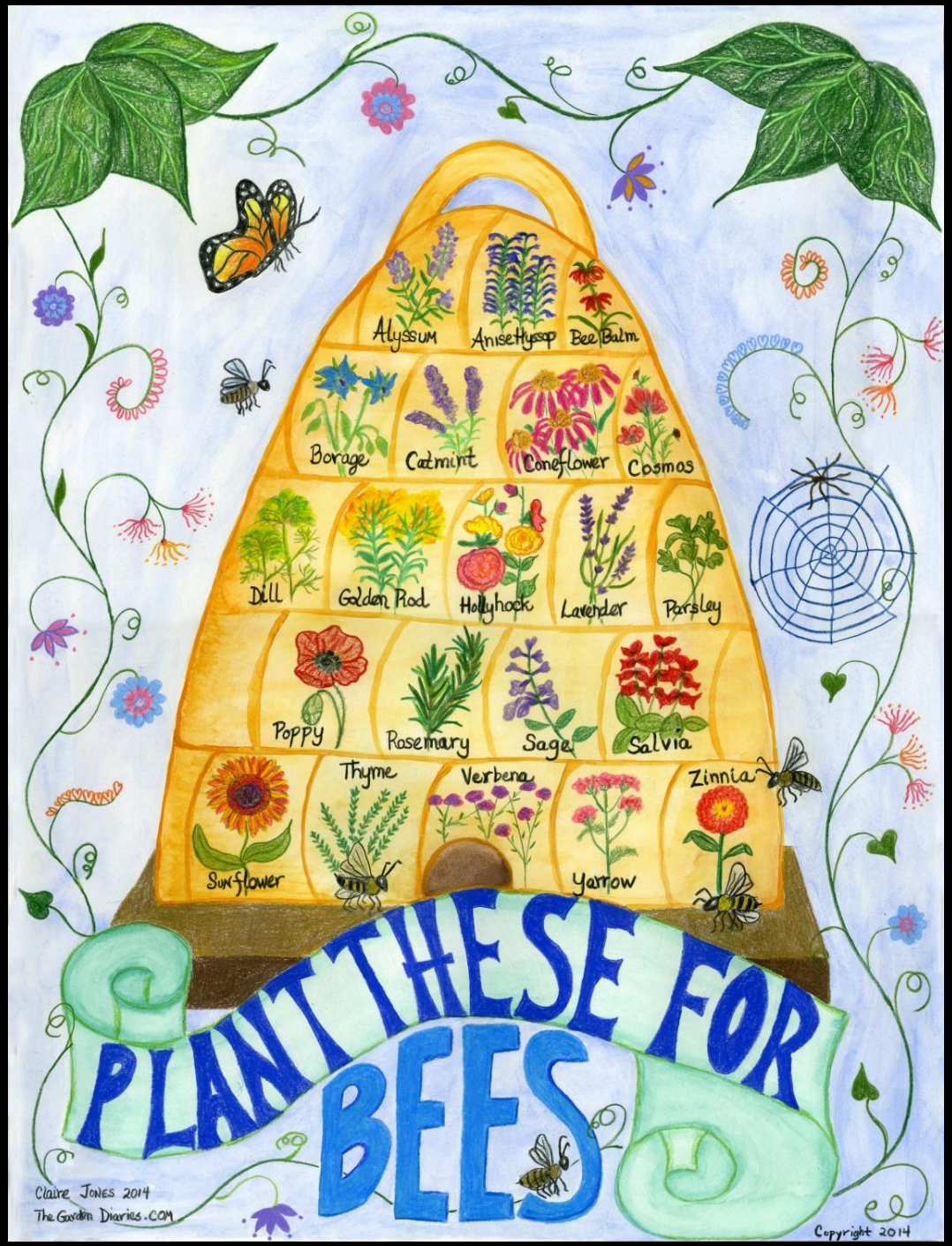
Ways you can help the bees

Plant bee-friendly flowers and flowering herbs in your garden and yard.

1 – Lavender
2 – Rhododendron
3 – White Clover
4 – Cotoneaster
5 – Heather
6 – Purple Toadflax
7 – California Lilac
8 – Bachelor's Buttons

Reduce or limit the use of chemicals and pesticides to treat your lawn or garden while plants are in bloom.
What about natural pest control?

Bees are thirsty. Put a shallow basin of fresh water with marbles or rocks in it for the bees to land on outside your home.



Thanks for coming today!