



Volume # 17, Sheet 8 August
6, 2016

Bees/Project Pollinator: Pollination Station!

www.stlouisco.com/parks

Like us on Face Book

“St. Louis County Parks Gardening”

Welcome to the August Meeting of the Children's Garden Club and welcome to **Greenscape!** Their team has for us a fun lesson in the importance of pollinators, learn what it's like to work as a hive of bees in our "Busy Bees" foraging game, get rewarded for your work with a honey stick, and then plant your own "Pollination Station" to take home! We hope to see you next month September 10th back down the street at Sherwood for Fall Fun Color.



Unique among all God's creatures, only the honeybee improves the environment and preys not on any other species." Royden Brown

Many of you are aware of our continuing monthly discussions of the Project Pollinator – a Collaboration of - St. Louis County Parks - The Sophia M. Sachs Butterfly House – MBG. Together we can learn about our Pollinator Friends & Plants that will help improve the health of our native pollinators and the Monarchs by increasing nectar and pollen sources. Together we all can set a goal to educate the public about the



importance of butterflies and pollinators and native plants and other useful plants for us all. As you know we are always looking for fun & creative ways to educate and learn about plants-gardening and horticulture with hands on projects.

Before we get started Mary Ann and Doug would like to present the Pollinator Pantry Provider - Certificate of Recognition to Greenscape Gardens.

Today we are concentrating on Bees – Join us for a fun lesson in the importance of pollinators, learn what it's like to work as a hive of bees in our "Busy Bees" foraging game, get rewarded for your work with a honey stick, then plant up your own "Pollination Station" to take home!

In our continued learning though this year, “Pollinators” include: Bees, Butterflies, Moths, Bats, Hummingbirds, and Beetles. Did you know Missouri alone has 425 species of native bees? As we are learning “Pollinators” are so crucial to the production of most of our fruits, berries, nuts, and flowers too. Over 150 food crops in the U.S. alone depend on pollinators.

Agriculture depends greatly on the honeybee for pollination. Honeybees account for 80% of all insect pollination. Without such pollination, we would see a significant decrease in the yield of fruits and vegetables. Bees collect



around 30 kilos of pollen per year, per hive. Pollen is the male germ cells produced by all flowering plants for fertilization and plant embryo formation. The Honeybee uses pollen as a food. Pollen is one of the richest and purest natural foods, consisting of up to 35% protein.

Honeybees and bumblebees live in colonies or hives. All the bees in the colony work together for the good of the hive. Each has a job to do: the queen lays the eggs and the workers build the honeycomb, care for the larvae and collect the food.

Honey

Honey is used by the bees for food all year round. There are many types, colors and flavors of honey, depending upon its nectar source. The bees make honey from the nectar they collect from flowering trees and plants. Honey is an easily digestible, pure food. Honey is hydroscopic and has antibacterial qualities.

Secreted from glands, beeswax is used by the honeybee to build honey comb. It is used by humans in drugs, cosmetics, artists' materials, furniture polish and candles.

Queen Bee

The queen bee can live for several years. There is only one queen per hive. The queen is the only bee with fully developed ovaries. A queen bee can live for 3-5 years. The queen mates only once with several male (drone) bees, and will remain fertile for life. She lays up to 2000 eggs per day. Fertilized eggs become female (worker bees) and unfertilized eggs become male (drone bees). When she dies or becomes unproductive, the other bees can "make" a new queen by selecting a young larva and feeding it a diet of "royal jelly".

Worker Bee

All worker bees are female, but they are not able to reproduce. Worker bees live for 4-9 months during the winter season, but only 6 weeks during the busy summer months (they literally work themselves to death). Nearly all of the bees in a hive are worker bees. A hive consists of 20,000 - 30,000 bees in the winter, and over 60,000 - 80,000 bees in the summer. The worker bee has a barbed stinger that results in her death following stinging, therefore, she can only sting once.

Drone Bees

Drone Bees are male bees kept on standby during the summer for mating with a virgin queen. Because the drone has a barbed sex organ, mating is followed by death of the drone. There are only 300-3000 drones in a hive. The drone does not have a stinger. Because they are of no use in the winter, drones are expelled from the hive in the autumn. It takes: 3 days for an egg to hatch, 8 days from when the queen lays an egg for the larvae to be capped. 21 days from when the queen lays an egg for a worker bee to emerge from the cell. 24 days from when the queen lays an egg for a drone to emerge from the cell. 16 days from when the queen lays an egg for a virgin queen to emerge from the cell.

"If the bee disappears from the surface of the earth, man would have no more than four years to live?"

Honey bees

Honey Bees have 2 sets of wings, and six legs, and have two stomachs. Honey bees fly up to 2 miles for nectar and pollen. There is only one queen bee in a hive of up to 70,000. Honey bees will only fly if it 55 degrees or warmer. The temperature in a hive in the middle of winter will be 75 degrees. The temperature in a hive in the middle of summer will be 95 degrees, for brood production. Honey bees stuff pollen in 'baskets' on their legs, and can carry almost half their weight in pollen. Honey bees create wax in little flakes from glands under their abdomens. Honey bees cannot see the color white. That is why it is good to wear white in the summer. That is why bee suits are white. You are more likely to get stung on windy, warm days because wind can push them into your path easily. It takes nearly 48 bees in their life time to actually make 2 table spoons of honey.



Examples of honey were found in the Egyptian tombs. Honey has been used for medicine by the Egyptians as far back as 5000 years! Honey is a "perfect food," which contains: large amounts of vitamins, minerals. Being particularly rich in vitamins B & C as well as vitamin A, beta-carotene, D, E, and K. It has all of the B-complex that are needed in the system for digestion and metabolism of sugar. Also is rich in minerals such as calcium, phosphorus, magnesium, potassium, silicon, iron potassium, iodine, manganese etc. Varieties can contain as much as 300 milligrams of vitamin C per 100 grams of honey. Has a PH of 3.4 – 3.6, and can kill many kinds of bacteria it comes in contact with. Has been proven to exhibit significant inhibitory effects on the bacteria that cause gastric ulcers. Contains valuable nutrients that are easily digested by our bodies. Has the potential to top 300 varieties. In the raw form has a more therapeutic value. That there are 75 substances found in honey. Is highest composition of Glucose, and fructose? Has *monosaccharide* (simple sugars), which are more easily assimilated than any other forms. Does contain proteins, carbohydrates, and organic acids, along with antimicrobial compounds. Is an invert sugar, and is composed of 38% fructose, 31% glucose, 1% sucrose, and 9% additional sugars. Has 63 calories of good carbohydrates and energy. Has ample supplies of live enzymes, which are required for the proper functioning of all body systems. In fact it is one of the foods with the highest content of enzymes. Has very good antioxidant properties. Characteristic properties provide: antibiotic, antiviral, anti-inflammatory, expectorant, anti-allergic, laxative, antianemic. Targets body systems such as: Intestinal, Integumentary, skeletal. In a spoonful, has glycogen and can pass into the bloodstream in 10 minutes to produce quick energy. Honey Glucose boosts absorption of essential minerals such as zinc, calcium and magnesium. Has been used as a treatment for open wounds, including war wounds. Knights of the Crusade used honey as wound dressings and found it was a very effective treatment. The Honey Bee will only select the pollens which are rich in nitrogenous matter (amino acids), and leave poor quality behind. Not only does Bee



Pollen contain a complete complement of nutrients, but its glucoside content helps transport those nutrients into the bloodstream for use. Scientific studies have found that a person can live indefinitely on Bee pollen and water. Bee pollen contains virtually all the essential nutrients which are necessary to sustain life, it is viewed as a perfect food, and a complement to any diet especially to those whose diets are unbalanced or deficient. Bee Pollen cannot be reproduced in the laboratory. Its chemical make-up is so complex, that synthesizing it artificially has eluded even the best efforts in technology.



Children's Garden Club

Growing with St. Louis County Parks & Recreation

August 6, 2016

www.stlouisco.com/parks

Like us on Face Book

"St. Louis County Parks Garden Club"

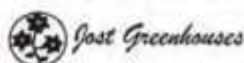
Children's Garden Club 2016 -2017

Learn how to garden in St. Louis County from the experts of the Children's Garden Club. Meetings are held at different locations throughout St. Louis City and County at 9 a.m. on the first Saturday of each month (except July & September). The Children's Garden Club is designed to educate and bring delight in gardening and horticulture through projects that participants begin themselves and take home to grow and enjoy. All programs are free, courtesy of our sponsors and St. Louis County Parks.



2016

- August 6 **Pollinator Project – Bees**
 Greenscape Gardens
 2832 Barrett Station Rd.
- Sept. 10 **Plant Fall Color**
 Sherwood Forest Nursery
 & Garden Center
 2651 Barrett Station Rd.
- October 1 **Topic to be decided**
 Haefner's
 6704 Telegraph Rd.
- November 5 **Health and Tea**
 Museum of Transportation
 Earl C. Lindburg Automobile Center
 3015 Barrett Station Rd.
- December 3 **Holiday Decorations**
 Sherwood Forest Nursery
 & Garden Center
 2651 Barrett Sta. Rd.



- January 7 **Dried Flora**
Baisch & Skinner, Inc. 2721 LaSalle Street
- February 4 **Fun Things to do in the Garden**
Sappington Garden Center, 11530 Gravois Road
- March 4 **Pollinators & Plants -**
Sherwood Forest Nursery & Garden Center,
2651 Barrett Station Road
- March 9 -11 **Home & Garden show**
Join us at the America Center - Booth
- April 1 **Fun in the Garden –**
For the Garden by Haefner’s
6703 Telegraph Road
- May 6 **Mother’s Day Project - Annual & Vegetables**
Compliments Wiethop’s
- June 3 **Plant colorful annual combo**
Sherwood Forest Nursery & Garden Center
2651 Barrett Station Road
- July 8 **Fun in the Garden**
Chesterfield Valley Nursery
16825 N. Outer Rd
- August **Project Pollinator**
Greenscape Gardens
2832 Barrett Station Rd.
- Sept. 9 **Plant fall color –**
Sherwood Forest Nursery & Garden Center
2651 Barrett Station Road
- October 7 Topic to be decided
For the Garden by Haefner’s
6704 Telegraph Rd.
- November 4 **Topic to be decided**
Museum of Transportation
Earl C. Lindburg Automobile Center
3015 Barrett Station Rd.
- Dec. 2 **Holiday Decorations**
Sherwood Forest Nursery & Garden Center
3015 Barrett Station Rd.

2017

I LOVE
my Garden
Club!

