Importance of bees in pollination

What is pollination?

Pollination is a process which can reproduce many plants .Involves pollination between plants - i.e. male gametes (or sperm) are transferred to the female gamete. Honey bee is one of the many important transport agents. They are responsible for the enrichment of a variety of crops, fruits and flowers (omlet, 2015)

How does pollination work?

The bees and plants have a mutually beneficial relationship. Nectar is provided by the plants to bees. When bee collects nectar it bites against the anthers of the plant and the pollen grains attach to the bee's body when a bee moves to another plant some pollen in its body will rub on the stigma of the other plant in this pollination will be done. (omlet ,2015)

Pollination services

Unfortunately, the number of southern wild colonies has declined over the years, as their natural habitat has been cleared to make the farm land. Now, many farms often have to hire bees to help align their crops. This is especially important in America where about 50% of all bees are transported to California each year to help incubate almond trees. Bees are loaded into packages and transported thousands of kilometers across the country through trucks. (omlet ,2015)

What Is Bee Pollination?

Bee pollination is form of insect pollination. Bees are one of the most common pollinator and can visit different plant species in the single afternoon. Bees live in these various plants and collect pollen and nectar, which they return to their hives as food for the colony. As they move from one plant to another, bees pollinate the female reproductive organs of new plants. This pollination allows for fertilization

(Pariona , 2015)

Why Honey Bees Are Important as pollinator?

Pollination is probably the most important activity of bees, especially honey bees. In fact, studies show that bees are responsible for pollinating about 16% of the world's flowering plants and 400 of the native crop plants.

(Pariona , 2015)

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They found that if bees contribute to fruit and vegetable production, the quality improves and the yield will increase to 71%. In other words, bees cannot help to make the crop look better and taste better, but it can also help increase the amount that can be planted at a specific time. (Bartomeus et al. 2014).

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- And the honey bee pollination is suitable for every kind of farmers
- The practice of beekeeping means that large numbers of bees are available to farmers, and can be moved from one territory to another. And the Honey bees are one of the most studied creatures in the world, (Annonymus , 2010)
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Which Crops Are Pollinated By Honey Bees?

- **The importance of beekeeping approval varies with each crop and can be classified as follows**
- Apples , Mangos, Rambutan
- Kiwi Fruit , Plums
- Peaches, Nectarines, Guava,
- Rose Hips, Pomegranites, Pears,
- Black and Red Currants, Alfalfa, Okra,
- Strawberries, Onions, Cashews
- Cactus, Prickly, Pear, Apricots
- Avocados, Passion ,Beans

Cont…

- Green Beans, Orchid Plants., ustard Apples
- Cherries, Celery, Coffee
- Walnut, Cotton, Lychee
- Flax Acerola – used in Vitamin C supplements,
- Macadamia Nuts
- Sunflower Oil, Goa beans,
- Lemons
- Buckwheat, Figs,
- Loquat, Durian, Cucumber
- Coriander
- Caraway ,Chestnut, Watermelon
- Star Apples, Coconut ,Tangerines

Cont..

- Boysenberries Starfruit , Brazil Nuts
- Broccoli ,Cauliflower
- Cabbage ,Brussels Sprouts
- Bok Choy (Chinese Cabbage)Turnips
- Congo Beans, Sword beans
- Chili peppers, red peppers, bell peppers, green peppers
- Papaya
- Safflower, Sesame, Eggplant
- Raspberries, Elderberries, Blackberries
- Clover, Tamarind, Cocoa
- Black Eyed Peas
- Vanilla, Cranberries, Tomatoes, Grapes (Sarich ,2013)

What would happen without the honeybees?

In fact, about one third of our global diet is treated by bees. simply, bees keep crop and plants alive. Without bees, people wouldn't have much to eat. ... If bees don't have enough food, we won't have enough to eat. (Annonymus ,2014)

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Here are some of the crops that can perish without bees:

Apples, Blueberries, Avocados, Cucumbers, Onions Orange, Pumpkins, Almond, Cherries, Grape fruits (The Daily Meal , 2012)

Economic value of honeybee pollinator:

Modern agricultural leaders understand the economic and environmental importance of pollinators. Each season bees provides a service that maximizes yield and quality, builds value for farmers, and drives global food delivery. Many modern agricultural areas are dependent on pollinators. (Modern Agriculture, 2019)

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- Well-handled bees are important pollinators in the agricultural economy. Almonds are almost entirely dependent on the pollination of honey bees. Without bees, yields on blueberries, squash, watermelon and other fruits would be greatly reduced, decreasing prices and disturbing the market. (Modern Agriculture, 2019)
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- Bee pollination has helped make fruits, nuts and vegetables easier for consumers. Between $ 235 and $ 577 billion (U.S.) of global food production depends on direct role of pollinators. . (Modern Agriculture, 2019)

:Refernces

- Annonymus. (2014).*The Daily Meal*, *(*July 19, 2012).*10 crops that would disappear without bees.* Retrieved from. https://www.foxnews.com/food-drink/10-crops-that-would-disappear-without-bees

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