

Bee-Friendly Flowers: Sunflowers



A perennial Helianthus with sweat bee

Sunflowers are iconic symbols of summer. The name of the genus, *Helianthus*, comes from the Greek *helios* meaning sun, and *anthus*, for flower. There are lots of sunflowers with about 60 species native to North America. They are all members of the composite family and many of them grow very tall. *H. giganteus*, a perennial species, and *H. annuus*, the common annual sunflower both grow to 12 feet in height.

Being tall has its evolutionary advantages and the sunflower knows this. When a flower has bright yellow rays waving high above the competition, the nectar and pollen-rich center disc flowers become easy targets for pollinators. After setting seed, the dried flower heads become wild-grown feeders for birds that eat and spread the seeds. No wonder sunflowers grow all over the world.

Humans have done their share of spreading sunflowers, too. Native Americans harvested and planted sunflowers all over the

continents of North and South America. For thousands of years, natives in Mexico and Peru used the plant in spiritual ceremonies honoring the sun god. Native Americans including the Hopi in the west grew and ground up the seeds to make flour and oil. They also learned to extract the blue, black, purple, and red dyes from sunflower seeds to make colorful textiles, baskets, and pottery. The Hurons of the Great Lakes region used sunflowers for food, animal fodder, and medicinal oils. The Senecas of what is now New York roasted and boiled the seeds to make a coffee-like beverage and used the oil for medicines. Lewis and Clark found that the Plains peoples grew sunflowers alongside corn and added

ground seeds to buffalo marrow to make pudding.

In the 1500s, early explorers brought the seeds to Spain from South America and in the 1600s traders brought them to Russia where they became an incredibly important cash crop. By the 1800s, sunflowers competed with wheat in the breadbasket region of Ukraine. In the 1930s, Joseph Stalin spent oodles on research to improve the annual sunflower and within 20 years, the Russians bred giant flower heads over a foot in diameter and boosted the oil content by 50%. Today, sunflower oil is the world's fourth most used oil with Argentina, Russia, and the Ukraine being the largest producers. The importance of sunflowers in human history cannot be overstated.



Common annual sunflower

Here is a fun food factoid: among the sunflowers in the US., *H. tuberosus* (Jerusalem artichoke) is more well-known as a potato-like veggie rather than a sunflower. It traveled from the new world to Europe and Italians adopted it as *girasole aricocco or "sunflower* artichoke." But the name has nothing to do with Jerusalem. The theory is that a mispronunciation of girasole led to the geographically incorrect common name for this tasty spud.





Chickadee eating sunflower seed

No matter how useful sunflowers are for humans, they are an even more critical food source for wildlife, especially birds. More than 45 species have been observed eating the seeds from the annual and perennial sunflowers gone to seed. If you have a birdfeeder, black oil sunflower seed is the most nutritious and tasty seed that will attract the greatest variety of birds. The goldfinch, our New Jersey state bird, really loves to eat seeds right off the plant. Watch goldfinches enjoying sunflower seeds here.

If you've been to Duke Farms in summers past, you may

remember the gorgeous fields of sunflowers near the Orientation Center. Those were the common annual sunflower. Although they weren't planted this year, you can still see perennial sunflowers blooming in the meadows and the pollinator house. And if you take a walk behind and just west of the visitor center and you can see the sunny faces of Jerusalem artichokes in the permaculture garden.

Want to grow sunflowers in your garden? Annual varieties are easy to grow from seed and you can purchase seed packets in any grocery store, seed catalog, or home/garden center in the spring. As for native perennial sunflowers, buy plants or seeds from native nurseries and never collect them from the wild! The Native Plant Society of New Jersey is a great resource to help you find where to buy them or to get more information.

Questions and Answers

1. What is the origin of the Genus name, *Helianthus*? What does it mean? *Answer: Helianthus is from the Greek; helios meaning sun and anthus meaning flower.*

2. What are two of the tallest sunflowers? *Answer: H. giganteus and H. annuus.*

3. What are the advantages of tall flowers?

Answer: By being brightly colored and standing tall above other flowers, sunflowers are easy targets for pollinators. When plants set seed, birds can easily find the seed, eat it, and disperse it.

4. What are some ways that Native Americans used sunflowers?

Answer: They grew them for flour, oil, as natural dyes, animal fodder, and medicines.

5. What country invested great resources in creating hybrids with huge seed heads? *Answer: Russia.*

6. Which sunflower is known for its edible tubers more than its flowers or seeds? *Answer: Jerusalem artichoke.*

7. Where can you see Jerusalem artichokes at Duke Farms?

Answer: In the permaculture garden, west of the Orientation Center.



8. Sunflower seed is critical food for birds. What kind of sunflower seed attracts the most variety of birds to a feeder?

Answer: Black oil sunflower seed.

9. What is the state bird of New Jersey?

Answer: Goldfinch.

Additional Resources

- Johnson Wildflower Center
- Helianthus Missouri Botanical Garden
- USDA Plants Database
- Feeding birds with sunflower seed
- Sunflower history: Fifty Plants That Changed the Course of History, Bill Laws, Firefly Books, Ltd. 2015