

## ON THE WILD SIDE

### Sunflowers brighten a gray winter day

Linda S. Kollett

I just came back in from filling the feeders in my back yard. There is still snow on the ground and there is plenty of activity at the feeders and on the ground below them.

I put out lots black oil sunflower seeds, which the birds love. They are high in fat and protein and have softer shells than the striped variety so they are easier for birds to open.

Birds are generally homeothermic (endothermic), at least when they are awake, which means that they try to maintain a constant body temperature. To do that they speed up the metabolism of fats and sugars in their cells to generate heat, so it is important for them to eat lots of high-energy food, especially on cold days. So that got me to thinking about sunflowers. They are so cheerful and it is great fun to watch bees and hummingbirds looking for nectar as they begin to flower, and then watching birds snag seeds from the mature plants

Thinking about sunflowers is a great way to pass a gray winter day. It might be time to take out the seed catalogs and plan a sunflower garden to attract the bees, hummingbirds and birds to your yard.

Sunflowers are native to Central America, but have been in North America for thousands of years, so we can claim them as well. The common sunflower is *Helianthus annuus*, but there are many varieties. Most sunflowers are somewhere between 5 and 12 feet tall, but of them grow to enormous heights – up to 20 feet - and develop large heads full of seeds. They need fertile soil and lots of mulch. If you are growing giant sunflowers they will need some kind of support and lots of nutrients.

A sunflower is a type of flower called a composite flower. The bright yellow petals are sterile. The small flowers or florets packed into the center of the flower are the actual seed-producing flowers. These florets are packed very efficiently and they are in an arrangement that is very interesting to mathematicians.



**Sunflowers provide nutritious seeds for birds and other native animals.**

*Photo by KATIE EBERT BOWMAN*

If you look carefully you will see that there are interconnecting spirals. Some of the spirals turn to the left and some turn to the right. Count the number of left-turning spirals and then number of right turning spirals. The number of spirals in each direction is pretty predictable. It might be 21 and 34, 34 and 55, 55 and 89 or 89 and 144. Do you notice anything about these numbers? 34 and 21 equal 55, 55 and 34 equal 89, 89 and 55 equal 144. These numbers are part of what is called the Fibonacci sequence and they appear in many other places in nature, like pine cones and pineapples. To learn more about this go to [www.popmath.org.uk/rpamaths/rpampages/sunflower.html](http://www.popmath.org.uk/rpamaths/rpampages/sunflower.html)

If you grow sunflowers, watch young sunflowers follow the sun during the day. They are phototropic which means that they follow the sun. This seems to be due to the distribution of a growth hormone, indole acetic acid or IAA, that moves away from the sunny parts of a plant. It seems a little contradictory but this is how it works: the plant grows longer on the shaded side which pushes the flower toward the sun.

Sunflowers are not just good for birds. People eat them too, roasted and salted as snacks and ground into a substitute for peanut butter – sun butter! Sunflower oil is good for cooking, less expensive than olive oil and some types are full of healthy monounsaturated fats.

May 1<sup>st</sup> has been designated as International Sunflower Guerilla day. [www.guerrillagardening.org/ggsunflower.html](http://www.guerrillagardening.org/ggsunflower.html). Since 2007 people around the world have been plant sunflower seeds in neglected parks, along roadsides, and in other public places on May 1<sup>st</sup> or whenever planting season begins. Join in and plant cheerful sunflowers in your garden and around town.

And don't forget to register your yard as a Certified Wildlife Habitat (a National Wildlife Foundation program.) Visit our web site [www.nortonlandpreservation.org](http://www.nortonlandpreservation.org) or go to the National Wildlife Federation website: [www.nwf.org/In-Your-Backyard.aspx](http://www.nwf.org/In-Your-Backyard.aspx)

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