

March 27, 2021
Sunflowers

Picture: This South Dakota sunflower field flowers are all pointing the same direction, trying to watch the sun.



As a country boy from Indiana sunflowers were a new crop to me. As I drove into South Dakota for the first time in 1979, sunflower fields were abundant in the eastern part of the state, it was August and their brightly colored yellow heads were all pointing in the same direction. I soon came to learn that these were not the kind I was familiar with, referred to as confectionary sunflowers. The type with the big striped seed. The ones sold as “salted in the shell” for human consumption. The big-league baseball players, who seem to want to do a lot of spitting, use these seeds instead of chewing tobacco.

This is also found in many birdseed concoctions. It seems we eat the big seeds and the birds get the leftover little ones.

The sunflower version dotting the Dakota fields are known as black oilseed. They are higher in fat content (40% versus 30% in confectionary) and are primarily grown for their oil as an alternative to soybeans in shorter growing seasons with dryer climates. They are also smaller than confectionary and are added to bird feed as the oil content increases the energy of the feed.

One of the first things I was told was they follow the sun with their heads. I really doubted that information, as it was August and they just seemed to all be pointing to the east. According to Smithsonian magazine, “Researchers found that during the day, genes click on causing the east-facing half of the stem to grow. The lengthening stem causes the flower head to slowly bend to the west during the day. At night, genes causing the west side of the stem to grow activate, causing the head to flip back to the east.” Once the plants mature, like in August, they stay facing east.

Confectionary and oilseed are only two of about 70 species of sunflowers. When it comes to the garden there are two different types of sunflowers available from garden centers and online catalogs: Those grown for their edible seeds, and those grown primarily as ornamentals. Traditional sunflowers are generally quite tall (over 5 feet) with bright yellow blooms. Modern cultivars now offer a range of orange, gold, lemon-yellow, bronze, amber, mahogany-red, and even white.

Another new development is more highly branched plants that may carry numerous smaller flower heads, rather than one large head. Some cultivars have been bred to fill the center with additional rows of ray-type flowers, giving a fuller, double-flowered appearance. And for smaller gardens and containers, you’ll find sunflowers ranging in height from dwarf types (1-2 feet). Many of the newer garden types are intermediate height (3-5 feet). Another interesting fact about sunflowers is that their hulls have a toxin that prevents the growth of other plants. This is called allelopathy. The South Dakota growers knew it well, as corn planted after sunflowers took a yield hit. When I last traveled through eastern South Dakota finding a sunflower field was difficult. With this allelopathy

effect and increased genetic improvements in soybeans with improved drought tolerance, sunflower production has moved even further west to drier land.

Russia and Ukraine are the global leaders producing about 55% of the sunflowers with most of their growing regions similar to the Dakotas or Canada in latitude. I have been to both of those counties. Unfortunately, it was spring and no beautiful tall yellow flowers were dotting the landscape

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