



Sunflowers. Growing sunflowers can be one of the most rewarding endeavors when planting a garden. For many, the sunflower is one of the first seeds many children may have planted at a school or community garden, or even a farm if you grew up in a rural community. An easy plant to grow -- tolerant of drought, beneficial to ecosystems, providing a nutritious food source for people and animals, a boon for pollinators – the list of why sunflowers are great is a long one. Sunflowers are an important plant worldwide – and have a fascinating story – a story that is still evolving.

Sunflowers in History and Sunflowers today. The annual sunflower (*Helianthus annuus*) boasts a long history in North America, with evidence of its cultivation for food, ceremonial and medical use by Native Americans, starting with the Hopi tribes, dating back over 1000 years. Sunflower seeds are said to have been brought to Europe by the Spanish invaders to the Americas, starting in the 16th century.

Within less than 100 years, sunflowers' value was recognized; Europeans practiced cultivation on a large scale. Sunflowers are grown now in many parts of the world, specifically in Eastern Europe. The Ukraine is the world's leading producer of sunflower crops. The sunflower is an integral part of Ukrainian culture and is a strong symbol of economic prowess and progress. Even though the Ukraine is currently unlawfully besieged by Russia, someday they will again be the top nation farming the sunflower.

Sunflower products benefit people worldwide. Grown commercially for snacks and oil, this crop is ubiquitous in the food industry, health and beauty products, restaurant and food preparation industry, as livestock feed, and even in the production of medicines. Aside from human and animal consumption as a high quality food, sunflower oil is effective as industrial lubricant, paint, fertilizer, and biodiesel fuel! No part of this plant need ever go to waste. This is an ever more valuable crop to augment food security as it can be grown in a variety of climates.



Sunflowers grown at home and commercially are a versatile and sustainable crop.

The sunflower is endlessly fascinating to children and adults alike. Often chosen in educational settings to teach basic science, young people in many cultures are long familiar with this plant.

Scientists today study sunflowers on an unprecedented scale. Sunflower seeds are a cash crop, one of the leading oil-producing seeds worldwide, and new uses are continually discovered. Adaptable, drought-resistant, and featuring viable seed for future crops, they are well suited for arid or colder areas where most non-oil seed crops and cereal grains are simply not sustainable. The deep taproot enables sunflowers to recover quickly in extreme weather conditions which often cause other food crops to utterly fail.

The potential for sunflowers to change the future of farming is already underway via micro grants on the African and Indian continents. Even small-scale family farms are changing lives for the better and alleviating poverty for farmers.



Sunflowers are pollinator friendly. One of the most promising plants for pollinators of all types, farmers have for decades in the U.S. planted companion fields adjacent to huge food crops such as corn. They are a food source for an uncountable number of bird species, rodents, small and even large mammals. They provide links of all types for food webs. *This is true not only on massive farms but also in your backyard.* Sunflowers of course offer nectar and pollen, and not only are they a resource for wild and managed bees – they are crucial to butterflies, moths, flies, hoverflies, beetles, and myriad other important wildlife.

Sunflowers as a symbol of hope amidst tragedy. Early during the 2022 Russian invasion of Ukraine, a video on social media shows a Ukrainian woman bravely on her own confronting heavily armed Russian soldiers – telling the latter to "take these seeds, put them in your pockets so at least sunflowers will grow when you all lie down here" – on Ukraine's soil.

The sunflower, an ever important traditional facet of Ukrainian culture, has since become a global symbol of hope, resistance, and unity.



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Learn-Much-More-About-Amazing-Sunflowers – Resources accessible on the internet – to learn more about sunflowers' benefits

<https://www.youtube.com/watch?v=5cxyskHw4pA&t=8s> “The Importance of Pollinators”, short video, from Norwegian institute for Nature Research, NINA/Norway.

<https://www.hortmag.com/smart-gardening/citizen-scientist-great-sunflower-project> “How to Be a Citizen Scientist in The Great Sunflower Project -- help assess the state of North America's insect pollinators. Join the effort to grow a greener world by taking part in the project”.

<https://hartseed.com/2015/02/08/random-acts-sunflowers/> “A Random Act of Sunflowers.” Harts Seeds Company. In 2015, a boy named Jack planted seeds all over his Niantic neighborhood to see what would happen.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7500752/> National Library of Medicine, Food Science and Nutrition. “*Helianthus annuus*; Nutritional and health benefits”.

<https://www.nature.com/articles/nature22380> “The domesticated sunflower – shows promise for climate change adaptation; stable yields across wide variety of environmental conditions.”

<https://www.sciencedaily.com/releases/2010/01/100112121930.htm> Science Daily – “Sunflower genome holds the promise of sustainable agriculture.”

<https://www.quora.com/What-does-the-process-of-pollination-involve> “What does the process of pollination involve?”, Dr. Rahul Adhav, Ph. D. Botany, Savitribai Phule Pune University (SPPU)

<https://youtu.be/Z335m6Q6Cd4> “Pollinator Plant Profile”, Conservation Blueprint highlights important species to pollinator habitats. This month, we're featuring Sunflowers.

<https://www.youtube.com/watch?v=gpiMNXLHFwM> “How to Make Your Own Sunflower House -- Mt. Diablo Elementary School shows you how to make a sunflower house”.



<https://www.timeforkids.com/g34/symbol-of-peace-sunflowers-ukraine/?rl=en-810> “A Symbol of Peace – The sunflower is a living symbol of peace. In June 1996, defense ministers from Ukraine, Russia, and United States met in southern Ukraine to celebrate Ukraine's decision to give up its nuclear weapons.”

<https://apnews.com/article/3ffaa016517743b97019ed39f41221ed> AP News – Defense Chiefs Plant Sunflowers as Symbol of Hope, June 4 1996. “Ukraine today has shown the world how the seeds of democracy, tended with care and commitment, can grow and flourish and nourish a nation.”

<https://www.youtube.com/watch?v=pekBo-ynlhl&t=15s> BBC News – Henrichesk-Ukraine – “Ukrainian woman offers seeds to Russian soldiers – and is being hailed worldwide for her strength, determination and resilience.”

<https://oneacrefund.org/blog/10-farmers-show-their-sunflower-seeds-tanzania/> “Farmers in Tanzania to show off their fields, tell us why they love growing sunflowers, and what they plan to do with the extra income they'll generate.”

<https://extension.psu.edu/sunflowers-helianthus-annuus> “Sunflowers are a low cost, high impact addition to the garden. Find out how they benefit wildlife and the home gardener.”



..... Thank you for growing sunflowers

Questions? -- Would you like to have more sunflower seeds for 2022 season? -- Want to learn about seed saving technique and seed sharing for next year? -- Would you like an electronic copy of this flyer sent to you via e-mail? -- Please e-mail: roberta_hayes@student.berkshirecc.edu