

Growing Guide: Sunflowers

A sunflower blooming in the garden is a quintessential sign of summer. Yet there's more to this sunny ornamental flower than meets the eye. Native to North America, sunflowers have been cultivated for thousands of years not only for their beauty, but also as a source of food, oil, medicine and dye.

Even today, few plants can match the variety of ways we use sunflowers. Roasted and salted sunflower seeds are a popular snack food. The kernels are a delicious addition to cooked dishes and salads. Sunflower oil is extracted from the seeds, and the substance left over from the process, called the "cake," is used as livestock feed. We fill our birdfeeders with sunflower seed. Grind up the kernels and you get sunflower butter, which can be used as an alternative to peanut butter. The seeds can even be sprouted and added to salads.

And, yes, the flowers themselves are a cheery addition to any garden — and a staple in the floral design industry!



Fascinating Facts

- Sunflowers are heliotropic; that is, they direct their growth in response to sunlight. The buds and young flowers face toward the sun throughout the day: They start the morning facing east and end the day facing west, and then reorient to the east at night. Once they mature, however, the flowers remain facing east.
- The current world record for tallest sunflower was set in 2014. The plant topped out at 30 feet, 1 inch tall.
- Hopi people traditionally used the seeds of a particular type of sunflower to create a dark purple dye to color their baskets. This heirloom variety is now sold under the name Hopi Black Dye Sunflower or Hopi Dye Sunflower.
- Sunflower seeds are nutrient powerhouses. They contain unsaturated fats, protein, fiber, vitamin E, and minerals such as iron, selenium and zinc.
- The outer shell of the sunflower seed is called the hull. The edible interior is called the sunflower kernel or heart.
- Sunflower plants are used to extract toxins, such as lead and uranium, from contaminated soil, in a process called phytoremediation. After the Chernobyl nuclear

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power plant disaster they were used to remove radioactive elements from nearby soils and ponds.

- Although the name sunflower can refer to several different types of plants, including some perennials, it most commonly refers to the familiar annual flower *Helianthus annuus*.

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Choosing Varieties

Keep these considerations in mind when selecting sunflower varieties for your garden.

Plant and flower size. Read descriptions carefully. Some sunflower varieties grow just a foot tall and thrive in containers or along a walkway. Others soar to 12' or taller and need to be sited accordingly. Some varieties have flowers that are a few inches in diameter, while others produce huge blooms measuring a foot or more across.

Branching vs. single-stem. Most varieties, including the “traditional” types, grow into branching plants with flowers borne on the central stem as well as on the branches. Plant breeders have more recently developed single-stem hybrid varieties for the cut-flower market, which produce one flower atop a straight, sturdy stem. Some of these hybrids are also pollenless — a plus in bouquets because they won't drop pollen on tablecloths. (This is a minus, however, for bees and other beneficial insects that rely on protein-rich pollen as food.)

Long-day vs. day-neutral. Some types of sunflowers are classified as “long-day” — they produce flowers in response to day length. That means that even if you stagger your sowings weeks apart, the plants will all begin blooming at about the same time, regardless of the size of the plant. Other types, including many developed for cut flower growers, are day-neutral, which means they'll produce flowers when they reach a certain age. So you can sow seeds every few weeks and enjoy a steady supply of fresh blooms.

Find more information on long-day vs. day-neutral in our article on [photorealism](#).

Single vs. double flowers. Most of the familiar “single” sunflower varieties, characterized by a central disc surrounded by a ring of petals, produce abundant nectar and pollen, making them magnets for many pollinators and other beneficial insects. If attracting these “garden good guys” is one of your goals, avoid varieties with pom-pom-like double flowers, because the nectar and pollen are hidden under the masses of petals, making them harder for insects to find.

Hoping to gather seeds to eat? Choose a striped-hull variety, such as Mammoth Grey Stripe, Mammoth Russian, or others touted for their large seeds with thin hulls and plump, tasty kernels. (“Oil-seed sunflowers,” in contrast, have solid black hulls and smaller kernels.)

Site Selection

True to their sunny disposition, sunflowers require a location in full sun — one that receives at least six hours of direct sun per day, and preferably eight hours or more. The plants are tolerant of a wide range of soil types, but grow best in a rich, well-drained loam. If you're growing tall varieties, choose a site where the plants won't shade other plants — unless that's your intention.

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Soil Preparation

Loosen soil to a depth of at least 10", and then mix in some compost and/or slow-release organic fertilizer, which will provide a steady supply of nutrients. Rake the soil to create a smooth seedbed.

Sowing Seed

Plant sunflower seeds directly in the garden after all danger of frost is past. Although they can be started early indoors, the plants have taproots that are easily damaged during transplanting. Plant the seeds about an inch deep. The distance between seeds and rows will depend on variety, so follow the instructions on the seed packet.

Early Care

Newly planted seeds and small seedlings are irresistible to birds. If necessary, cover newly planted seeds with a fabric row cover until plants are 3-4" tall. Keep the soil evenly moist to ensure good germination and seedling growth, and continue to water regularly during the first month. After that, water deeply but less frequently, which will encourage plants to form a deep root system, which will provide important anchoring for the large, top-heavy blooms.

Growing and Harvesting Sunflower Seeds

Watching birds perch and peck at drooping sunflower seed heads is a pleasant porch-sitting summer pastime. However, if you're growing sunflowers in hopes of harvesting the seeds, know that you'll have to take steps to prevent birds (and squirrels and other wildlife) from devouring the seeds before you're ready to harvest.

Once the flowers have gone by, the seed heads will begin to droop and the seeds will start to fill out and plump up. That means it's time to protect each seed head by covering it with row cover fabric or cheesecloth, tying it securely in place.

It's time to harvest when the backs of the seed heads turn yellow and the seeds fall out easily from the head. Cut the seed heads with about a foot of stem attached and hang them in a well-ventilated location to finish drying. Be sure they're protected from rodents and insects.

To harvest, rub two seed heads together to loosen the seeds, or use a stiff brush to dislodge them. Allow the seeds to dry thoroughly, and then store in an airtight container in the refrigerator.

Note: Sunflowers are allelopathic, meaning that they produce substances that can inhibit the growth of other plants. The substances are harmless to animals and people, and eventually biodegrade in the soil. Learn more: [What You Probably Don't Know About Sunflowers](#)

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