

Sunflowers 101



Sunflowers belong in the helianthus genus of the daisy family. There are 70 cultivars of annual sunflowers, from tiny dwarf varieties that reach just 1 ½ feet tall to the mammoth varieties that can tower over 8 feet. Native to North and Central America, they can be traced back to around 3000 BC, the early to middle bronze age. These beautiful annuals were taken to Europe around 1500 AD. They were cultivated more widely in Eastern Europe by the 1880's.

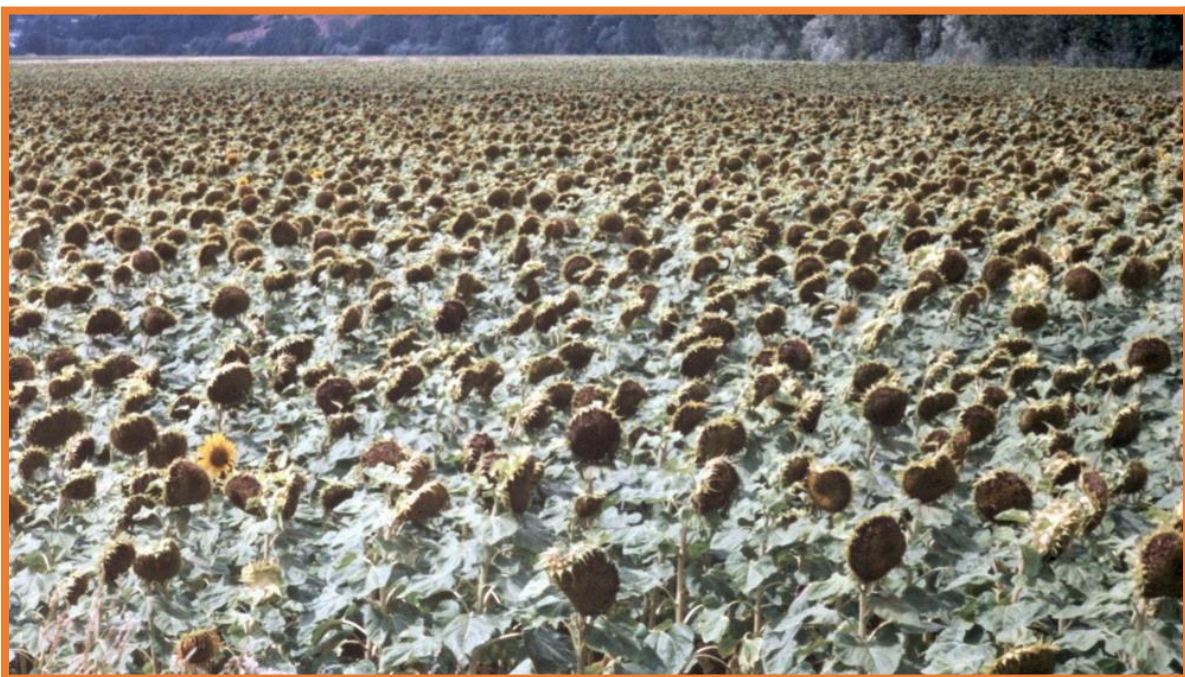
Sunflowers track the sun with their blossoms in a behavior called phototropism. They absorb nuclear radiation and were planted after the Fukushima and Chernobyl nuclear disasters near those

sites.

Planting instructions. Sow seeds directly into the ground, after the last frost date. Plant each seed about an inch deep, and about 6 inches apart.

Growing instructions. Sunflowers require full sun, at least 6 hours per day. They are heavy feeders so adding compost to the planting site is recommended. Sunflowers are drought-resistant but regular watering will allow them to produce larger and more flowers. They develop their bloom stalk in the spring, but don't bloom until summer and into the fall.

Harvesting sunflower seeds. To harvest sunflower seeds after a season of beautiful blooms, wait until the sunflower wilts. At least half of the petals should have dropped and head should begin to droop. The seeds will begin to plump up and become hard. Depending on the variety, they will have their trademark black-and-white striped shell or be completely black.



Harvesting seeds on the stalk.

- Tie a paper bag over the seed head. Cheesecloth or another breathable fabric will also work. The main objective is to prevent wildlife from getting to the seeds first and prevent the ripe seeds from dropping to the ground.
- Change the bag if it gets wet, or temporarily cover the bag with plastic during rainy weather. Be sure to remove the plastic bag as soon as it stops raining. Moisture buildup will cause the seeds to rot or mold.
- If a bag change becomes necessary, collect seeds that have dropped in the old bag. Check that they are in good shape and store in an airtight container until the final seed harvest.
- When the back of the flower head turns brown, cut off the head leaving about 1 foot of stalk attached. Make sure to leave the paper bag securely tied to prevent seed loss during transport.
- Hang the bagged head upside-down in a warm dry place.
- Check the bag daily and collect any seeds that have fallen. Store seeds in an airtight container until all the seeds have been harvested.

The drying process usually takes 1-4 days.

- When the back of the head turns dark brown and becomes very dry, the seeds are ready for the final harvest.
- Carefully remove the bag and place the dried seed head on a clean surface.
- Brush the seeds off the head by hand or use a stiff vegetable brush.
- Rinse the seeds well in a colander with cold, running water. Drain well.
- Dry the seeds in a single layer on a thick towel for several hours. Multiple layers of paper towels can also be used. Remove and discard any damaged seeds.
- Make sure the seeds are completely dry before roasting or freezing.

Roasting sunflower seeds.

- Soak the seeds overnight in a solution made from 2 quarts of water and 1/4 to 1/2 cup salt. Or, boil the seeds in the salt solution for 2 hours.
- Drain the seeds on dry, absorbent paper towels.
- Spread the seeds out in a single layer on a shallow baking sheet.
- Roast for 30 to 40 minutes, or until golden brown, at 300 degrees Fahrenheit, stirring the seeds occasionally as they roast.
- Let cool completely.
- Transfer the seeds to an airtight container and store in the refrigerator.

Sunflowers are more than just a 'pretty face.' And, they're not just for pollinators! They are very nutritious, loaded with vitamins E, B1, B2, B3, B5, B6, A, C, as well as being high in fiber and containing numerous important minerals. Sunflower seeds enhance immune response.



Roasted seeds are best stored in a refrigerator and will keep for several weeks.

Unroasted seeds can be kept for several months in a refrigerator or freezer and last longest when frozen. Thaw and roast before eating.

Sunflower Pests and Diseases.

Generally, a small patch or row of sunflowers won't see fungal diseases or insect pests especially if crop rotation is implemented. The main culprits for sunflower problems will most likely be birds and squirrels. That being said, there are a few pests and diseases that can occur in our Michigan gardens.

Pests seen in Michigan sunflower patches include:

- Aphids are a common problem for most vegetables, perennials and annuals. They suck plant sap and are usually found on the back side of leaves. They spread viruses as they feed.
 - Aphids can be controlled by encouraging beneficial insects or using insecticidal soaps such as neem oil.
- Sunflower moths lay their eggs on the flower heads so the larvae can feed on the seeds and tissues.
 - Introducing beneficial nematodes can prevent future infestations.
- Sunflower beetles are specific to the *Helianthus* family. They are responsible for most sunflower damage in North America.
 - Control is managed through the use of insecticidal soaps or by introducing beneficial insects such as ladybugs, lacewings or damsel bugs.
- Cutworms are nocturnal so they are difficult to control. Prevention is through collars around seedlings (much like collars for young tomatoes) or the use of diatomaceous earth.

Diseases sometimes found are generally caused by fungal infections. Unless otherwise stated, control is achieved through the use of fungicides or insecticidal soaps such as neem oil.

- Rust presents as small, yellow-orange pustules on leaves, stems and flower heads.
- Downy mildew presents as its characteristic grayish-white fuzzy growth most often seen on the underside of leaves.
- Powdery mildew presents as a powdery white coating on leaves.
- Leaf blight presents as small, dark spots on the leaves that causes leaf loss and plant death.

Generally speaking, the best practices are preventative. Monitoring and treating early for pests and diseases before the infestation gets too great cannot be understated. Crop rotation is key in prevention as well as diligent fall cleanup to prevent overwintering pests and diseases.

Sunflowers, whether the short varieties or the eight footers, bring joy to any garden. With so many cultivars to try, there is certainly one for every garden.

Alaine Bush, Advanced Master Gardener