

BWSR FEATURED PLANT

ANNUAL SUNFLOWER *Helianthus annuus*

Wetland Indicator Status:
Upland

Family: Aster



Publication Date: 10-18-13

With large yellow flowers and growing up to nine feet tall, annual sunflower stands out in our Minnesota landscapes. The species is common along roadsides and other areas of disturbance, making it well suited to increasing the ecological values of brownfields and other disturbed landscapes by providing nectar and seeds to wildlife, adding organic content to soils, and reducing compaction. The species has also been grown (and then harvested) to remove toxins from soil. Many cultivated varieties of the species have been developed for agriculture and gardening. Agricultural varieties are primarily grown for bird seed, biofuel, cooking oil, and as a food source.



Large inflorescence with yellow ray flowers and a brown central disk

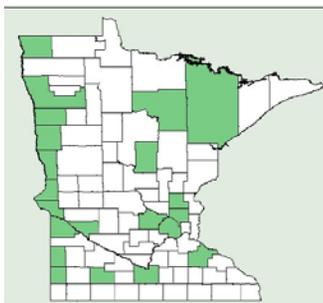
Identification

Annual sunflower can be distinguished from other plants in the *Helianthus* genus by its large sandpapery leaves that are often up to 8 inches wide and 15 inches long. The central stem is upright and has many stiff hairs. The stems eventually branch, and each branch leads to an individual flower head that is 3-6 inches wide with yellow ray flowers and many yellow to brown disk flowers that develop large seeds. Each seedhead is supported by two or three series of overlapping hairy, leaf-like bracts. The flowers bloom from late July into September or October.

Leaves are large and rough to the touch



Range



Range based on University of Minnesota Herbarium data

The species is native to each of the lower 48 states and is found in all 50 states due to its ability to escape cultivation and reverting back to wild type plants over several generations. In Minnesota it is most common along roadways, railroad corridors and other disturbed areas where it can easily re-seed. It is also common in the dry prairies on the western edge of Minnesota. Including annual sunflower, there are eleven *Helianthus* species in Minnesota (the others are perennial) with giant sunflower, maximilian sunflower, saw-tooth sunflower

and Jerusalem artichoke being amongst the most common. Minnesota sunflowers are found in a wide range of habitats from dry prairies to wet meadows.



Like many other *helianthus* species, the roots of annual sunflower release a chemical that inhibits other plants

Uses

The native and cultivated forms of annual sunflower are used for a wide range of purposes. The seeds can be eaten whole or made into a peanut butter alternative. The seeds are also a valuable food source for many birds. The oil of cultivated sunflowers is used for cooking, to make margarine and for biodiesel.



The flowers of annual sunflower provide pollen and nectar for a wide range of pollinators including long and short-tongued bees, bumblebees, native flies, butterflies, skippers and beetles.

Primary Uses:

- Pollinator Habitat
- Food
- Reclamation
- Phytoremediation

Annual sunflower has many benefits for degraded lands. It develops a taproot that can loosen compacted soils and add organic content. The roots also release a chemical that inhibits weed growth. They can also be used for phytoremediation as the plants can remove toxins from soil including lead, arsenic, and uranium.

The leaves of annual sunflower are also eaten by deer and cattle and the stems have been used in papermaking.

Planting Recommendations

When planting annual sunflower select areas with full sun. The plants will grow best in moist, well-drained soil but can also grow in dry clay or gravel.

Due to the large size of sunflower seeds and their attractiveness to a wide range of wildlife, seeds should be planted 1 to 1.5 inches deep. The seeds are typically planted in the spring once the soil reaches 50 degrees Fahrenheit through late June. As the plants can grow to a large mature size it is common to space seed about twenty-inches apart. In commercial plantings seeds are planted at 3-4 pounds per acre.

When planting annual sunflower in a restoration the seeding rate should be adjusted according to how many stems per acre are desired. It should be noted that the allelopathic (release of chemicals) properties of the plant may inhibit growth of nearby plants. For annual sunflower to persist in a planting they generally require disturbance of soils to germinate.

Planting Methods:

- Broadcast seeding followed by harrowing
- Hand planting
- Drill Seeding

Annual sunflower can grow in a wide range of soil conditions.

Additional References

USDA Plants: <http://wisplants.uwsp.edu/scripts/SearchResults.asp?Genus=Helianthus>

Steven's Point Freckman Herbarium

<http://wisplants.uwsp.edu/scripts/SearchResults.asp?Genus=Solidago&Species=speciosa>

Minnesota Wildflowers <http://www.minnesotawildflowers.info/flower/common-sunflower>