

## **Chapter 1: History and Taxonomy**

Compiled by July 2021

Ruchika Kashyap, Graduate Research Assistant, South Dakota State University Nabin Dangal, Graduate Research Assistant, South Dakota State University Renan Guidini, Graduate Research Assistant, South Dakota State University Febina Mathew, Field Crops Pathologist, South Dakota State University

## **History**

The sunflower crop is native to North America and was first grown by Native Americans over 4,500 years ago for food, medicine, dye, paint, etc. The Spanish explorers introduced sunflower in Spain, following which the crop spread to countries such as England, France, Italy, Egypt, Afghanistan, India, China and Russia. Crop improvement in sunflower began at different places of its introduction, including in Russia, where the scientists worked on increasing the sunflower oil content by more than 40%. In the United States, sunflower was recognized as an economically important oilseed crop in 1966.

In South Dakota and other U.S. states in the Prairies, sunflower was grown for silage during 1920s-1930s and for birdfeed in 1950s. Although the crop was cultivated for oilseed in 1940s in Minnesota and Canada, sunflower production in the northern Great Plains commercially increased in the late 1960s after the introduction of Russian varieties with high oil content. In 1970s, a major expansion in sunflower acreage took place in South Dakota and other U.S. states. To date, at least 75% of the U.S. commercial sunflower production has taken place in Minnesota, North Dakota and South Dakota.

## **Taxonomy**

Cultivated sunflower (*Helianthus annuus* L.) belongs to the *Helianthus* genus and is a member of the Compositae (Asteraceae) family. The *Helianthus* species contain 17 basic chromosomes. While many of the *Helianthus* species are perennial, there are about 12 annual species. A few *Helianthus* species are domesticated for food production or use as ornamentals and the remaining are considered weeds. Over the years, plant breeders have made interspecific crosses of species within the *Helianthus* genus and released commercial hybrids with traits such as high oil percentage, disease and insect resistance.

## **Selected References**

- Berglund, D. R. (eds.) 2007. Sunflower production. North Dakota State University Extension Service Report No. 25. Fargo, ND.
- Geise, H. A. 1974. Sunflowers in South Dakota.

  Bulletins. Paper 626. <a href="http://openprairie.sdstate.edu/agexperimentsta">http://openprairie.sdstate.edu/agexperimentsta</a> bulletins/626
- Robinson, R. G., F. K. Johnson, and O. C. Soine 1967.
  The sunflower crop in Minnesota. Agricultural
  Extension Service, University of Minnesota.
  Extension Bulletin 299. <a href="https://core.ac.uk/download/pdf/76351459.pdf">https://core.ac.uk/download/pdf/76351459.pdf</a>
- Seiler, G. J., and T. J., Gulya 2016. Sunflower: Overview.In: C. Wrigley, H. Corke, K. Seetharaman, and J. Faubion, editors, Encyclopedia of food and grains.Vol. 1. 2nd ed. Elsevier, Waltham, MA. p. 247–253.



SOUTH DAKOTA STATE SOUTH DAKOTA STATE UNIVERSITY®

UNIVERSITY EXTENSION AGRONOMY, HORTICULTURE AND PLANT SCIENCE DEPARTMENT

SDSU Extension is an equal opportunity provider and employer in accordance with the nondiscrimination policies of South Dakota State University, the South Dakota Board of Regents and the United States Department of Agriculture.