Fresh Cut Sunflowers in Two Wyoming Greenhouses

Karen Panter1, Sadanand Dhekney2, and Eric Oleson3

Introduction
In addition to growing fresh cut sunflowers in high tunnels, we also grew them in two Wyoming greenhouses in 2016. Cut sunflowers are another niche, specialty crop that can be easy to grow by gardeners and producers in Wyoming for farmers’ markets and other local sales.

Objectives
Our main goal was to add a niche specialty cut flower crop for Wyoming growers who use greenhouses for production. Other aims were to grow fresh brown and gold cut sunflowers for the local market and to make available to Wyoming growers the methods used (Figure 1). We wanted to add a specialty crop that can be grown in Wyoming for sales at local venues such as retail florists and farmers’ markets. We want to expand and encourage specialty crop production in Wyoming.

Materials and Methods
This project was carried out simultaneously in the greenhouses at the Laramie Research and Extension Center (LREC) (Figure 2) and the Sheridan R&E Center (ShREC) (Figure 3). Seeds of two cultivars of cut sunflowers—‘Dafna’ and ‘ProCut Bicolor’—were sown May 25, 2016, in 128-cell plug trays in a peat-based seed germination growing medium. All seedlings were transplanted to #1 pots on June 9 and were placed on one bench in each of the two greenhouses. Pots were spaced 6 inches apart, watered by hand daily, and fertilized using a slow-release 15-9-12 fertilizer at 1 teaspoon per container. Data taken were days to harvest from sowing and stem lengths. Stem lengths are important in the florist trade—longer stems are preferred over short because they are more versatile.

Results and Discussion
We found that stem lengths were statistically different between the two locations. Stems were longer at the ShREC greenhouse (average 57 inches, both cultivars combined) than those grown at the LREC greenhouse (average 51 inches, both cultivars combined). Although temperatures were similar in both greenhouses, the shade cloth had been drawn at ShREC to cut down on cooling for the first few weeks. As a result, light levels were lower at ShREC leading to stems ‘stretching’ to try to find more light. Shade cloth was not drawn in the LREC greenhouse.

Days to harvest were also different between the two greenhouses. It took less time at LREC for sunflowers to reach saleable maturity (average 63 days, both cultivars combined) than it did at the ShREC greenhouse (68 days, both cultivars combined). Reasons for this difference can also be attributed to the shade cloth drawn early in the production cycle at ShREC. This decreased the amount...
of available light for the sunflowers, slowing their growth and development.

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Contact Information
Karen Panter at kpanter@uwyo.edu or 307-766-5117, or Sadanand Dhekney at sdhekney@uwyo.edu or 307-673-2754.

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1Department of Plant Sciences; 2Sheridan Research and Extension Center; 3University of Wyoming undergraduate horticulture student.