

USU Plant, Soil and Climate Student Presents Flowers-as-Crop Research on Capitol Hill

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Utah State University plant science major Maegen Lewis is presenting her research on annual cut flowers in the intermountain west for Research on Capitol Hill in Salt Lake City. Lewis is one of 26 students from USU selected to present her findings this year to state government leaders.

According to Lewis' abstract, small farms in the U.S. Intermountain West are using high tunnels (plastic-covered greenhouses) to extend their production season for high-value crops such as fruits and vegetables. Cut flowers are one potential high-value crop that hasn't been fully explored, partly due to a lack of region-specific information.

A project testing management strategies for snapdragon and sweet pea varieties found significant results at the Utah Agricultural Experiment Station's Greenville Research Farm. Using the controlled environment of high tunnels, flowers can be planted earlier without worrying about Utah's cold temperatures.

The abstract states that stems were harvested 3 days per week and evaluated for yield (stem number), marketable stems and length of harvest season. Results from 2018 show an increase in quality and stem length of snapdragons grown in high tunnels, compared to the field. The second and third planting dates yielded the highest marketability. Lewis learned that sweet peas showed increased quality during cooler months in high tunnels, but the quality decreased quickly due to unfavorably high temperatures and insect problems.

For Lewis, growing flowers began long before she became a student at USU. She worked with her parents in her family's retail greenhouse in Green River, Wyoming, and as her love for plants grew, she wanted to learn more.

"I always thought flower farming would be a unique aspect of horticulture to work in," Lewis said. "When I found out

USU was looking into researching the topic I leapt at the opportunity to work with them."

Lewis is making significant progress in her field of research, and other USU researchers are noticing. Brent Black, a USU plant, soils and climate professor hired Lewis as an undergraduate researcher 2 years ago. Black helped Lewis write a grand proposal to the USDA Specialty Crop Block Program to fund her project.

"She has been very independent and hard working," Black said. "Her research is only peripherally related to mine and so she has had to be relatively self-directed."

Lewis is continuing her research on cut flowers during the 2019 growing season. She plans to use her research experiences in her future career as an Extension agent and for her own farming operation.

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