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Molly Reeves wins 2018 Arkansas Soybean Science Challenge Award at Northwest Arkansas Regional Science and Engineering Fair

FAYETTEVILLE, Ark. -- Molly Reeves, age 15, a sophomore at Alma High School in Alma is winner of the Soybean Science Challenge at the 2018 science fair held at the University of Arkansas-Fayetteville.

Reeves received a \$300 cash award provided by the Arkansas Soybean Promotion Board at the Awards Ceremony. Her science project titled "Grow like a Pro with Probiotics Phase 2" also placed third in Microbiology at the Northwest Arkansas Regional Science and Engineering Fair. Reeves will be competing at the Arkansas State Science and Engineering Fair on March 30. Brian Curd, Reeves' teacher, won the Soybean Science Challenge Teacher Mentor Award. "Molly talked about the challenge since starting science fair so the excitement was already there. I believe winning at this fair will help direct her educational course after high school. The monetary prize was a wonderful addition too!" Curd said.

Reeves said she spent a lot of time on soybeans over the last two years. While winning was amazing, her main goal is to continue work on her soybean research. She was excited to be able to talk to judges who work with soybeans on a daily basis and learn more about soybean agriculture.

Curd has students participate in the Soybean Science Challenge because it offers students the opportunity to learn what an extremely valuable asset we have in soybeans.

Reeves enjoyed all aspects of the online course. Prior to completing the online course and conducting the research, Reeves shared that she didn't know anything about soybeans. Her current interest in soybean research is the direct result of her instruction about soybeans.

Vickie Limbocker, Molly's mother was proud of her daughter's accomplishment. "She worked really hard learning so much about soybeans; I knew she deserved the award," said Limbocker. Both Curd and Limbocker agreed that Reeves has a passion for science fair and loves doing a project each year. Reeves views her project as a way to learn, not as a requirement to complete.

"The Soybean Science Challenge allows Arkansas senior high students to participate in scientific discovery that can make a difference to our state and the world," said Karen Ballard, professor at the University of Arkansas System Division of Agriculture's Cooperative Extension Service. She is the developer and director of the program. "Soybean farmers help feed the

world, and Soybean Science Challenge students not only learn about this important commodity crop, but they also develop an understanding of the challenges and complexity of modern farming.”

“The goal of the Arkansas Soybean Science Challenge is to engage students in ‘real world’ education to support soybean production and agricultural sustainability,” said Gary Sitzer, chairman of the Arkansas Soybean Promotion Board. “The program also rewards scientific inquiry and discovery that supports the Arkansas soybean industry.”

Information on the 2018-19 Arkansas Soybean Science Challenge will be available in summer 2018. For more information, contact Dr. Karen Ballard at kballard@uaex.edu or Dr. Julie Robinson at jrobinson@uaex.edu.

About the Division of Agriculture

The University of Arkansas System Division of Agriculture’s mission is to strengthen agriculture, communities, and families by connecting trusted research to the adoption of best practices. Through the Agricultural Experiment Station and the Cooperative Extension Service, the Division of Agriculture conducts research and extension work within the nation’s historic land grant education system.

The Division of Agriculture is one of 20 entities within the University of Arkansas System. It has offices in all 75 counties in Arkansas and faculty on five system campuses.

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Molly Reeves – Alma High School, Teacher – Brian Curd

Category: Microbiology

Project Title: Grow Like a Pro with Probiotics Phase 2

Abstract:

In an effort to find a way to help farmers have a higher crop yield I chose to test something that is not commonly used on plants. Probiotics are well known to help people and last year’s experiment supported that they are also beneficial to plants. In this experiment the researcher tested different strains of probiotics to see which strain benefits plants more. Start by placing 500 ml of sterile soil in planting cups. Plant two soybean seeds in each cup, water with distilled water until seedlings sprout. Once the seeds germinate divide plants into three groups. Place each group in a greenhouse box. Mix “A” probiotic and “B” probiotic in 30 millimeters of water for each plant to water those groups, continue to give the control group distilled water.

Measure plant growth every other day in centimeters. At the end of the experiment compile data in table and figure up the average height of each group on each day measurements were taken. The data collected and analyzed from this experiment supported my hypothesis that group "B" would show the highest average growth and overall healthier plants. The results of the experiment show an average growth increase of group "A" to be 9.7 cm, group "B" is 14.65 cm, while the control group, group "C" displayed an average growth of 9.6. These results confirm that *Bacillus subtilis* is a more productive probiotic to use as a supplement with soybean plants.