THE SPIGOT
from the NORTH DAKOTA RURAL WATER SYSTEMS ASSOCIATION

Local Students Win North Dakota Rural Water Awards

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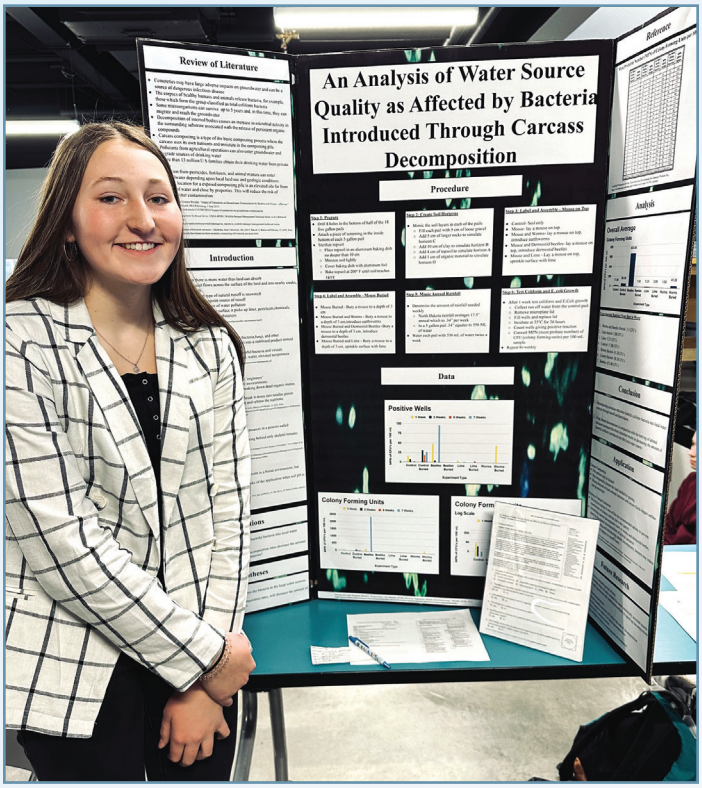
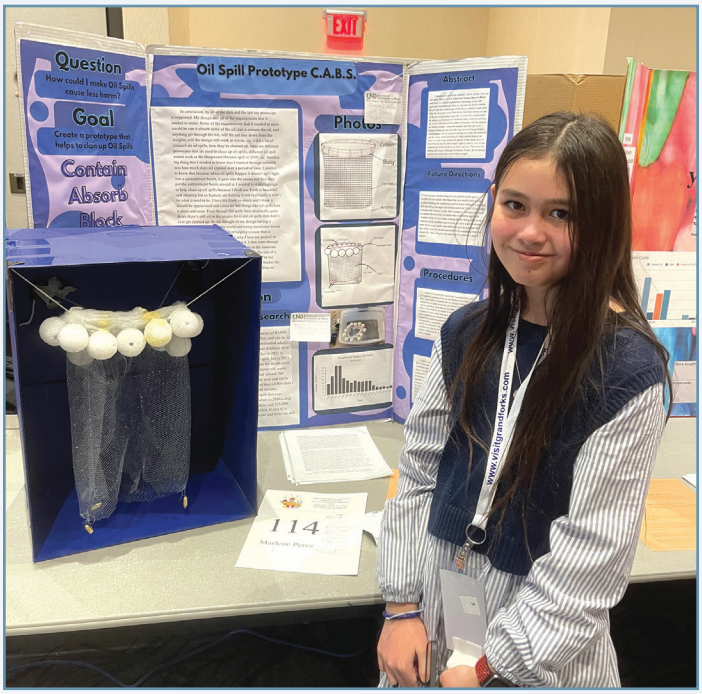
Each year North Dakota Rural Water Systems Association gives out awards for the best science fair projects dealing with water or wastewater at the regional science fairs across the state. This year, five students from North Dakota have received these cash awards at their regional science and engineering fairs.

Chaskee Schmidt, a student at Flasher High School, Flasher, recently competed in the Southwest Central Regional Science Fair in Bismarck at the new Gateway to Science building on March 14, 2023. Her project, "An Analysis of Water Source Quality as Affected by Bacteria Introduced Through Carcass Decomposition," determines what happens when carcasses decompose and how it impacts the water. She also wanted to uncover what works best for speeding up decomposition rates. Schmidt's research found that decomposing carcasses introduce harmful coliform bacteria into local water sources through runoff and percolation. Using natural decomposers in conjunction with the burying of animal carcasses produced the most consistent results in decreasing the amount of harmful coliform introduced into the local water source.



Elizabeth Fedje and Brooke Gullickson, students at Valley-Edinburg High School in Edinburg presented their project entitled "The Path to Preventing Algae Growth in North Dakota Watershed" at the Northeast Regional Science Fair in Grand Forks. The team of freshmen set out to find out which barley treatment, barley straw or barley extract, would restrict blue-green algae growth in local watersheds. Neither of the barley treatments restricted the growth of the algae. The barley straw increased growth of blue-green algae and the algae in barley extract also exhibited more growth than the algae in control group. They concluded that barley treatments have no effect on restricting the growth of blue-green algae.

Kamden Spinks, an eighth grader from Hankinson Public School in Hankinson competed with his project, "The Effects of Various Liquids on the Growth of Flowers," at the Southeast Regional Science Fair in Hankinson. Spinks questioned whether liquids other than pure water can affect the growth of plants. After growing marigolds and zinnias in different liquids, he concluded that "well water and sugar water worked the best" when measuring shoot height and emergence of the flowers.



A sixth grader from ASB Innovation Academy in Williston, ***Marlene Perez*** competed at the Northwest Regional Science Fair this spring with her project "Oil Spill Prototype C.A.B.S." She created a prototype to help clean up oil spills from water surfaces. C.A.B.S. stands for Contain, Absorb, Block and Save. Her buoys contained the oil, absorbed the oil, blocked fish from coming inside, and in the end, would save more ocean life.

Science fair participation is an exceptional way for students to engage in active learning and develop sufficient science literacy. Students can take their natural curiosity and advance their understanding in a given area through research. The science fair program facilitates skills that are essential in preparation for undergraduate and graduate degrees, including academic writing, verbal, written and public communication, and problem-solving skills. Students gain confidence and crucial presentation skills and are able to network with their peers who, like Schmidt, Spinks, Perez, and Fedje share similar interests. Besides giving students opportunities to earn significant prizes or qualify for scholarships and advancement, science fair is fun!