

National Take Your Daughters and Sons to Work Day

April 24, 2013

The Forage and Range Research Laboratory (FRRL) hosted an event for National Take Your Daughters and Sons to Work Day. Below is a brief synopsis of our event.

At 10:00 am Shaun Bushman, Geneticist, welcomed kids to the FRRL and spoke about careers in science. Shaun also talked about how research projects at the USDA Agricultural Research Service (ARS) typically involve a project leader (scientist) and a support scientist. Kids learned what education and experiences are required to pursue a career with the ARS.

In the laboratory of Doug Johnson and Kevin Connors, Plant Physiologists, Kevin illustrated to kids the diverse western landscapes where native wildflower species are collected. Example seeds and plants were observed and kids were taught how ARS research on native species provides important wildlife habitat and food for grazing animals on western rangelands.

In the laboratories of Steve Larson, Shaun Bushman, and Ivan Mott (Geneticists), Science Technicians Lisa Michaels, Lin Johnson, and Kim Thorsted, showed kids the process of DNA extraction from plants and how this information can be used to identify genetic relationships between plants. After kids gloved-up, they were shown how DNA fragments were analyzed with gel electrophoresis, viewed under UV light, and digitized for further computer analysis.

At the FRRL farm equipment workshop and compound, Ron Reed, Rangeland Scientist, gave a guided tour some of the tractors, implements, seeders, and combine for research plot establishment and seed harvesting. Kids were particularly excited about sitting up in the combine and viewing the mechanisms that collect and clean seed. One tractor equipped with a GPS system was discussed in terms of how it enables the operator to stay on course within fields and maximize harvesting efficiency. A rangeland drill, used to seed the species being evaluated/developed at FRRL, was also shown to kids.

Within research plots located a few miles north of the FRRL building in North Logan, Tom Jones, Geneticist, led a walking tour of native grasses and wildflowers used for ecological restoration of western rangelands. Basin wild rye, a tall grass that can exceed 7 feet in height was the first species shown to kids. Next, kids were introduced to Snake River wheatgrass, a native species with a scientific name that is very difficult to pronounce--*Elymus wawawaiensis*. Dr. Jones also presented plots containing two different squirreltail species and contrasted seed traits of these grass species and domesticated grass species like corn.



In FRRL, molecular biology laboratory. Left to right, Lin Johnson (ARS), Ayden Hockstein, Erik Nielson, and Ryan Monaco.



In FRRL, conference room. Left to right around table, Tom Monaco (ARS), Ryan Monaco, Tom Jones (ARS), Ayden Hockstein, Shaun Bushman (ARS), Erik Nielson, and Dale Nielson (ARS).