ARS talk moves to Thursday; features soil health discussion

"We do not inherit the earth from our ancestors; we borrow it from our children."

ARS Soil Scientist Maysson Mikha takes this Native American Proverb to heart in her research which focuses on building soil health and sustainability in the Great Plains region though improved management practices.

Soil health reflects the soil's ability to function as a dynamic living system that can support plant growth, promote animal production and health, sustain human needs, and preserve and/or improve air and water quality. Management techniques designed to ensure the soil's ability to sustain these many functions is the focus of Dr. Mikha's BrownBagger presentation at the USDA-ARS Northern Plains Agricultural Research Laboratory in Sidney this coming Thursday, March 24th. (Please note the change in day from Friday to Thursday.)

Dr. Mikha is a research soil scientist with the USDA-ARS Central Great Plains Research Station in Akron, CO. Her talk runs from noon to 1:00 p.m. at the lab located at 1500 N. Central Avenue in Sidney, MT. The event is open to the public. This will be a live webinar presentation.

"Soil is a complex dynamic system containing living organisms that require food, water, and air to survive," Dr. Mikha notes. "Soil organic matter content is normally used as an indicator of soil health, and in agricultural systems, soil organic matter is considered a foundation of land sustainability."

However, soil organic matter can be highly influenced by management decisions, Mikha notes, so producers need to consider techniques designed to conserve soil organic matter and its positive influence on soil chemical, physical, and biological properties.

"The majority of soil organic matter is associated with the first couple of inches of the surface and needs to be replenished with crop residue or organic amendments," she notes. "In the Great Plains Region, management practices that include reduced or no tillage to maintain crop residue, manure amendments as a fertilizer source, and reduced fallow frequency have been found to increase soil organic matter, improve soil microbial diversity, and enhance grain yield."

Bring your lunch and join us this Thursday, March 24, to find out more about these techniques being studied as tools for improving soil health. We'll provide the dessert!

For questions or more information on NPARL's 2016 Brownbagger Series, contact Beth Redlin at 406-433-9427 or beth.redlin@ars.usda.gov.