



Healthy Soil: Foundational to Life

January 2015 Snapshots

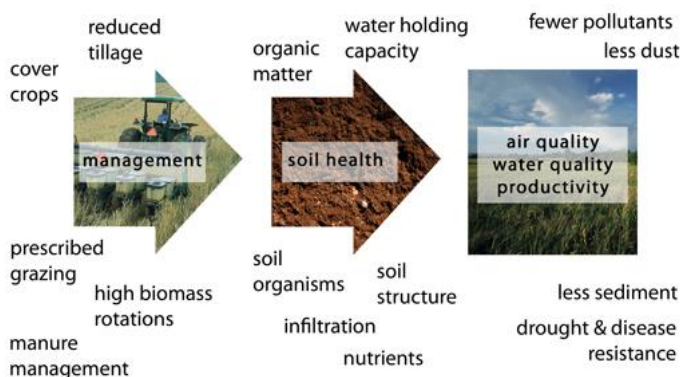
Soil. It's just dirt, right? Actually, billions of organisms reside in soil, representing 25% of the biodiversity on planet Earth. The United Nations has declared 2015 as the International Year of Soils to increase awareness and understanding of the importance of soil to our food security, ecosystem function, and very existence.

Microorganisms, fungi, and other tiny life forms in the soil help build organic matter, providing moisture and nutrients to growing crops. Another crucial function of soil is water storage and filtration. Water is life, and no matter where you get your water, it has been filtered by the soil. Healthy soil means healthier plants, animals, and humans.

Promoting soil health is a key part of the work we do at BWSR. From promoting practices to prevent soil erosion and floodwater damage to providing training to conservation staff statewide about best practices for healthy soil to awarding grants for implementation of these best practices, BWSR is committed to creating healthier soil across Minnesota.

One major threat to healthy soil in Minnesota is erosion. Heavy rain or snowfalls can lead to floods, which often cause massive soil erosion. Not only does erosion remove nutrients from the land, leaving farmland less fertile, but it can also cause air and water pollution: as sediments are deposited in bodies of water, nutrients such as phosphorous and nitrogen are dispersed into the air and water and can negatively affect aquatic plants and animals.

One of our roles at BWSR is to provide training and other resources about soils and soil health to our local government partners. At the 2014 BWSR Academy, a number of sessions were offered that related to soil, including a "Hydric Soil Indicator Lab," in which participants practiced identifying hydric soils, as well as soil color and texture, and "Soil – How to be Healthy, Wealthy, and Wise," which focused on promoting and implementing soil health practices in agriculture.



Healthy soil means healthier air, water, and food. Changes in how we manage our soil can positively affect the Minnesota landscape for years to come.

The Soil Erosion and Drainage Law Compliance (SEDLC) program, run by BWSR, protects vulnerable soils and reduces soil loss on erosion-prone land by applying existing soil erosion reduction and drainage ditch statutes. In the SEDLC program, Soil and Water Conservation Districts work with the Natural Resources Conservation Service to accelerate update of highly erodible land conservation plans.

BWSR State Soil Scientist Megan Lennon and Clean Water Specialist Matt Drewitz are currently working on a Legislative-Citizen Commission on Minnesota Resources initiative to accelerate the adoption of cover crops in southeastern Minnesota. This funding, if approved, will provide training,

cover crop studies, and demo sites to help improve water quality and soil health in the sensitive southeastern Minnesota landscape.

“The nation that destroys its soil destroys itself,” President Franklin D. Roosevelt said in 1937. The statement still rings true 78 years later. As the population increases and farmland decreases, we must remember that clean water, food, and air are at the root of life. Healthy soil is one of the keys.