

What's in your "Soil Wallet"?

Do we think of the soil on our farm as a valuable asset? The amount of "green" in our "soil wallet" can be variable! Identifying soil factors begins the process of determining its potential value. Soil formation is based on the following soil factors: parent material, climate, topography, biological affects and length of development. Differences in soil formation dictates differences in potential soil account values. Management decisions determine a high or low performing soil account. Monitoring the value in our "soil account" is vital to the success of our farm now and in the future. To better understand the true value of our soil, let's compare a soil account to an investment account.

Start by identifying the balance of one of your investment accounts. The goal is to gain interest or "value" through the invested money. Decisions we make affect whether the account will gain, maintain or lose value. Losing value in the account is really painful and maintaining value is rather pointless, so we position our account to gain value!

What about your farm's soil account? Are you gaining, maintaining or losing value in it? Changes in available technology and the collection of research based outcomes, gives us new tools to better manage our soil. Can you afford to only maintain the value of your soil account? What about lose value in your soil account? To become resilient and able to withstand a wide range of weather extremes, pest pressure and economic stressors, soil accounts must consistently gain value!

Avoiding direct loss to a soil account has been the work of soil conservation practices for years. There are three main types of soil erosion: wind, water and gravity erosion. The loss in a soil account value resulting from erosion is huge! Reducing soil erosion to below [T value], soil loss tolerance, will help maintain the value of your soil account.

Monitor the soil fertility level of your soil account. Get started by collecting soil samples from your farm. The report lists the levels of plant available nutrients, organic matter %, and soil pH. This information can be entered into the SNAPPLUS nutrient management software, which will calculate potential soil and phosphorus losses, assisting with economic nutrient planning while protecting soil and water quality. The loss of organic carbon through excessive tillage or erosion will also deplete soil value greatly! Manage soil fertility and protect organic matter to help maintain the value of your soil account!

Improving soil function will increase the value of your soil account! When soil functions in a "healthy" manner, it becomes a dynamic living asset. Soil health is defined as the ability of a soil to function in a way that benefits both humans and the environment. A "healthy" soil completes the following functions: a medium for plant growth, recycles key nutrients, habitat for organisms, and total system for water supply and purification. Soil health characteristics include chemical capacity, physical strength and biological diversity. Some of the indicators within these three areas are: soil pH, cation exchange capacity (CEC), aggregate stability, soil structure, soil microorganism diversity and abundance of earth worms. Additional research in the area of soil health is ongoing as an abundance of life not equaled on earth is present in each teaspoon of soil! Reducing tillage, increasing living roots in the soil, using perennial crops and applying animal manure as a plant nutrient are all practical management practices to help increase soil value!

Increasing the amount of value in your "soil wallet", often means changing long term farming traditions. Being an early adopter of new techniques and technology has its risks for sure! The stakes are high when balancing the risk of new management practices with the opportunity to gain value in your soil account. Fortunately, research in the area of soil health factors continues, with the goal of developing a better understanding of the inner workings of "healthy" soil. Soil health includes: limiting erosion, balancing soil fertility and allowing soil to function innately. Continue to develop your soil management skills, these tools will ensure your soil account gains value in the future!

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