Brick or Sponge?

Strategies to enhance soil health.

by Kindra Gordon, field editor

If you were describing your cropor pastureland, would it be more accurate to describe it as a brick with minimal pore space causing rainfall to run off, or is it more like a sponge that soaks up moisture and has space for living roots in the ground?

As you consider those comparisons for your soil, Kansas farmer-rancher Michael Thompson hopes it may help you to think more about soil health. Thompson farms along the western Nebraska-Kansas border and began using rotational grazing, no-till and cover-cropping methods about a decade ago.

He made the switch after realizing much of today's agriculture has been "mining" the land — taking crops, hay, forage and beef off of it.

"We're often ecologically blind ... and have the mindset of getting a little more off the land," Thompson says. But he came to realize it is often at the price of next year's crop and production.

How to improve soil health?

To transition to better soils, Thompson suggests farmers and ranchers should "view soil like your child and protect and nurture it."

He adds, "We view soil as the most important thing on our farm. That's the foundation where all profit and production is derived from ... You wouldn't leave your child in the hot sun or stick a sharp tool into them. Don't do it to your soil."

Thompson advocates minimally disturbing the soil and retaining

residue to protect the soil and build soil biology.

Today Thompson and his father and brother strive for soil health management in both their crop and grazing land efforts. With the use of no-till, cover crops, integration of livestock grazing on croplands and residue management, Thompson says, "We can change our soil ... Microbiology is money in the bank."

Through their efforts, they've moved from "brick-like" soils to "sponge-like" soils, and Thompson says, "We view rainfall as being more about the inches stored than the amount received." He notes rainfall is not very effective if it just runs off.

Essential reading

For others interested in more about the journey to soil health, Thompson recommends these books, which he's found helpful:

- Grass-Fed Cattle by Julius Ruechel
- Holistic Management Handbook by Butterfield/Savory
- The Nature and Properties of Soils by Ray Weil and Nyle Brady
- Stubble Over the Soil by Carlos Crovetto Lamarca
- Cows Save the Planet/Water in Plain Sight by Judith Schwartz
- Teaming with Microbes/Fungi/ Nutrients by Jeff Lowenfels
- Farming the Dust Bowl by Lawrence Svobida
- Also available as free pdf downloads, helpful resources include Building Soils for Better

Crops (Magdoff & van Es) and The New Water Paradigm: Water for the Recovery of the Climate (by Pokorny & Kravcik).

Finite vs. infinite farming

Sustainability and soil health have become buzzwords within the agricultural industry in recent years. An analogy by author and strategist Simon Sinek in his latest book *The* Infinite Game offers a new way of looking at those management efforts. In the book, Sinek identifies two types of games, as they relate to business: the infinite and the finite. It's a comparison that lends itself to farming and ranching stewardship practices as well.

Sinek suggests finite games have goal lines, set rules, scores and winners (or losers). Basketball and football are examples of finite games in the sports world, but there are plenty of businesses in the S&P 500 that fit this list as well. A business that defines itself by quarterly earnings is finite. A finite-focused company may find innovative ways to boost the bottom line, but those decisions do not benefit the organization, the employees or the community for the long term.

In contrast, the infinite game has no finish line. The goal of an infinite game is to keep playing and to stay in business, so all decisions have to benefit the entire company (and elements within its influence) for the long term.

Given that perspective, do you put farming and ranching in the finite category or in the infinite category? The reality is: It could be either, depending on the leadership.

Sinek says in his book: "The choice to lead with an infinite mindset is less like preparing for a football game and more like the decision to get into shape."

Bottom line: are your management methods preparing for one season only or getting into shape and farming/ranching for the long haul?