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Time to Assess and Take Stock of Your Soil Health

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Time to Assess and Take Stock of Your Soil Health

Abstract
As the season approaches its conclusion and harvest conditions are most challenging, there are few things worth remembering to protect and sustain soil health. At this time, soil is susceptible to compaction due to rain and saturated soil conditions. Soils remain saturated longer at this time of the year since water use by crops is negligible and there is low water evaporation due to cool temperatures. Conventional tilled soil remain saturated longer than fields under conservation tillage since intense tillage destroys soil aggregates, resulting in reduction in water movement through the soil profile. A no-till system provides better, stronger and more stable soil structure, which allows water percolation deep into the soil profile to mitigate wet fall conditions.

Disciplines
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Building soil health is a long-term effort which requires multiple practices to rejuvenate soil. Consider the following practices this season to improve your soil health to sustain yield, reduce soil erosion, and improve water quality:

1. Monitor soil moisture conditions to make sure it is below field capacity before conducting any field operation, such as applying nitrogen, spreading or injecting manure, seeding cover crops, or attempting tillage. Soil at field capacity, where a handful of wet soil leaves noticeable moisture on your palm, is highly susceptible to soil compaction, reduction of water infiltration and an increase in surface runoff.
2. Consider the use of cover crops to protect soil during the off-season. Cover crops have multiple benefits by physically protecting soil from water erosion, they stabilize soil structure through organic carbon input from the root system, and the extraction of residual nitrogen from the soil profile reducing its leaching potential to water bodies.
3. Consider no-till or reduced tillage, such as, strip-tillage to keep residue on the soil surface as another measure for protecting soil and enhancing soil biological properties as an essential mechanism for healthy soil and efficient nutrient cycling.
4. Lastly, consider updating your skills and knowledge on how to protect soil as your main capital or investment. Consider attending the 2019 Soil Health Conference held on February 4-5. This conference will offer a wide range of training, learning sessions and panel discussions by experts from several universities, the United States Department of Agriculture, as well as agronomists, farmers, and industry leaders.

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Category:  Soils  Soil Management

Crops:  
Corn  Soybean  Cover Crop

Tags:  soil health  soil health conference  soil moisture  cover crops  no-till

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