

WHAT IS THE DEAL WITH TILLAGE?

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There are advantages and disadvantages to tillage. Advantages include smooth seedbed preparation, weed control with reduced risk of herbicide resistance, and break-up of compacted soil. Destruction of soil aggregates, creation of plow pans, and increased production costs are often referred as disadvantages. There is increased interest in no-tillage and its use is increasing. However, some form of tillage is still widely used by most farmers. Are there benefits to both approaches? Certain soils and crop rotations might be more conducive to one approach versus the other. Soils with high soil organic matter contents, high amounts of aggregation, and in flat fields can be quite productive when tillage is used. However, this increased crop productivity is often at the expense of organic matter and soil health. Other practices, such as crop rotations, manure application and cover crop use, might help offset declines in organic matter and soil health brought by tillage. A combination of approaches are most likely to provide benefits for a wide range of soils and conditions. In this presentation, we will explore the advantages and disadvantages of tillage practices on soil health, organic matter, and productivity.

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