Consider Effects on Seedbed Before Tilling Wet Soil

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Abstract
The current weather conditions of frequent rain caused saturated conditions in most Iowa soils. Tilling soil for drying the soil surface or weed control at this time may have significant negative impacts on creating proper seedbed conditions and increase soil compaction. When early weeds have emerged but surface soil is still too wet for no-till planting, growers often consider doing a shallow field cultivation in an attempt to kill winter annual weeds. Non no-tillers may consider cultivation simply to dry the soil. Before spending time and fuel for cultivation, analyze the potential effects on weeds and soil.

Keywords
Agricultural and Biosystems Engineering, Agronomy

Disciplines
Agricultural Science | Agriculture | Agronomy and Crop Sciences | Bioresource and Agricultural Engineering

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Consider Effects on Seedbed Before Tilling Wet Soil

May 13, 2008

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The current weather conditions of frequent rain caused saturated conditions in most Iowa soils. Tilling soil for drying the soil surface or weed control at this time may have significant negative impacts on creating proper seedbed conditions and increase soil compaction.

When early weeds have emerged but surface soil is still too wet for no-till planting, growers often consider doing a shallow field cultivation in an attempt to kill winter annual weeds. Non no-tillers may consider cultivation simply to dry the soil. Before spending time and fuel for cultivation, analyze the potential effects on weeds and soil.

When tilled wet, many soils slab into large blocks, keeping the root system of growing
Weeds intact and allowing them to continue growth. Larger clods on the soil surface may require a secondary tillage pass before the soil is acceptable for planter operation.

Pre-plant tillage passes on wet soil add random wheel tracks and produce a greater likelihood that some seedling roots will need to penetrate compacted soil. Less desirable soil conditions for early seedling development caused by tillage may negate the perceived advantage of earlier planting. Further discussion on compaction when working soils wet can be found in our earlier article “How soon should I start field operations?”

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**Category:** Soils

**Tags:** wet soil  tilling

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