Leveling Soil for Planter Operation

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Last fall wet soil conditions during harvest time created unavoidable soil destruction and significant soil scars or ruts. Most likely significant soil compaction took place as the ruts were made. The wheel ruts remaining from harvest and general irregularities after primary fall tillage often lead growers to consider spring tillage to level the soil for subsequent planting operations.

Although many fields have a chance to drain between rainfall events, soil below a couple of inches of the surface still remains at field capacity moisture content and may be too wet and plastic to respond well to tillage. Soil at field capacity water content is in ideal condition for maximum soil compaction. Therefore if you are planning to work these soil ruts out, check your soil moisture condition before conducting any tillage operation and avoid worsening the problem by increasing soil compaction.

If you determine the soil is dry enough to work, closely check the rut conditions and how deep these cuts are in the soil surface to decide proper management.

• Unless surface irregularities are deeper than planting depth (e.g., 1.5 to 2 inches), tillage is likely not needed ahead of the planter to maintain seed depth.
• If deeper surface irregularities are present, consider shallow tillage with a field cultivator or light tandem disk in those areas to level soil for planter operation.
• Tilling soil only surface soil avoids pushing, smearing, and compacting wetter soil below the surface.

For further information on handling ruts left from fall harvest see Soil Management of Harvest Ruts.

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