

Restoring Productivity on Eroded Hilltops

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Hilltops that have been impacted by soil erosion over many decades have characteristics that distinguish them from other parts of the agricultural landscape. Of particular importance is their consistently lower productivity, usually about 30-50% of the yield potential of more representative areas of a given field. Part of the challenge in addressing this problem is identifying the primary cause of the erosion (tillage) and assessing its historical and current annual rate of erosion, which may be higher than expected, given current perceptions on what is considered to be conservation, or lower-disturbance, tillage practices. And, if herbicide-resistant weeds continue to increase, many producers will be forced to rely more on tillage as a means of weed control at the expense of soil health due to increased tillage erosion.

Several management considerations to increase annual crop productivity on eroded hilltops are examined in this presentation. An assessment of their potential benefits and drawbacks will be discussed, in hopes of providing producers and agronomists with options and strategies to increase productivity on these sensitive landscape positions, increase overall field uniformity and address future challenges, in light of how to use tillage practices more effectively and sustainably.