

Interactive comment on “Crop residue decomposition in Minnesota biochar amended plots” by S. L. Weyers and K. A. Spokas

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Thank you for your positive comments and kind suggestions for additional references. We have added these and other relevant citations to inform the reader about multiple aspects of biochar use.

The revised text reads as follows: Biochar additions have been theorized to improve soil biological activity (Paz-Ferreiro and Fu, 2013) and improve agricultural production in drought and water stressed regions in combination with other water conservation practices (Blackwell et al., 2010; Kammann et al., 2011; Artiola et al., 2012; Ibrahim et al., 2013). Various studies have hypothesized through meta-analysis, that a crop yield improvement of 10–12% is expected when biochar addition is made to typically acidic coarse textured soils (Biederman and Harpole, 2013; Crane-Droesch et al., 2013; Liu

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et al., 2013). Biochar may also improve soil structure and reduce soil losses through erosion (García-Orenes et al., 2012; Stavi et al., 2012). Regardless of all of these isolated cases of noted soil improvements, no universal correlation between yield improvement and biochar properties has been elucidated (Crane-Droesch et al., 2013), which leaves scientific based guidance on its use indeterminate. Despite this, biochar is perceived as a beneficial soil amendment product with multiple advantages (Laird, 2008).

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