

Interactive comment on “Soil Denitrifier Community Size Changes with Land Use Change to Perennial Bioenergy Cropping Systems” by K. A. Thompson et al.

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Received and published: 19 July 2016

Thank you for your in-depth review and valuable critique of our paper. We will respond by line to your specific comments: line 28 - climatic conditions varied by year (dry vs. wet years), however we agree that the variable management conditions should also be reflected here.

intro - we did not include stats (we are assuming you mean on biomass production rates vs. annuals?) on PG production as the focus of our paper was the soil microbiota; however there is a large base of literature on PG feedstock production in the USA, and a few studies have been conducted in Ontario (see Deen et al., 2011; Kludze et al., 2013; Liang et al., 2012; Sanscartier et al., 2014 within paper references).

line 42 - thank you for your comments, we will consider shortening this description.

line 97 - yes. This trial was unique as PG crops are often grown in large-scale (eg ha size) plots, without a parallel annual comparison at the same site/soil. Our study was a full RCBD design with smaller scale, replicated PG and annual plots grown simultaneously within the same site.

line 186 - thank you for your comments, we will consider removing the description of supermix components.

line 273 - we originally thought it was worth mentioning that miscanthus yields decreased slightly if left standing overwinter, as fertilized switchgrass yields also decreased; however your comment is valid and we will remove this result. Thank you.

line 395 - 'proportions' refers to the relative abundance of nirS: nirK denitrifiers; we will clarify this.

Interactive comment on SOIL Discuss., doi:10.5194/soil-2016-34, 2016.

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Discussion paper

