Reviewer(s)' Comments to Author:  
Reviewer: 1  
  
Comments to the Author  
NA  
  
Reviewer: 2  
  
Comments to the Author  
Overall, I think the manuscript titled “Effect of winter cover cropping on soil water storage varies by site” has some good information provided and is fairly well written.  I do like the analysis the authors have carried out, I think it shows the well-rounded nature and details they have looked into for this paper.  There are a couple of changes I would suggest to improve the overall quality and readability but these are generally minor in nature.

Thank you, we addressed the specific comments as indicated below.

Line 1: I think the authors could provide a better title that summarizes the work.  It is generally a decent working title but I think prior to publication and more descriptive one of the work could be provided.

We changed the title to: Site-specific effects of winter cover crops on soil water storage.

Line 34: I do not think the “respectively” is needed.

It was deleted.

Lines 38-39: This is my overall largest issue with this paper.  I think the authors could phrase this a little better in the abstract.  In the conclusions, the authors do a really good job highlighting that this is the next step that needs to be taken as some of the other factors did not provide a good correlation to the document.  However, I think it is a little off-base here in the abstract.  I suggest rewording to have a similar context to that provided in the conclusions.

We changed the text to read:

The presence or absence of of a CC effect on field capacity was not related to CC anove-ground biomass production, previous cash crop, or soil texture at the trial sites. Based on our results, a causal model, and previous literature we hypothesize CC root characteristics are key to understanding variable effects of CCs on soil water storage.

Lines 81-82: I think this sentence needs to be reworded a bit.  It is a little confusing to follow.

We changed the text to read:

Causal models can help identify gaps in the literature and help target data collection. When sufficient data are available, causal models can be used to construct structural equation models that estimate the relative strength of causal factors.

Line 95: This is only done in the introduction it seems but if it is this important that it continues to need to be restated, don’t put it in parenthesis.

We changed the first line of the Site descriptions to read:

Three long-term sites that had been in place for at least 10 years were used for this study.

Line 111-112: This has confused me throughout the manuscript.  It has this done for the USDA site but then the samples were following the corn phase.  But the other sites are different.  I would condense here where each site was collected just so it is not in two different parts of the manuscript.

We changed the text to read:

For the present study, one commercial trial was sampled following the soybean phase (West-grain), one commercial trial following the maize phase (East-grain), and the USDA site samples were only taken following the maize or maize-silage phase due to time constraints.

Line 115: I do not know how I feel about the higher use of supplemental information.  I would prefer to have them within the document.  However, if the authors and editors think this is fine, I am okay with it. As a reader I would prefer to just have information within the text.

The general herbicide and management programs at the sites were the same (no-till, herbicides, inorganic fertilizers), so felt the exact details would not be of interest to the general reader.

Line 131: would it be more appropriate to term this depth instead of length.

The ring was cut from a longer piece of tubing by measuring a length, so we feel the term length is more accurate in this instance.

Line 226-252: I am a little confused why such a major point is being made from differences with treatment to soil texture.  I think this would be better set highlight why it should be used as a covariant instead of highlighting the significant differences at each location.

The textures were confounded with cover crop treatment WITHIN trials, which makes inference about cover crop effects more complicated, so we feel it is an important component of the results. We reworded the first line to make this clearer:

Within certain trials, the CC treatment was coincident with differences in sand, silt, as well as clay percentages (p<0.001).