



EGUsphere, referee comment RC1
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Comment on egusphere-2022-308

Anonymous Referee #1

Referee comment on "Assessing stakeholder climate data needs for farm-level decision-making in the U.S. Corn Belt" by Suzanna Clark et al., EGU sphere,
<https://doi.org/10.5194/egusphere-2022-308-RC1>, 2022

Review of "Assessing stakeholder climate data needs for farm-level decision-making in the U.S. Corn Belt"

Overview:

This paper takes a document analysis approach to assess and understand the data needs of agricultural producers in the Corn Belt region of the Midwest U.S. Results aim to inform the development of future decision support tools to aid farmer production decisions. Specifically, results will be used to develop the Dashboard for Agricultural Water use and Nutrient management (DAWN), which will generate climatic forecasts communicated to stakeholders through a decision support tool.

Major Comments:

- Why only focus on the corn belt, would insights on the data and information needs of producers outside of the Corn Belt region not apply at least somewhat to the producers of the region? I suppose I am not convinced that the data needs of Corn Belt producers are so different than the data needs to row crop producers from other regions of the U.S. or other industrialized nations.
- "Information practitioners need" I find this sub section heading misleading. The text within this section merely overviews the types of data the analyzed documents mention w.r.t. information use. The section does not begin to treat what information corn belt producers need – and it likely shouldn't as this would inherently be a value statement. I suggest revising the title to "Sources of information"
- "What documents say" "what practitioners say"? Throughout the results and discussion section the paper mentions examples of practitioners saying X (e.g., "Practitioners mentioned both reducing the risk of natural events and making management decisions

that are the least risky.”). Does practitioners refer to the researchers writing the analyzed documents or the farmers? If practitioners refers to farmers, then a caveat is needed as this paper only reports what researchers write about farmers saying. If this information about farmer preferences, etc is based on survey results, then the paper should be upfront about mentioning that.

- Difference between results and discussion section? Both sections give high level information on the frequency of differing codes and differ very little from one another. What I was expecting from the paper based on the introduction was a discussion section distilling the information gathered in the document analysis into some guidelines for creating a decision support tool. The second paragraph of section 4.3 does this in the very limited way. I suggest rethinking the discussion section to 1) reduce redundancy with the results section and 2) fulfil the objectives outlined in the introduction.
- It seems a major oversight to only rely on peer-reviewed academic literature for the document analysis. State level extension services throughout the Corn Belt region produce information for agriculture producers in their state – these documents (i.e. extension publications) are a vital data for understanding the information producers need and the best means to communicate that information. Additionally, there are both state and federal data collection efforts (surveys—e.g. the census of agriculture, irrigation and water management survey) focused on sources of information for farmer decision making. These also seem vital for understanding the landscape of farmer information use.

Minor Comments:

- What is meant by a “paper” in the document analysis? Is it only peer reviewed publications? White papers? Extension publications? More detail on this seems warranted and needed.
- Was ‘coding’ documents based on the appearance of specific text strings (e.g., “research”) or based on the coders subjective opinion regarding whether the document fit into a given criteria?
- I suggest using the same word to refer to the sources of information throughout.
- “Installing irrigation requires up-front costs that will only be recouped if weather becomes unpredictable enough to necessitate its use.” What information is this based on? At the very least this sort of statement needs a citation. Even better would be an explanation of what the authors mean by “unpredictable?” Isn’t growing season precip always unpredictable? I think “variable” might be a better word to use here.
- “In addition, most practitioners indicated that they get their information from a human source such as a trusted advisor, Extension agent, private company, or consultant, although this is highly variable by farm scale and type, because very large farms might have data scientists on staff.” -- The final clause seems to be based on conjecture. I suggest providing a citation.