Point by Point Response to Reviewers.

RC 2 Comment:

I greatly appreciate the attention to detail and thoughtfulness of the response to the two reviews. While I still have some conceptual issues with this study (e.g., if someone wanted to know how manure N application rates to corn varied within a state, I would recommend that they look at Falcone even though it only reports total county scale manure production and is not crop-specific. It would still be more valuable), I think it represents a unique and valuable method despite its limitations.
I do have one final comment regarding a new sentence added in response to RC1 Comment 18. The new sentence reads “Trends in manure animal type may be explained by an increasing proportion of smaller operations, shifts in herd size, and improvements in efficiency of production, particularly for dairy cattle (Fancher et al., 2025; Njuki et al., 2022)."

This sentence is inaccurate and misleading. Yes, Fancher showed that the number of small beef operations as a proportion of the total number of operations has increased through time. But the opposite has been the case for every livestock sector, particularly dairy. Consolidation and concentration in the livestock sector is highly documented. For example: http://doi.org/10.1002/aepp.13056 The authors need to modify this sentence prior to publication.

- *We thank the reviewer for this comment and have rephrased the specified sentence in the text.*

Changes to Manuscript:

- The sentence now reads:

  “Trends in manure animal type may be explained by patterns in farm consolidation, shifts in herd size, and improvements in efficiency of production (MacDonald, 2020; Njuki, 2022; Fancher et al. 2025).”