Reviewer 1

General comments:

This is a well written and timely commentary that links a theoretical framework of data feminism to specific examples for how it can be applied to agricultural science. My only suggestion is to provide clearer evidence of the following statement in the abstract: "we present evidence that explicit attention to power and values concomitantly fosters research creativity and leads to positive societal outcomes." There are many examples provided from the work of the Practical Farmers of Iowa and specific outcomes are described for fostering new approaches to research, but it is not clear what impact those approaches have had on reducing power differences/improving equity. One data point could be the socio-economic demographics of PFI membership over time or in contrast to other farmer organizations in the same region, or land tenure in the region, or at least some discussion of how that might be assessed.

We agree, and added text to each section (power, reciprocity, framing) and the conclusion that clearly shows the positive outcomes stemming from attention to these three themes. While we adjusted text in several places to reiterate our thesis, below we include the main additions:

Iowa State University recently launched an ambitious program, the Iowa Nitrogen Initiative, wherein farmers voluntarily perform nitrogen rate trials in their production contexts[53]. This not only increases the relevance of the data driving the recommendations, but also actively involves the users in creating the recommendations. The data are pooled and used to drive models that provide drastically more nuanced recommendations: in 2025 the program supported 470 trials and currently provides recommendations for 21,384 scenarios (compared to the previous system where 10 sites provided recommendations for four scenarios). The Initiative has been accompanied by significant public engagement, with an average of 30 presentations and 60 popular press products per year and 3,000 unique users registered for the recently launched recommendation tool[53]. Scientifically, this program's data have highlighted fall residual nitrogen as an important predictor of the subsequent year's nitrogen needs, which has previously been overlooked.

The authors provide examples of blended compensation packages that coincided with high participant satisfaction and willingness to participate in subsequent grant activities in supplemental files as a resource

Practical Farmers highlights diversity in membership as a cornerstone of its work, often referencing their 'big tent' policy (Supplemental Information). In turn, Practical Farmers members explicitly highlight the organization's diversity in viewpoints as a distinguishing and valuable feature of the organization, and that this fosters trust in the information provided by Practical Farmers' programming[43,83]. Diversity-as-an-asset is further demonstrated by Practical Farmers' growing membership, which is now larger than that of a prominent Iowan commodity organization (Supplemental Information).

In this Perspective we show how agricultural scientists who examine, challenge, and work to redistribute power can uniquely contribute to ongoing work towards agricultural (and social) equity and may concomitantly experience positive impacts on research creativity and stakeholder participation. We also demonstrate how by valuing reciprocity researchers have engaged new participants in conservation activities, and that organizations that explicitly embrace diversity in perspectives and values may be perceived as more trustworthy sources of information. For agricultural researchers, engaging with Data Feminism need not be

overwhelming nor demand world changing activities; it simply asks that one reflect on power disparities and values embedded in their research. We hope this perspective demonstrates both the worthiness and feasibility of such pursuits.

Specific comments:

The final sentence of the abstract (esp on Line 17) is not grammatically correct and seems to be missing multiple words.

We reworded it.

Lines 262-264: I would take this a step further to explicitly explain how scientists' identities and value systems influence all components of research: the questions that are asked, who is engaged in (and who informs) the research, what is measured and how results are interpreted and communicated.

We agree, and we added text to explicitly state these ideas:

As scientists, we must accept that our training socializes us to value certain processes or outcomes in research - it influences the questions we ask, who we engage with to answer them, what we measure, how we interpret results, and how we communicate those results.

Scientists who are self-aware of their own values and who are able to acknowledge and navigate the existence of multiple truths are better equipped to provide solutions that do not preferentially disadvantage vulnerable groups[79] and are better able to bring clarity to complex topics[80–82].