

Author Responses to Comments on “**Effects of enhancing nitrogen use efficiency in cropland and livestock systems on agricultural ammonia emissions and particulate matter air quality in China**” by Luo et al. (MS No.: egusphere-2025-72)

Many thanks to the everyone involved in the peer review process of this manuscript. I am particularly grateful for the time and expertise of the anonymous referees. In my opinion, the authors have satisfactorily addressed the reviewer comments.

I have one minor technical suggestion for the authors to consider before uploading their final versions. On Page 6, Line 70-71: "This dataset offers heightened precision compared to existing livestock distribution maps, particularly in delineating livestock presence across urban, peri-urban, and rural regions." If you don't have a citation (or analysis) that supports the "heightened precision" statement, consider rewording this to "is expected to offer heightened precision".

We thank the editor, reviewer, and other people involved in the peer review process for the invaluable help and comments, which help us improve the manuscript substantially. According to your technical suggestion, we have revised accordingly. We have added citation and analysis to support this sentence. The revision is as follows:

Line 171: “This dataset offers heightened precision compared to existing livestock distribution maps **by leveraging detailed livestock survey data**, particularly in delineating livestock presence across urban, peri-urban, and rural regions (Cheng et al., 2023).”

Cheng, M., Quan, J., Yin, J., Liu, X., Yuan, Z., and Ma, L.: High-resolution maps of intensive and extensive livestock production in China, *Resour. Environ. Sustain.*, 12, 100104, <https://doi.org/10.1016/j.resenv.2022.100104>, 2023.