This study uses a high-resolution, regional coupled modeling system to investigate the impacts of irrigation dataset selection on land-atmosphere (L-A) coupling. Results show that L-A coupling is sensitive to the choice of irrigation dataset and resolution and that the irrigation impact on surface fluxes and near surface meteorology can be dominant, conditioned on the details of the irrigation map (i.e., boundaries, heterogeneity, etc), or minimal. I'm really interested in this study. There are a few comments below.

Firstly, in my view, estimation of irrigation amount and choice of irrigation water source and irrigation method are also key aspects in parameterizing irrigation water use and modeling its impacts. So, I'm going to ask a few questions around these.

Estimation of irrigation amount.

1. This study chose 50% of field capacity as the irrigation trigger threshold and 80% of field capacity as the target, I am interested in why this study chose this parameter (default parameter or based on observations of irrigation amount?).
2. The immediate effect of different irrigation maps is irrigation amount of the region, but this study also lacked the validation of irrigation amount. Therefore, the simulation of irrigation amount lacks credibility. Is it feasible to make research based on this?

Choice of irrigation water source.

In your study, water is withdrawn from different sources or only simple source for irrigation?

irrigation method

"Water was applied as precipitation (mimicking a 'sprinkler' application)". Is this set according to the actual local conditions?

Secondly, graphical abstract: It contains too many elements, and it is difficult to understand the meaning of each sub-picture without detailed captions.

Minor comments:

Line 27, "PBL" -> "planetary boundary layer (PBL)"

Line 91, "planetary boundary layer (PBL) " -> "PBL"

Line 427, "Chen F. and Avissar R.,", Whether there is a disunity in this piece?

Line 464, "——, ——, T. E. Franz…"