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Discussions

Interactive comment on "Sub-soil irrigation does not lower greenhouse gas emission from drained peat meadows" *by* Stefan Theodorus Johannes Weideveld et al.

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Dear authors,

Having been involved in the latest discussions on the research presented in this paper, I would like to post 2 comments:

1. In 2019, on some of these study sites, additional emission measurements have been made, using eddy covariance techniques. These measurements indicate far lower emissions as the ones with closed chambers, used in this study. It was recognised by the researchers that this might be due to an erroneous gap filling procedure. This

should be mentioned and explained in this paper.

2. The results do not indicate a difference in emissions rates between the sites with subsurface infiltration and the control sites. It should be mentioned that this conclusions is valid for the design of the infiltration and the soil type as used in these experiments, i.e. - drains at a depth of 60 cm and at a distance of 6 meter. - sphagnum peat type with a very low permeability. These additional remarks are required because, despite the obvious results for these study sites, it might be possible that subsurface drainage leads to lower emission rates when applied with alternative designs (e.g. lower depth, smaller distances, in soils with higher permeability, with addional water reservoirs to increase water pressure etc.). Consequently it also is important to adapt the title of the paper.

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