

Reply to the Referee's comments

We are grateful to Owen Cooper for reviewing the manuscript and for providing the comments. We improved the manuscript based on these suggestions.

Line 34 When citing IPCC it would be best to cite the most recent update from 2021.

*Line 34 We have now cited the updated IPCC report reference to the manuscript as:*

*At the same time, climate change is considered a substantial threat to arable productivity through changes in average and extreme temperature and 34 precipitation profiles across the region (IPCC, 2021)*

Line 55 When discussing the differences between exposure metrics (e.g. AOT40) and the stomatal ozone flux method, a useful reference is Ronan et al., 2020.

*Line 56 We have now added the reference to the manuscript as :*

*At present, methods to assess the risk to crop productivity from changes in O<sub>3</sub> and climate variables have used a variety of different O<sub>3</sub> risk assessment methods (Ronan et al., 2020).*