

Line 688-699 One could not see from the figure? What is reason why ozone fumigation was too short? Why the measured data show bigger yield reduction in ozone in 2007 compared to other years? Problem of measured data?

As described previously we have modified the model so that the ozone accumulation period ( $acc_{fst}$ ) is between 200°C days before anthesis to maturity for consistency with (LRTAP, 2017). This means that the shorter experimental fumigation period for the year 2007 (38 days in 2007 vs 92 days for 2008 and 2009) has less effect on the model results since  $acc_{fst}$  affecting senescence (the main driver of yield loss) is now far more consistent across years. These differences in RYL between years are now discussed in more detail (also in response to other reviewer comments) by adding text and two tables in the supplementary (section 6; text and Table S2a. and S2b) and a short paragraph summarising the key findings to the end of the results section at Line 775-784 and the beginning of the Discussion section at Line 790-805.

Line 757: value of this  $v_{max}$  is really high while the yield was not super high. Is there any explanation for this?

The  $V_{cmax}$  value range of 90 to 140  $\mu\text{mol CO}_2 \text{ m}^{-2} \text{ s}^{-1}$  came from a combination of the published literature and Xiaoji experimental dataset (see Appendix A, Table A2). The optimal value after calibration is 137  $\mu\text{mol CO}_2 \text{ m}^{-2} \text{ s}^{-1}$  which is in line with the observed dataset. Moreover, the complex interactions between  $\text{O}_3$  exposure and the plants' physiological responses also play a crucial role. Ozone significantly affected antioxidative enzymes, thereby limiting overall photosynthetic efficiency and yield, particularly in  $\text{O}_3$ -sensitive cultivars, despite their ability to maintain high carboxylation capacity. These points are at Line 859-870.