Title:	Parametrization of the DO3SE stomatal flux model for four Indian winter wheat cultivars
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Abstract:	In this study different environmental response functions were parametrised for DO 3 SE model for four Triticum aestivum cultivars from India. A total of 1597 stomatal conductance measurements were recorded using a leaf porometer for the cultivars PBW550, HD2687, HD2967 and WH1105 during the 2017-2018 growing season from November 2017 to April 2018 under various conditions of temperature, VPD, soil moisture etc. and at different growth stages of the plant. Various parameters including the minimum, optimum and maximum temperature of the cultivar, the stomata response to the water vapour deficit of ambient air and soil moisture and the thermal time taken to reach critical growth stages such as the flag leaf stage, anthesis and maturity were tuned based on the individual response of a cultivar to different environmental stimuli. After tuning model was run to see the difference between the POD Y ozone dose that the model predicts to be accumulated by the cultivars when it is run using the generic recommendations of the Mapping Manual (based on the behaviour of Central European cultivars) when compared to tuning the model with the cultivar specific response functions. This study will be helpful in predicting the crop yield losses for different cultivars during a growing season and assess ozone induced crop yield losses more accurately. It will also help in selecting suitable cultivars for different climate conditions.
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