

Dear Dr. Bond-Lamberty,

We have corrected the typos pointed out by the referee and added the following sentences (L443-446) to address the referee's suggestion on highlighting the limitation of the C4 maps used in the study:

“The C4 fraction product from Still and Berry (2003) is available at a much coarser spatial resolution (1°) than other land cover products used in this study, and it is a global product. As such then, the estimated C4 fractions for crops/grasses in Canada used here may not completely agree with those from regional estimates.”

We hope that these changes have satisfactorily addressed the comments by the referee.

Best Regards,

Libo Wang