

Dear Editor,

Please find attached to this document our point-by-point responses to reviewer comments for manuscript BG-2021-152, “Resolving temperature limitation on spring productivity in an evergreen conifer forest using a model-data fusion framework” by Stettz et al. In response to the reviewer comments, we have made several revisions to the manuscript. These revisions include a description of the potential relationship between our cold temperature scaling factor and biophysical mechanisms, as well as the implications of the cold temperature limitation for modeling fall productivity. We have also added one supplementary figure showing the relationship between other meteorological forcing (i.e., mean summer air temperature and mean winter precipitation) and mean spring GPP as suggested by Reviewer #2. As requested by the editor, we have added an additional paragraph to Section 3.3, discussing the implications of our results for other modeling groups and locations to broaden the usefulness of our results. Additionally, we have added text on the representation of soil moisture stress in CARDAMOM.

We also note that while revising the manuscript, we noticed a small issue concerning the magnitude of average temperature observations plotted in Figures 1-3. We have fixed this issue, which resulted in only minor changes to the figures. As such, all the key results remain the same. We believe that the changes made have substantially improved the manuscript and broadened its impact to a wider array of readers. We have included the revised manuscript, as well as a marked-up version of the manuscript showing tracked changes, with this resubmission. Thank you for your consideration.

Sincerely,
Stephanie Stettz (corresponding author)
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