

Interactive comment on “Environmental controls over methanol emission from leaves” by P. Harley et al.

Anonymous Referee #2

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The paper by Harley et al. on biogenic methanol emission from leaves does an admirable job of summarizing the literature on this topic, and their presentation of new data and an attempt to incorporate the information into the Niinemets and Reichstein model is a step in the right direction.

However, it is greatly disappointing to this reader that the modelling approach they took is not going to lead to regional and global estimates of methanol fluxes because of the variability or uncertainty in the production term.

Nevertheless, I would judge that the paper is publishable if one important issue is resolved. That issue is that the author's do not carefully consider methanol sinks in vegetation. For example, it is well known that many leaves harbor large populations of

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methylotrophs that consume methanol; these populations are often clustered around stomata and could clearly impact the net methanol emission. At a minimum the author's should mention this phenomenon (i.e. cite papers on *Methylobacterium* on the phylloplane) and project some impact on methanol fluxes.

Finally, I find the figures all too small to read the fine text—couldn't these be slightly enlarged?

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