

Interactive comment on “Asynchronism in leaf and wood production in tropical forests: a study combining satellite and ground-based measurements” by F. Wagner et al.

Anonymous Referee #2

Received and published: 1 August 2013

"general comments":

Interesting study that statistically investigates the temporal synchronism between tropical forest leaf and wood growth.

Good literature review.

Well written and structured

Not sure if the authors have the means to infer causality such as ‘water driven wood production’ or irradiance driven leaf production’

Good discussion where the links are stated in terms of statistical or site specific rela-

C3928

tions not generic casualties.

What is a ‘climate-explicit’ model? Maybe a map of the site to show what space is represented by the models??

To what extent may spatial and temporal aggravation of the data be important? I understand this is pioneering research and future work will improve certain points but it may be worthwhile discussing

Climate grids may or may not predict areas with complex terrain well. I am not sure if this could be important here.

How do the authors determine when leafs are fully mature? Maybe this is not of critical importance.

("specific comments")

Page 8250 line 14: Consider omitting ‘obviously’.

Page 8252: would it be important to state the size and distribution of the plots?

Page 8252 line 7 units are cm? So 39 cm average increase in 4 years?

Page 8253 line 7: I am not sure if the weather stations provide the grids. Consider rephrasing.

Line 15: for the graphical representation?

Page: 8254 line 12 onwards: so DBH gives height and height and wood gravity gives wood production? Would there be value in starting the uncertainty? The model may be the best available and uncertainty unknown or it may not be a major factor

It may be an option to remove equation 5 as it is almost the same as equation 4.

Page 8257 line2: is this the spatial mean?

Page8258 line 7 maybe replace ‘heart of the dry season’ by middle

C3929

Page 8258 line 23: if a strong inter annual variability was only observed for EVI but not for example litter fall this may suggest a noise effect in EVI due to unflagged sub pixel clouds.

Page 8259 line 26: the sza would vary not just during the dry season. Easy to rephrase.
Page 8260 line 1: there is still SZA variation even at the equator but for areas with a certain EVI amplitude the SZA bias component tends to be small relative to the seasonal EVI amplitude. Sorry but I am not aware of a citation for this. Page 8261 line 14 maybe replace 'seriously'

Page 8279: what is a 'pixel time couple'? Maybe I am misinterpreting the figure. EVI amplitude is quite small in what I presume is the average line and the point cloud is noisy. Maybe the point clouds represents x pixel in space?

Interactive comment on Biogeosciences Discuss., 10, 8247, 2013.