

***Interactive comment on “Effect of land use on carbon dioxide, water vapour and energy exchange over terrestrial ecosystems in Southwestern France during the CERES campaign” by N. Jarosz et al.***

**Anonymous Referee #2**

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The authors presented an analysis based on 10 eddy covariance sites monitoring different PFT in a small region. The idea of cluster of towers one close to the other is interesting and could give useful information about the C balance at small regional scale and effect of land-use.

However, in this paper no significant results are presented. Most of the text is dedicated to the description of sites and instruments that could be summarized in tables, while in the results section there is just the presentation of the data measured (not new).

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In addition, the analysis is based on less than 2 months of data, only in a particular season, that make the conclusions not justified. Uncertainty in the data have been also completely ignored.

I think that multi-year data are needed for this study and probably a model to quantify the effect of the different land use at regional scale would add important information.

Other comments:

- The relations between variables (for example CO<sub>2</sub> and Resp., page 2768 line 2-4) should not be presented in this way (just comparing trends in two different plots) but with statistical analysis.
- The description about the data processing is not clear. Did the authors corrected the data with the storage term and filtered based on  $u^*$  threshold? Has been possible to find a  $u^*$  threshold?
- It is not explained how the WUE has been calculated (halfhourly data? Daily data?) in addition, the author should consider that E from eddy covariance is the sum of evaporation and transpiration; for this reason data during and after rain events and irrigation should be excluded because the evaporation component is supposed to be very high.

For all this reasons, my final suggestion is to reject the paper.

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