

Interactive comment on “Improving arable land heterogeneity information in available land cover products for land surface modelling using MERIS NDVI data” by F. Zabel et al.

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General comments: Congratulations on this very insightful article that addresses two very important issues, a) the creation of a consistent landuse/cover map for Europe, b) the problem of crops affecting the hydrological cycle and the SVAT models in different ways. Nevertheless, I consider the methods and results not sufficiently structured which rendered its understanding difficult. In the specific comments I wish to make some suggestions on how to improve this.

Specific comments: 1) In the Methods section I would suggest to split up the point

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2.3. Land use/cover classification into 3 points a) Adaptation of CLC 2000 and CLC Switzerland classes to PROMET classes, b) Selection of crop classes via LAI/NDVI data, c) Statistical subdivision (or similar titles).

2) The criteria for choosing -0.1 and 0.1 NDVI change values are not explained. Is there a mathematical basis to it? Or was it randomly chosen?

3) In the Results section I am missing a comparison between the different land use/cover maps (i.e. CLC 2000 and new set) showing the improvements in the newly created map. The Rhine and Po regions are mentioned; a zoomed image of these areas may aid in visualizing the changes. Also, in the latent heat flux section (3.2) a 4th curve with a run using the CLC 2000 land cover classification may show more clearly the necessity of creating the new land cover classification.

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