

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 land use/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.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 7, 4145, 2010.

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