

## ***Interactive comment on “Spring-summer temperatures reconstructed for northern Switzerland and south-western Germany from winter rye harvest dates, 1454–1970” by O. Wetter and C. Pfister***

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Received and published: 13 September 2011

General comments:

The whole article is very well written and it is a very substantial work on climate reconstruction also taking into account the very long series of 517 years.

The introduction is well written showing that the authors know very well a variety of relevant literature on the subject, which they present in a clear way. After having read the introduction also readers who are not very familiar with the subject are well introduced

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to it. It continues with the data chapter where the authors have found a well mixed balance between digging too deep into details and letting the readers understand the character of the different data sources.

Also the presentation of the results is clear and well written, and the evidence from independent narrative sources for the extremes further strengthens the findings in the article.

A few specific comments:

Chapter 3: Homogenisation. Fig 4 is important but is not very well readable as it is now. The figure needs to be improved.

3.3 lines 2-3: “Figure 5a demonstrates that Basel WPD series nicely fits into the distribution of altitude depending mean harvest dates of the high quality PNO observations”. The altitude may be only one factor, if it is so that the different sources cover different time interval it may happened that the temperature is different for different periods and thus may disturb the harvest date/altitude relationship. It should be made clear whether the data from the different sites cover the same time interval. If not the issue should be discussed in the Ch 5 Discussion.

3.5 lines 18-22: “Calibration was done during the 1774-1824 . . . when anthropogenic influence is assumed to be marginal”. Why is anthropogenic influence on temperature important in this connection? May be a later calibration period should be chosen as probably also the early instrumental observations may be less accurate during this early period? However, the calibration period should be prior to the period of modern agricultural methods.

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Interactive comment on Clim. Past Discuss., 7, 2609, 2011.

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