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Interactive comment on "Phenology as a strategy for carbon optimality: a global model" *by* S. Caldararu et al.

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This study presents a global scale model to predict leaf phenology, with the key hypothesis that phenology is adapted to optimize carbon uptake. The proposed approach sounds very promising to understand change in ecosystem phenology at global scale. In particular, the results show that using such a model in a DGVM could be very promising. The fact that the model takes into account the various possible limiting factors is definitely its main strength. The authors discuss the limits of their approach, but one should insist on the fact that the model necessarily deals with ecosystem phenology, i.e. a "mean phenological pattern" of a pixel. Studying phenology with remote-sensing data while some ecosystem may comprise species with very different phenology is certainly a current frontier in remote-sensing phenology.

Interactive comment on Biogeosciences Discuss., 10, 15107, 2013.