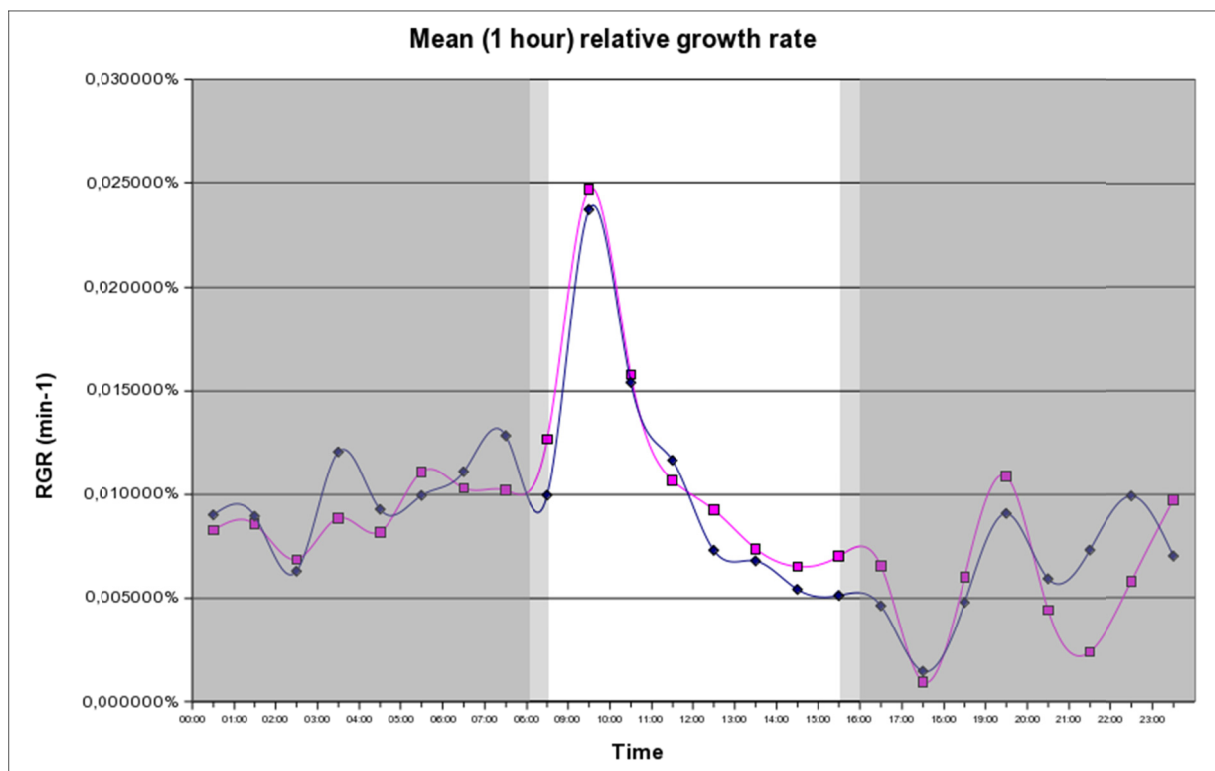


### Figure S4.1 - Diel leaf elongation profiles

In order to determine the time of the day that would be suitable for harvesting leaf material in respect to capture optimal growth indicators, a diel elongation profile was determined with the use of Rotary Resistance Transducers (RRTs) (Berns *et al.*, 2007) borrowed from ICG-III Phytosphere, Forschungszentrum Jülich, Jülich, Germany. In the figure below there are plots of two typical curves of relative growth rates over a 24 hour period, as recorded from wild type Col-0 plants under the same conditions as used for sampling of leaf material. The relative growth rate shown is calculated using the mean absolute growth rate (in mm per minute) over each hour, then divided by the size of the leaf at the beginning of that hour and presented as % of the leaf size per minute. When comparing these results with the patterns reported previously with another comparable method (Wiese *et al.*, 2007), we see no obvious differences. No effects can be seen of the 30 min 50 % light on/off at the beginning or end of each day cycle, which however could be due to the limited time resolution; when taking means of shorter periods, the noise increases dramatically limiting the reproducibility of the results obtained.



**Berns M, Matsubara S, Wiese A, Höcker U, Gilmer F, Schurr U, Walter A. 2007.** Diel leaf growth pattern in *cry1cry2* mutants of *Arabidopsis thaliana* under different light conditions. *Comparative Biochemistry and Physiology - Part A: Molecular & Integrative Physiology* **146**: S233.

**Wiese A, Christ MM, Virnich O, Schurr U, Walter A. 2007.** Spatio-temporal leaf growth patterns of *Arabidopsis thaliana* and evidence for sugar control of the diel leaf growth cycle. *New Phytol.* **174**: 752-761.