S1 Figures from site level simulations
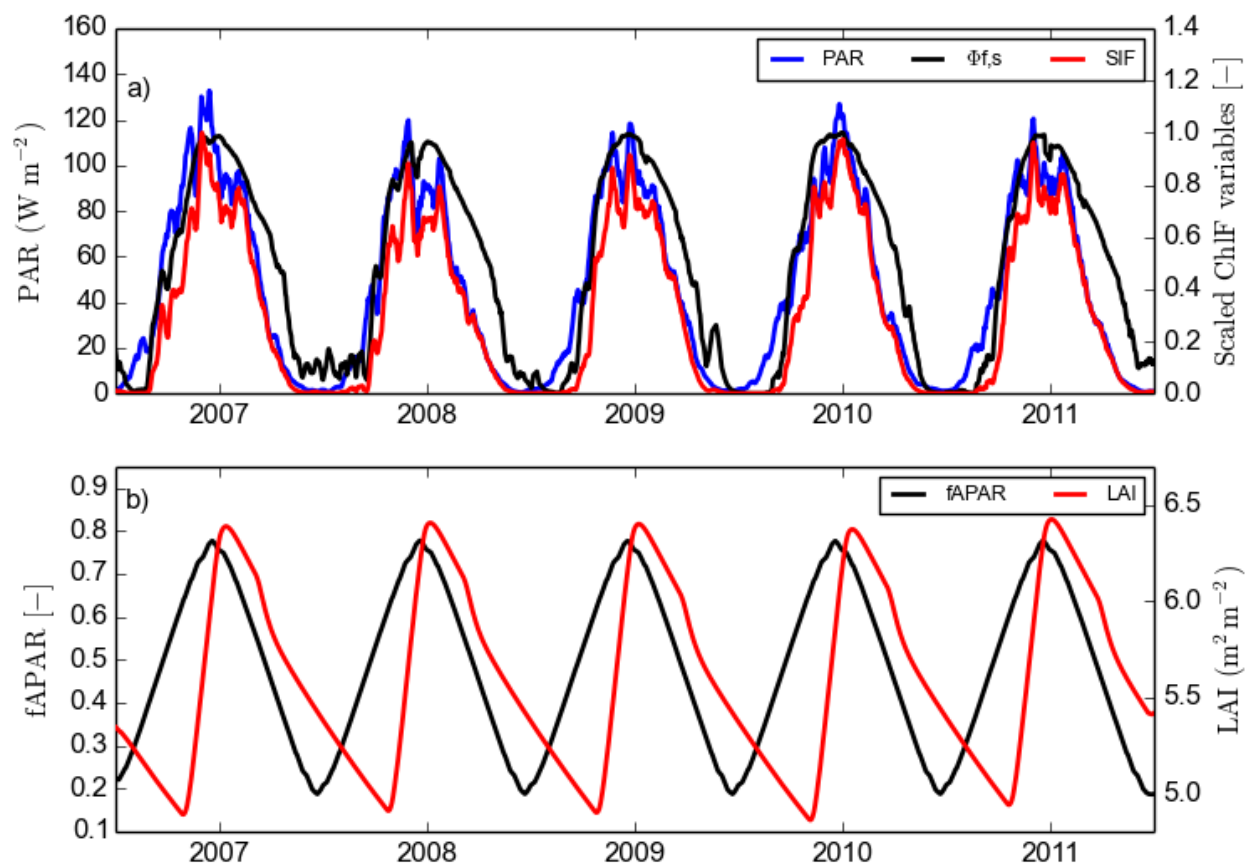

Fig. S1. (a) Five years of incoming photosynthetically active radiation (PAR) (blue line), modelled quantum yield of
fluorescence (Φ_f)(black line) and sun-induced chlorophyll fluorescence (SIF) (red line) and (b) modelled fraction of
absorbed photosynthetic active radiation by vegetation (fAPAR) (black line) and leaf area index (LAI) (red line). The daily
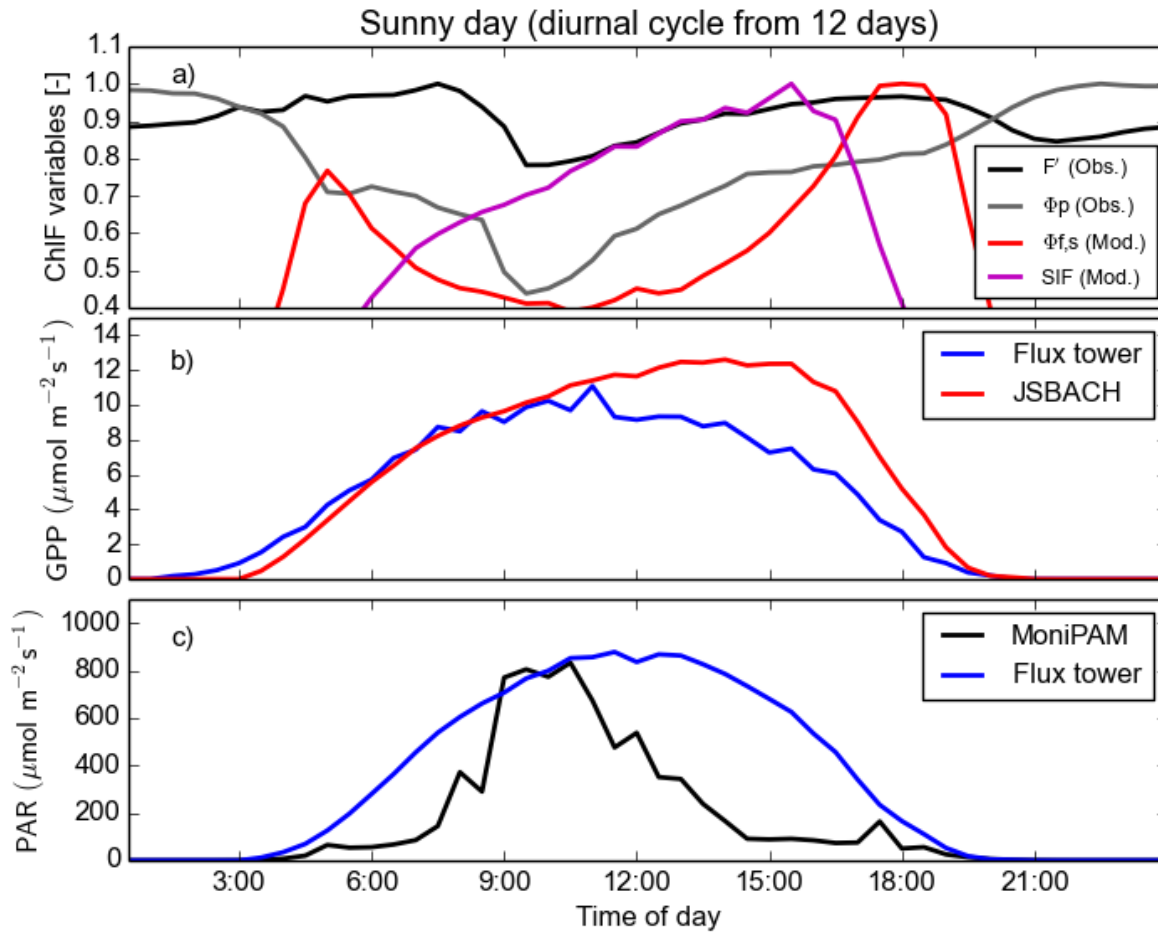values have been smoothed by a moving 10-day window.

Fig. S2. (a) The diurnal cycles of observed prevailing fluorescence signal as measured with PAM fluorometry (F') and quantum yield of photochemistry in PSII (Φp) from MONI-PAM and modelled quantum yield of fluorescence (Φf) and sun-induced chlorophyll fluorescence (SIF) as averaged from 12 sunny days during the growing season, (b) the gross primary production (GPP) as measured from the flux tower (blue line) and GPP simulated by JSBACH (red line), (c) photosynthetically active radiation (PAR) observation from the flux tower (blue line) and from the MONI-PAM observation place in the canopy (black line).
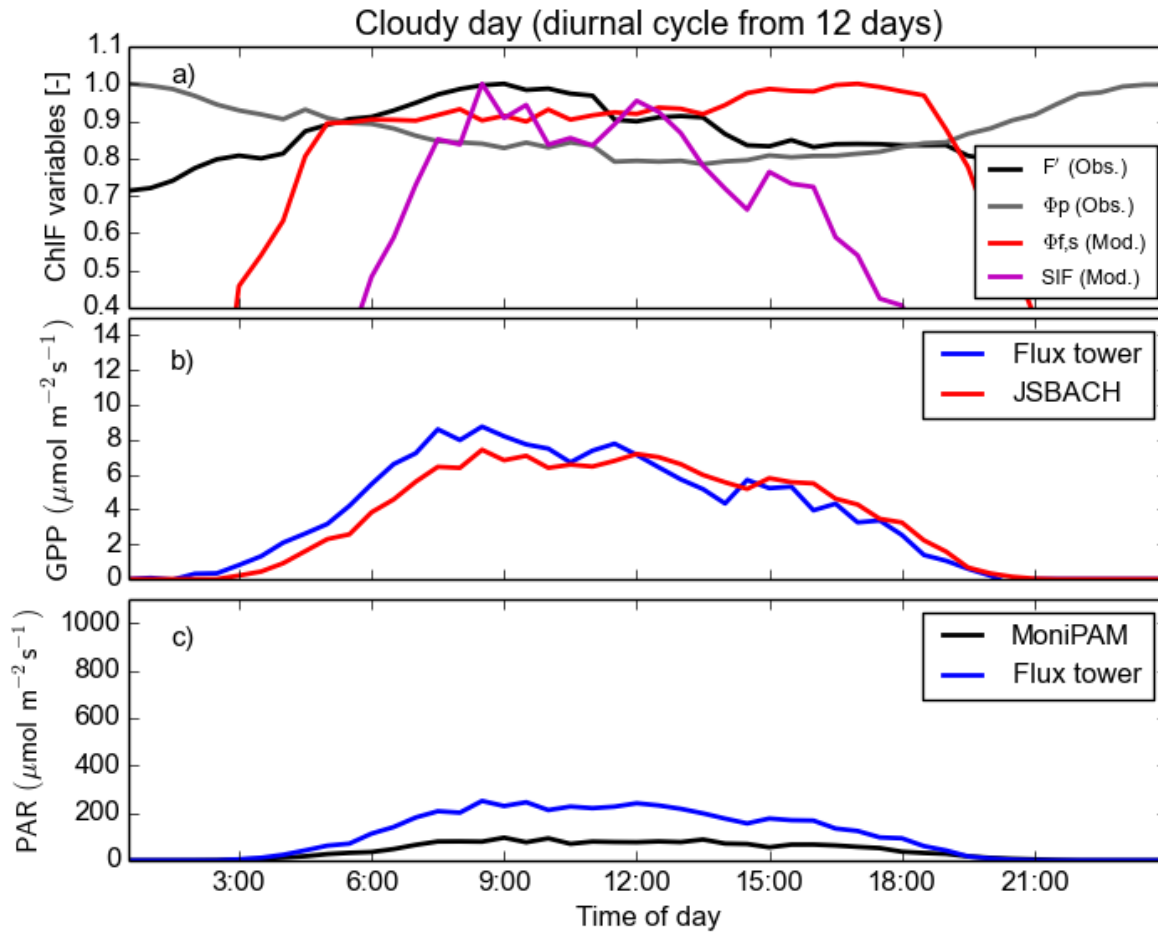
Fig. S3. (a) The diurnal cycles of observed prevailing fluorescence signal as measured with PAM fluorometry (F') and quantum yield of photochemistry in PSII (Φp) from MONI-PAM and modelled quantum yield of fluorescence (Φf) and sun-induced chlorophyll fluorescence (SIF) as averaged from 12 cloudy days during the growing season, (b) the gross primary production (GPP) as measured from the flux tower (blue line) and GPP simulated by JSBACH (red line), (c) photosynthetically active radiation (PAR) observation from the flux tower (blue line) and from the MONI-PAM observation place in the canopy (black line).