

Supplementary Material

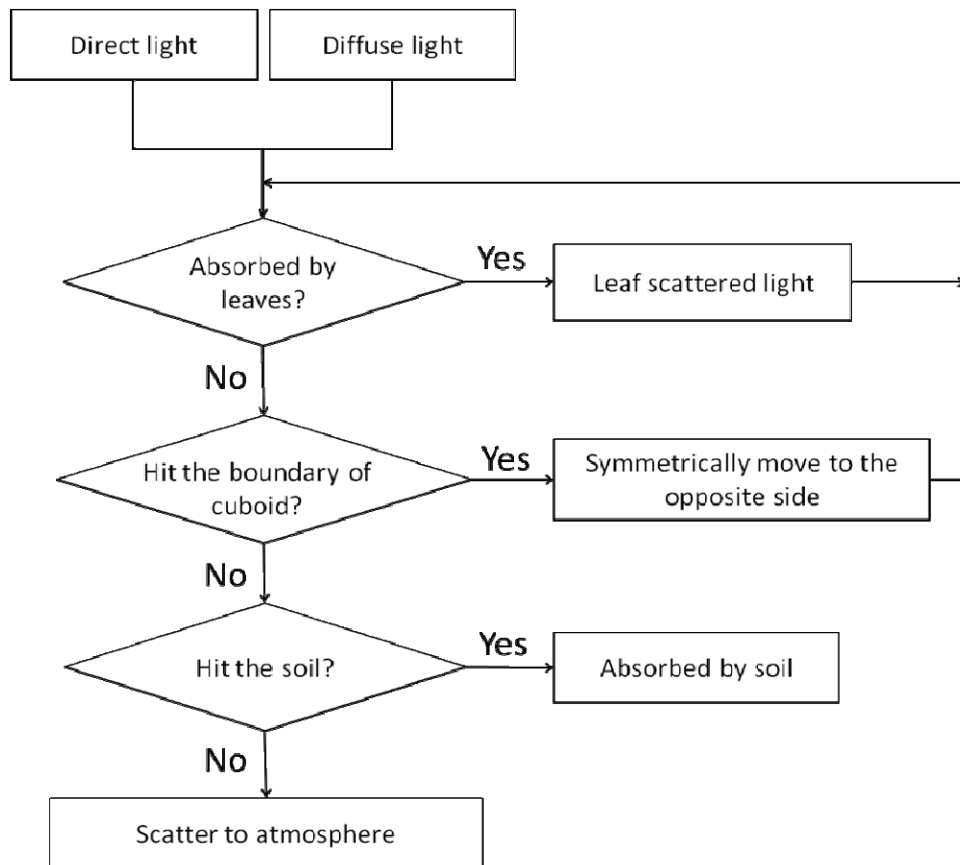


Fig. S1. The ray tracing process applied in the model.

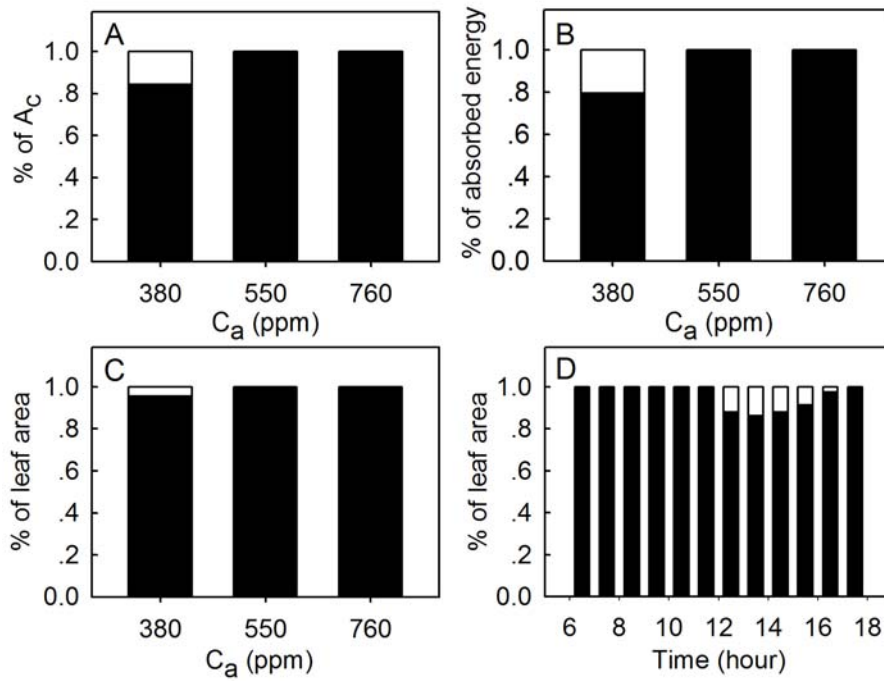


Fig. S2. (A) The proportion of A_c contributed by RuBP-limited photosynthesis (black) and Rubisco-limited photosynthesis (white); (B) the proportion of total absorbed light energy by leaves conducting RuBP-limited photosynthesis (black) and Rubisco-limited photosynthesis (white); (C) the proportion of leaf area conducting RuBP-limited photosynthesis (black) and Rubisco-limited photosynthesis (white). All these simulations were done under three CO_2 and temperature combinations. Panel D shows the proportion of leaf area conducting light-limited or light-saturated photosynthesis at different times of a day at a CO_2 concentration of 380 ppm.