

Name of parameter	Symbol	Unit	Notes
Rate of photosynthesis	p	$\mu\text{mol CO}_2 \text{ m}^{-2} \text{ s}^{-1}$	
Rate of transpiration	E	$\text{mmol H}_2\text{O m}^{-2} \text{ s}^{-1}$	
Photosynthetically active irradiation	I	$\mu\text{mol photons m}^{-2} \text{ s}^{-1}$	
Efficiency of photosynthesis	b	$\mu\text{mol g m}^{-2} \text{ s}^{-1}$	
Stomatal conductance when stomata are fully open	g_{max}	$\text{mmol H}_2\text{O m}^{-2} \text{ s}^{-1}$	
Optimal degree of stomatal opening	u_{opt}	unitless	
CO ₂ concentration in ambient air	C_a	g m^{-3}	
Rate of respiration	r	$\mu\text{mol CO}_2 \text{ m}^{-2} \text{ s}^{-1}$	
Temperature	T	K	
State of the photosynthetic machinery	S	unitless	
Parameters describing the annual cycle of photosynthesis, estimated using numeric methods (see Hari et al., 2017)	$a_1 \dots a_4$		$a_1 = 10; a_2 = 0.065$ $a_3 = 2; a_4 = 1.15 \times 10^{-7}$