

Symbol	Meaning	Units
Rooting depth and rooting zone storage capacity		
S_r	Rooting zone storage capacity	mm water depth
Z_e	Effective rooting depth	mm
Z_n	Number of average precipitation events that can be stored in the rooting zone	mm m^{-1}
Plant physiological parameters of the G08 and G10 models		
w_{ph}	Photosynthetic water use efficiency (WUE)	$\text{mmol CO}_2 \text{ cm}^{-3} \text{ water}$
$\gamma_{r,20}$	Root respiration rate at 20 °C	$\text{mmol CO}_2 \text{ g}^{-1} \text{ roots day}^{-1}$
Q_{10}	Temperature coefficient for root respiration*	–
L_r	Specific root length	$\text{cm roots g}^{-1} \text{ roots}$
D_r	Root length density	$\text{cm roots cm}^{-3} \text{ soil}$
PP_o	Vegetation parameter, summarizing w_{ph} , $\gamma_{r,20}$, L_r and D_r for the overstory (Eq. 15)*	day^{-1}
PP_u	Vegetation parameter, summarizing w_{ph} , $\gamma_{r,20}$, L_r , D_r and f_{seas} for the understory (Eq. 16)*	day^{-1}
Climatic parameters of the G08 and G10 models		
E_{pot}	Potential evaporation*	mm day^{-1}
T_{pot}	Potential transpiration	mm day^{-1}
$T_{\text{pot,o}}$	Potential transpiration of the overstory	mm day^{-1}
$T_{\text{pot,u}}$	Potential transpiration of the understory	mm day^{-1}
α	Mean rainfall intensity*	mm event^{-1}
λ	Frequency of rainfall events	events day^{-1}
P	Incoming precipitation*	mm day^{-1}
P_{eff}	Effective precipitation	mm day^{-1}
W	Wetness index ($= P_{\text{eff}}/T_{\text{pot}}$)	–
T_{soil}	Mean soil temperature during the growing season*	°C
f_{seas}	Length of growing season	Fraction of a year
$\text{ndays.start, ndays.end}$	Perturbation of start and end dates of the growing season in the sensitivity analysis of G10*	days
Site-specific parameters of the G08 and G10 models		
LAI	Leaf Area Index*	$\text{m}^2 \text{ m}^{-2}$
κ	Soil water holding capacity*	$\text{mm water depth mm}^{-1} \text{ soil depth}$
k	Canopy light extinction coefficient*	–
S_{int}	Canopy interception storage	mm
k_{int}	Link between interception storage and LAI*	mm
Calibration parameters of the dynamic water balance model FORHYTM		
β	Shape coefficient of the soil moisture recharge function	–
$r_{s,\text{min}}$	Minimum stomatal resistance	s m^{-1}
k_{soil}	e-folding time of the soil evaporation reduction function	days
j_{vpd}	Exponent of the VPD-induced reduction of stomatal conductance	–
l_{vpd}	Threshold for stomatal response to VPD	hPa
k_{int}	Link between interception storage and LAI	mm