

 ΔW

LAI

RP

 NPP_{res}

NPP

$NPP = T\alpha(1 - e^{-kLAI}) \prod_{i} fi$

Leaf area index

 $NPP_{LAI=10}$ NPP if LAI = 10

Root productivity

Residual desired NPP

$\Delta W = NPP + RP$ $RP = \begin{cases} 0 & NPP_{res} <= 0\\ f_{R} \min(\Delta R_{def}, NPP_{res}) & NPP_{res} > 0\\ NPP_{res} = NPP_{LAI=10} - NPP \end{cases}$ $\Delta R_{def} = W_R(W_R/W - p_{R\%x})R_{\Delta\%}$

$$NPP_{res} = NPP_{LAI=} \ \Delta R_{def} = W_R(W_R/W_R) \ \Delta R_{def}$$
 sh

$$\Delta R_{def} = W_R(W_R/W)$$

 $p_{R\%x}$ $R_{\Lambda\%}$

 W_{R}

 f_R

 f_i

Residual root

Maximum root %

Root contribution

Root conversion efficiency

Various growth limiters

Total root mass