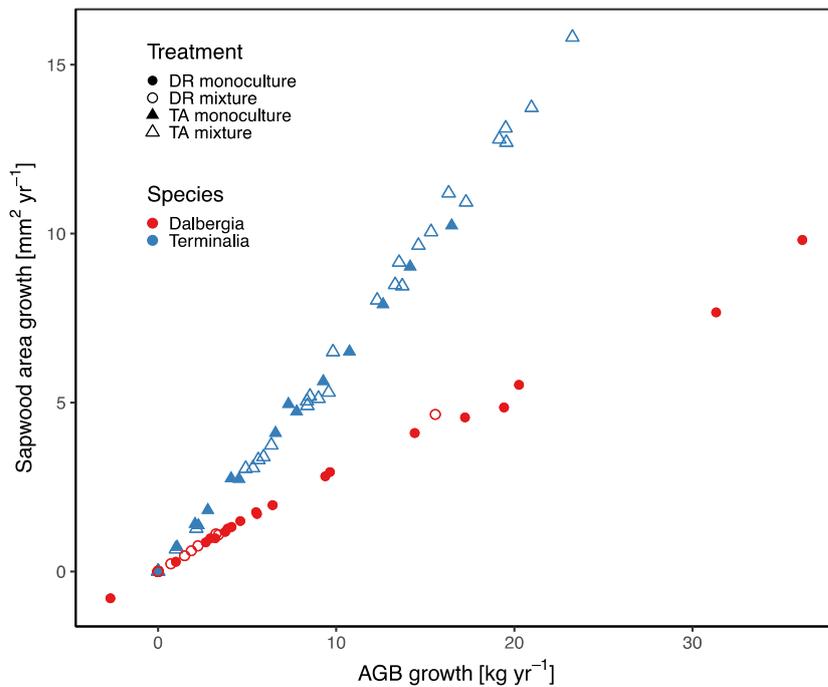


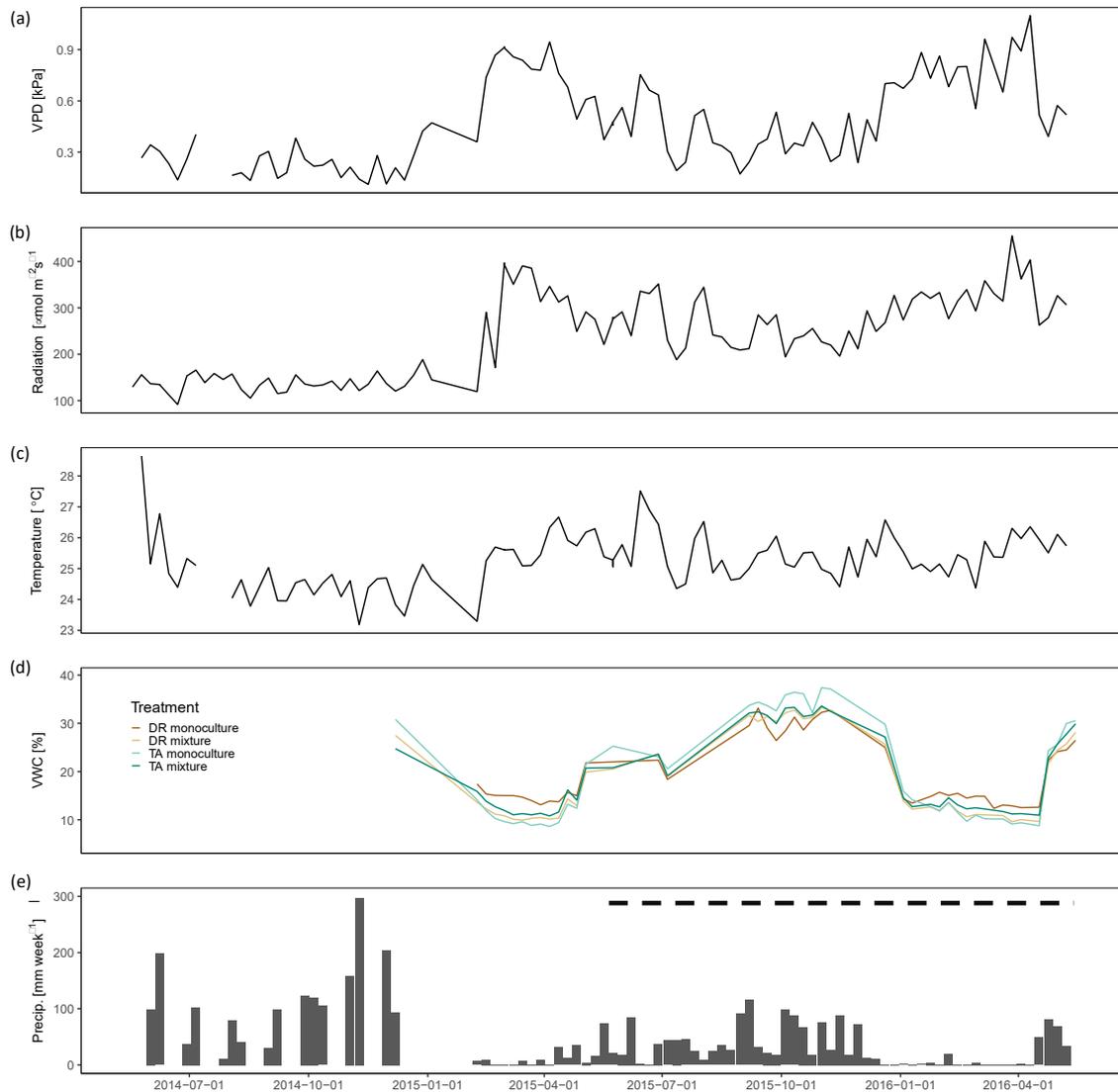
## Supplementary Materials

**Table S1.** Start and end dates for the dry season and the length (in days) of the dry and wet seasons for 2014, 2015, and 2016.

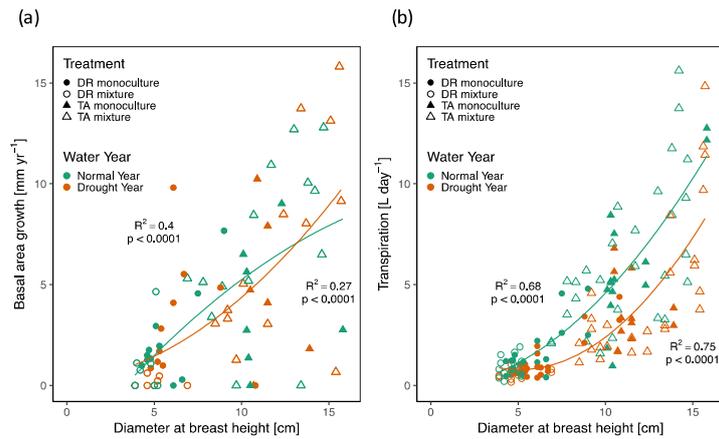
Year	Dry Season		Season Length	
	Start	End	Dry	Wet
2014	December 21, 2013	May 6, 2014	136	222
2015	December 14, 2014	May 16, 2015	148	195
2016	November 27, 2015	May 18, 2016	173	223



**Figure S1.** Relationship between aboveground biomass growth (AGB) and sapwood area growth for all study trees.



**Figure S2.** Weekly averages of (a) vapor pressure deficit (VPD; kPa), (b) radiation ( $\mu\text{mol m}^{-2}\text{s}^{-1}$ ), (c) temperature ( $^{\circ}\text{C}$ ), (d) volumetric water content (VWC, %), and weekly sum of (e) precipitation ( $\text{mm week}^{-1}$ ). Colored lines for VWC represent averages of individual trees for the four treatments. DR monoculture: *D. retusa* trees in monocultures; DR mixture: *D. retusa* trees in mixtures; TA monoculture: *T. amazonia* in monocultures TA mixture: *T. amazonia* in mixtures. Shaded grey area represents the dry season. The dashed black line represents the drought.



**Figure S3.** (a) Tree-level diameter at breast height (cm) versus sapwood area growth (mm<sup>2</sup>yr<sup>-1</sup>) and (b) diameter at breast height by transpiration (L day<sup>-1</sup>) by treatment for drought (orange) and normal (green) years. Lines represent best fit polynomial models. The treatments include: DR monoculture: *D. retusa* trees in monocultures (filled circle, n = 9); DR mixture: *D. retusa* trees in mixtures (open circle, n = 10); TA monoculture: *T. amazonia* in monocultures (filled triangle, n = 8); TA mixture: *T. amazonia* in mixtures (open triangle, n = 11). Each point represents an individual tree.