

Improvement in light utilization and shoot growth in *Hymenaea stigonocarpa* under high CO₂ concentration attenuates simulated leaf herbivory effects

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Table S1. Chemical characteristics of soil utilized in the experiment. Al³⁺ = aluminum (cmol_c dm⁻³), Ca²⁺ = calcium (cmol_c dm⁻³), Mg²⁺ = magnesium (cmol_c dm⁻³), P = phosphorus (mg dm⁻³), K = potassium (mg dm⁻³), SB = sum of bases (cmol_c dm⁻³), CEC = cation exchange capacity (cmol_c dm⁻³), m = index of aluminum saturation, and V = index of base saturation.

Al ³⁺	P	K	Ca ²⁺	Mg ²⁺	H ⁺ Al	pH	SB	CEC	m	V
1.83	0.8	8	0.33	0.07	3.54	6.1	0.42	3.96	81.2 %	10.68 %



Figure S1. Schematic representation of herbivory simulation experiment in *Hymenaea stigonocarpa*. (1) Intact plants; (2) plants with leaf tissue removed from the apical and (3) from the basal portions of the stem. Asterisks indicate the leaves utilized for physiological measurements

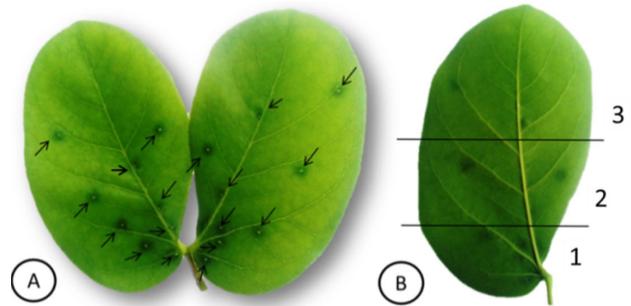


Figure S2. Distribution of EFNs in *Hymenaea stigonocarpa*. In (A) arrows indicate EFNs on the upper face of the leaf blade, and in (B) count organization of EFNs according to Paiva & Machado (2006), where 1 is the basal region, 2, the median region, and 3, the apical region.

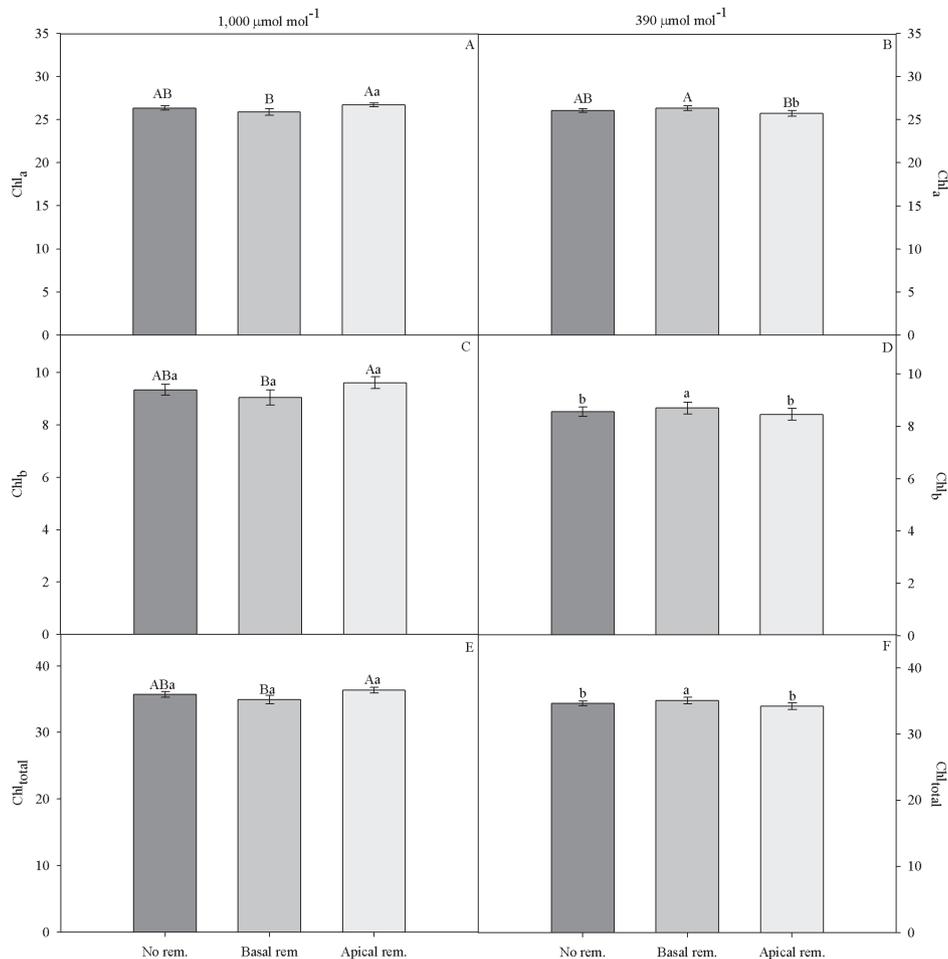


Figure S3. Chlorophyll *a* Chl_a (A-B), chlorophyll *b* Chl_b (C-D), and total chlorophyll Chl_{total} (E-F) in *Hymenaea stigonocarpa* plants grown under elevated (1,000 μmol mol⁻¹) or ambient (390 μmol mol⁻¹) [CO₂] submitted to simulated herbivory. The values represent the average of five plants and bars indicate means ± standard error. Lowercase letters compare distinct [CO₂] and uppercase letters compare herbivory levels. No rem. = no removal; Basal rem. = basal removal; Apical rem. = apical removal.



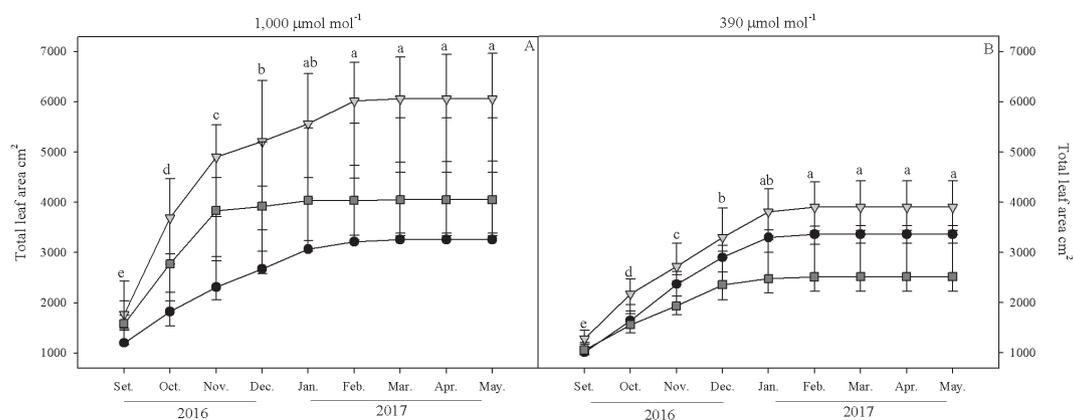


Figure S4. Total leaf area in *Hymenaea stigonocarpa* plants grown under elevated (1,000 µmol mol⁻¹) or ambient (390 µmol mol⁻¹) [CO₂] submitted to simulated herbivory. The values represent average of five plants and bars indicate means ± standard error. Lowercase letters compare months. ● = intact plants; ▼ = plants with leaf tissue removed from the basal portion of the stem; ■ = plants with leaf tissue removed from the apical portion of the stem.

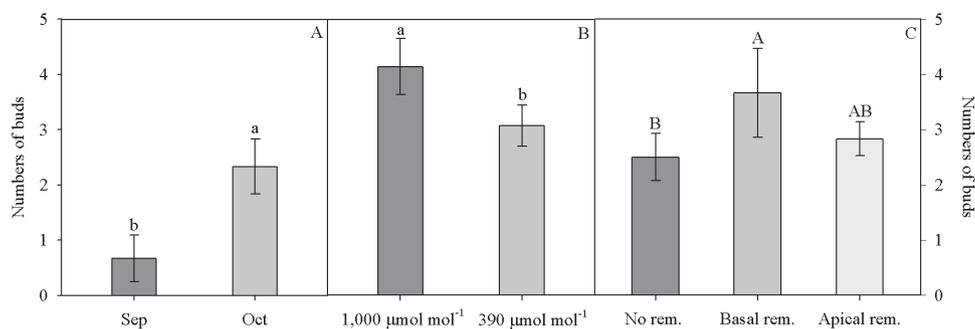


Figure S5. Bud production (apical and lateral) in *Hymenaea stigonocarpa* plants grown under elevated (1,000 µmol mol⁻¹) or ambient (390 µmol mol⁻¹) [CO₂] submitted to simulated herbivory. In panel A the values represent the average of 30 plants; in panel B the values represent the average of 15 plants, and in panel C the values represent the average of 10 plants. Bars indicate means ± standard error. Lowercase letters compare the months (A) and distinct [CO₂] (B). Uppercase letters compare herbivory levels (C). No rem. = no removal; Basal rem. = basal removal; Apical rem. = apical removal.

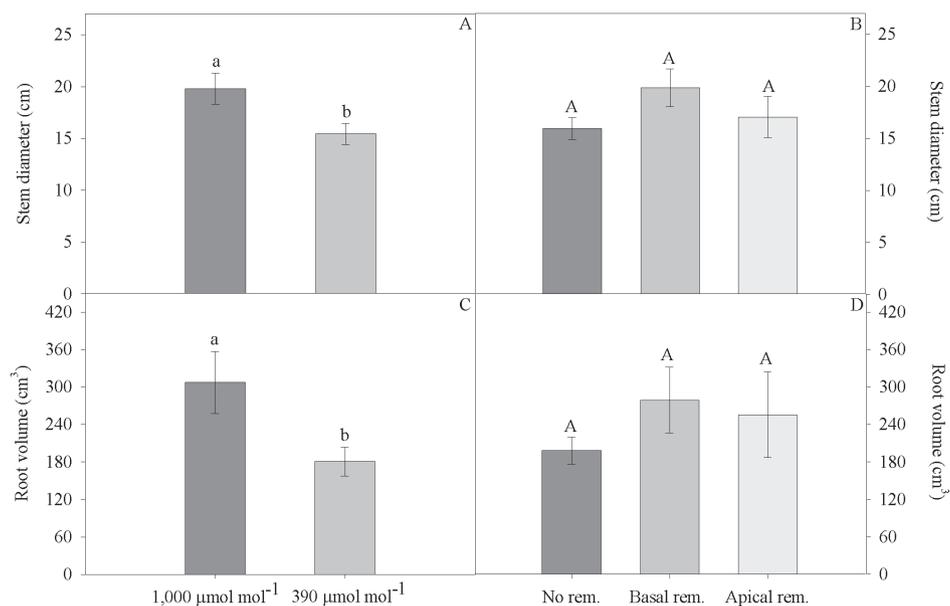


Figure S6. Stem diameter (A-B) and root volume (C-D) in *Hymenaea stigonocarpa* plants grown under elevated (1,000 µmol mol⁻¹) or ambient (390 µmol mol⁻¹) [CO₂] submitted to simulated herbivory. In panels A and C values represent the average of 30 plants and in panels B and D the values represent the average of 10 plants. Bars indicate means ± standard error. Uppercase letters compare herbivory levels and lowercase letters compare distinct [CO₂]. No rem. = no removal; Basal rem. = basal removal; Apical rem. = apical removal.

