## **Appendix S4:**

Standardized regression coefficients modeling the effects of leaf tissue density, leaf area, leaf thickness, punch size, and their interactions on (a) the mean estimates of whole-leaf-based leaf mass per area (LMA) and (b) the estimated variance of whole-leaf LMA. The leaf disc LMA was used for the baseline mean of the whole-leaf LMA. Thick and thin lines indicate 90% and 95% credible intervals, respectively. Circles show posterior means of coefficients. Circles filled with blue indicate significant effects and white indicate non-significance effects.



