

Allometric relationships for estimating above-ground biomass for woodland savanna trees in the Pantanal of Mato Grosso do Sul, Brazil. Salis, S.M. (*Embrapa Pantanal, Brazil; smsalis@cpap.embrapa.br*), Assis, M.A. (*UNESP-Rio Claro, Brazil; massis@rc.unesp.br*), Povoá de Mattos, P. (*Embrapa Florestas, Brazil; povoa@cnpf.embrapa.br*), Pião, A.C.S. (*UNESP-Rio Claro, Brazil; piao@rc.unesp.br*).

Vegetal biomass estimation and distribution are important aspects of ecosystems studies. Unfortunately, there is not much information available about Pantanal woodland savannas. This work aimed to develop regression equations of aerial biomass for native tree species in a woodland savanna in Rio Negro farm, Pantanal of Nhecolândia, Brazil. The samples were taken from ten trees of *Protium heptaphyllum* (Aubl.) Marchand, *Magonia pubescens* A. St.-Hil., *Diptychandra aurantiaca* Tul., *Terminalia argentea* Mart. & Zucc. and *Licania minutiflora* (Sagot) Fritsch, and another miscellaneous group with 11 different species. Linear and non-linear regression analyses were used to develop relationships between breast height diameter and dry weight of wood, branches and leaves, wood volume and total aerial biomass. Using $P < 0.05$, all regressions had correlation coefficients near or above 0.8. The biomass curves predicted by linear regression analysis were similar to the non-linear regression obtained, except for *Licania minutiflora* and the miscellaneous group. The breast height diameter was confirmed as a good parameter to estimate biomass and wood volume. The wood volume and biomass estimation of Pantanal woodland savanna are fundamental information for the understanding of carbon cycle, conservation and sustainable use in this region.