

Cell wall compounds in the meal of macaúba from Pantanal

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The macaúba (*Acrocomia aculeata* (Jacq.) Lodd. ex Mart.) is a palmae native and usually consumed in the Pantanal as a food source, and more recently highlighted as an oil livestock. [1]. The pulp of macaúba is rich in lipids, carbohydrates and fibers [2]. The meal of pulp macaúba obtained after the mechanical extraction of oil, has several potential uses as a coproduct to environmental sound systems and could add value to the chain production. One of them could be as a source of nanocellulose. Meals contain certain amounts of oil depending on the extraction efficiency. This study aimed to evaluate the content of lignin, cellulose and hemicellulose present in the whole and delipided macaúba meal. Macaúba fruits, collected in Corumbá city located the Pantanal biome (Mato Grosso do Sul State, Brazil), were dried at 60 °C in an air circulation oven up to 10% moisture. The dried fruits were pulped in a mechanical pulper and the pulp oil was extracted by expeller pressing. The meal was delipided with petroleum ether in a Soxhlet device.

The contents of lignin, cellulose and hemicellulose were quantified according to the method of Van Soest [3] on samples of macaúba meals. The main component is hemicellulose, followed by cellulose. Due to the residual oil in the meal, after its removal the amount of it compound increased.

Table 1 – Content of lignin, cellulose and hemicellulose in macaúba meals.

	% lignin	% cellulose	% hemicellulose
Whole macaúba	7.77	11.21	33.84
Delipided macaúba	8.65	13.41	35.64

Keywords: *Acrocomia aculeata*, lignin, nanocellulose, hemicellulose.

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