YIELD OF MACHINE SEPARATED MINCED FLESH FROM WHOLE TAMBAQUI *Colossoma macropomum* AND CURIMATA *Prochilodus spp.* FOR INCLUSION IN INSTITUTIONAL MARKETS

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This study evaluates the yield of overall utilization of captured native (Curimata, *Prochilodus* spp) and cultivated fish (Tambaqui, *Colossoma macropomum*) in Tocantins (Brazil) applying meat deboning technology (Minced fish). This product aims to supply food institutional markets, a source of income for small farmers and artisanal fishermen. These markets involve initiatives such Brazilian National School Nutrition Program (PNAE) responsible for provides raw material for school meals, where the inclusion of fish, mainly Amazonian native species is limited yet. Arouse the inclusion of regional fish in school meal, not only is a way to encourage fish consumption habits in children, but also impacts the entire chain , resulting in increased production and legalization of marketing. However, the presence of spines and the time taken to prepare whole fish hinder this insertion. Hence, the minced fish is the best alternative to achieve this supply.

Four groups were divided with 48 individuals each: Tambaqui 0.7-1.0 kg (T1) and 1.0-1.3 kg (T2), Curimata 0.5-1.0 kg (C1) and 1.0-1.5 kg (C2). The fishes were stored in cool boxes between layers of ice flakes. Each group was rinsed with cold water, decapitated, gutted, opened longitudinally into halves and washed again. After being washed, the fishes weighted each set of three fishes, randomly chosen within the group. Each set was subjects to deboning process. The muscle was extracted using a deboner machine (Brusinox, SC, Brazil) equipped with a drum (5 mm holes). The minced fish obtained of each set was weighted to calculate process yield. Statistical analysis was performed with the PSPP 0.8.4 software (FSF Inc., Boston, MA, USA) using a one-way ANOVA. A value of $p<0.05$ was considered statistically significant and adjusted according to Shapiro-Wilk. The deboning process of tambaqui and curimata clean carcass in different weight classes produced variable yields, as shown in Table 1.

There was a statistically significant difference between groups as determined by one-way ANOVA and confirmed by a Tukey test. Fishes with higher weights showed better yields in both species. In Curimata the difference was not greater than 0.6%, while in Tambaqui reached 1.94%. The Yields stablished in this work the purchasing process of food institutional market in Tocantins, Brazil. This market are a great opportunity to generate income for small fish farmers/fishermen, adding value to fish, even those individuals that have not reach the most common commercial sizes in Brazilian market.

Table 1. Yields in different classes of weight of Tambaqui and Curimata clean carcass.

Group	Yield (Mean±SE)
Tambaqui (0.7-1.0 kg)	46,31±1,13
Tambaqui (1,0-1.3 kg)	48,25±0,38
Curimata (0.5-1.0 kg)	49,84±0,32
Curimata (1.0-1.5 kg)	50,44±0,27