Development Of A Complement For Animal Feeding From Microalga *Chlorella* Sp Biomass

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Abstract

This work had as objective to cultivate the microalga *Chlorella* sp., and use their freeze-dried biomass to produce a fish feed supplement, comparing the characteristics of microalgal biomass with a commercial fish feed. After the culture, separation and lyophilizing process for preservation of the samples, characterization tests were carried out, such as proteins, lipids, ashes, moisture, carbohydrates and biological assays. The physical-chemical tests were carried out on the micro-algae *Chlorella* sp., in the diet for pure fish (Bottom Fish), and in mixtures of fish feed with the microalgae *Chlorella* sp. in different proportions. An increase of the protein content by 0.83% and the lipid content of 239.47% was observed. There was a decrease of 6.97% in the carbohydrate content, as well as in the ash and moisture content, which were 34.65% and 24.26%, respectively, in the substitution of 50% of microalgae in the feed composition. As fish demand a higher protein demand for their development than the other animals, the greater protein growth is measured when a microalga is incorporated. The *Chlorella* sp. presents as a promising complement for fish feed presenting a crude protein content of 36.9%.

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