

22<sup>nd</sup> Euro-Global Summit on

# Food and Beverages

February 28-March 01, 2019 | London, UK

## Spirulina pudding for school meals in Brazil: Determination of nutritional composition

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Spirulina is a microalga that has been widely studied and marketed in the recent years due to its nutritional composition. This photosynthetic microorganism presents in its composition proteins (up 70%), lipids, polyunsaturated fatty acids, vitamins (including B12), pigments and phenolic compounds. Aiming school meals nutritional improvement in Brazil, they developed spirulina chocolate pudding and evaluated its proximal composition. The ingredients were selected according to the literature and with similar products on the market. Tests with different concentrations of these ingredients were carried out until obtaining a product with the desirable characteristics. The content of proteins (Kjeldahl), lipids (soxhlet), ash and moisture (Association of Official Analytical Chemists – AOAC) and carbohydrate (by difference) was determined. These analyzes are being carried out in triplicate, in pudding formulations with or without spirulina addition. The results obtained are analyzed using Variance Analysis (ANOVA), followed by Tukey test for comparison between means, with a confidence level of 95% ( $p < 0.05$ ). Subsequently, the nutritional composition of the finished pudding was determined. The best formulation contained sugar, cocoa powder, thickener, starch, flavoring, salt, dye, lecithin and spirulina dried biomass. The spirulina addition in the pudding formulation had improved the protein content of this product. In this way, it will be possible to increase nutritionally puddings for school meals in Brazil, which may help to reduce malnutrition cases.

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