



**DEVELOPMENT OF EDIBLE COATING WITH *SPIRULINA PLATENSIS*
AND BY-PRODUCTS OF CASSAVA AND ORANGE**

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ABSTRACT

The use of by-products from orange and cassava processing and the *Spirulina platensis* biomass was studied to prepare edible coating, using a Simplex-Centroid design. The formulations were evaluated regarding physical, optical, solubility and barrier properties. There was no significant difference among the samples in relation to water activity, grammage and swelling in acid solution (30 min) ($p > 0.10$). The addition of *S. platensis* caused lower rates of swelling in NaHCO_3 solution. The cassava bagasse incorporation affected positively the density, which can be related to the starch content of this by-product. The ternary mixture of the components studied had the highest values for the color parameter a^* . The results showed potential application of the films produced in dehydrated and green products.