



## Evaluation of fungal spoilage in strawberries using raw plant extract

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### ABSTRACT

Strawberry is a highly perishable fruit and is responsible for numerous physical and chemical changes that contribute to the development of microorganisms. The use of plant extracts has been studied as an alternative for the control of spoilage microorganisms, responding to the expectation of the population that has sought a healthier way of life through the consumption of products without pesticides. The fungus *Botrytis cinerea* is a facultative pathogen of vegetables, which can affect all stages of the development of several fruits. Catuaba, guarana, sibipiruna and barbatimão are plants found in the Brazilian flora and have shown active characteristics of their extracts. The objective of this work was to apply extracts of these species, associated with a biodegradable film, in strawberries, to evaluate their conservation. The fruits were evaluated for weight loss, pH variation, titratable acidity, soluble solids and color parameters. In general, there were significant differences between the extract samples and the control sample for mass loss. pH, titratable acidity and soluble solids maintained the same significant mean between samples. In the color parameters, the luminosity

was highlighted throughout the days, as well as the red of the strawberries was also more pronounced, with the exception of the barbatimão extract. It was possible to conclude that the coated strawberries were efficient to maintain the physical characteristics of the strawberry in relation to its conservation.

### BIOGRAPHY

Márcia Regina Ferreira Geraldo Perdoncini has completed her PhD at the age of 36 years from State University of Maringá. She has published 15 articles in journals and 79 papers in conference proceedings. She has 5 book chapters. She is a professor of microbiology and biochemistry for the Food Engineering, Food Technology and Chemical Engineering course at the Federal University of Technology of Paraná.

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