INFLUENCE OF POTATO STARCH AND ASCORBIC ACID IN THE EXTENDING OF SHELF LIFE
OF Niagara Rosada GRAPE

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The gas transfer, moisture and the micro-organism actions are some factors that contribute to shelf life
reduction of many foods during post-harvest storage. As a result, there is an increased interest in the
development of edible coatings with the purpose of reducing the damage caused to food. Thus, in
order to study the effects of potato starch and ascorbic acid in the shelf life of Niagara Rosada grape,
the fruits were coated with potato starch (1 and 3%) with and without the addition of ascorbic acid
(0.5%) and stored under refrigeration (3 ± 1 °C) for 21 days. For comparison, uncoated grapes were
stored under the same conditions. The fruits were analyzed for soluble solids (° Brix), color (lightness,
a* and b* Chromas), pH, titratable acidity (TA g 100g⁻¹), firmness (N) and weight loss (%). The lowest
concentration of soluble solids, at the end of storage, was found in grapes without coverage (15.0°
Brix). Grapes covered with 3% starch were observed reduction in firmness values and higher
intensities of red and yellow colors (increase in a* and b* Chromas). The use or not of coatings had no
significant effect on the acidity and pH of fruit, with a decrease in acidity followed by an increase in pH
for all treatments. The lowest recorded mass loss occurred at the end of storage in fruits covered with
1% starch and ascorbic acid (5.2%), resulting in an increase of 7 days in the shelf life of Niágara
Rosada grape.