

## CHEMICAL ANALYSIS PINEAPPLES TREATED WITH YEAST ANTAGONISTS AND SUBSTANCES GRAS

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### ABSTRACT

The production of pineapple in the State of Tocantins covers large producers with more than a million seedlings planted and small farmers with less than one hundred thousand. The physical and chemical characteristics of the fruit are of fundamental importance to the definition of post-harvest handling techniques, as well as for the good acceptance of the product by the consumer. To study of the fruit qualities, can be adopted various parameters, whether physical, such as weight, length, diameter, shape, color and firmness; are chemicals such as soluble solids, pH, titratable acidity and others. Chemical parameters were analyzed pineapples treated with three separate antagonistic yeasts pineapples, here described as 191, 256 and 257, a strain of *Saccharomyces cerevisiae* (905) and GRAS substances in place of fungicide in crops of a small 2015/1 producer City Miranorte - TO. The pineapple plantation was divided into 14 treatments, fungicide, water, 1% sodium bicarbonate, 5% calcium chloride, only yeast antagonists, associated with the yeast GRAS only *Saccharomyces cerevisiae* 905 and 905 *S. cerevisiae* associated with the GRAS. Each treatment were randomly collected 15 fruits. The fruits were peeled, chopped and ground for chemical analysis. Statistical analysis was performed using the Tukey test with <0.5% significance. The total soluble solids (SST) performed in the range 13.7 to 14.9 ° Brix, and the fungicide treatment the most valuable and treatment with 256 yeast baking soda associated with the lowest value. There were differences between the means of this parameter only treatment with yeast. The pH ranged between 3.35 and 3.89, no difference between the means of treatments with fungicide, water and calcium chloride 5%. The total titratable acidity (TTA) showed levels of 0.39 citric acid to treatment with sodium bicarbonate 1% and 0.57% citric acid for fungicide treatment, with differences only in average these treatments. Given the results, it was observed that the fruits treated fruits antagonists yeasts and GRAS substances kept the same standard chemical characteristics of fruits treated with fungicide. That is, such fruits are of good quality and are within the minimum standards required for marketing and consumption *in natura*.

**Keyword:** pH, titratable acidity, soluble solids, sodium bicarbonate, calcium chloride.