

Varieties Resistant to Black Leaf Streak with the Potential for Jams Processing

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Varieties used in the banana jams agro-industry mostly belong to the Cavendish subgroup and are highly susceptible to black leaf streak. The

objective of this study was to compare the physico-chemical and sensory characteristics of banana jams processed with varieties resistant to black leaf streak to those made with the traditional variety 'Grande Naine'. The following variables were evaluated: pH, total titratable acidity, soluble solids, total solids, yield, total sugars, reducing- and non-reducing sugars, humidity, water activity, firmness, adhesiveness and colour. A multi-sample difference test was used for the sensory analysis. There were no differences among the treatments for total soluble solids, total solids, humidity, brightness and yellow intensity. The total titratable acidity and reducing sugars were superior in the products obtained with resistant varieties. The non-reducing sugars in the products produced with 'Bucaneiro', 'Calipso', 'Thap Maeo', 'FHIA-18' and 'FHIA-02' were inferior compared to 'Grand Naine'. The firmness of the products from 'Thap Maeo', 'Caipira' and 'FHIA-18' was superior to the 'Grand Naine' product. The highest adhesiveness was found in product from 'Caipira' and the highest red intensity in 'Thap Maeo'. The sugars were the variables responsible for the great diversity. In the cluster analysis, the product made with 'Grande Naine' was close to the product from 'Caipira', 'Ambrosia', 'Calipso' and 'Bucaneiro'. 'Thap Maeo' was the most distant variety in relation to the traditional variety. The tasting-panel judges did not notice any significant differences in flavour from the jams produced with 'Bucaneiro', 'Calipso', 'Thap Maeo' and 'FHIA-02' in comparison to the control sample. 'FHIA-18' presented a performance slightly superior to the traditional variety. Based on the results, some black leaf streak-resistant banana varieties can be recommended for the production of jams with the same or superior quality as 'Grande Naine'.