APPLICATION OF PINHÃO ACID THINNED STARCH AS FAT REPLACER IN CAKES

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The Araucaria angustifolia seed, named pinhão, is consumed in the south Brazil mainly in its native form. The lack of diversity in relation to its consumption entails crop surplus and its use as animal feed, which reduces the commercialization price of the product. The pinhão seed is composed of 34% of starch and a very low content of lipids and proteins, being a very good source of starch. The starch modification, on the other hand, has allowed the food industry to develop more suitable products to different processing parameters, and even the replacement of part of the formulation fat content, due to the use of acid thinned starch. This study evaluated the use of pinhão acid thinned starch as a fat substitute in cakes. For this purpose, cakes were prepared with different percentages of fat replacements (0, 15, 30 and 45%) by acid thinned starch, being subsequently analyzed in terms of specific volume, texture, color, appearance, flavor and overall acceptability. During the storage period (14 days), the volume of all cakes decreased due to the starch retrogradation and moisture loss (without significant difference (p >0.05)). The cakes did not differ significantly from each other neither with respect to texture, nor in relation to the color (L*). As for the sensorial analysis, there was no significant difference (p >0.05) among the samples in relation to flavor and overall acceptability. However, in terms of appearance, the cakes with 30% and 45% of fat substitution had significantly lower scores.