RESEARCH REGARDING THE INFLUENCE OF THE FLOUR SORT ON THE TEXTURAL, PHYSICO-CHEMICAL AND SENSORY PARAMETERS OF SOURDOUGH BAKERY PRODUCTS

Otilia Cristina MURARIU[1], Petru Marian CÂRLESCU[1], Florin Daniel LIPȘA[1], Adnana Gabriela SANDU[1], Florin MURARIU[1], Carmen Daniela PETCU[2], Oana-Mărgărita GHIMPEȚEANU[2]

e-mail:ghimpe_marga@yahoo.com

Abstract

The structural, physico-chemical properties and sensory characteristics of sourdough bakery products represent important quality indicators that may be modified adue to changes in the process and parameters for products obtaining. The main role of sourdough used in the process of bakery products obtaining, consists on the fermentation process achievement, through the metabolism of sugars by the enzymatic action of sourdough and the release of CO_2, alcohols and other secondary products. Natural sourdough differs mainly from compressed yeast in that the fermentation process in natural sourdough involves a slow process, called lactic fermentation, described as an anaerobic process in which organic substances are transformed into lactic acid by the action of microorganisms, whereas compressed yeast enriched with yeasts of the *Saccharomyces cerevisiae* genus, involves a rapid process of alcoholic fermentation. The main purpose of the present research was to identify the influence of the flour sort on the quality of natural sourdough and on the textural, physico -chemical and sensory properties of the sourdough bakery products. Thus, two type of natural sourdough were obtained, respectively m_1 – with superior flour (000 type) and m_2 – with white flour (650 type) + wholemeal-flour (1350 type). The two types of sourdough were integrated into the recipes for the five experimental variants of bakery products, as follows: $m1_{650}$; $m1_{650,000}$; $m1_{000}$, $m1_{650,1350}$; $m1_{000,1350}$; $m2_{650}$; $m2_{650,000}$; $m2_{000}$, $m2_{650,1350}$ and $m2_{000,1350}$. The results of the research in terms of sensory evaluation are revealed that the variant $m1_{650,000}$ was the most appreciated for most characteristics.

Key words: sourdough bakery products; sensorial characters; porosity