Variation fat content in terms of starter cultures added in the preparation of ardelenesc raw and dry sausage

F. Berbentea, Crina Berbentea, L. Georgescu, I. David, A. Rinovetz, G. Bujanca, Lia Micula, M. Danci

Abstract
In the fermentation of the analysed products, lipids degradation implies: cleavage of fat because of the specific enzymes in the raw and auxiliary materials; a cleavage of fats due to cleavage activity of spontaneous micro-flora of sausage and of raw sausages, or due to added micro-flora of lactic bacteria as starter cultures (Pediococcus pentosaceus and Microccocs varians). In this paper it was marked the way in which fat in Ardelenesce sausage is influenced in time by the presence of starter cultures of lactic bacteria in sausage meat paste.

Keywords: Ardelenesc raw and dry sausage, starter, fat

1. Introduction
Since always the insurance of alimentation has been one of the vital problems of mankind. It is said about food that it represents a “necessity which gives rise to everything else”.

In order to have healthy diet, the quality of raw material is critical, as in the end this not only that transfers all its calories to the product, but it transfers also other substances.

In a spiritual way, meat is considered to be “the covering of the unknown”. Biologically and technically speaking, meat stands for the muscular tissue of the sacrificed animal.

The preservation is the way in which people interfere in alimentation in order to prevent spoilage and to maintain food organoleptic and nutritional qualities as long as possible.

2. Materials and methods
Starting from the need of having a healthy diet, we made a Ardelenesce raw and dry sausage containing 20% fat, used different concentrations of starter cultures (0 - 2.5%), and made physical-chemical and microbiological research for 115 days.

The measurement of fat was made through extraction using organic solvents (for the free fats) and hydrolysis and organic solvents (for total fats).

3. Results and Discussions
From the data given in the next table it can be noticed that during the storage time there is not a great difference (a small decrease) of fat content. The cleavage of fat occurs especially during maturation (until the number of micrococci inside goes down).
The consequences of lipids cleavage on the quality of Ardelenesc raw and dry sausage are: an increase in the acidity of product through free fatty acids and through the formation of flavour compounds that contribute to the general flavour quality of fermented product.

4. Concluzion

In Ardelenesc dry and raw sausage’s case, (20% fat), this decreases by 0,97% in the case of the sample without starter culture, 0,98% in the case of the samples in which 0,5 / 1% starter culture was added, and in the case of sausage samples with over 1,5% starter culture, the percentage of fat cleavage overpasses 0,99%.

From the experimental data we can see that the least loses are in the case of using a starter culture concentration of 0,5%. All the obtained data are framed between the operated standard limits.
References


Association of Analitical Chemists,(1997), Official Methods of Analysis.


