



## OBTAINING AND EVALUATING THE QUALITY OF THE PORK SAUSAGES WITH VEGETABLE OILS ADDITIONS

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**Abstract:** The aim of this work was to obtain, in the household, the ordinary and with vegetable oils additions pork sausages and to evaluate their sensory and nutritional characteristics. Cooked sausages are traditional meat products, mainly elaborate with pork lean and fat, salt, garlic, sugar, nitrite, and different spices [1]. The results of sensory evaluation shown small differences between the three analysed products, the variation range being between 4.67 and 4.33 points from five. The best result (4.67 points from five) has noticed for THmS, followed by SHmS with 4.43 points from five and OHmS (4.33 points from 5).

**Keywords:** health, fat replacement, olive, soybean, nutrition

### • Introduction

Fat and/or cholesterol content are major concerns in processed meat products [2], and many consumers are aware of the health risks due to high intake of animal fat. The increasing concerns for healthier meat products have given rise to the reformulation of this type of products [3]. It means a change in favor of unsaturated fats, increasing the intake of polyunsaturated fatty acids, especially n-3 fatty acids at the expense of n-6. Olive oil is characterized by low saturated fatty acid content (< 23%) and high unsaturated fatty acids in its composition (> 71%), oleic being the major fatty acid (> 63%) [4]. This fatty acid has beneficial properties for human health, associated with reducing the risk of cardiovascular diseases. In addition, the presence in its composition of important amounts of tocopherols, especially  $\alpha$ -tocopherol, and polyphenols makes it a perfect substitute for animal fat in meat products, even improving their shelf-life [5].

### • Material and method

Three types of homemade sausages were obtained: traditional (THmS), with soybean oil (SHmS), and with olive oil (OHmS). Vegetable oils replaced 5% of the amount of meat in the recipe. In order to estimate the quality, the samples obtained were evaluated from a sensory and nutritional point of view.

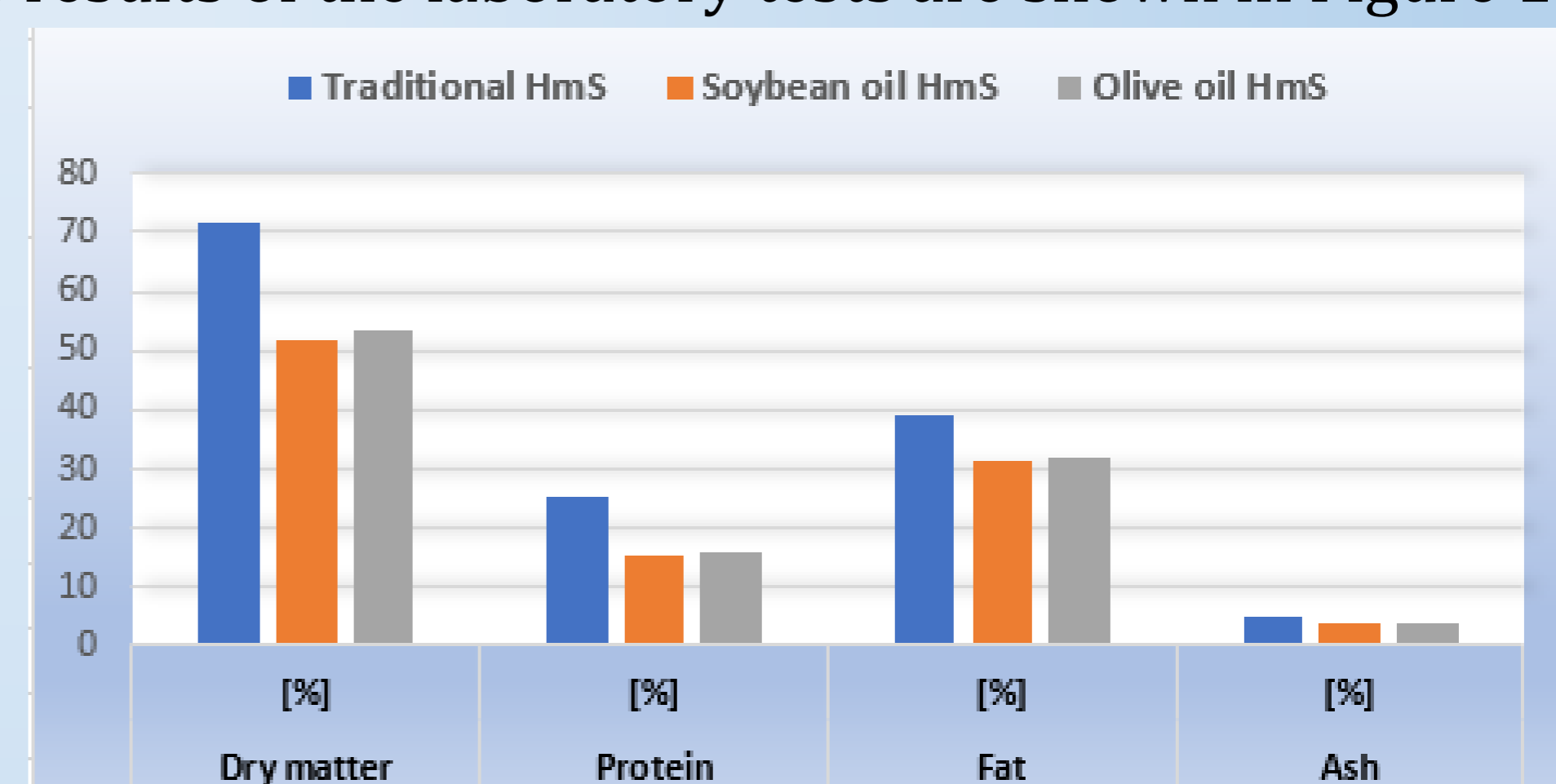
**Conclusions:** Traditional homemade sausages were more appreciated, compared to those with the addition of soybean oil and olive oil, as evidenced by the very high average (4.66) obtained at the sensory assessment. However, it is worth mentioning the intake of unsaturated fatty acids, beneficial for the body, brought by replacing part of animal fats, fats that can be harmful.

### References

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### • Results and discussions

The results of the laboratory tests are shown in Figure 1.



The nutrient content of the samples varies within fairly wide limits. Sausages with soybean oil have the lowest values, for all the characteristics analyzed. Thus, SU (51.6%) is lower by 1.6 percentage points compared to those with olive oil (53.2%), respectively by 20 percentage points compared to traditional sausages.

In the case of fats, the range of variation is between 31.3% in sausages with soybean oil and 39.3% in traditional ones. Sausages with olive oil have a fat content of 32.0%.

The protein content of the samples ranges from 15.3% in soybean oil sausages to 25.3% in traditional sausages. Sausages with olive oil occupy an intermediate position, having 15.7% protein, but being much closer to those with soybean oil.

The highest content of mineral substances is obtained for traditional sausages (5.1%), followed by those with olive oil (3.9%) and those with soybean oil (3.6%).