

Յայստանի ազգային
ագրարային համալսարանի

**ՏԵՇԱԳԻՐ
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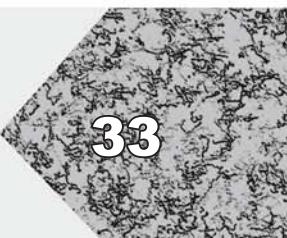
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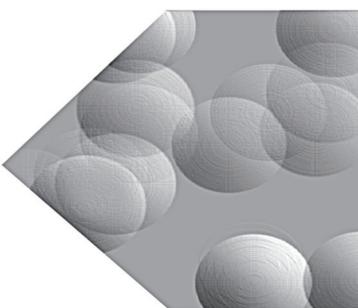


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International Scientific Journal

**TECHNOLOGY
OF PROCESSING
AGRICULTURAL
PRODUCTS**

Технология переработки с/х продуктов



ՅԱՐԱՒԻ ՓԱԹԹԱՎՈՐՄԱՆ ՀԱՄԱՐ ՊՈԼԻՄԵՐԱՅԻՆ ՆՅՈՒԹԵՐԻ ԸՆՏՐԻԿԱՅԻՆ

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Հայաստանի ազգային ագրարային համալսարան

Ա. Դիլոյան

Թեմնֆլ Համալսարան, ԱՄՆ

Ուսումնասիրվել է տարբեր տեսակի փաթեթավորման նյութերի ազդեցությունը ծիրանի պահպանման վրա:
Փաթեթավորման համար օգտագործվել են ծակոտկեն և ոչ ծակոտկեն պոլիէթիլենային և պոլիպրոպիլենային թաղանթներ: Լավագույն արդյունքները ստացվել են ծիրանները ծակոտկեն պոլիէթիլենային փաթեթմերով պահպանելու դեպքում, որոնց շնորհիվ ծիրանների զգայարական ցուցանիշները 30 օրվա ընթացքում մնացել են անփոփոխ:

ПОДБОР ПОЛИМЕРНЫХ МАТЕРИАЛОВ ДЛЯ УПАКОВКИ АБРИКОСОВ

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Исследовалось влияние различных видов упаковочных материалов на сохранность абрикосов. В качестве упаковки были использованы перфорированные и неперфорированные полиэтиленовые и полипропиленовые пленки. Оптимальные результаты были получены при расфасовке абрикосов в перфорированные полиэтиленовые пакеты, благодаря которым органолептические показатели фруктов оставались неизменными в течение 30-и дней.

UDC:637.523(479.25)

EVALUATION OF THE PHYSICO-CHEMICAL INDICES OF SAUSAGES SOLD IN YEREVAN

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Keywords: sausage, moisture, protein, fat content

Use of sausages as a processed meat product and a food component has been identified with different and diverse cultures around the world dating back many centuries (Akpan, 2017; Essein, 2003). Meat processing, particularly sausage production, around the world, as well as in Armenia, experienced great development in recent years.

Sausages are products in which fresh comminuted meats are modified by various processing methods to yield desirable organoleptic and keeping properties (Animal production and health: Paper 52: Small-scale sausage production, 1985). According to Customs Union Technical Regulation on Meat (2013) sausage item is a meat product manufactured from the mixture of minced meat and non-meat ingredients shaped in a sausage casing, pouch, mold, mesh or otherwise, subjected or not subjected to heat treatment until the ready-to-eat condition is achieved.

Sausage formulation is always a compromise between the expected quality of the finished product, the cost of raw materials and the techniques applied. The major concern of meat processing is the development of safe sausage products through the rational use of raw materials and adequate processing methods (Abdolghafour & Saghir, 2014). Therefore, it is essential to produce sausages of the highest quality.

There are many factors that interfere with the sausage quality. Ingredients, food manufacturing practices and prohibited changes in the composition constitute some of these factors (Ferrari & Torres, 2002). The control of moisture, fat and protein is difficult due to the fact that it is not possible to obtain high degree of uniformity in the lean and fatty meat ingredients in various sausage formulations (Animal production and health: Paper 52: Small-scale Sausage Production, 1985; Mallika & Prabhakar, 2011). The sausage producer should control these variations in the sausage mix in order to obtain a more uniform finished product which, obviously, will have more appeal from the customer's viewpoint.

Taking into consideration the aforementioned information, the objective of this study were to evaluate some physico-chemical indices (moisture, protein, fat) of sausages sold in different food markets of Yerevan.

In this study, which is supported by the RA MES State Committee of Science, in the frames of the on-going research project № 16YR-4A038, only the current data for heat treated, semi-smoked and raw-smoked sausages are presented.

Sausages examined in this study were selected randomly from 7 different producers from Yerevan food markets. Totally 9 types of sausages were sampled into labeled food containers and then transported to the Laboratory of the Center for Ecological-Noosphere Studies (CENS) of NAS, RA. The detailed information about sampled sausages is presented in the Table.

Table. Samples of Sausages Collected from Yerevan Markets

Producing companies	Sausage types	Sample code
“Atenk” Ltd.	“Germanakan” (heat treated)	E3
“A. Bilian” Ltd.	With olives (heat treated)	E9
“Elit Prod” Ltd.	“500 dram” (heat treated)	E6
	“Katnayin” (heat treated)	E7
“AR Delikates” Ltd.	“Slivochnaya” (heat treated)	E15
	Servelat “Shvetsarakan” (semi-smoked)	E18
“Bari Samaratsi” Ltd.	“Gyumri” (semi-smoked)	E2
“Tsaritsino” Ltd.	“Salami” (semi-smoked)	E17
“Natali Farm” Ltd.	“Pikant” (raw-smoked)	E13

The moisture, protein and fat contents were determined in the sausage samples. Moisture and fat contents were determined according to the methods explained by GOST 9793-74 and GOST 23042-86 standards respectively. The analysis of the protein content was done using Kjeldahl method. The measurement of pH of sausage samples was done according to the reference method set by GOST R 51478-99 standard.

Data on analyses of physico-chemical indices of the sausage samples are provided in the Figure. The highest share of moisture (66.8%) belongs to heat-treated sausage sample E9 (“With olives”, A. Bilian Ltd.), the lowest (18.2%) – to E13 (“Pikant”, Natali Farm Ltd.) of semi-smoked sausage. The highest share of protein (14%) falls on E13 and E9, the lowest (8.8%) – on heat-treated sausage sample E7 (“Katnayin”, Elit Prod Ltd.). The highest share of fat (17.2%) belongs to E13, the lowest (12.3%) – to heat-treated sausage sample E6 (“500 dram”, Elit Prod Ltd.).

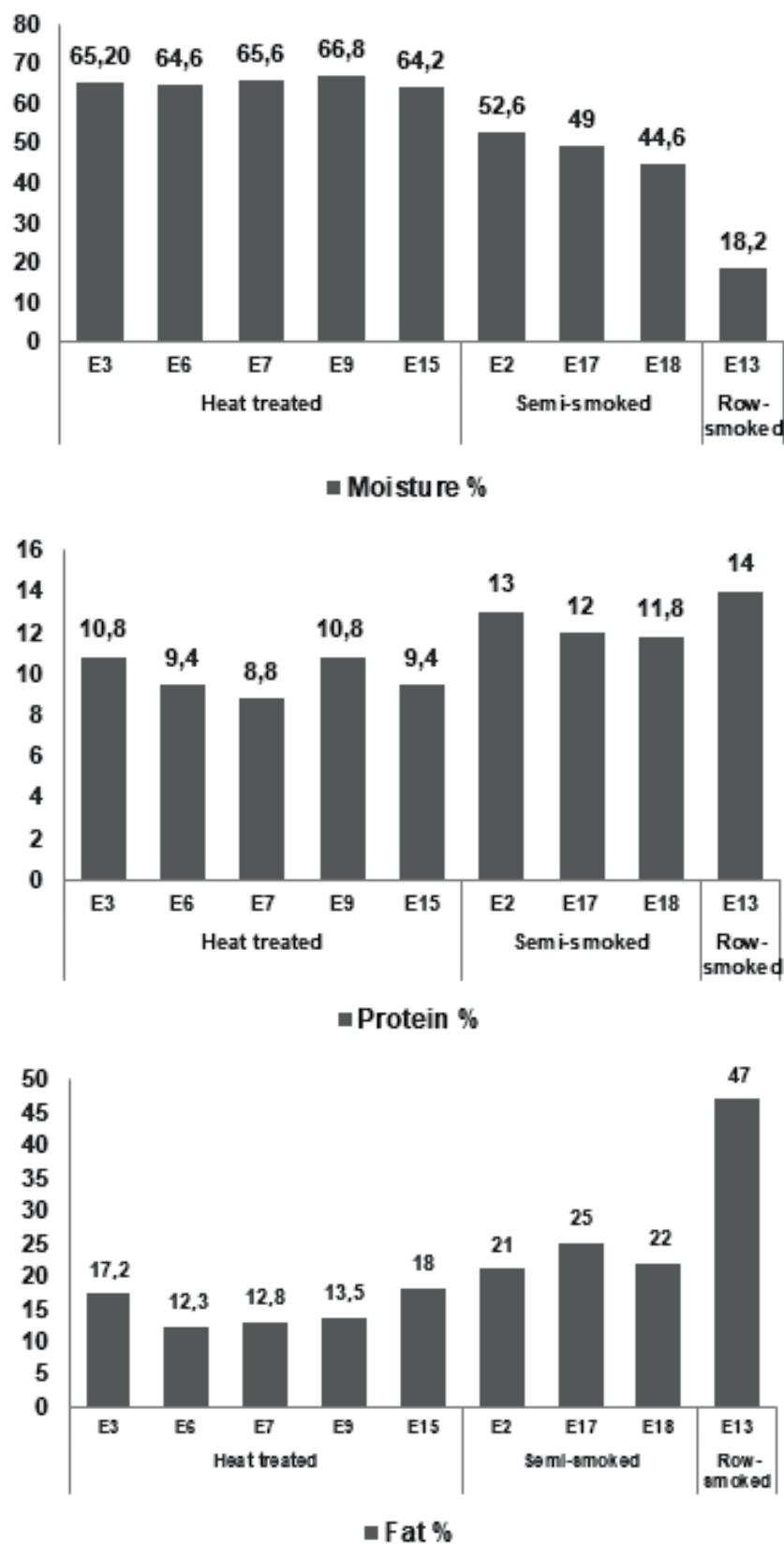


Figure. Physico-Chemical Indices of Heat-Treated, Semi-Smoked and Row-Smoked Sausage Samples

In the heat-treated sausage samples (E3, E6, E7, E9) the share of moisture is 65.2-66.8 %, protein 8.8-10.8 %, fat 12.3-17.2 %, pH varying 5.4 to 5.9. In semi-smoked sausages (E2, E17, E18) the share of moisture is 44.6-52.6 %, protein 11.8-13 %, fat 21-25 %, pH varying 5.82 to 6.1, in a raw smoked sausage sample (E13) the share of moisture is 18.2 %, protein 14 %, fat 47 %, pH 4.48.

Collating between literature data and those obtained in this research shows that physico-chemical indices of heat-treated sausage samples fully agree with the accepted physico-chemical indices; the exception is E7 in which the share of protein is 8.8% (Lykhacheva & Yusofa, 2009, GOST R 52196-2003). Physico-chemical indices of almost all semi-smoked sausage samples also meet the mentioned GOST requirements (GOST R 52196-2003). Exceptions are samples E2 ("Gyumri", Bari Samaratsi Ltd.) and E18 (Servelat "Shvetsarakan", AR Delikates Ltd.) the share of fat in which (21 and 22 %, respectively) do not meet the requirements set by GOST 31785-2012 standard (GOST 31785-2012). The share of moisture in a raw smoked sausage sample disagrees with the accepted standard (GOST 16131-86).

The obtained data enable us to conclude that according to physico-chemical indices sausages sampled from Yerevan food markets mostly comply with respective values provided by literature sources.

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ԵՐԵՎԱՆԻՒՄ ԻՐԱՑՎՈՂ ԵՐՇԿԱԿԱԵՐԻ ՖԻԶԻԿԱՔԻՄԻԿԱԼ ՑՈՒՅԱՄԻՇՆԵՐԻ ԳՆԱՀԱՏՈՒԸԸ

Դ. Ա. Պիպոյան, Մ. Ռ. Բեգլարյան, Ա. Ս. Յովհաննիսյան, Ա. Ս. Աբրահամյան
ՀՀ ԳԱԱ Եկոլոգանոռսթերային հետազոտությունների կենտրոն

Հետազոտության նպատակն է գնահատել մսամբերը արտադրող 7 ընկերությունների կողմից արտադրված և երևան քաղաքի վաճառակետերում լայն իրացում ունեցող երշկեղենի (եփած, կխասապիտած, հոլմ ապիտած) ֆիզիկաքիմիական ցուցանիշները (սպիտակուց, ճարպ, խոնավություն, pH): Հետազոտության արդյունքները ցույց են տվել, որ ուսումնասիրված երշկեղենում սպիտակուցի, ճարպի և խոնավության պարունակությունը ընդհանուր առմանք համապատասխանում է ներկայացվող պահանջներին:

ОЦЕНКА ФИЗИКО-ХИМИЧЕСКИХ ПОКАЗАТЕЛЕЙ КОЛБАС, РЕАЛИЗУЕМЫХ В ТОРГОВОЙ СЕТИ ЕРЕВАНА

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Цель исследований – оценка физико-химических показателей (массовая доля белка, жира, влаги и pH) качества вареных, полукупченых и сырокупченых колбасных изделий, производимых семью местными компаниями и широко реализуемых в торговой сети Еревана. Исследования показали, что в целом образцы колбасной продукции по вышеуказанным показателям соответствуют предъявляемым требованиям.

UDC:663.25(479.2)

PERSPECTIVES OF DEVELOPMENT OF TERROIR WINE-MAKING IN THE REPUBLIC OF ARTSAKH

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Keywords: soil, soil composition, location (exposition), height, grape, varieties, yield, wine materials

During the production of locally or so-called terroir wines, climatic conditions of grape vineyards are more important with technical capacities of white and black grape varieties associated with soil composition, soil location and climatic features. The Republic of Artsakh with its mild climate is considered a very favorable zone for the development of viticulture and winemaking. Our task is to explore and find favorable places for local grape varieties to effectively produce such wines.

White grape Banants, Kangun and black fruit Khndoghni (Shireni) varieties growing in Artsakh were purchased for the study. During the maturation phase, the ratio of grape sugar content to titrated acid has been studied. Sugar content was determined by refractometric method. Must clarification was made using cold and enzymes, for the production of the white wines the fermentation was carried out with the use of French Laforth's X16 dry active yeasts at temperatures of 12-15 Celsius. The FX-10 dry active yeasts produced by the same French company are used during receiving of the experimental red wines with squash fermentation temperature at 25-28 Celsius. The contents of strong, titrating acids, and volatile acids, extracts, free and total SO₂ contents were determined by the methods adopted in enochemistry. Organoleptic research has been done with a 10-point scale.