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Faculty of Food Processing, Banat's University of Agricultural Sciences and Veterinary Medicine "*King Michael I of Romania*" from Timişoara
Association of Specialists from the Food Industry of Romania (A.S.I.A.R.) – Timisoara branch
Association for Multidisciplinary Research from the Western Zone of Romania (ACM-V)
Student League – „AGROWEST"

General Programme

The 2nd Student Conference:
„Life Sciences – Food Processing"

May 24, 2017

15^{00} – 15^{15} Registration at the Faculty of Food Processing

15^{15} – 15^{30} Opening of the Conference

15^{30} – 17^{00} Posters

17^{00} – 17^{30} Coffee break

"Ionel Jianu" Amphitheatre - Faculty of Food Processing
Banat's University of Agricultural Sciences and Veterinary Medicine
"King Michael I of Romania" from Timişoara

Scientific Programme
24 May 2017

The 2nd Student Conference: „Life Sciences – Food Processing"

"Ionel Jianu" Amphitheatre - Faculty of Food Processing
Banat's University of Agricultural Sciences and Veterinary Medicine
"King Michael I of Romania" from Timişoara

15^{00} – 15^{15} **Registration at the Faculty of Food Processing**

15^{15} – 15^{30} **Opening of the Conference**

Prof. Dr. Eng. Adrian RIVIŞ, *Dean of the Faculty of Food Processing Banat's University of Agricultural Sciences and Veterinary Medicine "King Michael I of Romania" from Timişoara*

15^{30} – 17^{00} **Posters**

Section I: Food Technology

Section II: **Food control**

Section III*:* Food science

17^{00} – 17^{30} **Coffee break**

POSTERS

Student Conference: „*Life Sciences – Food Processing*"

Section I: Food Technology

P1 Valorification possibilities of zucchini in the food industry. "dulceață de dovlecel folia" – a traditional food product
C.I. Cojocariu Popa, Bogdan Rădoi. - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P2 Case study relating to the equipments used to produce different type of fruit juices
Mia Costea, Teodor Ioan Trașcă - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P3 Minced meat rolls named "mici bulbucan". Traditionality. Technology.
A. Istrate., Bogdan Rădoi - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P4 "BRAGA"- A designation of protected origin
Ramona Andreea Proț, Bogdan Rădoi, Diana Dogaru - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P5 The caracterization of the operation and equipments for packaging of milk. Case studies
Diana Ruscuta, Teodor Ioan Trașcă - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P6 Characterization of yogurt packaging operation and equipment. Functional constructive variants. Case studies
Corina Sferle, Teodor Ioan Trască - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P7 A comparative study between different dairy products in biotechnology for milk processing
Marian Miclăuș, Ioan David - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P8 The consistographic determination of enzyme activity on pasta products
Denisa Coțofană, Ioan David – *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P9 The influence of different dosages of enzymatic preparation in pizza dough
Leontin-Ioan Glava, Ioan David – *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P10 The traditional product "*Cărpinet Cheese Pie*". Study on sensory characteristics and conservation properties
A.Micula, T.I. Trașcă – *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P11 Comparative determinations on ecological bread. Case studies.
S. Ilie, T. I. Trașcă - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P12 Effects of Processing on Some Quality Index for Soy Products
Sergiu Ardelean, Adrian Căpriţă - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P13 Natural Juices Obtained by Cold Press Method
Alexandru Petresc, Adrian Căpriţă - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P14 Evaluation of Nutritional Value of Some Cereal-Based Foods
Ramona Prodan, Adrian Căpriţă - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P15 Characterization of Soluble Dietary Fiber Fraction in Thermal Processed Wheat
Emanuel Lupu, Adrian Căpriţă - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P16 Comparative study regarding physico-chemical properties of pork and beef canned
Denisa Ciobanu, Ileana Cocan, Monica-Viorica Negrea - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P17 Study regarding the recovery of some byproducts from meat industry
Mădălina Filipescu, Ileana Cocan, Monica-Viorica Negrea - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P18 Physico-chemical properties of some meat products with low fat content
Iulia Pascu, Ileana Cocan, Monica-Viorica Negrea - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P19 Influence of antioxidant properties of spices in meat products
Angelo Cadariu, Diana Dogaru, Ileana Cocan - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P20 Physical-chemical properties of pork sausages flavored with caraway seeds (*Carum carvi*)
Andreea Ilas, Diana Dogaru, Monica Negrea - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P21 Study on antimicrobial effect of the thyme (*Satureja hortensis*) on fresh cows' cheese
Ovidiu Obreja, Diana Dogaru, Ileana Cocan - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P22 Studies on nutritional characteristics of some almonds products and by-products
Amalia Andronescu, Daniela Stoin, Ariana-Bianca Velciov - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P23 The Evaluation of the Nutritional Characteristics of Certain Gluten-Free Flours
Cristina-Ramona Metzner, Daniela Stoin - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P24 Effect of chestnut flour on nutritional parameters of gluten free mixtures
Georgiana Bran, Daniela Stoin, Monica Negrea, Luminta Lungu - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P25 Effect of almond flour addition on quality characteristics of gluten-free cookies
Luminita Lungu, Daniela Stoin, Monica Negrea, Bran Georgiana - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

Section II: Food control

P26 HACCP analysis for processing flow of the strawberries with lavander and oranges jam
Larisa Oprean, Călin Jianu - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P27 Dried fruits as sources of essential mineral
Mihai Adamescu, Liana Maria Alda, Ioan Gogoasa - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P28 Determination of bioaccessible quantities of essential microelements of pork meat
Daniela Bistrian, Ioan Gogoaşă, Liana Maria Alda - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P29 The mineral characterization of some vegetables-leaves
Ana-Maria Ivana, Ioan Gogoaşă, Liana Maria Alda - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P30 Evaluation of lycopene content in vegetables
Vasile Paloş, Liana Maria Alda, Ioan Gogoaşă - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P31 Honey as a dietary and mineralizing food
Adriana Claudia Popa, Ioan Gogoaşă, Liana Maria Alda - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Mihai I of Romania" from Timisoara, Romania*

P32 Copper contents in differrent vinegar types from romanian market
Marioara Şandru Bărbulescu, Ioan Gogoaşă, Liana Maria Alda - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P33 The mineral composition of some types of hipoglucidic jam
Cristian Semcici, Liana Maria Alda, Ioan Gogoaşă - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P34 The pork meat sausage as source of trace elements
Eduard Weiss, Ioan Gogoaşă, Liana Maria Alda- *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P35 Recovery of grape seeds oil from winery waste
Irina Andrei, Diana Moigradean, Mariana-Atena Poiana - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P36 Obtaining of natural bioactive extracts from winery waste
Oana Pufu, Diana Dogaru, Mariana-Atena Poiana - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P37 The use of rosehips as a functional ingredient in the processing of chocolate specialties
Roxana-Diadora Gruiescu, Diana Moigradean, Mariana-Atena Poiana - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P38 Obtaining of sunflower oil with enhanced functionality by exploiting the antioxidant potential of tomatoes
Manuela Popeanga, Sofia Popescu, Mariana-Atena Poiana - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P39 The antiseptic effect of a vegetable powder on some meat products
Cosmina Simion, Corina Mișcă - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P40 HACCP analysis of the flow of fruit preserved by adding sugar-cherry jam
Mădălina Frântu, Călin Jianu - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P41 Production and characterization of flavored alcoholic beverages
Luminita Baloi, Mariana-Atena Poiana, Diana Moigradean - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P42 Obtaining and characterization of some vegetable juices
Nicolae-Adrian Mangu, Mariana-Atena Poiana, Diana Moigradean - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P43 Valorization of fruit processing by-products in the chocolate technology
Iasmina Toila, Mariana-Atena Poiana, Diana Moigradean - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P44 Valorisation of horticultural byproducts in the obtaining technology of pasta
Isabela Neamtu, Ersilia Alexa - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P45 Valorisation of horticultural byproducts in the obtaining technology of crumbly dough
Oana Negrea, Ersilia Alexa - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P46 Researches regarding the characterization of functional foods in terms of polyphenols content
Cristina Nicoleta Drăgan, Ersilia Alexa - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P47 Obtaining and characterization of a functional food products with lupine germs addition
Ramona Ghinea, Ersilia Alexa - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P48 Obtaining and characterization of a gemmotherapeutic extract from legumes with functional properties
Roxana Lavinia Danci, Alexa Ersilia - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P49 Quality assessment of pork leg ham
Lavinia Turcin, Mihaela Cazacu, Ducu Ştef - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P50 Improving the salami quality using color
Adrian Iorgovan, Gabriel Bujancă, Ducu Ştef - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P51 Study on the preparation technology of fruit jelly
Madalina Cristina Băişan, Mihaela Cazacu - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P52 The preparation technology of serbet in mixed oil portoculated success
Ionela Berbecaru, Mihaela Cazacu - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

Section III: Food science

P53 Developing the range of functional milk products using symbiotic formulas from natural plant sources
Sabin Radu, Bogdan Petru Rădoi, Diana Veronica Dogaru - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P54 Valorization of by-products from milk
Diana Bumbu, Alice Iosin, Mariana - Atena Poiana, Diana Veronica Dogaru - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P55 Innovative food products based on milk
Cristina Maria Darie, Nicoleta Sabau, Atena-Mariana Poiana, Diana Veronica Dogaru - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P56 Functional beverages ready to drink with high protein content
Adrian Cătălin Vochiţa, Bogdan Petru Rădoi, Diana Veronica Dogaru - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P57 Consumer Food Behavior - Food Safety Indicator
Alexandru Silvian Rada, Atena-Mariana Poiana, Diana Veronica Dogaru - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P58 Study of the obtaining and characterization of aromatized hydromel
Felicia-Antonela Bernat, Alexandru Rinovetz - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P59 Study of bifazic gaz-solid transport operation. Case study
Cosmin Hulea, Alexandru Rinovetz - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P60 Obtaining and evaluating the protective quality of the sea buckthorn (*Hippophae rhamnoides*) jam
Maria Cristina Doandeș, Camelia Moldovan, Delia -Gabriela Dumbravă- *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P61 Fruit jellies without added sugar - obtaining and determining the protective quality
Loredana - Roxana Șogan, Camelia Moldovan, Delia - Gabriela Dumbravă - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P62 Obtaining of some natural juices and assessing their protective quality
Luiza Trăilescu, Camelia Moldovan, Delia - Gabriela Dumbravă- *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P63 The sinergic bioactivity study of some functional antioxidant mixtures with antiageing potential
Andreea Ramona Tiparescu, Despina-Maria Bordean - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P64 The study of the declared lettuce plants origin and their nutritional potential
Adriana Clej, Despina-Maria Bordean - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P65 Study of the synergistic bioactivity of some functional antioxidant mixtures with Anti-Parkinson effect
Alina Ciocan, Despina–Maria Bordean - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P66 Nutritional potential studies regarding the evaluation and valorization of dill, parsley and alliums seeds
Roxana-Loredana Faur, Despina-Maria Bordean - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P67 Evaluation of micro and macro elements in soybeans, barley and sunflower seeds
Mihaela Lacatus, Despina-Maria Bordean - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P68 Technical and economic study of the natural deposit of some vegetal raw materials. Potato.
Codruț Cirsta, Mihaela Cazacu, Bujancă Gabriel - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P69 The technical-economical study of the production of a cooked meat preparation. Pork sausages.
Florian Tasits, Gabriel Bujancă - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P70 The technical-economical study of the production of a cooked meat preparation. Pork baloney.
Bogdan Ruscuța, Gabriel Bujancă - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P71 Technical and economical study of the production of a cooked meat product. Polish pork meat sausages..
Narcis Chițimia, Alexandru Rinovetz, Gabriel Bujancă - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P72 Technical and economic analysis of the introduction of a traditional Banat product into the industrial processing. Spritz-Krofne
Cristian Crișan, Gabriel Bujancă - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P73 Organoleptic and physico-chemical characteristics of Sana beaten milk sold by a supermarket fromTimisoara
Feleagă Andreea, Drugă Mărioara, Moldovan Camelia - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P74 Quality of drinking milk with 2% fat sold in a supermarket from Deva
Maria Moldovan, Mărioara Drugă - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P75 Organoleptic and physico-chemical quality of telemea cheese sold in a supermarket in Timisoara
Roxana Pârva, Mărioara Drugă - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P76 Evaluation of the phytoterapeutic potential of some medicinal plants
Ligia Humeniuc, Antoanela Cozma, Ariana – Bianca Velciov - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P77 Foods of vegetal origin: fresh juices. Physico-chemical and Nutritional aspects
Ana Maria Stoica, Antoanela Cozma, Georgeta-Sofia Popescu - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P78 Appreciation of physico-chemical and nutritional aspects of low-calorie products
Bianca Popa, Ariana- Bianca Velciov, Georgeta – Sofia Popescu - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P79 Appreciation of phytoterapeutic and nutritional value of some types of chocolate with different additions
Carmen Cojocaru, Ariana – Bianca Velciov, Georgeta-Sofia Popescu - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P80 Appreciation of the nutritional value of some chocolate specialties
Răzvan Balas, Popescu Georgeta-Sofia, Velciov Ariana-Bianca - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P81 Nutritional appreciation of some energy bars
Emanuel Trușcă, Velciov Ariana-Bianca, Georgeta-Sofia Popescu - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P82 Nutraceutical and sensory characteristics of certain fruit syrups
Camelia Volintiru, Georgeta-Sofia Popescu, Ariana-Bianca Velciov, Ersilia Alexa - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P83 Obtaining and nutritional characterization of some dietary healing juices
Adriana Todor, Ariana – Bianca Velciov, Georgeta – Sofia Pintilie - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P84 Improve the physico-chemical characteristics of honey by adding different dried fruits
Mihaela Chirculescu, Ariana – Bianca Velciov, Georgeta-Sofia Popescu - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P85 The determination of the microbiological spectrum regarding the raw materials and the final product
Andreea Calutoiu, Corina Dana Misca - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P86 Determination of microbiological load from a thermally prepared meat product
Ana Maria Tripon, Corina Dana Misca - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P87 Isolation of contaminant microorganisms from sweets products
Ioana Alina Pop, Corina Dana Misca - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P88 Evaluation of nutritive properties and antimicrobial activity of the goji jelly
Dorina Cismaru, Corina Dana Misca - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P89 Pumpkin cream – obtaining the product and analyzing it from a organoleptic and microbiological point of view
Ana Maria Moisa, Andrei Rohlicek, Corina Dana Misca - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P90 Bread with walnuts and cranberries - evaluation of the nutritional properties and consumer benefits
Andrei Rohlicek, Ana Maria Moisa, Corina Dana Misca - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P91 Evaluation of some quality indicators in the technological process of obtaining meat products
Marina Nicoleta Măriuță, Adrian Râcu, Cătălin Pârvucică, Amalia Oprea, Vasilica Mădălina Donici, Ramona Cristina Heghedűş-Mîndru, Gabriel Heghedűş-Mîndru - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P92 Obtaining of chicken pate and its developing quality monitoring system
Gabriel Țuțuc, Viorica – Mirela Popa, Diana Nicoleta Raba - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P93 Identification of microorganisms from samples of hand crafted obtained jams
Arina Mitrică, Corina Mișcă - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P94 Quality appreciation of some milk products by assessing some physico-chemical indicators
Vasilica Mădălina Donici, Marina Nicoleta Măriuță, Adrian Râcu, Cătălin Pârvucică, Amalia Oprea, Ramona Cristina Heghedűş-Mîndru, Gabriel Heghedűş-Mîndru - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P95 Food safety management on the technological flow of the halva product
Consuela – Diana Bita, Viorica – Mirela Popa, Diana Nicoleta Raba - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P96 Marketing research regarding the evolution of the untraditional oil market in Romania
Oana – Cristina Niță, Viorica – Mirela Popa, Diana Nicoleta Raba - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P97 Designing and developing a quality monitoring system for a food for diabetics
Paula Țolaș, Delia-Gabriela Dumbravă Camelia Moldovan - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P98 Evaluation of the quality characteristics and nutritional properties of honey with added seabuckthorn
Cristina Crainic, Delia-Gabriela Dumbravă, Camelia Moldovan - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P99 Designing of red beetroot jam and assessing the quality parameters of the developed product
Denisa Nicoară Martinconi, Diana-Nicoleta Raba, Camelia Moldovan - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P100 Evaluation of yeast development (*Saccharomyces cerevisae*) and alcoholic strength levels in brewing beer with beet red juice addition
Cătălin Doru Găman, Aurica Borozan - *Faculty of Horticulture and Sylviculture, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P101 Physical-chemical characterization of some alimentary oils
Emanuel Pop, Antoanela Cozma - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P102 Studies regarding the influence of using the soy sauce on the tenderizig and maturation processes of fresh pork meat
Alexandru Popica, Diana Nicoleta Raba - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P103 Obtaining of some spicy fruit sauce and assessing their quality characterics and nutritional profile
Roxana Martinescu, Diana Nicoleta Raba - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P104 Sensory analysis of some salty Vegan products: "Ecological vegan cream with eggplant and sunflower seeds"
Irina Nina Buzatu, Nicoleta Gabriela Hadaruga, Adrian Riviș, - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P105 Sensory analysis of some sweet Vegan products: "Vegan cream with pumpkin, ginger and oranges"
Adriana Buzatu Nicoleta Gabriela Hadaruga, Adrian Riviș - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P106 Variation of antioxidant activity of roe ethanol-water extracts from commercial sources
Eduard Novak, Dan Ionuţ Vdovicenco, Nicoleta Gabriela Hadaruga - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P107 Fatty acid profile of Prussian carp (*Carassius gibelio*) oil
Adriana-Cristina Floca Nicoleta Gabriela Hadaruga, Sofia Popescu - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P108 Sensory profile of some fresh pork meat-based food products
Florina Larisa Ciul, Adrian Riviș, Nicoleta Gabriela Hadaruga - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P109 Separation, physico-chemical and sensory analyses of orange essential oil
Irisz Erika Nemet, Nicoleta Gabriela Hadaruga - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

P110 Lemon essential oil: separation, GC-MS and sensory analyses
Maria Străuți, Nicoleta Gabriela Hadaruga - *Faculty of Food Processing Technology, Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara, Romania*

POSTERS

***The 2nd Student* Conference:**

„Life Sciences – Food Processing"

Section I: Food Technology

P1

Valorification possibilities of zucchini in the food industry. "dulceață de dovlecel folia" – a traditional food product

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This paper describes the traditional food product "Dulceață de dovlecel Folia" and the posibility to became a registred mark, authorized as a protected designation of origin, at communitary level but also national, according to the national and European legislation. The study fulfill all the aspects needed to create a PDO (Protected Designation of Origin) and the elements wich define the product.

Keywords: Valorification, zucchini, traditional

P2

Case study relating to the equipments used to produce different type of fruit juices

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Fruit juices are those drinks resulted from the extraction or pressing natural liquid contained in fruits. The study presents three technologies for clear fruit juices, with pulp and concentrate juices and comparison between the different equipments.

Keywords: fruit juices, equipments

P3

Minced meat rolls named "mici bulbucan". Traditionality. Technology

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The minced meat rolls from Bulbucan village are a very well-known food product in the County of Hunedoara. The study describes the origin and area of this food product, the raw materials, the recipe, the production technology and equipments, and also presents the phases that would lead to an authorization as a Protected Designation of Origin.

Keywords: meat, mici bulbucan, traditionality, technology

P4

"BRAGA"- A designation of protected origin

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"Braga" is a refreshing drink with a sour-sweet taste, which is obtained by boiling cereals like wheat, barley, rye and maize. „Braga" is cloudy, sticky, with colloid substances in suspension due to the high content of extract with nutrients. Sometimes it has very low amount of alcohol and from fermentation is acidified. It is an excellent source of B vitamins (B1, B2, B3, B6, B12) and vitamins A and E, as well as other nutrients, such as protein, calcium, phosphorus, iron and zinc.

***Keywords**:* braga, protected origin, wheat, barley, rye, maize

P5

The caracterization of the operation and equipments for packaging of milk. Case studies

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The packaging operation assures the protection of the product in all of its stages. Milk is a perishable product, which is packed by machines in boxes, plastic bags or glass packages due to the fact that light exposure has a negative effect on the product, the vitamin is destroyed, the taste of the product is negatively influenced, which is why the package must protect it from light, oxygen and mechanical shocks. The study analyzes all the three types of packaging of milk and differences between them.

Keywords: milk, packaging, equipment

P6

Characterization of yogurt packaging operation and equipment. Functional constructive variants. Case studies

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Packaging is the operation for protecting the product during handling, transport, storage. Yogurt is a fermented milk product. It's made from cow's, sheep's, goat's milk, pasteurized or boiled and seeded with selected crops of lactic bacteria. The purpose of the study is to characterize the diffrent package types for yogurt, the technologies and equipments.

Key words: yogurt, packaging, fermented, lactic bacteria

P7

A comparative study between different dairy products in biotechnology for milk processing

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This study presents a comparative analysis between different dairy products: melted cheese with gorgonzola and melted cheese with mozzarella in biotechnology for milk processing. In general, the gross composition of milk is water, lactose (carbohydrate), fat, protein, and minerals. Cheese comes in many varieties and the main ingredient in cheese is milk. The variety determines the ingredients, processing, and characteristics of the cheese. Cheese can be made using pasteurized or raw milk. Technically speaking, cheese is an emulsion of dairy fat and water, held together by a network of proteins. In cooler temperatures, that dairy fat remains a solid; let it warm to around 90°F and the fat reaches a liquid state and the cheese becomes more pliable. A good melting cheese is determined by how well it can maintain its emulsion when that protein network begins to collapse, this has to do with the ratio of water to fat, as well as the strength of that protein network. The balance of water and fat has to be more or less maintained, otherwise the fat molecules will slip free and draw together. That's why younger, high-moisture cheeses like mozzarella, gorgonzola or brie are such reliable melters, while drier grating cheeses like Parmesan which have already lost much of their moisture to evaporation, often separate into clumps or even break.

Keywords: melted cheese, gorgonzola, mozzarella, emulsion.

P8

The consistographic determination of enzyme activity on pasta products

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This study presents an analysis over the action of carboxyl esterase, enzyme used on dough for pasta and noodles. By using carboxyl esterase polar lipids are formed, acting as emulsifiers and interacting with the gluten as well free unsaturated fatty acids are released, which can be converted by lipoxygenase (contained in flour naturally) resulting in the formation of hydroperoxides, which can act as oxidants and lead to protein strengthening and bleaching (oxidation of pigments). Enyzmatic improvement of pasta and also noodles is challenging due to low water activity and lack of dough rest/fermentation. The consistograph method is used in this study to show the rheological characteristics such as the dough consistency, the dough tolerance, the water absorption capacity of flour and observing changes in the process of kneading dough. Enzyme preparation that contains carboxyl esterase is used to obtain products with improved color and gloss, is also used to reduce drying time of noodles, improve surface appearance and mechanical stability of noodles and pasta, and reduce costs raw material. This positively affects the quality finished products by increasing tolerance to prolonged boiling, the cooked pasta firmness and helps reduce oil absorption of fried instant pasta.

Keywords: pasta, carboxyl esterase, consistographic method

P9

The influence of different dosages of enzymatic preparation in pizza dough

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This study presents an analysis over the action of an enzymatic preparation that contains xylanase, enzyme used in pizza dough. Xylanase works on different parts of the insoluble hemicellulose part of the starch. Xylanase breaks down the linear polysaccharide beta-1,4-xylan into xylose. This releases water and makes it available for gluten hydration. This leads to greater extensibility and stability of dough therefore improving dough machinability and produces greater oven spring and volume. The pizza dough has good consistency and the pizza crust keeps the circular shape after sheeting and baking. Moreover the pizza crust has a crispy texture after baking The alveographic method is used in this study to show the rheological characteristics performed with the Alveograph Chopin. Alveografic test shows the quality characteristics of the flour. Sample XYL1–with 35ppm xylanase presents the best characteristics regarding the dough resistance to deformation, the elasticity index, the configuration ratio of the alveographic curve, as well as for the total quantity of absorbed energy in the dough during stretch in comparison to the other samples. Addition of 35ppm xylanase improves the quality of the finished product, the dough's stability, the elasticity of the gluten chain, increases the warranty period and improves freshness. A higher dose of xylanase leads to very soft and sticky dough, worsening the structure of the core. The absence of xylanase even if it does not influence so much the elasticity of the pizza, it influences negatively the volume and porosity of the core.

Key words: pizza, xylanase, alveographic method.

P10

The traditional product "Cărpinet Cheese Pie". Study on sensory characteristics and conservation properties

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The paper describes the traditional product "Cărpinet Cheese PIE" and the production technology. The study on sensory characteristics and conservation properties compares made with pork fat and pie made with margarine.

***Keywords*:** traditional product, sensory characteristics, Cărpinet Cheese

P11

Comparative determinations on ecological bread. Case studies.

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The paper presents some comparative determinations on the ecological breads marketed in Romania: Schar (gluten free), Cereal Bio, Black bread, Quickbury (sunflower), Quickbury - cereal mix, Cereal Bio (rye). The comparative analyzes involve sensory analyzes through questionnaires and laboratory analyzes.

***Keywords**:* ecological bread, analyzes

P12

Effects of Processing on Some Quality Index for Soy Products

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The way soy and soy derivatives are processed influences the functional and nutritive properties of finished products. Processing contributes in particular to diminishing the quality of the proteins in the products. A valuable indicator in the monitoring of thermal effects is the solubility of the proteins. The influence of some physical factors (grinding, temperature, heating time, pH) on the solubility of proteins was studied. Researches have also been carried out to evaluate the effect of heat treatment on the nutritional quality of soybean meal. The urease index, the protein solubility in KOH, and the protein dispersibility index of toasted and non-toasted flour were determined.

***Keywords**:* soy, protein solubility, urease index, protein dispersibility index

P13

Natural Juices Obtained by Cold Press Method

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Fruits and vegetables are a valuable source of vitamins, minerals, enzymes, dietary fiber and other nutrients which have beneficial effects on health. New researches showed that fruits and vegetables consuming has major benefit in reducing the chance of heart attack, stroke, cardiovascular disease, cancer and early death. The recommended portion of fruit and vegetables for reducing disease risks is 400g a day, but the greatest benefit comes from eating 800g a day. The best way to eat the equivalent of the optimum portion of fruit and vegetables is preparing juice. There are two main ways to make juices: conventional (centrifugal) and cold pressed methods. Centrifugal juicers use a fast-spinning blade to extract juice, while cold-pressers extract juice slowly by first crushing and then pressing fruit and vegetables. In centrifugal juicing, the super-fast blades generate heat, which can destroy enzymes and other valuable phytochemicals. The process also forces air in, starting the oxidation process, which can further compromise nutrients, and produces a lot of foam. The cold-pressing process is slow, does not generate heat, or forced air in, and may also be better at extracting all of the valuable phytochemicals. A cold press juicer will crush the ingredients in order to extract the greatest quantity of juice possible without compromising the nutrient quality. Also, a cold press juicer, unlike a centrifugal juicer, has the ability to process nuts, and it is very quiet. The disadvantage of the cold press juicer is the higher price. So, using a centrifugal juicer is recommended if the obtained juice is used mostly for cooking, baking or other processes where heat will eventually be applied, if getting maximum nutrients is not so important, and if the price is important. Using a cold press juicer is recommended if getting maximum nutrients is very important, if processing nuts, if the quality of the juice obtained is important, and if the price is not so important.

***Keywords**:* natural juices, centrifugal juicers, cold press juicers

P14

Evaluation of Nutritional Value of Some Cereal-Based Foods

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Digestibility of nutrients from a foodstuff is very important for the assessment of its nutritional qualities. There are *in vivo* methods to determine the digestibility, but those methods are time-consuming, costly and rise ethical problems regarding the use of subjects. Therefore, various *in vitro* procedures have been developed that simulate digestion processes and do not have these disadvantages. Experiments were done regarding the digestibility of the nutrients from cereal-based foods, which were subjected to *in vitro* tests. The extent of the digestibility was investigated by measuring the solubility of the dry substance, some bio-physical parameters (such as relative viscosity and refractive index) and by analyzing the reducing sugars released. *In vitro* simulation of gastro-intestinal digestion has been performed in two steps, using pepsine and pancreatine enzimes, involved in the human digestion process.

***Keywords**:* digestibility, nutritional value, cereal-based foods, digestion simulation

P15

Characterization of Soluble Dietary Fiber Fraction in Thermal Processed Wheat

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Cereals are major sources of dietary fiber (DF), which is an important component of food, having beneficial effects in humans. DF consists in non-starch polysaccharides resistant to digestion in the small intestine and fermentable in the large intestine. Wheat contains both soluble (SDF) and insoluble dietary fiber, β-glucan being the main water soluble dietary fiber. Properties of β-glucans have commercial and nutritional importance. Processing based on heating modifies the composition and properties of fibers (including their solubility), resulting in a modification of the water extract viscosity (WEV). Experiments were done to determine the influence of heat treatment of wheat on the soluble dietary fiber fraction, based on the WEV measurement. The obtained data showed a marked influence of the dry heat treatments on the WEV of SDF, and proved the increase of SDF proportion in the total DF with the increasing heat treatment time.

Keywords: dietary fiber, wheat, water extract viscosity

P16

Comparative study regarding physico-chemical properties of pork and beef canned

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Meat cans are packaged and sterilized products at temperatures higher than 100°C, each type of them having particular characteristics regarding the manufacturing technology.

The general technological process for obtaining canned meat includes the following steps: reception of raw, auxiliary materials and the packaging, preparation of raw and auxiliary materials and containers, preparation of sauces and soups, filling the containers, air elimination from the containers, closing the containers, sterilisation, thermostation, labelling, packaging and storing.

Most of the cans meat on the market contains mechanically separated meat (muscular tissue, cartilages, blood vessels, nerves, connective tissue) and significant amounts of additives, which represents a high risk for the consumer's health.

The main purpose of this study was to obtain two types of canned meat, namely pork and beef without the addition of additives. The raw material used for these two types of cans was high quality meat.

The products obtained were evaluated in terms of sensory and physical-chemical properties. The sensory examination consisted in analyzing appearance, taste and consistence of the product and the physical-chemical evaluation followed the water content, ash content, dry substance content, sodium chloride, fat content and oxidation degree of animal fats.

Keywords: pork meat, beef meat, canned meat.

P17

Study regarding the recovery of some byproducts from meat industry

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To cutting operation, besides obtaining the meat which is the main product can be obtained a series of secondary products known with the name of abattoir by-products that have a great economic exploitation. Meat by-products are very often used as raw material to obtain different preparations. The most important edible abattoir by-products are represented by the organs.

Most often used abattoir by-products both for nutritional and taste qualities are: liver, heart, tongue, udder, spinal cord, kidneys, brain, lamb and chicken giblets. The difference from meat is water and nutritive substances, mineral salts and vitamins. Due to the high water content, the abattoir by-products are spoiling quickly so should be eaten shortly after sampling or freezing until use.

One of the most known products obtained from abattoir by-products is caltabos. Caltabos products are made by organs and abattoir by-products (meat, pig head, heart, kidney, spleen, rind, lungs, liver, ears, blood and others) boiled and chopped with the help of chopping machine with knives and sieve with mesh diameters of 3-8 mm; to the obtained minced was added the soup from the boiled pig head, bacon, onion, garlic, shrubs and spices.

The study had as the main objective the exploitation of meat industry by-products by obtaining products like caltabos. The obtained products were evaluated in terms of sensory and physical-chemical proprieties. The sensory evaluation was achieved by analyzing of the appearance, consistence and taste. The processed samples obtained were analyzed from physical-chemical point of view: water content, dry substance, ash, fat, NaCl and determination of animal fat oxidation.

Keywords: meat by-products, caltabos, sensory evaluation, physical-chemical indices.

P18

Physico-chemical properties of some meat products with low fat content

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Recently, the meat industry has put a great emphasis on high-nutrition and low-fat foods. The fat has important positive effects in the technology of meat products such as: increasing water retention capacity, stabilizing meat emulsions, reducing technological losses, and ensuring flavour, succulence and taste. Animal fats are also important sources of cholesterol and saturated fatty acids, and high intake of animal fats is associated with hypertension, cardiovascular disease and obesity. By reducing the fat content of meat products healthier products can be obtained.

Meat with the lowest fat content is beef and veal (6-8%) and the highest fat content can be found in pork (30%). In this study we intended to obtain sausages product characterized by low fat content. Beef is also more dietary, digest and easier to assimilate in the body.

The analyzed product (dietary sausages with beef) was obtained in the Laboratory of Meat and Meat Products Technology and further analyzed in terms of sensory and physical – chemical point of view.

From sensory point of view, the appearance, consistency and taste were evaluated. From physical-chemical point of view, the water content, dry matter, mineral substances, fat, sodium chloride content and rating of the animal fats oxidation were evaluated.

Keywords: meat, beef, sausages, meat dietary products.

P19

Influence of antioxidant properties of spices in meat products

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In the last period in the food industry, the aim was to obtain high nutritional products, without the addition of food additives, preservatives or other substances with negative effects on the human body. So, in this study it was intended to obtain a meat product without the addition of additives, which are replaced with spice plants with antioxidant effect in the lipid oxidation process and the prolongation of the shelf life. The use of spice plants also aimed at improving the nutritional value of the products obtained. The analyzed product (Pork Salami with paprika) was obtained in the **Laboratory of Meat and Meat Products Technology**, being subsequently physical-chemical analyzed by determining the fat content, protein content, moisture content and sodium chloride content.

Paprika is a red spice, obtained by drying and grinding red pepper. It is used both as a spice and as a colorant which gives color and taste to foods, but also for its beneficial properties on the human body. The pepper has a high content of antioxidants, vitamin A, B, C, E, potassium, zinc, vegetable proteins, fiber, and folic acid, having benefits in preventing anemia. Among the beneficial effects of paprika are: accelerating metabolism, reducing cholesterol, helping to prevent aging and degenerative processes. Also the pepper ensures good functioning of the heart, and permeability of the blood vessels.

Keywords: salami, pepper, paprika, seasoning plants.

P20

Physical-chemical properties of pork sausages flavored with caraway seeds (*Carum carvi*)

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Digestive discomfort is not a disease, but neglected can lead to more serious health problems, such as irritable bowel syndrome, which affects 11% of the world's population and 10% of Romanians.

One of the most important factors that negatively affect the functioning of the digestive system is unbalanced eating. Meats are a category of foods that have a negative effect on the digestive system and cause unpleasant symptoms of discomfort.

This study aims to obtain a meat product with caraway seeds addition known for its beneficial effect on the organism and especially in the digestive disorders. The caraway is used in the food industry both for its flavouring effect and for its health benefits.

The product was obtained in the **Laboratory of Meat and Meat Products Technology of Faculty of Food Processing Technology**, being evaluated in term of physical-chemical characteristics by the content of lipids, protein, moisture and sodium chloride.

The cumin seeds have a beneficial effect on digestive disorders, due to the essential oil from the seeds that activate the salivary glands. Adding cumin seeds to food will have the main effect of increasing the rate of basal metabolism. Cumin seeds, also contribute to the Increasing overall immunity of the body, and has a positive effect on breathing problems.

Keywords: digestive diseases, sausages, caraway, natural extracts, seasoning plants.

P21

Study on antimicrobial effect of the thyme (*Satureja hortensis*) on fresh cows' cheese

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This study has followed the antimicrobial effect of the thyme (*Satureja hortensis*) on fresh cows' cheese, in order to extend its shelf life. For this purpose both the plant and the essential oil extracted from thyme were used. Also by using the thyme was also followed the improvement of the nutritional value of the cheese.

The product analyzed (fresh cow's cheese) was obtained in the Laboratory of Milk and Dairy Products Technology using the conventional technology.

In the obtained product, the thyme plant was milled and added in different proportions (0.05%, 0.1%, 0.15%) but also was added different concentrations of thyme essential oil (0.1%, 0.25% and 0.5%). It has followed the antimicrobial effect of thyme plant and his essential oil after 3 and 7 days.

Thyme has curative effects in many diseases such as virosis, bronchitis or sinusitis but also has beneficial effects in digestive disorders. Thyme-based remedies offer cardiac protection and also anti-inflammatory, antibacterial and antiviral protection. Also, remedies based on thyme act as tonic nerve, antispasmodic and anti-rheumatic.

Among the active compounds in thyme are: volatile oils (carvacrol, linalool, pinene, borneol, thymol), tannins, bitter substances, mineral salts, mucilage.

Keywords: fresh cow's cheese, thyme, Satureja Hortensis, natural extracts, seasoning plants, essential thyme oil.

P22

Studies on nutritional characteristics of some almonds products and by-products

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The aim of this study was to emphasize the superior nutritional characteristics of almond products and by-products. The researches conducted in this study have an important role in the food industry, as it addresses to vegetarians, those who have lactose intolerance and also lent periods. The products and by-products analyzed in this study are: almond milk, almond press cake and almond flour. The calculated determinations were as follows: moisture, dry substance content, protein content, lipid content, carbohydrate content and the quantity of ash. The three analyzed products were obtained in the Biochemistry Laboratory from Faculty of Food Processing Technology.

Regarding the nutrient content of the three analyzed samples, the highest values were recorded for almond flour, followed by the almond press cake and then almond milk as follows: protein content in almond flour was 18.28%, in almond cake 15.88% and in almond milk 2.4%; the fat content of almond flour was 40.85%, of almond press cake 37.55%, and of almond milk 3.3%; in terms of carbohydrate content, almond flour had 18.89%, almond press cake 16.39%, and almond milk 2.5%; the ash content of almond flour was 3.02%, of almond press cake 1.04%, and almond milk 0.67%.

Likewise, the moisture of samples analyzed in this study was 8.96% for almond flour, followed by 20.65% for almond press cake and 89.63% for almond milk.

The results obtained from this study reveal the superior nutritional characteristics of the three analyzed products; thus, can be recommended the idea of using them on an industrial scale in the technology of obtaining products for vegetarians, for people who have lactose intolerance but also for those who adopt a balanced diet.

Keywords: almond milk, almond press cake, almond flour, nutritional characteristics.

P23

The Evaluation of the Nutritional Characteristics of Certain Gluten-Free Flours

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The past decades have seen an ever-growing interest in healthy foods. The present study is addressed to people who are interested in implementing a healthy diet as well as to those who suffer from celiac disease (gluten intolerance). Due to the employment of highly nutritional raw materials and by-products, that bring great health benefits to consumers, gluten-free products fall into the category of functional foods.

Two types of gluten-free flour were analysed in the present study: teff (TF) and quinoa flour (QF), as well as four mixtures prepared from these two, where the gluten-free flour ratios varied as follows: 0TF:100QF (control sample); 25TF:75QF; 50TF:50QF and 75TF:25QF. The purpose of this study is to reveal the nutritional value of the two types of flour, as well as that of the mixtures prepared from them.

The flour samples under study were subjected to the following chemical analyses: moisture level, ash content, as well as determinations of the quantities of proteins, fats, sugars and fibres. The moisture of the samples decreases with the increase in teff flour quantity. Thus, the results obtained ranged from 12.64% in the control sample to 11.95% for the sample containing 75% teff flour. As for the ash content, an increased in the observed value was noted, from 4.92 g in the control sample to 4.95 g for the sample with 75% teff flour. The protein content of the samples varied from 9.40 g in the control sample to 7.94 in the sample with the 75:25 ratio, while total fat quantity varied from 4.06 g for the control sample to 2.01 g for the 75:25 sample. A decrease in the quantity of proteins and fats is noted as teff flour is gradually added, due to the fact that quinoa flour is richer in these nutrients as compared to teff. Observing the variations in sugar and fibre content, an increase of their value is noted as teff flour is added, due to the fact that teff flour is richer in sugars and fibres than quinoa is. Thus, from a 0 sugar value in the case of the control sample, the measured sugar value reached 0.9 g in the 75:25 sample. The fibre quantity increased from 4.82 g in the 0:100 sample to 5.32 g in the 75:25 sample.

After summing up the data obtained in this study, a rich nutrient content is observed in the flours analysed and based on these results, we can recommend their employment on an industrial scale in the manufacturing recipes of highly nutritional pastry and bakery products.

Keywords: gluten-free flours, teff flour, quinoa flour, nutritional characteristics

P24

Effect of chestnut flour on nutritional parameters of gluten free mixtures

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Recent studies showed that more and more people have been found intolerant to gluten from the cereals, making it impossible to consume bakery products. Therefore, the food industry is oriented to produce products for people suffering from celiac disease, gluten-free diet being the basis for celiac disease treatment. This diet excludes the protein gluten which causes small intestines inflammation, protein that can be found in grains such as wheat, barley, rye and triticale. As alternatives for cereals earlier mentioned can be used pseudo-cereals such as: rice flour, quinoa, amaranth, buckwheat. Very recently have been proposed utilization of chestnut flour for the production of gluten-free products, being registered very good results if are added medium levels of chestnut flour to rice flours. Chestnuts are low in calories and lipids, being a rich source of minerals, vitamins, and nutrients, are a source of dietary fibre helping decreasing the blood cholesterol by limiting excess cholesterol absorption in the intestines.

In this study, have been analyzed gluten free mixtures with different contents of chestnut flour (rice/chestnut flour ratios: 100/0; 80/20; 60/40; 40/60), which were evaluated on the basis of chemical properties: protein content (%); moisture content (%); lipids (%) and mineral substances (%).

The mixtures were obtained in the Laboratory of Baking and Milling Technology from Faculty of Food Processing Technology and evaluated from chemical point of view using NIR Spectrophotometer equipment.

The chemical composition of flour mixtures studied (rice and chestnut), was as follow: protein percentage frame between 8.40 % in P1 sample (80:20) and 11.28 % in P3 sample (40:60), mineral substances registered values from 1.64 % in control sample (100:0) to 3.07 % in P3 sample (40/60), lipid content increased in the following order: 2.10% in P3 sample (40:60) < 2.21% in P2 sample (60:40) < 2.26% in P1 sample (80:20) < 2.49% in control sample (80:20), due the low lipid content of chestnut flour, and water ranged from 8.01% in P3 sample (40:60) to 10.62% in control sample.

Results showed that protein and mineral substances content increased once with increasing chestnut flour ratio in the studied mixtures, being recommended to the producers of bakery products the P2 sample (60:40 rice/chestnut flour ratio) for high nutritional values, low fat and calories content and for a good industrial processing.

***Keywords**:* gluten-free mixtures flours, chestnut, rice, physical-chemical parameters.

P25

Effect of almond flour addition on quality characteristics of gluten-free cookies

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The main objective of this study was to produce gluten free products for people with gluten intolerance, and not only because gluten products are sought more and more not only by people who are intolerant to gluten, but also by those who want to have a healthy and balanced diet.

This study has attempted to find those alternative solutions that partially or totally substitute classical flours with high nutritional gluten free flours. In this study, 4 samples of gluten-free cookies with different doses of almond flour (AF) were achieved in relation to the amount of rice flour (RF), namely: 0AF: 100RF% - Control Cookies (CC), 25AF: 75RF% - Cookies with 25% AF (C25AF), 50AF: 50RF% - Cookies with 50% AF (C50AF), 75AF: 25RF% - Cookies with 75% AF (C75AF). All four samples were analyzed in terms of sensory and chemical characteristics. The determinations achieved in this study were: moisture content, alkalinity, ash content, fat content, sugar content.

The results obtained show a proportional increase in nutrient content once with increasing the percentage of AF added to the cookie sample compared to control sample as follows: fat content increased from 21.218% in CC to 34.437% in C75AF, ash content registered an increase from 4.155% in the CC to 6.199% in C75AF and the sugar content increased from 7.819% to 16.985% in C75AF. The cookies moisture content increased from 6.59% in CC sample to 9.33% in C75AF sample and alkalinity decreased from 1.3 degrees in CC sample to 1 degree in C75AF. But from the point of view of the sensory assessment, achieved using the Hedonic scale, the C50AF sample was the most appreciated by the 25 tasters.

Checking the results of chemical and sensory evaluation, this study has succeeded in optimizing the recipe and the process of obtaining gluten free cookies based on almond flour, ascertaining the positive influence of AF on the nutritional and technological characteristics of samples studied, especially for samples with 50% AF (C50AF) addition.

Keywords: almond flour, rice flour, gluten-free cookies, nutritional characteristics.

POSTERS

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Section II: Food Control

P26

HACCP analysis for processing flow of the strawberries with lavander and oranges jam

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The objectives of this study consisted in: HACCP analysis of processing technology flow of strawberry with lavender and oranges (*Fragaria* L., *Lavandula* L., *Citrus* C.) jam together with the assessment of the main technical and economic issues in order to justify the applicability in real technology of the new assortment proposed. Started from the classical strawberry recipe, to which the new ingredients were introduced, lavender and oranges, through repeated experimental attempts, the optimal recipe for processing has been established along with the specific processing parameters analyzed (foreign bodies, edible part, technological loses, processing yields, etc.). Experimental results were at the basis for assessing partial and global balance sheets together with the main economic calculation elements. According to the requirements of EU Regulation no. 852/2004 on the food hygiene, there has been resolved the HACCP analysis of the technological flow studied. Regarding this issue, the physical, chemical and microbiological hazard sassociated with each stage of the technological process have been identified, the preventive measures have been established and two critical control points were identified by the HACCP analysis. For this reason, critical limits, corrective actions and monitoring system have been established. The assessments made recommend the generalization of the study theme to other representatives of the range of vegetal materials carries of food and/or sensorial utilities less or not mediatized and consecrated.

Keywords: strawberries, jam, HACCP, ecological product

P27

Dried fruits as sources of essential mineral

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The paper contains data regarding the concentration of some mineral elements in dried fruits, in order to appreciate their mineral intake. The concentrations of some bioelements: Ca. Mg, Fe, Mn, Zn and toxic elements (Pb and Cd) of samples of dried plums and apples autochthonous were determined by atomic absorption spectrometry (AAS). The results obtained show that these dried fruits contain important amounts of mineral elements (Ca: 286 - 406 mg/kg, Mg: 192 - 391 mg/kg, Fe: 14,4 – 15,9 mg/kg, Mn: 0,74 – 2,06 mg/kg, Zn: 3,25 – 4,89 mg/kg and Cu: 0,78 – 3,02 mg/kg) and very low content of toxic minerals (Pb: 0,53 - 0,53 mg/kg and Cd: 0,18 - 0,20 mg/kg), well below the toxicity limits provided by the legislation (5,0 mg/kg for Pb and 0,5 mg/kg for Cd). These values have made it possible to estimate the mineral intake of dried fruits, respectively the intake of Ca, Mg, Fe, Mn, Zn and Cu in the recommended daily diet for a certain consumption of such fruits. The obtained results show that the fruits taken in the experiment could be considered as additional sources with essential elements.

Keywords: dried fruits, apples, plums, essential elements, mineral intake, AAS

P28

Determination of bioaccessible quantities of essential microelements of pork meat

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In the paper are presented the preliminary results obtained in the determination of the bioavailable concentrations of some essential microelements from pork meat. In the context of this paper, bioavailable concentration is used to define the amount of a microelement that can be released from a particular food following the gastrointestinal digestion.

The bioaccessible concentrations of Fe, Zn Cu and Se from the fresh pork meat from a local firm, were determined using in vitro gastrointestinal digestion model.

The obtained results show that the meat samples taken in the experiment contain appreciable quantities of essential microelements: 4,25±0,51 mg/kg Fe; 5,37±0,5 mg/kg Zn; 0,16±0,03 mg/kg Cu and 0,10±0,02 mg/kg Se.

These values allowed us to estimate the mineral intake of analyzed pork meat, respectively Fe, Zn, Cu and Se in the recommended daily diet, corresponding to a consumption of 250 grams of product. Under these circumstances, the contribution to recommended daily mineral intake (for men and women aged 19-50) shows the following values: for Fe 13.25% (men) and 5.91% (women), for Zn 12.20 % (men) and 16.77% (women), for Cu 4.52% (men and women) and for Se 46.65% (men and women).

***Keywords**:* bioaccessibility, pork meat, essential microelements, mineral intake

P29

The mineral characterization of some vegetables-leaves

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The paper contains data on total concentrations of essential mineral elements from vegetable leaves from individual producers in the western area of Banat – Romania. By atomic flame absorbtion were determined by atomic flame absorption a number of macro and microelements: Na, K, Ca and Mg, respectively: Fe, Mn, Zn and Cu, as well as two toxicogenic minerals: Pb and Cd from leaf parsley, celery, lovage and dill.

The obtained data show that these leafy vegetables contain important quantities of macroelements (K: 3871 – 6823 mg/kg, Ca: 894 – 1978 mg/kg, Mg: 392 – 664 mg/kg, Na: 237 – 645 mg/kg), appreciable content of microelements (Fe: 20,14 – 85,14 mg/kg, Mn: 2,31 – 10,46 mg/kg) and very small amounts of Pb: 0,04 – 0,05 mg/kg and Cd: 0,02 mg/kg, in the toxicity limits imposed by legislation for toxic metals.

Therefore, the analyzed products may be included in the category of food mineralizants, and can be used as additional sources of mineral bioelements.

Keywords: leafy vegetables, essential elements, celery, parsley, dill, lovage, atomic absorption

P30

Evaluation of lycopene content in vegetables

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Carotenoids are a class of compounds composed of over 600 substances, the most common of which are alpha and beta carotene, lycopene, lutein and zeaxanthin. Lycopene is a fat-soluble vegetable colorant, which gives the red color to the fruits and vegetables. These substances can not be synthesized in the human body. In vitro studies have shown that the antioxidant effect of lycopene is twice as high as beta-carotene and ten times greater than that of alpha-tocopherol (expressed as the neutralization of the oxygen radical). As structure, lycopene is an unsaturated aliphatic hydrocarbon with 13 double bonds of which 11 are conjugated. It does not show in the chemical structure the beta-ion rings found in the retinol structure and therefore does not show the specific activity of pro-vitamin A. It is not considered a human essential nutrient. Although no established authority has offered official recommendations regarding lycopene dosage, the researchers in public health recommends getting at least 10 milligrams of lycopene per day.

The purpose of this paper is to evaluate the lycopene content in fresh vegetables. Lycopene was extracted using a hexane: ethanol: acetone (2:1:1) mixture, following the method of Sharma and Le Maguer (1996) and was measured by UV- VIS spectrometry.

In the studied vegetables, the lycopene content recorded the following descending trand: cherry tomato, tomato, red pepper, red cabbage, carrot, red beet and red onion. The lycopene concentration was expressed as mg/100g fresh matter. We have calculated in what manner the moderate consumption of these vegetables covers the lycopene recommended daily intake.

Keywords: UV VIS, lycopene, vegetables, daily intake

P31

Honey as a dietary and mineralizing food

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Honey is a sweet, liquid siropos product, produced naturally by bees as food for themselves. After the bees collect nectar from a flower, mix it with chemicals in their saliva to produce honey. Honey can be of different varieties. The taste and texture depend on the type of flowers from which the nectar is collected by the bees.

The main benefits of honey are: wound healing (acidity from honey and its characteristic of dehydrating bacteria may be the reason why honey heals wounds), source of energy and minerals, but also vitamins from complex B. Minerals are the nutrients necessary for the body to function properly and to stay strong.

The aim of this study was to evaluate three kinds of products: acacia honey, lime and polyflower honey from different locations, under the aspect of theirs minerals content.

The flame atomic absorption spectrophotometer was used for determinations of minerals. The samples were taken from different romanian counties: Alba, Arad and Caras Severin.

Based on our studies we recommend the use of lime honey for calcium and copper content and polyflower honey for its magnesium, manganese, iron and zinc contents.

Using the concentrations of mineral elements determined and the RDI (recommended daily intake) for minerals, was calculated the intakes of Ca, Mg, Fe, Mn, Zn and Cu for a moderate daily consumption of honey.

Keywords: minerals, acacia honey, lime honey, polyflower honey

P32

Copper contents in differrent vinegar types from romanian market

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Vinegar is one of the most commonly used spices in the preparation of salads or vegetable preserves. Theoretically, food vinegar is obtained from aerobic microbial fermentation of ethanol and practically by aerobic fermentation of a diluted alcoholic solution, wine or different fruits (apples, cherries). Due to its very different origin, the content in macro and micro elements is also different.

The copper is one of the microelements that can be considered as an essential microelement in low concentrations but which in high concentrations can be considered toxic, affecting in particular the liver and kidneys. As the literature on copper present in vinegar is low, we intend to investigate the presence of this microelement in the various varieties of vinegar on the Romanian food market.

For this purpose, 12 types of vinegar were purchased from those present on the food market in Romania where the Cu content was analyzed by atomic absorption flame spectrometry in the acetylene flame.

The results obtained differentiate the types of vinegar. Thus, the vinegar obtained by fermentation of ethanol has the lowest content of Cu (0.011-0.034 ppm) followed by vinegar obtained from fruit (0.013-0.396 ppm). Vinegar obtained by fermenting wine has the highest content of Cu, ranging from 0.018 - 0.353 ppm. These higher contents of fruit and wine vinegar can be explained by phytosanitary treatments with Cu-based pesticides that are regularly done in orchards or vineyards.

All the Cu content is below the legal limit permitted by the Romanian and European legislation respectively.

Keywords: copper, FAAS, vinegar, food market

P33

The mineral composition of some types of hipoglucidic jam

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The paper presents the results in determination of some essential mineral elements in three types of jam obtained with no added sugar. The following elements were found through flame absorption spectrometry (FAAS): Ca, Mg, Fe, Mn, Cu and Zn in plum jam, apricot jam and dog-rose jam.

The preliminary results have shown important quantities of Ca and Mg and sizable quantities of microelements: Fe, Mn, Zn and Cu in the analysed types of jam. These data can be used in estimating the recommended mineral intake in daily diets and the calculation of Ca, Mg, Fe, Mn, Zn and Cu, in relation with the consumption of these types of jam. The low content of sugars together with the intake of essential bioelements recommend these dietetics products as mineral supplements.

***Keywords**:* fruit jams, apricot, dog-rose, plums, essential elements, mineral intake, FAAS

P34

The pork meat sausage as source of trace elements

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The paper encompasses the results obtained in the determination of essential microelements from crudely-dried pork meat sausage. The total concentrations of Fe, Zn, Cu and Se in this pork meat product, from a private producer, prepared according to a traditional recipe containing 70% pulp, were determined by atomic absorption spectrometry (AAS).

The obtained results reveal significant concentrations of Zn (10.07 ± 0.74 mg/kg), Fe (6.38 ± 0.63 mg/kg) and appreciable amounts of Cu (0.40 ± 0.06 mg/kg) and Se (0.13 ± 0.02 mg/kg).

These results have provided an estimate of the contribution of the bio-elements analyzed in the daily diet recommended by nutritionists. Consumption of 100g of this product covers the following percentages of bioelements from the recommended daily minerals requirement: 7.93% and 3.53% of Fe for men and women respectively; 9,16 % and 12,59 % of Zn for men and women respectively; 4.41% of Cu (men and women) and 25.45% of Se (men and women).

Keywords: pork crudely-dried sausage, trace elements, mineral intake, AAS

P35

Recovery of grape seeds oil from winery waste

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The purpose of this study was to recover and investigate the physico-chemical indices of grape seeds oil resulting as by-products from winemaking of Burgundy, Pinot Noir and White Maiden (*Vitis vinifera* L.) grape varieties. The wine industry wastes create a lot of problems in terms of drying, storage and transformation, or elimination with respect to ecological and economical aspects. The grape seeds, as an important part of the grape pomace, can be used for recovery of a high quality edible oil with various applications in cosmetic and food industry. Prior to extraction, the grape pomace was dried for 24 h at a moderate temperature of 60°C from the initial moisture of 54-62% up to the final moisture around of 5-6%. The grape seeds contain crude oil to a level of 14.27% (v/w) for Burgundy grape variety, 16.53% (v/w) for Pinot Noir and 15.08 % (v/w) for White Maiden. The grape seed oil is appreciated due to its unsaturated fatty acids such as oleic, linoleic and linolenic acid. Also, this oil has interesting properties for the food industry due to its high smoking point. Thus, grape seed oil could be proposed as an innovative food ingredient in various food formulations. The information derived from this study is very usefull for wine industry specialists, to face the environmental problems due to the huge quantities of grape pomace every year generated, and food technologists focused on satisfying the consumer demand for healthy food products in a more sustainable perspective.

***Key words**:* winery waste, grape pomace, grape seeds oil, physico-chemical indices.

P36

Obtaining of natural bioactive extracts from winery waste

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The goal of this study was to obtain natural extracts from winery pomace and further to investigate their antioxidant properties. Thus, two bioactive extracts from grape pomace and grape seeds have been processed from Pinot Noir grape variety (*Vitis vinifera* L.). The interest for this topic was due to the fact that the wastes generated by agricultural industries contain a variety of biologically active species, such as antioxidant polyphenols with various applications in the pharmaceutical, cosmetic and food industry. This topic is important not only in terms of ecology but also because the winery wastes represent a cheap source of high-quality polyphenolic compounds such as anthocyanins, flavanols, catechins, and proanthocyanidins. In this study, it has been obtained grape pomace extract (GPE) from the whole grape marc and grape seeds extract (GSE) from the grape seeds, manually separated from the grape pomace. The grape pomace and the grape seeds, previously dried for 24 h at 60°C, have been grinded and subjected to extraction with ethyl alcohol 70% (v/v) at 25°C for 48 h in a shaking incubator. Prior extraction, the dried seeds were delipidized in a Soxhlet apparatus with hexane. After filtration and centrifugation the supernatants were subjected to concentration in vacuum conditions and to freeze-drying in a lyophilizer in order to obtain GPE and GSE. Our results reveal that GSE has greater antioxidant properties that GPE. The use of these extracts in food industry is recommended to inhibit the lipid oxidation, to enhance the antioxidant capacity of the products, and to promote the health benefits.

***Key words**:* winery waste, grape pomace extract, grape seed extract, antioxidant properties.

P37

The use of rosehips as a functional ingredient in the processing of chocolate specialties

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In this paper are presented both theoretical and practical elements about obtaining the chocolate with added rosehip powder. The theoretical part contains data on the history of chocolate, the characteristics of the raw materials and the technological chain for chocolate manufacturing but also propose a way to improve its nutritive properties by exploiting the antioxidant potential of rosehips. Chocolate was discovered in ancient times, being used in medical purposes to fight anemia. To improve the already known features of the chocolate, different materials with high nutritive properties such as dried fruit or different agro-food industry byproducts are included in the chocolate recipe as value-added functional ingredients. Rosehip powder brings along a high intake of vitamin C, B1, B2, K, carotenoids, pectins, carbohydrates, and also organic acids. Due to the high level of vitamin content, it is recommended the rosehips consumption in various forms. Additionally, in order to obtain chocolate specialties with rosehips, a part of cocoa from its manufacturing recipe was replaced by carob powder. This powder has shown nutritional properties much better than those of cocoa, being an alternative ingredient mainly recommended in the children's nourishment because the carob powder does not stimulate gastric acidity, has a very high antioxidant and contains no gluten or lactose. Thus, in this study were designed chocolate specialties with improved nutritive properties compared to the control prepared without any addition of rosehip and carob powder. Our results are useful for food technologists to develop new value-added chocolate specialties.

Key words: rosehips powder, carob powder, value-added chocolate specialties, bioactive compounds.

P38

Obtaining of sunflower oil with enhanced functionality by exploiting the antioxidant potential of tomatoes

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The purpose of this study was to improve the antioxidant function of sunflower oil using both the tomatoes processing waste and also the dried tomatoes. One of the primary reasons for the popularity of sunflower oil consists of its fatty acids content, which includes both saturated and unsaturated fatty acids such as palmitic acid, stearic acid, oleic acid and linoleic acid. This oil is used fresh or as a cooking medium in various high-temperature food applications. The lipid oxidation is the main deterioration occurring during thermal processing at high temperature of oils containing lipid molecules with unsaturation. The addition of natural antioxidants can improve the oxidative stability of edible oils. Recently, the attention of food specialists has been focused on agro industrial waste, especially those with a high level of bioactive compounds. The main reason that drove us in the performing of this study was that the tomatoes and the waste derived from their processing represent a valuable low-cost raw material rich in vitamin C, beta-carotene and lycopene that can be exploited for improving the antioxidant function of sunflower oil. Thus, the fresh tomatoes previously sliced and the tomatoes processing waste were dehydrated at a temperature of 55°C for 24 h in a home-scale dehydrator. The dried materials were used to prepare the function-enhanced sunflower oil samples. The obtained oil samples have revealed improved antioxidant properties and enhanced oxidative stability compared to the control sample. Our data reveal that the tomatoes and the tomatoes processing waste are recommended to improved the antioxidant function of edible oil.

Key word: dried tomatoes, tomatoes processing waste, function-enhanced sunflower oil, bioactive compounds.

P39

The antiseptic effect of a vegetable powder on some meat products

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The antiseptic effect of the ginger powder has inspired us in the realization of this study. So we used this ingredient to obtain a sausage with organoleptic properties highly appreciated by consumers. The savory, the consequence of the presence of this powder, associated with the beneficial effects and the bacteriostatic properties on the digestive tract, gives the finished product unmistakable qualities.

***Key words**:* antiseptic, vegetable powder

P40

HACCP analysis of the flow of fruit preserved by adding sugar-cherry jam

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The major objectives of this study were: (i) analysis of the technology flow HACCP processing of cherry sweets with walnuts (*Prunus avium*) and (ii) theoretical assessment of the main technical and economic aspects, which would allow a positive or negative evaluation of a new range of organic fruit preserves. In order to obtain the new assortment the classic recipe for cherry jam processing has been adapted to the new additions of food utilities. On the basis of the experimental indicative values resulting from the calculation of the production recipe, have been established the basic technical and economic indicators of the proposed processing (raw material and auxiliary consumption, weight of foreign bodies, edible part, technological losses, processing yields, etc.). The resulting experimental values were the basis for the assessment of: partial and global material balances along with the main economic calculation elements. HACCP flow analysis technology studied has identified two critical control points (CCP) and consisted in determining the hazards of physical, chemical and microbiological, preventive measures, the determination of the CCP, the establishment of critical limits, corrective actions and a monitoring system. The assessments made at the level of this study suggest the viability of the proposed technical solution and open up new research themes that analyze the degree of acceptability of the new conservation product on the Romanian food market.

***Key words*:** cherry, jam, HACCP, organic product

P41

Production and characterization of flavored alcoholic beverages

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The aim of this study was to design and characterize some alcoholic beverages with improved sensory features by addition of flavoring agents and sugar. In this purpose, various plants mixture such as rosemary *(Rosmarinus officinals L.)*, mint (*Mentha piperita L.*), sage (*Salvia officinalis*), thyme (*Thymus vulgaris L.*), lemon balm (*Melissa officinalis L.*), elderberry flowers (*Sambucus L.*) and cinnamon (*Cinnamomum cinnamomum L.)* were used as flovoring ingredients. The macerates involved in this study were prepared using as extraction media vodka with an alcoholic degree of 40% (v/v) at a ratio dried plants:vodka of 1:25 (w/v) for a duration of 72 hours at room temperature. The caramelized sugar was used to improve the taste and the color of the developed alcoholic beverages. The flavored alcoholic beverages were analyzed in terms of sensory properties, total acidity, total dry extract and relative density. Also, the alcoholic degree was determined. The flavored alcoholic beverages are clear, with a slightly sweet taste and a color depending on the plant mixture used in their recipe. The alcoholic degree of the obtained beverages was 40% (v/v). Our results prove that the using of various alcoholic plant extracts could be recommended for improving the sensory properties of the alcoholic distilled beverages and also to obtain a wide range of varieties for this kind of products.

Key words: flavored alcoholic beverages, plant mixture, organoleptic properties, caramelized sugar.

P42

Obtaining and characterization of some vegetable juices

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The objective of this study was to obtain and characterize some natural juices using various vegetable as follows: tomatoes, parsley, carrots, celery and spinach. The fresh natural juices have been prepared from individual vegetables and also from mixture of the above mentioned vegetables. Tomatoes (*Lycopersicum esculentum*) are some of the popular and most consumed vegetables in the world. Tomatoes juice is rich in beta carotene and lycopene and it offers many health benefits. Parsley (*Petroselinum crispum*) is an exceptional medicinal plant, although is known mainly in cooking. Parsley juice, produced from fresh chopped leaves, can be consumed as such, but it can be added to other fresh juices. The carrots *(Daucus carota* subsp. *sativus*) fresh consumed are an excellent food. The carrots are best known for the high vitamin A content. Carrot juice is very healthy due to its high content of natural sugar. Celery (*Apium graveolens*) contains antioxidant compounds, such as flavonoids and polyphenols, and polysaccharides that are known to act as anti-inflammatory agents. Fresh celery juice is one of the most powerful and healing juices. Spinach (*Spinacia oleracea*) provides a rich source of vitamin K, vitamin A and manganese content. The spinach juice is lacking in flavor but has powerful nutritional compounds. Prior to natural juice processing using a home scale juicer, the edible parts of fresh vegetables were washed and suitable cut. The fresh juices were analyzed in terms of total soluble content (°Bx), lycopene content, vitamin C by titration with a 2,6-dichlorophenolindophenol sodium, total phenolics by Folin-Ciocalteu method and total antioxidant capacity by FRAP assay. Our results have revealed that the fresh natural vegetable juices are a valuable source of antioxidant compounds strongly recommended in a healthy diet.

***Key words**:* natural vegetable juices, tomato, parsley, carrots, celery, spinach.

P43

Valorization of fruit processing by-products in the chocolate technology

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Nowadays, the fruit processing by-products are considered a cheap source of valuable components thanks to their recycling as food ingredients rich in bioactive compounds. The significant quantities of fruit seeds and peels can be valorized as raw material in food processing industry to develop new value-added products. The aim of the present study was to produce chocolate with addition of some by-products derived from apples and pears processing and also to evaluate the antioxidant properties of the final products compared to a control sample. This chocolate is very healthy because the mentioned by-products contain a high level of vitamins, especially B complex, vitamin A and vitamin C. Apple fruit (*Malus domestica*) is the most popular and nutritive fruit, in terms of health benefits. Pears (*Pyrus communis*) are a sweet fruit and have been used for their delicious flavor. The pears contain high level of antioxidant compounds that combat various diseases. The fruit processing by-products are dehydrated at a moderate temperatione of 65°C using a home scale dehydrator. There were prepared several chocolate specialties with different percentages of apples and pears processing by-products. A control sample without any addition was prepared in the same conditions. The chocolate samples were evaluated in terms of sensory properties and also, total phenolics and total antioxidant capacity. Our results showed that the addition of fruit processing by-products in the chocolate recipe represents an efficient way to improve its nutritive properties.

Key words: chocolate, fruit processing by-products, apples, pears, antioxidant properties.

P44

Valorisation of horticultural byproducts in the obtaining technology of pasta

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In order to obtain functional foods that provide nutrients and active ingredients necessary for a harmonious development of body, but also for recovery of by-products of other technologies, engineers from the food industry began to use some horticultural matrices in their manufacturing recipes.

Known for years as "protector" of the liver, beetroot is one of the most beneficial vegetable for the body. This "super food" is an excellent source of vitamin B, being an important source of fiber, vitamin C, magnesium, iron, manganese, potassium, copper and phosphorus.

The purpose of this paper is to capitalize beetroot infusion resulting from the manufacturing process of canned vegetables in the pasta industry. In order to highlight the active principles, the infusion resulting from the boiling of beet roots was analyzed in terms of total and individual polyphenols content. Flour pasta was obtained using classic technology replacing the aqueous phase required to hydrate the dough with red beet infusion. It was also intended to introduce red beet spirits mixed with the aqueous infusion into the recipe in different proportions (10%, 15% and 20%). Also, it has been aimed to introduce in the recipe, red beetroot puree in varying proportions (10%, 15% and 20%) mixed with the aqueous infusion. Flour pasta have been spirally shaped and nutritionally characterized by determining the moisture content, lipids, proteins, carbohydrates and nutritional value. The technical specification of the product it was drawn up and the total polyphenol content was determined by Folin-Ciocalteu method. The sensory analysis of the product with the optimal nutritional, rheological and technological properties was achieved using point scale method after the preparation of the functional flour pasta.

The obtained results have shown that enrichment of pasta with red beet infusion leads to obtaining of a functional product with superior sensory properties (appearance and taste) and superior intake of active principles.

***Keywords*:** functional pasta, red beet, nutritional characteristics, polyphenol content.

P45

Valorisation of horticultural byproducts in the obtaining technology of crumbly dough

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The fruit juice processing industry is experiencing an intense growth due to the health benefits brought by natural products. The consequence of the intensive development of this branch of the food industry is the obtained by-products, which are intended to be used in order to increase the economic efficiency of the technology. The purpose of this paper is to use the resulting puree as a byproduct in apple processing from the apple juice industry in obtaining a functional product – apple pie based on crumbly dough.

Recipe for the crumbly dough is based on conventional technology for obtaining the pastry products to which is added the apple puree mixed with natural products like: cinnamon, clove and star anise, which gives aroma and taste. Product filling is based on processed apple puree so as to obtain a cream with high sensory and nutritional properties. As a natural sweetener, sorghum syrup was used, mainly used as a feed, but also with a high nutritional potential in food products. The novelty product obtained has been nutritionally characterized by determining the lipid content, protein content, carbohydrate and mineral content, polyphenol content and energetic value.

The experimental results showed that the valorisation in cake-pastry industry, of apple puree resulting as a byproduct in the natural juice industry, together with the use of sorghum syrup as a natural sweetening agent, represents an opportunity to increase the assortment range in this field and to efficiently obtain functional products rich in active principles, valuable to health.

Keywords: functional products, crumbly dough, apple puree, sorghum syrup, polyphenol content

P46

The study of the pasteurization operation of beer. Comparison of different types of pasteurizer

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The main beneficial activity for human body health is represented by the antioxidant action.

In the normal food diet, polyphenols are the primary source of antioxidants, having the role of neutralizing free radicals, diminishing the inflammatory processes and the effects of cellular aging. Polyphenols are abundant in plant matrices such as fruits, especially those with red-purple pigmentation, considered the most popular source of flavonoids and tannins, vegetables (red beets, eggplants, onions, celery, parsley, cabbage, Beans), whole grains, aromatic plants, coffee and chocolate, green tea and olive oil

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This study aim was characterization of aromatic and seasoning plants used in the preparation of functional foods, in terms of total and individual polyphenol content.

The total polyphenol content was determined by UV-VIS spectrometry using the Folin Ciocalteu method. The main polyphenols characteristic of the vegetable matrices were determined by LC-MS using Shimadzu Chromatograph system equipped with the SPD-10A UV detector, EC 150/2 NUCLEODUR C18 Gravity SB 150x2mmx5 µm column. Chromatographic conditions were as follows: mobile phases A: water acidified with formic acid at pH-3, B: acidified acetonitrile with formic acid at pH-3, gradient program. Monitoring wavelength was 280 nm and 320 nm.

From the polyphenols category a third is represented by hydroxycinnamic acids (HCAs), such as caffeic acid (CA), p-cumaric acid (CU), ferulic (FE) and rosmarinic acid (RO), which are phenolic compounds with very high proportion in plants. Rosmarinic acid is found in highest amount in alcoholic extracts of medicinal plants of Lamiaceae family. In spice plants from the *Umbelliferae* family, the hydroxycinnamic acids value is low. Epicatechin is the polyphenolic compound with high concentration in dill, fennel and coriander extracts.

Rutin (RU) is found in high concentrations in Satureja and in lavender, quercetin (QU) in lavender, and kaempferol (KE) in quince and lavender. Resveratrol (RS) is undetectable in of lavender, fennel, thyme and oregano extracts and registers maximum values in peppermint extract. The use of these aromatic and seasoning herbs in functional food recipes leads to an increase in antioxidant capacity and in the biologically active principle of products.

Keywords: aromatic plants, spice plants, hydroxycinnamic acids, functional products.

P47

Obtaining and characterization of a functional food products with lupine germs addition

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Seeds of different plant species can become, by germination, valuable food products or medications due to their content in active principles, used to treat some diseases. Food technologies aim to use cereals germs in easy-to-use forms to preserve as many of their special properties as functional food, favoring the preservation of enzymes and phytohormones, substances that are highly susceptible to high temperature changes in the technological processes.

The aim of this paper is to obtain and characterize from polyphenols point of view, lupine germs, in order to obtain a functional dessert product. The obtained germs, dried at ambient temperature, were milled and characterized in terms of the total polyphenol content by UV-VIS spectrometry using the Follin Ciocalteu method. The polyphenols individual profile was obtained using LC-MS Shimadzu Chromatograph system equipped with the SPD-10A UV detector, EC 150/2 NUCLEODUR C18 Gravity SB 150x2mmx5 μm column.

Lupine germs have been used to obtain a functional product dessert type, consisting in buckwheat, soybean, honey, walnuts and lupine germs. The product obtained has been characterized in terms of moisture content, lipids, total mineral substances, protein content, carbohydrate content and energy value.

The experimental results revealed that lupine germs are a phytotherapeutic product with a high intake of polyphenols that can be successfully used in the obtaining technology of novel functional products dessert type.

Keywords: lupine germs, nutritional composition, functional dessert, polyphenols.

P48

Obtaining and characterization of a gemmotherapeutic extract from legumes with functional properties

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Gemotherapy, the youngest branch of phytotherapy, involves the use of plant embryonic tissues, rich in valuable active principles for health. In plant germs and growth tissues (meristems) there are active elements and principles in concentration much higher than in adult plants.

Unlike classical phytotherapy, where plants are usually dried and used as powders or tinctures, gemotherapy uses the youngest parts of the plant fresh, keeping intact the vitamin, enzyme, hormonal and mineral content.

The aim of this paper is to obtain a gemotherapeutic extract of legumes with functional properties. In this regard, pea, beans, soybean and lupine germs were used to prepare the gemotherapeutic extract, which was chemically analyzed to determine antioxidant capacity and polyphenol content.

From the microbiological point of view it was determined antifungal and antibacterial capacity of the extract. Antifungal activity was tested on Fusarium graminaerum and Verticillium fungi by determining the inhibitory concentration (MIC), the fungistatic and fungicidal effect of the products.

Antibacterial activity was tested on bacteria such as Escherichia coli and Staphylococcus aureus.
The obtained results revealed the functionality of the extract and the possibility of its use as a biologically active product in the food industry

Keywords: lupine germs, extract, antioxidant capacity, polyphenol content.

P49

Quality assessment of pork leg ham

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Dry-cured ham stands out among them as a high-quality product of increasing economic relevance. It is well known that the biochemical changes related to maturing result in the modification of ham sensory properties, which lead to flavour development and texture softening. The purpose of this paper was to evaluate the sensory quality and nutritional value of house made bacon compared to homemade bacon products obtained in meat processing units. Three kind of leg ham were analysed: first kind was house made (HM), the second (S) and third (T) were purchased from the local markets. The protein contents ranged between 19.20% for T and 21.23% for HM. Higher differences were noticed for water contents (35.26% for HM, 33.83% for S and 57.73% for T). Also fat contents varied extremely large (21.23 for HM, 21.20 for S and 19.20 for T).

Key words: meat products, nutritive value, pork

P50

Improving the salami quality using color

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The human behavior in the process of selection and purchase of food is governed by many factors. High on the list of factors contributing to this process are the color appearance of food or food package and the ambiance of the display surroundings. The color of meat products is an extremely important characteristic influencing the consumer's purchase decision. The goal of this work was to change the color of Maxi salami. For this purpose Paco Carmin Conc (PCc) was used. Two variants of product were obtained: the control sample (C) with 100g PCc and the experimental sample (E1) with 70g PCc. Except color, the sensorial properties of products were not changed. Also, slight changes were noticed for chemical properties: both samples registered 34.3% for the fat contents; the contents of protein were: 19.9% for C and 19.85 for E1; the salt content was 3.9% for C and 3.95 for E1.

Key words: meat product, senzorial, color

P51

Study on the preparation technology of fruit jelly

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The jellies are made with a translucent, gelatinous consistency composed of the main raw material syrup, sugar syrup and colored, acidified, glucose syrup and a gelling material which may be agar-agar, pectin or gelatin.

The purpose of this study is to highlight the increasingly innovative and varied methods of presentation and transformation of the composition of finished fruit juice preparations rich in vitamins and antioxidants as well as their beneficial effects on the body as well as antibacterial, Antimicrobial, antiglycemic and antihypertensive, purgative, depurative, laxative, astringents of the natural sweetener used in the preparation of jelly.

Keywords: shock syrup, stevia, vitamins, organoleptic antioxidants

P52

The preparation technology of serbet in mixed oil portoculated success

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Serpentine is often associated with childhood taste. A sweet and fragrant dish is sherbet, made mostly from fruit juices, well-colored and aromatic sugar syrup, as well as from flower juices or fragrant leaves.

The aim of the study was to highlight the orgnoleptic characteristics of pleasant tasting, olfactory and visual sensations, and the nutritional value and energy value provided by almond oil and lime honey from its composition.

The results show that the preparation obtained has innumerable benefits for the health of the human body, it is a beneficial nutrient for the health of the brain and the nervous system, being recalled in diets.

Keywords: natural orange juice, micelle oil, honey, antioxidants

POSTERS

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P53

Developing the range of functional milk products using symbiotic formulas from natural plant sources

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Milk has been and remains one of the most used raw materials in the food industry. Dairy products, though known from ancient times, are an important segment of the food market. As such is constantly trying to improve and diversify them. The latest food trends try to produce high nutritional foods without the addition of additives, preservatives, heavy metals or other compounds with harmful effects on the human body. Thus, in the present study we tried to diversify a dairy product widely used by a big range of consumers, namely fresh cheese, by using fruits in order to obtain a tasty and nutritious dessert product at the same time. Also, by using the fruits, the nutritional value of the products obtained was also improved. The analyzed product (fresh cheese with added fruit) was obtained in the Milk Technology Laboratory and was analyzed in terms of fat, moisture, protein, organoleptic content.

Fruits contain vitamins, including vitamins A, B, C, mineral substances such as calcium, potassium, magnesium, iron, zinc and sodium, being a true source of substances for the body.

Because of the nutritional value, therapeutic effects, consumers` acceptance, functional values and more, cheese is one of the most consumed milk product around the world. Cheese is one of the most popular fermented milk products and there are many varieties of it on the market. In the last years many ingredients are used to be added in cheese: different extracts, oils, tea or fruits to improve nutritional value. Fruits cheese is one of the most accepted variety of sweet cheese. Most common fruits used in cheese formulae are peach, cherry, orange, plums, apple, apricot, pineapple, strawberry, raspberry and blueberry. Incorporation of fruits increases the healthy value of the product. On the one hand, there is an interest in studding the health influences of the addition of fruit, on the other hand there is an interest in the technological, physicochemical, organoleptic, and microbiological properties of fruit-added sweet cheese.

Keywords: cheese, fruits, milk

P54

Valorization of by-products from milk

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The current trend in the modern consumer orientation to new food products which satisfy both nutritional and sensorial requirements make to appear new products on the food market. The milk products industry takes an important place in commodity market because of the fact that milk is a very important food product which is consummated daily by people of all ages. Because of all these facts, the present study aims the recovery of some byproducts from milk and milk products industry (whey) in order to obtain new and improved food products. In our days there is a permanent preoccupation for a efficient recovery of utile substances from byproducts from milk industry, especially in human nutrition.

The study investigates production and characterization of whey and raspberry jelly from a physical-chemical and organoleptic point of view. Although milk and its by-products are known from ancient times and used as well as food and raw or additional matters, because of their multiple qualities, its melt old and new the same time. This is made using by-products from milk industry. This study try to establish optimal recipes and technological parameters of obtaining sweets from whey and raspberry in our faculty laboratory conditions.

One of our contribution through this study implicates the elaboration of some possibilities of optimization of obtaining and using jelly from whey with raspberry using a very simple method for every consumer.

Because of the complexity of technological transformation during obtaining process, we can say that obtained results depend of the work conditions and raw material used. The obtaining process can be driven to obtain a certain composition of final product working on technological parameters as well. On the other hand every type of raw material has its chemical and biochemical and organoleptic properties and this fact relies on final products quality and properties.

Keywords: milk by-products, whey, raspberry

P55

Innovative food products based on milk

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Nowadays, we can notice a phenomenon of extreme diversification of categories of complex and colorful wrapped food products that attract more consumers on a local or international market. All these highlight the need to revise the outlook on human nutrition and to stress its character of health preventive factor, but also the great importance food security presents within a highly dynamic and complex trade.

The study investigates production and characterization of yogurt with pomegranate from a physical-chemical and organoleptic point of view. Pomegranate is a fruit little used in our country and milk is a well known raw material. Although milk and pomegranate are known from ancient times and used as well as food and raw or additional matters, because of their multiple qualities, its melt old and new the same time. This study try to establish optimal recipes and technological parameters of obtaining yogurt with pomegranate in our faculty laboratory conditions.

One of our contribution through this study implicates the elaboration of some possibilities of optimization of obtaining yogurt with pomegranate using a very simple method for every consumer.

Because of the complexity of technological transformation during obtaining process, we can say that obtained results depend of the work conditions and raw material used. The obtaining process can be driven to obtain a certain composition of final product working on technological parameters as well. On the other hand every type of raw material has its chemical and biochemical and organoleptic properties and this fact relies on final products quality and properties. Also in the study were identified and monitored critical control points on the technological process of obtaining the product .

Keywords: dairy, pomegranate, yogurt properties

P56

Functional beverages ready to drink with high protein content

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The graduation study **"Functional beverages ready to drink with high protein content "** is situated in interest area of food technological research from the faculty of Food Technology.

The present study aims the recovery of some by-products from milk and milk products industry (whey) in order to obtain new and improved food products. In our days there is a permanent preoccupation for a efficient recovery of utile substances from byproducts from milk industry, especially in human nutrition. Research progress made possible a reevaluation of nutritional value of these products.

This study pursue the characterization (organoleptic, physical-chemical and rheological) of beverages with high protein content resulting an original product obtained in laboratory based on whey and various flavors, such as chocolate, strawberries, oranges, berries, etc. Although whey is known from ancient times and used as well as food and raw or additional materal, because of his multiple qualities, it melt old and new the same time. This study try to establish optimal recipes and technological parameters of obtaining product with high protein content in our faculty laboratory conditions.

One of our contribution through this study implicates the elaboration of some possibilities of optimization of obtaining and characterization of the product with high protein content in a simple and handy way for any consumer.

Because of the complexity of technological transformation during obtaining process, we can say that obtained results depend of the work conditions and raw material used. The obtaining process can be driven to obtain a certain composition of final product working on technological parameters as well. On the other hand every type of such a product has its chemical and biochemical and organoleptic properties and this fact relies on final products quality and properties.

Keywords: whey, fruits, beverages

P57

Consumer Food Behavior - Food Safety Indicator

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Through our study, we aim to make a radiograph of a segment of consumer and youth typologies, certain age range and with some concerns, from a certain environment in terms of eating habits. The study aims to reveal how the fast food culture succeeds or not to replace traditional Romanian food habits for a particular segment of consumers.

This study also shows consumer behavior characterized as an indicator of food safety.

Thus, by associating the terms "food behavior" and "food security", this study seeks to take into account the observance and implementation of much more detailed control and study measures on the whole production with a final consumer focus.

The consumer buying behavior refers to the behavior of end-consumers who buy goods and services for personal consumption, so generally, behavior is considered to be a set of external reactions by which the individual responds to stimuli.

Through food security, we refer to the set of organizational and technical measures to be applied at any point on the product line to prevent the introduction and spread of pathogens so as to prevent the occurrence of different diseases, so food safety is a multifaceted, managerial and professional concept extremely important for the protection of human health.

Keywords: food safety, consumer behavior

P58

Study of the obtaining and characterization of aromatized hydromel

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Quality deficiencies in the current diet profoundly affect the general status of the human organism, manifesting itself in different degrees („*abundance diseases*" (obesity, diabetes, heart diseases, osteoporosys, some types of cancer) and malnutrition)). These aspects led to the discovery of medicine-edibles with target functions, associated to food supplements. A new, fast growing market with diverse opportunities for food proccessers. The biotechnological, natural capitalisation of honey can be structured in two directions: **1**. *hydromel* (stum or wine, depending on the period of fermentation); **2**.*vinegar*. The paper proposes the obtaining at lab scale and afterwards the characterisation of *hydromel* (natural liquid prepared, energyzing/filled with vitamins/antioxidant) to which herbs have been integrated in the original recipe (mint, cinnamon, thyme, ginger). This approach started from the *preventively- functional* association with benefits for health. Knowing about the healing aspects of hydromel in its natural form, the problem of improvement and increasing functionality of the aliment through addition of herbs with healing potential, has been raised. These aspects will be sensorialy and chemicaly quantified through the comparison of some quality specs.

Keywords: hydromel, vinegar, preventively- functional

P59

Study of bifazic gaz-solid transport operation. Case study

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The subject of the paper, proposes the study of some operating parameters with the purpose to understand the sizing of the operation and pneumatic transport installation. Pneumatic transport is based on the movement of solid materials (granular, pulverulent), under the action of a driving force (gas (air)), through pipelines (gas-solid biphasic transport). The principle is based on the differential flow of the two phases by creating a difference pressure between the ends of a pipe. Initially, are analyzed the physics of the phenomenon (transport principle (velocities, flow design, pressure losses)), types and operating principle of the main systems: **1.** low, medium or high pressure; **2.** feeding devices, air movement and filtration. Is further studied the effect of the nature and the mass flow rate of the solid material on the velocity (the main parameter determined by the value of the minimum air flow speed for the studied material), length and character route, quantification of pressure losses, which will determine the installed power for the proper operation of the equipment. The study provides understanding of the mode of transport of the different density phases, the relation of solid material to gas through flow, the influence of the pressure comparative to the distance and the flow mechanisms. This helps in making the right decisions in choosing the pneumatic transport system for a particular material.

Keywords: bifazic gaz-solid, pressure, the flow mechanisms

P60

Obtaining and evaluating the protective quality of the sea buckthorn (*Hippophae rhamnoides*) jam

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The The purpose of this paper was to obtain of some jellies from kiwi fruit (*Actinidia deliciosa*) and orange (*Citrus sinensis*), without added sugar, with *Stevia rebaudiana* sweetener and with added bitter cucumber (*Momordica charantia*). It was also sought to analyze the protective quality of the jellies obtained by determining the vitamin C content, the total polyphenol content and the antioxidant activity, as compared to the raw material. In kiwi jelly a higher vitamin C concentration (80.25 mg/100g) was found than in orange jelly (52.34 mg/100g); in both cases the values were lower than in the raw material (90.82 mg/100g for kiwi fruit pulp and 65.22 mg/100g for orange pulp). In terms of total polyphenol content, orange jelly showed a higher value (7.90 mg gallic acig/g) than kiwi jelly (3.98 mg gallic acid/g). For both types of jelly, the total polyphenol content was higher than in the raw material. Even if kiwi jelly had a lower total polyphenol content than orange jelly, because of the higher vitamin C concentration, antioxidant activity of kiwi jelly was also higher 8.08 mgTrolox/g than orange jelly (6.76 mg Trolox/g). The antioxidant activity of finished products was lower than that of raw materials: kiwi fruit pulp: 9.68 mg Trolox/g, orange pulp: 7.06 mg Trolox/g.

Key words: fruit jelly, vitamin C, .poliphenolls, antioxidnat activity.

P61

Fruit jellies without added sugar- obtaining and determining the protective quality

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The purpose of this paper was to obtain of some jellies from kiwi fruit (*Actinidia deliciosa*) and orange (*Citrus sinensis*), without added sugar, with *Stevia rebaudiana* sweetener and with added bitter cucumber (*Momordica charantia*). It was also sought to analyze the protective quality of the jellies obtained by determining the vitamin C content, the total polyphenol content and the antioxidant activity, as compared to the raw material. In kiwi jelly a higher vitamin C concentration (80.25 mg/100g) was found than in orange jelly (52.34 mg/100g); in both cases the values were lower than in the raw material (90.82 mg/100g for kiwi fruit pulp and 65.22 mg/100g for orange pulp). In terms of total polyphenol content, orange jelly showed a higher value (7.90 mg gallic acig/g) than kiwi jelly (3.98 mg gallic acid/g). For both types of jelly, the total polyphenol content was higher than in the raw material. Even if kiwi jelly had a lower total polyphenol content than orange jelly, because of the higher vitamin C concentration, antioxidant activity of kiwi jelly was also higher 8.08 mgTrolox/g than orange jelly (6.76 mg Trolox/g). The antioxidant activity of finished products was lower than that of raw materials: kiwi fruit pulp: 9.68 mg Trolox/g, orange pulp: 7.06 mg Trolox/g.

Key words: fruit jelly, vitamin C, .poliphenolls, antioxidnat activity.

P62

Obtaining of some natural juices and assessing their protective quality

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The present paper had as objective the obtaining of two variants of natural juices: one of apples, red beets and carrots (5:2:3, v:v:v), second of apples, red beets and ginger (8:1.9:0.1, v:v:v), and analysis of their protective quality by determining the ascorbic acid content, total polyphenols and antioxidant activity. In terms of vitamin C content, apples juice with carrot and red beets had a slightly higher concentration (19.36 mg/100g) than apple juice with red beets and ginger (18,80 mg/100g). In the raw materials the content of vitamin C was lower than in juices: 12.85 in apples, 6.20 mg/100g in carrots, 7.82 mg/100g in red beets, 7.52 in ginger. The juice variant with ginger showed the highest total polyphenol concentration (22.25 mg gallic acid/g) and also the highest antioxidant activity (6.43 mg Trolox/g). In terms of raw materials, the highest total polyphenol concentration had red beets (28.32 mg gallic acid/g), then ginger (25.12 mg gallic acid/g) and apple (23.55 mg gallic acid/g); the highest antioxidant activity had red beets (69.97 mg Trolox/g), followed by carrots (7.14 mg Trolox/g). Ginger and apples had antioxidant activity with close values (5.72 and 5.54 mg Trolox/g, respectively).

Key words: natural juice, vitamin C, poliphenolls, antioxidant activity.

P63

The sinergic bioactivity study of some functional antioxidant mixtures with antiageing potential

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The aim of the study was to identify the total antioxidant capacity (TAC) and total polyphenols content (TPC) of three well known products for their anti-ageing properties: ginger (*Zingiber officinal*e), cloves (*Syzygium aromaticum*) and red beetroot (*Beta Vulgaris*). The studies were conducted on fresh ginger and beetroot and dry cloves, all products being available on the Romanian market.

With the age the liver produce less polyunsaturated fatty acids (PUFA) as we age and the body's own antioxidant system has to work harder to protect the organism. By introducing in the diet products with high antioxidant activity like ginger, cloves and red beetroot we can slow down the signs of aging. Ginger is an anti-aging herb used for thousands of years in traditional Chinese and Ayurvedic medicine and it's recommended due to the chemical compounds. Cloves and cloves oil are famous because of their high content of eugenol which accounts for around 70-85%in cloves oil, eugenyl acetate and ß-caryophyllene etc. Beetroot presents high concentrations of antioxidants, carotenoids, folate, manganese, potassium and Vitamin C, components which are known for their health and skin protective effects.

The results show that a mixture of red beetroot (6.997 mg/mL antioxidant activity) with ginger (0.286 mg/mL) and cloves (7.875 mg/mL) will behave like a antioxidant blast for the human organism helping the body to maintain a higher functionality.

Key words: total antioxidant capacity, ginger root, beet root, cloves

P64

The study of the declared lettuce plants origin and their nutritional potential

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Generally grown as a hardy annual, lettuce is easily cultivated. *Lactuca sativa* crosses easily within the species and with some other species within the *Lactuca* genus, trait that might become a problem to home gardeners who attempt to save seeds, but used as an opportunity by the biologists and biotechnologists to broaden the gene pool of cultivated lettuce varieties.

Depending on the variety, lettuce is an excellent source of vitamins (K, A, B_1, B_2, B_5 B_6 and B_9, C and E) and also a good source of minerals like: Fe, Mn, P, K, Ca and Mg, becoming often a good accumulator of heavy metals like Cd, Ni, Zn and Pb. The heavy metals chart of lettuce varieties can be used to evaluate the declared origin of the salad seeds and plants.

The aim of the study was to evaluate the total antioxidant capacity (TAC) and total polyphenols content (TPC) as part of the nutritional potential of lettuce analysis, to investigate the declared origin of the lettuce seeds and also to obtain an innovative product by enriching mascarpone cream using lettuce seeds. The results show that from the studied *Lactuca sativa* varieties (Butterhead, Crisphead, Red leaf), red leaf lettuce presented the highest TAC (10.899 mg/mL) while crisphead salad presented the highest TPC (10.64 mg GAE/100g product).

The innovative product having lettuce seeds introduced into mascarpone mass presented highest TAC (0,858 mg/mL) and TPC (1.315 mg GAE/100g product) in case of Butterhead lettuce seeds. At the same time mascarpone mass enriched with lettuce leaves presented the highest TAC (2.554 mg/mL) and TPC (4.269 mg GAE/100g product) for the Butterhead lettuce leaves. In both situations by enriching the mascarpone mass with lettuce leaves and/or seeds the storage time of the product and also the nutritional value of the mascarpone cream is increased and these shows that the seeds as well as the lettuce plant presents a important nutritional value.

Keywords: *Lactuca sativa* seeds and leaves, antioxidant activity, polyphenols, innovative product

P65

Study of the synergistic bioactivity of some functional antioxidant mixtures with anti-parkinson effect

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Parkinson's disease (PD) is a chronic neurodegenerative disorder, with progressive development, that causes noteworthy disability and reduces life quality. Despite the progressive decline and co morbidity linked with PD, the predictions suggest that the financial costs of treating PD over the individual's lifetime will go up over time and in addition, the economic burden is likely to increase further. Several studies affirm that oxidative stress has an important role in the dopaminergic neurodegeneration in Parkinson's disease. In this context, the use of antioxidant therapies that improve immune system and mitochondrial function may offer a great promise in the prevention and treatment of Parkinson's disease.

In accordance to that the development of Romanian products using plants from the spontaneous flora or plants easy to cultivate in our country, characterized by high antioxidant effect and high polyphenols content, would be of big help to reduce the financial burden caused by this disease.

The aim of this study was to analyze the antioxidant activity of two type of *Vicia faba* beans (broad beans) and two types of Red *Phaseolus vulgaris* beans (red kidney beans) as well as two varieties of *Mentha* (mint) leaves available on the local market.

The total polyphenolic content (TPC) were determined according to the Folin-Ciocalteu method, and varied from 15.0 to 27.9 mg GAE/g of dried product.

The total antioxidant activities (TAC) were assessed by CUPRAC method. All tested extracts showed high antioxidant activity, justifying their traditional use. The functional mixtures of the studied plants were revealing potential to be used as antioxidant mixtures to boost immune system.

Keywords: broad beans, red kidney beans, mint, TAC, TPC

P66

Nutritional potential studies regarding the evaluation and valorization of dill, parsley and alliums seeds

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The aim of the study is to analyze the total antioxidant capacity (TAC) and total polyphenol content (TPC) of dill, parsley and onion seeds. Most of the people consume the green leaves of dill, parsley and onion, but they rarely consume the seeds of these vegetables. *Anethum graveolens*, *Petroselinum crispum* and *Allium Cepa* are all three vegetables with an important role in alimentation. Dill is a delightfully aromatic annual herb that is used as dill weed and dill seed to improve many recipes. Parsley is a rich source of vitamin B_{12}, chlorophyll, Ca, vitamin C, but used only for its leaves and roots. Onions are a very old vegetable; being used for thousands of years for their great fiber source and antioxidant properties, but seeds are used mostly in pharmaceutical products.

The results show that onion seeds presented the highest TAC (5.796 mg/mL) while the highest TPC was revealed by dill seeds (7.602 mg GAE/g dry product). Also, the innovative products containing tomato pasta and a mixture of dill, parsley and onion seeds presented increased values of TAC and TPC comparative to the tomato pasta.

The results prove that all mentioned seeds might be used in different types of vegetables puree like tomato pasta, ketchup, capsicum pasta to increase not only the antioxidant capacity but also the preservation time of the products.

Keywords: total antioxidant capacity, total polyphenols content, vegetable seeds

P67

Evaluation of micro and macro elements in soybeans, barley and sunflower seeds

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The aim of the study was to evaluate the differences between soybeans, barley and sunflower seeds based on micro and macro elements content and total antioxidant capacity. The studies were conducted on minced and grained soybeans, barley and sunflower seeds available on the Romanian market. The samples were analyzed in triplicate for moisture content, ash content, micro and macro elements and total antioxidant capacity. All analysis were conducted at the Laboratory of Food Analysis from the Faculty of Food Processing Technology, University of Agricultural Sciences and Veterinary Medicine of Banat "King Mihai I of Romania" from Timisoara.

The results present high content of Calcium, Phosphor, Potassium, and Magnesium and are in accordance with the literature studies. The highest content of minerals was presented by soybeans - Ca (2328 ppm), P (7155 ppm), K (16.522 $*10^3$ ppm), and Mg (2375 ppm). In contract soybean seeds showed the lowest antioxidant capacity 93.42 mg/L while sunflower seeds present the highest TAC 501.771 mg/L.

According to the obtained results statistical analysis of data completed with mathematical models might create a map for quality evaluation.

Key words: cluster analysis, mathematical models, quality maps, CUPRAC method

P68

Technical and economic study of the natural deposit of some vegetal raw materials. Potato.

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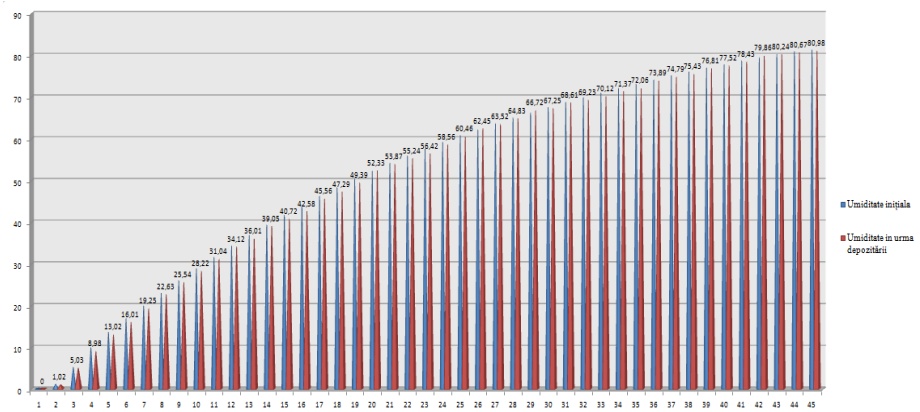
The potato is part of the group tuberculifere vegetables, with potato offal, bold underground party that nutrients accumulate reserves; especially food amidon. Potato value is higher than the other root vegetable, having higher starch, vitamins, sugars and minerals contents.

The given potato varieties uses area as presented: table varieties with a lower starch content (14-17%), periderm fine, smooth, shallow eyes and pleasant taste, industrial variety, very productive, with a high starch content (20-25%), forage varieties rich in starch and protein mixed varieties, which can be used for culinary purposes, feed and for industrial processing.

The chemical composition of potato is having many compounds (proteins, carbohydrates, lipids, minerals, etc.), but between them we are interested in only those active ingredients that form a large percentage.

Preservation by dehydration is based on the principle of eliminating excess water from the fresh vegetable products, until it stopped work so vital to produce vegetables, and microorganisms. In its simple form of "*drying vegetables*" was first used for conservation attempt by people from ancient times. Following dehydration vegetable products turgid support changes in internal structure and chemical composition. All these changes are based on the effect of decreasing water content.



The graphical representation of the similarity of the dehydration curve determined both before and after the storage of the analized sample

Key words: potato, natural ways of preservation,natural ways of storage, physico-chemical analyzes

P69

The technical-economical study of the production of a cooked meat preparation. Pork sausages

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The paper with the title "The technical-economic study of the introduction of a cooked meat product into production. Pork sausages; presents both the theoretical aspects of the problem and an experimental part.

In this paper is presented the methodology of obtaining pork sausages, detailed raw materials and auxiliary materials. Also, a wide sensory / organoleptic and physico-chemical characterization of the sample of the studied pork sausages.

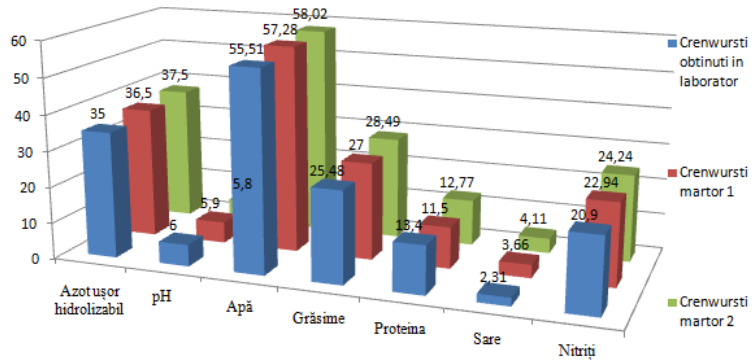
Within our laboratory researches we tried to achieve two important objectives, namely: the realization of the product under laboratory conditions; Analyzing the quality of the product obtained compared to another similar product in the industrial system; The paper presents both the working methods and the results of the quality assessment of the product. The evaluation of the quality characteristics was made in comparison with the Professional Standard SP-C 401-95, which replaced the Romanian Standard 1468-92.

As a result of the researches carried out we find the following.

After the organoleptic examination the product was appreciated as:

- **Appearance** - pink colour, non-sticky pairs, edible artificial membrane;
- **Section apparance** - compact, fine, pink, non-agglomerated spice;
- **Taste** and **scent** - pleasant, boiled and smoked;
- **Consistency** - elastic.

In terms of physico-chemical analyzes, the product was characterized as follows:



Representation of the physico-chemical analyzes for pork meat sausages (Barchart representation)

***Key words**:* crenwurst, pig meat, physico-chemical analyzes

P70

The technical-economical study of the production of a cooked meat preparation. Pork baloney

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Nutrition is the most important environmental factor which influence our organism (Pavlov). About food is said that represent a "necessity who gives rise to all other " or "Enjoyment of all ages, all conditions, all countries and all days, which may be associated with all the pleasures and we remain to the last to console us for the loss of other "; also is confirmed that "you don't live on what you eat, but from what you digest".

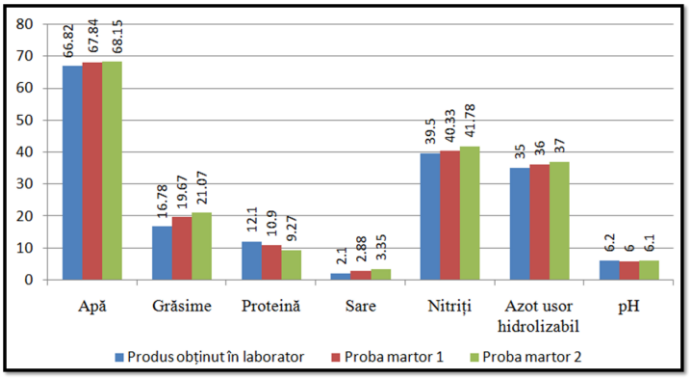
As the freshments, are know processed made from chopped meat and seasoned meat introduced in natural or artificial membranes, products which are then subjected to heat treatment, being able to be use in food as such.

In this paper was studied the technology of pork baloney and were evaluated sensory and physico-chemical specimens of the obtained product.

High protein content show that where use in the manufacture soy-based protein substitutes.

Sodium chloride and nitrogen fall within the standard. In meat products, NaCl is design to increase water retention capacity and have the property to improve the taste of baloney and nitrogen gives red colour and help the conservation.

To increase the nutritional value should be lower water and NaCl content through more stringent control of raw materials. In contrast, growth water content, increase economic efficiency.



Comparative representation of the results obtained and the results obtained in the laboratory in parallel with two other similar products in the market (Barchart)

***Key words**:* baloney, pig meat, physico-chemical analyzes

P71

Technical and economical study of the production of a cooked meat product. Polish pork meat sausages

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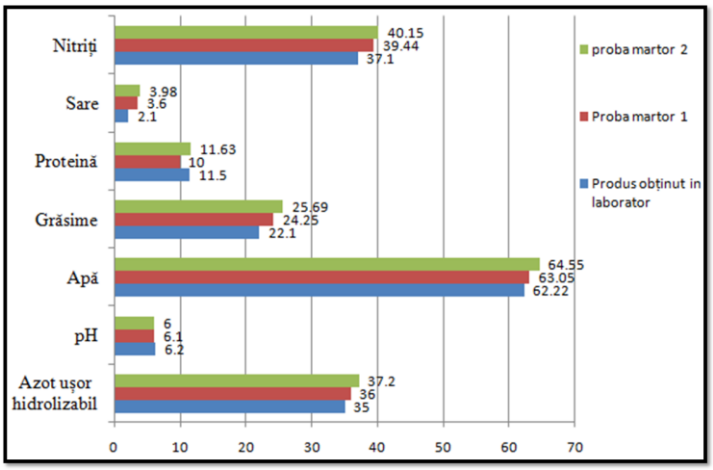
Nutrition is the most important environmental factor that influences the body (Pavlov). About food is said to be a "necessity that gives birth to all the others" or "the pleasure of all ages, of all conditions, of all countries and all the days, which can be associated with all the pleasures and we remain at the last to console ourselves from the loss of others " It also confirms that: "you do not live from what you eat, but from what you digest."

By the name of fed meat, we mean the meat preparations made from minced and spiced meat introduced into natural or artificial membranes, products which are then subjected to thermal treatments and can be used as food as such.

In this paper, the technical and economical study of the production of a cooked meat preparation was carried out. Polish pork meat sausages; several organoleptic and physico-chemical samples were evaluated from the product obtained.



Comparative representation of the results obtained and the results obtained in the laboratory in parallel with two other similar products in the market (Barchart)

Sodium chloride and nitrates are within the limits of the standard. In meat preparations, NaCl has the role of increasing water retention capacity as well as the property of improving the taste of the product, and the nitrates give red color and contribute to consistency.

To increase the nutritional value, it is necessary to lower the water and NaCl content by rigorous control of the raw materials. Instead, increasing water content leads to increased economic efficiency.

Key words: Polish sausages, pork meat, physico-chemical analyzes

P72

Technical and economic analysis of the introduction of a traditional Banat product into the industrial processing. Spritz-Krofne

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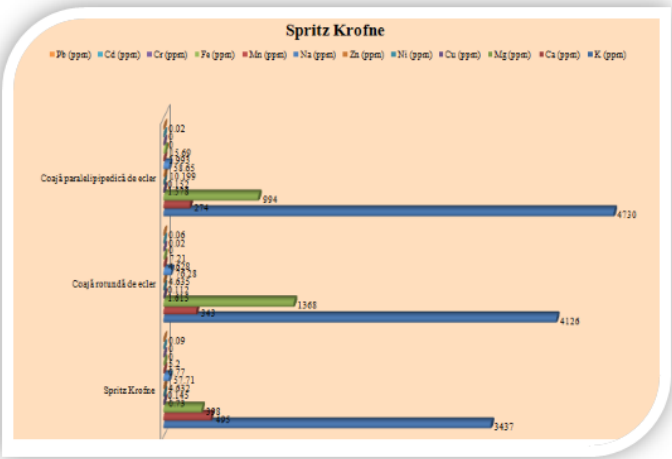
Confectionery products are a product category very demanded by customers in all age segments due to their special taste and aesthetic value. This is the reason why I chose the theme: Technical-economic analysis of the introduction of a traditional Banat product in the industrial processing. Spritz-Krofne.

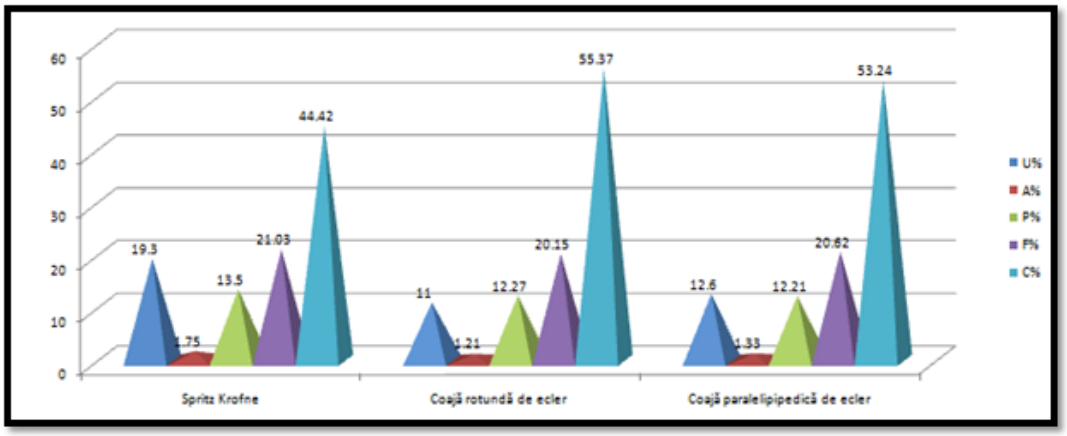
Pastry products are products based on doughs modeled as such or in combination with other ingredients (fillings, creams, different additions), which increase their food value.

Dough is a compact, dense or less dense mass with a large amount of flour and liquid. By the hydration of flour, gluten-generating substances and starch, it is possible to incorporate other ingredients which increase the nutritional value of the dough.

The raw materials used in the dough (flour, milk, eggs, sugar, fat) or their associated doughs give the preparations the sweet or salty taste, which determines their place in the menu: dessert or snack. The high content of flour, with its basic composition - starch, along with grease, gives the preparations a slower digestibility, which allows more efficient use of the large amount of energy supplied.



Comparative graphical representation of the micro and macro elements of the analyzed sample against other 2 similar products



Comparative graphical representation of the chemical components of the analyzed sample against other 2 similar products

***Key words**:* spritz-krofne, dough, physico-chemical analyzes

P73

Organoleptic and physico-chemical characteristics of „Sana" beaten milk sold by a supermarket fromTimisoara

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The goal of this paper was to determine organoleptic and phisico-chemical quality of beaten milk with 3.6% fat sold in a supermarket from Timisoara. The analyzes were carried out in the laboratory of quality control of the products of animal origin in our faculty and consisted in determinations of organoleptic parameters (appearance, consistency, color, taste, smell) and of some physico-chemical parameters (acidity, fat, dry matter, protein and temperature).

Conclusions: the market unit sells beaten milk type I Sana with 3.6% fat which from organoleptic and physico-chemical point of view, with small exceptions, falls within the legal limits imposed by the legislation in force.

Key words: quality, Sana beaten milk

P74

Quality of drinking milk with 2% fat sold in a supermarket from Deva

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The goal of this study was to determine the quality parameters of drinking milk with 2% fat sold in a supermarket fron Deva. Organoleptical exam consist in determination of appearance, consistency, color, taste and smell. Phisico-chemical exam consist in determination of density, acidity, fat, degree of contamination and temperature. The microbiological examination aimed to determine the total number of mesophilic germs by the horizontal method for enumeration of microorganisms, the technique of counting the colonies at 30 ° C.

Conclusions: the samples examined generally ranged within the maximum limits allowed by the legislation, pointing out that the manufacturer complies with the legal parameters that do not endanger the health of the consumer.

***Key words**:* drinking milk, quality

P75

Organoleptic and physico-chemical quality of telemea cheese sold in a supermarket in Timisoara

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The aim of this study was to determine organoleptic and physico-chemical quality of telemea cheese sold in a supermarket in Timisoara. From the organoleptic point of view were followed the external appearance and in section , the color, the smell and the taste, and to the acidified whey brine the appearance, the color and the taste. From the physico-chemical point of view, was determined the percentage of water, protein, fat, acidity and the percentage of salt in the cheese and the brine.

Conclusions: 1 The cow's telemea cheese sold in a supermarket in Timișoara generally corresponds organoleptically and physico-chemically, with small exceptions, to the quality conditions imposed by the legislation in force, without presenting risks to consumers. 2. In order not to favor faster acidification of the cheese during storage it is recommended to increase the percentage of salt used to the upper limit of the standard.

Key words: telemea cheese, quality.

P76

Evaluation of the phytotherapeutic potential of some medicinal plants

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Native medicinal plants are used to produce a wide variety of herbal medicinal tea types, with therapeutic properties on the human health and nutrition. Herbal tea is the second most consumed drink in the world after water, for its many health benefits, good taste and pleasant aroma. The different types of herb are frequently use in everyday human diets. In form of infusions, decoctions and macerate can be consume either as a food or as a natural cure for many variety of diseases. The therapeutic and nutritional effects of herbal teas are due to the bioactive substances like alkaloids, tannins, essential oils, vitamins, etc. and not least because of the mineral elements. The paper describes five common medicinal plants: Chamomile (*Matricaria chamomilla*), Peppermint (*Mentha piperita*), Linden (*Tilia europea*), Marigold (*Calendula officinalis*), Hypericum (*Hypericum perforatum*) with their physicochemical and therapeutical properties, the way of preparation and administration, also literature data of some macro and microelements content in some herbal teas and their infusions. The aim of this paper was to analyze the distribution of mineral bioelements from five medicinal plants and their infusions in order to use them as additional bioelements sources. The obtained results show that, the total concentration of mineral elements in herbal infusions is much lower than the concentration values in the regular herbal tea. So, in average consumption (one cup of herbal tea /day) the herbal infusions are not important as calcium, magnesium, iron, zinc and copper sources in human nutrition.The content of bioelements contributes to the estimation of the mineral requirement in the daily diet and to the possibility of using them as an additional source of the essential elements.

Keywords: herbs, infusions, mineral bioelements

P77

Foods of vegetal origin: fresh juices. Physico-chemical and Nutritional aspects

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Fruit juices represent many people's favourite beverages; it offers a whole range of exciting tastes and flavours. Fruit juices are consumed worldwide, not only for their flavor, taste, and freshness, but also due to their beneficial health effects when are consumed regularly. Being relevant sources of vitamins, minerals and polyphenolic compounds many people are becoming aware of the importance of consuming them in their daily diet. The citrus juices, lemon, lime and grapefruit juice is the most appreciated and used because of its flavor and high content of vitamin C. The purpose of this study was to analyze and compare some physico-chemical characteristics: pH, electrical conductivity, density, viscosity and total soluble solids content (TSS) in case of fresh fruit juice and the same assortment of pasteurized juice from the market. The pH was measured using a pH meter mark OP-211/2 connected with combined electrode OP-0808P according to the AOAC methods, the total soluble solids using a refractometer Abbe. Electrical conductance was determined by conductometer OK 112 and viscosity using Ubbelohde-type viscometer. In case of analyzed juice samples, from obtained data we can see the highest difference is between natural grapefruit (3,39) and pasteurized grapefruit juice (2,98) from the market. So, the juice from the supermarket have higher acidity than the natural fresh juice. Also, can be observed that the viscosity for fresh juice has higher values then the viscosity for pasteurized juice, for the same kind of fruits. Study and analysis of the main physico-chemical properties play an important role in the investigation of the fruit juice quality.

Keywords: fresh citrus juice, physical-chemical characteristics

P78

Appreciation of physico-chemical and nutritional aspects of low-calorie products

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Low-fat/calorie products were originally developed for diabetics and people with specific health problems and they were considerably expensive. Nowadays, consumer's demand for low-fat/calorie products has significantly raised in an attempt to limit health problems, such as obesity, coronary heart disease and hypertension, to lose or stabilize their weight and to work within the frame of a healthier diet.

As a consequence, limiting the saturated fat consumption is a central theme in national and international dietary guidelines, aiming to help the consumers to reduce cardiovascular disease risks.

The aim of this study was to evaluate the physicochemical and nutritional properties of some functional products with low calories. The product which we used for analyses is Chutney, a traditional, Indian sauce, obtained from mango, kiwi, ginger, lemon, onion, garlic and condiments. Analyses were performed on representative samples using standardized analytical methods for each ingredient. The purpose of this study was to find out the nutritional value of some low-calorie products and to show the fact that these products can improve your health.

***Key words**:* low-calorie, physico-chemical, nutritional, chutney, health

P79

Appreciation of phytoterapeutic and nutritional value of some types of chocolate with different additions

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Chocolate is made from tropical *Theobroma cacao* tree seeds and its earliest use dates back to the Olmec civilization in Mesoamerica. Nowadays chocolate has become an incredibly popular food in consumer's diet, due to its unique, rich, and sweet taste.

Over the years, chocolate has received a lot of bad press because of its fat content. Today, chocolate is appreciated for its tremendous antioxidant potential. The higher the cocoa content, the more health benefits there are and the less sugar content, which is better for overall health.

The purpose of this study was to enrich the chocolate with different additions, such as ginger, chili pepper, cardamom and to analyze the phototherapeutic and nutritional value that these additions bring to chocolate.

Key words: homemade chocolate, antioxidant properties, nutritional characteristics

P80

Appreciation of the nutritional value of some chocolate specialties

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The history of chocolate is lost in the unwritten history of the Aztec and Mayan peoples, several centuries before our era. Despite the fact that chocolate is a food known from ancient times, nowadays is a modern symbol of sweets, often viewed as a food or snack with variable nutritional value.

The chocolate contains high saturated fat and its consumption may increase the risk of heart disease. However the antioxidant properties of chocolate have potential beneficial effects regarding heart disease.

The aim of this study was to present some chocolate specialties – with particularisation for chocolate coating and its characterization by highlighting the nutritional and alimentary properties of this product. Chocolate couverture (chocolate coating) is a term used for chocolates rich in cocoa butter used by professional pastry chefs and often sold in gourmet and specialty food stores.

The analyses revealed positive aspects generated by the addition of chocolate specialties in our diet, because of his nutritional value.

Key words: chocolate specialties, nutritional charactheristics, diet

P81

Nutritional appreciation of some energy bars

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Energy bars are recommended for people diet which is doing physical exercise, in order to improve and support their performance and to avoid fatigue. The basic components of the energy bars are simple and complexes carbohydrates that provide extra energy during intense and sustained effort. Also, the produces (energy bars) contain small amounts of easily digestible and assimilable lipids, as well as micronutrients such as various vitamins and mineral salts.

In order to achieve this product, we have used the following ingredients: oatmeal, peanut butter, guarana, candied fruit, almond milk. This mixture of simple and complex carbohydrates gives for body energy to support a prolonged workout at maximum intensity. This product (energy bar) is specifically designed to support the nutritional needs of athletes.

***Key words*:** energy bar, nutritional charactheristics, energy, macronutrients

P82

Nutraceutical and sensory characteristics of certain fruit syrups

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Syrup is a sweet solution with a large amount of dissolved sugars. It is a thick, viscous liquid drink. The consistencies of syrups are similar to molasses consistency. Due to the presence of many hydroxyl groups (–OH) within dissolved sugar, hydrogen bonds are formed between the dissolved sugar and the water.

The purpose of the study was to assess certain nutraceutical, physico-chemical and sensory characteristics in case of various types of fruit syrup. Fruit is a rich source of natural antioxidants, vitamins and minerals, having a good nutraceutical and phytotherapeutical value.

The investigated physico-chemical properties were: refractive index, total soluble solids (TSS), salinity, acidity, moisture, ash, ascorbic acid, polyphenols content a.o. Syrups have been obtained both by thermal and non-thermal processing. In the experimental part, different samples of fruits and syrups were analyzed. All the syrups have been prepared by us only based on fruit, with added honey and brown sugar.

Key words: fruit syrup, sensory characteristics, total polyphenols content, ascorbic acid

P83

Obtaining and nutritional characterization of some dietary healing juices

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Together with herbs and vegetables, fruits are the major source of biologically active compounds. Smoothies are blended drinks consisting of a number of ingredients including fruit (or less commonly vegetables), fruit juice, ice, yoghurt and milk. There are three main types of smoothies: fruit only, fruit and dairy, and functional. Fruit smoothies combine a variety of fruits and some other ingredients in order to obtain a specific flavor that contains various vitamins, minerals, nutrients and antioxidants.

For our study we obtained a fruit smoothie by using three types of exotic fruits: Mango *(Manfigera indica.)*, pineapple (*Ananas comosus*) and kiwi *(Actinidia deliciosa).* The purpose of the study was to highlight physico-chemical characteristics of the exotic fruits as well as softdrinks obtaibed therefrom.

The results that we obtained in our study underline once again the necessity to promote the consumption of exotic fruits as a supplement for everyday human diet.

***Key words*:** exotic fruits, smoothies, physical-chemical characteristics, diet

P84

Improve the physico-chemical characteristics of honey by adding different dried fruits

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Honey is a sugary foodstuff, produced and stored by certain social hymenopteran insects. The sweetness of honey is given by monosaccharide (fructose and glucose). It has the same relative sweetness as the granulated sugar. Honey is used both orally and locally to treat various disease (including gastric disturbance, burn skin, ulcers). The qualities of honey have been known and used since antiquity by ancient Egyptians and Greeks, as well as Ayurveda and traditional Chinese medicine.

We have investigated the physico-chemical properties of natural products obtained from acacia honey with the addition of dried fruit. Another objective of this study was to understand how the addition of different dried fruits can contribute to increasing the nutritional value of these products.

Key words: honey, dried fruit, physico - chemical characteristics

P85

The determination of the microbiological spectrum regarding the raw materials and the final product

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In this paper, the microbiological spectrum of the raw materials used to obtain the product called Muffin Queen was highlighted. In this purpose, the effect of microbiological analyzes were verified to evaluate the presence and number of micro-organisms that could alter the physical and chemical properties of the obtained product. Also, pathogenic micro-organisms have been evaluated for their presence that could affect the health of the consumer. From the evaluated pathogenic micro-organisms, the followings are mentioned in this paper: Coliform genes, staphylococcus and fungus. For each gene, the cultures used were those specified in the standard protocols. The results obtained have revealed that obtained products are within the limits of microbiological standards, so they are considered safe products.

Key words: microbiological, spectrum, Muffin Queen, coliform genes, staphylococcus, fungus

P86

Determination of microbiological load from a thermally prepared meat product

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In this paper, highlighted the microbiological load of a thermally prepared meat recipe. To this end, microbiological analyzes were carried out to evaluate the presence and number of micro-organisms that could affect the physico-chemical properties of the product obtained. The charge with pathogenic micro-organisms whose presence could affect the health of the consumer has also been assessed. Among the evaluated pathogenic microorganisms we mention coliforms and coagulase-positive staphylococci. For each genus, the culture media used were those specified in the standard protocols. As a result of the antilles it was found that the product contains 12 colonies of coliforms and 10 colonies of Staphylococci, the number of colonies of both species falls within the legislative limit.

***Key words*:** microbiological, meat, coliforms, coagulase-positive staphylococci

P87

Isolation of contaminant microorganisms from sweets products

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In this paper the contaminating microorganisms from pastry products have been highlighted. For this purpose, microbiological analyzes were performed, so that the presence and number of the microorganisms that could affect the physic-chemical properties of the obtained product, could be emphasized. Also, the charge with pathogenic microorganisms, that if present, might damage the consumer's health, has been evaluated.

Among the pathogenic microorganisms that were evaluated, we mention: coliform germs, coagulase positive staphylococci, fecal streptococci and mushrooms. For each kind, the used culture mediums were those specified in standardized working protocols.

Although the products have been very much appreciated for their tasteful qualities, it has been found after the microbiological analyzes that the number of staphylococci and streptococci exceeded the superior limit imposed in the legislation., while the coliform germs and mushrooms stayed inside the allowed parameters. In the following stages of the research, a solution to inhibit the contaminating germs development must be found, given the fact that the product was not subjected to any thermic treatment.

***Key words*:** contaminant, microorganisms, staphylococci, streptococci

P88

Evaluation of nutritive properties and antimicrobial activity of the goji jelly

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This paper attempts to highlight nutritional properties and antifungal activity of goji fruits in a finished product jelly type. For this purpose it was intended to carry out mycrological analysis to assess the presence and number of microorganisms that could affect the physico-chemical properties of the obtained product. Also, there were attempts of evaluating antifungal properties of goji jelly, through the established technique, the culture medium is Sabouraud. In the analyzes we found no antifungal activity of goji jelly. The organoleptic properties of the product are very popular, and the storage at 4°C for three months (February-April 2017) did not affected them.

Key words: goji, jelly, antimicrobial, nutritive properties

P89

Pumpkin cream – obtaining the product and analyzing it from a organoleptic and microbiological point of view

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Pumpkin fruit is one of the widely grown vegetables incredibly rich in vital antioxidants and vitamins. Thugh this humble backyard vegetable is less in calories, nonetheless, it carries vitamin-A, and flavonoid poly-phenolic antioxidants such as lutein, xanthin, and carotenes in abundance. From the desire to create a new product that is healthy, nutritious and made only with natural ingredients, the Pumpkin cream was born, which comes in three variants: hot pepper, butter and parsley. The new and innovative product was analyzed from a microbiological point of view to make sure that the production method and the ingredients used are fit for human consumption.

Key words: pumpkin, cream, organoleptic, microbiological

P90

Bread with walnuts and cranberries - evaluation of the nutritional properties and consumer benefits

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Bread is served in various forms with any meal of the day. It is eaten as a snack, and used as an ingredient in other culinary preparations. This type of bread is a sweet one, which is usually consumed at breakfast along with other foods or sauces, or for those who like the unusual taste it can be eaten at any meal. Studies have shown that walnuts are rich in omega-3 fats and contain higher amounts of antioxidants than most other foods. Eating walnuts may improve brain health while also helping to prevent heart disease and cancer. As far as healthy foods go, cranberries are at the top of the list due to their high nutrient and antioxidant content and are often referred to as a "super food." Not to mention, half a cup of cranberries contains only 25 calories.

Key words: bread, walnuts, cranberries, nutritional, consumer

P91

Evaluation of some quality indicators in the technological process of obtaining meat products

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Products made from raw and smoked meat may be salami, Sausages or other specialties, they represent an important class of food in terms of human nutrition. They are important for securing a portion of your energy needs, minerals and proteins very important in human metabolism. In this paper was presented the technological scheme as well as the description of the operations of the process of obtaining homemade sausages. Another important aspect of this paper was the organoleptic and physico-chemical analysis of five samples of raw and smoked sausages. The organoleptic evaluation of the five sausage samples led to the following conclusions: Appearance: represented by strings red, membrane of artificial edible type, undamaged, not sticky. Section: pink-red, compact, mosaic table. Smell and tasty: nice of smoked. Consistency: elastic- little hard. The physicochemical evaluation of the five sausage samples was aimed at determining the water, fat, nitrogen, protein and salt content. The results obtained with regard to the physico - chemical analysis of the five samples of sausages were as follows: Salt (2,49% - 2,1%); Fat (41,35% - 26,4%); Water (56,85% - 38,54%); Nitrogen (3,19% - 2,02%) and Proiein (19,99% - 12,63%).

The results obtained from the physicochemical assessment are in line with the rules and legislation in force concerning meat and meat products.

Keywords: raw and smoked products, sausages, salt, fat, water, nitrogen and protein.

P92

Obtaining of chicken pate and its developing quality monitoring system

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This paper presents the development of two assortment of chicken pate and the elaboration of a quality monitoring system by realization the HACCP plan corresponding to the technological flow, as a method of preventing food safety. So, analyzed biological, chemical and physical risks and identified critical control points. The assortments are: chicken pate with dryed apricot and chicken pate with lovage and apricot seeds. The two pate were evaluated organoleptically, nutritively and energetically. Their physico - chemical characteristics were also determined.

The obtained results for lipids were between 25.76% (chicken pate with lovage and apricot seeds) and 25.93% (chicken pate with dehydrated apricots). Regarding the ash content determination is concerned, the values of the two samples were close, namely: 1.05 in the case of chicken pate with dehydrated apricots, respectively 1.29 in the case of chicken pate with lovage and apricot seeds. As respects of umidity content the experimental results of this parameter was in range 47.57% (chicken pate with lovage and apricot seeds) to 49.22% (chicken pate with dehydrated apricots). In the case of pH determination, it is observed similar values (6.40 – 6.66) to reported by the literature (6.38 – 6.51).

***Keywords*:** chicken pate, monitoring the quality, HACCP

P93

Identification of microorganisms from samples of hand crafted obtained jams

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This study is a comprehensive study about fungal microorganisms present in bananna and oranges jam, handcrafted obtained. Two samples were analyzed from microbiological and physico-chemical point of view, the results reveal that the products are microbiologically safe and within the limit of the quality standards.

Key words: jams, bananna, oranges, quality standards

P94

Quality appreciation of some milk products by assessing some physico-chemical indicators

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Milk and dairy products comprise most of the essential nutrients of the body and are very well assimilated by the body. Milk as well as a large part of dairy products are characterized by dietary properties.This paper describes the technological process for obtaining Dalia type cheese. At the same time, organoleptic and physico-chemical analyzes were carried out on several types of cheese. The analyzes performed highlighted the qualities of the cheese samples as follows, determined physically and chemically: total dry matter, values in the interval (62% - 67%); NaCl, values ranging from (2,5% - 3%); Fat, values in the range (45 % - 46.54%); Humidity, values in the range (44.2% - 45.5%) and Protein, values in the range (21% - 22%). In the case of organoleptic analysis, the tested cheese samples showed the following properties: *Appearance*: smooth shell, cleaner, without cracks, white-yellowish color, uniform compact mass, *Color*: from white to light yellow, uniform throughout the table, *Consistency*: fine paste, unctuous, slightly elastic, to tear it breaks into strips, *Taste*: pleasant, with a specific flavor of scalded paste cheese; *Smell*: pleasant, typical of scalded paste cheese. The results of the analyzes performed are within the limits imposed by the current milk and milk products standard.

Keywords: milk, cheese, salt, fat, protein

P95

Food safety management on the technological flow of the halva product

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Halva is characterized by a balanced nutritional composition, an important source of lipids and carbohydrates and contains calcium, iron, vitamin B1 and E.

The purpose of this paper was to development and characterization physico – chemical a "halva" food by replacing raw materials: sesame seeds and sunflower seeds with raw materials: walnut and pumpkin seeds, and also replacing sugar with honey, in a synthetic approach to food safety management according to the technology of halva production.

For the two halves, organoleptic properties and nutritional values were analyzed and it has been also detemined their physico-chemical characteristics. The obtained results for umidity were between 9.76% (walnut halva) and 9.96% (pumpkin seed halva). Regarding the pH determination is concerned, the values of the two samples were close, namely: 6.37 in the case of walnut halves, respectively 6.62 in the case of pumpkin seed halves. As respects of lipids content the experimental results of this parameter was in range 31.86% (walnut halva) to 35.80% (pumpkin seed halva). In the case of ash content determination, it is observed values considerably higher (3.20 – 3.38) than those reported by the literature (0.47 – 1.56).

***Keywords*:** food safety management, halva, physico – chemical determination

P96

Marketing research regarding the evolution of the untraditional oil market in Romania

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The literature show us that a Romanian consumes an average of 13 liters oil / year, compared to an austrian whose consumption is only 5 liters oil/year.

The evolution of the edible oil market is relatively constant, starting from the premise of the cultural reality that describes us, namely that in Romania the family is one of the most significant existential values. Another argument that explains why per capita oil consumption is higher than in other European Union countries is the habitude and culinary traditions characteristic of the romanian people based on home-cooked food compared to other european culinary cultures to wich the share of oil consumption is substantially higher in the service industry, restaurants and hotel chains.

The present work has as objectives, marketing research on the untraditional oil market in Romania, evolution of production, consumption, sales and price of untraditional oils, compared to traditional ones. Thus, these studies and analyzes have resulted in identifying profile of the untraditional oil consumer and in highlighting the notoriety of the most top producers and brands of traditional and non-traditional oils in Romania.

***Keywords*:** marketing research, untraditional oils, market

P97

Designing and developing a quality monitoring system for a food for diabetics

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This paper presents an inovative food product for diabetics – chocolate with bitter cucumber (*Momordica charantia*) and stevia (*Stevia rebaudiana*). The chocolate obtained by two recipes: with vanilla + pepper, and vanilla + cinnamon adding. The technology of this chocolate was monitoring step by step, checking the recipe, technological flow and main work parameters: time and temperature. The final products have been characterized by sensorial and physico-chemical point of view. The results obtained show: sugar content 65,4 - 68,9 Brix; moisture 0,4-0,6%; acidity 1,5 – 2,8 degree; the highest antioxidant activity was registered in chocolate with vanilla and cinnamon - 40128,86 microM/ml (401.29mgTrolox/g).

***Keywords*:** food, diabetics, stevia, chocolate, bitter cucumber

P98

Evaluation of the quality characteristics and nutritional properties of honey with added seabuckthorn

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The goal of this paper was to assess the quality and nutritional properties of Manuka honey with seabuckthorn. In this respect, we prepared three types of Manuka honey with different content of seabuckthorn juice (10%, 20% and 30%). After that, we determined, content of sugar, vitamin C, polyphenols content, antioxidant activity, refractive index and some microbiological parameters. Our results shows that seabuckthorn juice adding changed the antioxidant capacity (227,45 – 417,9 microM/mL, 2.27- 4.18 mg Trolox/g), polyphenol (1,9-2,12 mg gallic acid/g), vitamin C (0,88 – 1,85 mg/g), sugar content (10,2-13,7 Brix), refractive index (1,3481 – 1,3535).

***Keywords*:** honey, seabuckthorn, quality characteristics, nutritional properties

P99

Designing of red beetroot jam and assessing the quality parameters of the developed product

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The aim of the present work was to develop and to evaluate in terms of quality parameters the jam obtained from red beetroot without preservatives. The preparation of the jam involved several tests until the optimum recipe was found. Thus, we prepared several product variants consisting in the addition of different amounts of sugar (20%, 25%, 30% and 40%). The final products were evaluated in terms of physico-chemical properties (sugars content, vitamin C and antioxidant activity) and then submitted to sensorial analysis that revealed the panelists preference for the jams. Sensorial assessment showed that the jam with highest sugar content was the most apreciated by panlist. Also, the cubic shape of beer root was less well appreciated than noodles. The values obtained for studied physico-chemical characteristics revealed that increasing of sugar (from 16,85 to 25,1 Brix) content in jams leads to decreasing of antioxidant activity (from 757,79 to 9131,001 microM/ml, 7.58- 91.31 mg Trolox/g) of samples; the refraction index which was in the range of 1,3574 – 1,3720, can be corelated with sugar content; the pH value was in the range of 3,91 – 4,14 and is not influenced by the sugar content of studied jams.

***Keywords*:** red beetroot, jam, quality parameters

P100

Evaluation of yeast development (*Saccharomyces cerevisae*) and alcoholic strength levels in brewing beer with beet red juice addition

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The significance of unfiltered and unpasteurized beer has expanded lately, which is why the number of micro-breweries is increasing and the producers interest is to develop high quality products and to also keep the distinct characteristics unaltered. It is well acknowledged that these attributes depend on a number of aspects, including raw materials. Thereby, trying to get a more original product, introduced as Cassiopeia Prime, two assortments of wheat malt beer were set side by side, in one of them sugar was added, and in the other sugar was partially replaced by the addition of beet red juice (*Beta vulgaris* L). Sugar and beet red juice, was added before the second fermentative process.

In both varieties of beer obtained, the growth and development ratio of yeast and alcohol concentration was strictly examined. Following the study, it was found that in both types of beer, the alcoholic strength falls within the required and known market limits, with a slight decrease for the type with added beet red juice. From a microbiological point of view, Cassiopeia Prime does not show any noticeable differences from the beer variant in which sugar has been added.

Keywords: *Saccharomyces cerevisiae*, alcohol, beet red juice, sugar, wheat malt

P101

Physical-chemical characterization of some alimentary oils

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Lipids are indispensable food components, which in large measure determine the energy value as well as the nutritional, biological and sensory qualities. The nutritional value of vegetable oils is their content in polyunsaturated fatty acids, especially linoleic (ω6) and linolenic (ω3) acids which have an important role in human metabolism. Vegetable oils are raw materials for a range of products used for industrial purposes (emulsifiers for the food industry, textile auxiliaries, lubricants and stabilizers in the plastics processing industry) or in the household (soaps).

The aim of this paper was to evaluate some of the physicochemical characteristics (the refractive index, relative density and viscosity) in case of three alimentary oils. The analyzed oil assortments, in these works are soybean, rape and corn oil purchased from the commercial market having different origins.

Oils density varies from species to species, and for the same oil with the preserved conditions (conservation period, climatic conditions in which the plant has developed). Viscosity gives relevant indication of the degree of oil fluidity.

The experimental results showed that the highest value for viscosity was registered in rapeseed oil (38,7088cP) and the smallest in soybean oil (34,0174cP). After analyzing the experimental data correlating with the literature one, ideal recommended for frying oil, is corn and rape oil having a high combustion temperature (more than 200°C) while soybeans oil, rich in nutritional properties, is recommended to be use cold, unheated. Rape oil from improved varieties is very good cooking oil for human consumption while soybean oil has a neutral taste and is recommended for the preparation of various types of salad.

Keywords: alimentary oils, physical-chemical characteristics

P102

Studies regarding the influence of using the soy sauce on the tenderizig and maturation processes of fresh pork meat

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This project present the influence of using the soy sauce in order to tenderise and improve the maturation process of fresh pork meat. For this purpose it was prepared three samples of fresh pork sholder which were injected with 20%, 30% and 40% soy sauce and other three samples of of fresh pork sholder which were immersed in the same soy sauce proportions. Also it were prepared two samples of fresh pork sholder each of them being injected and immersed in 20% salt solution which are usualy used as tenderizing agent. The eight samples were studied by comparison with raw fresh pork sholder used as a control in terms of physico-chemical and rheological characteristics. The obtained results showed that the pH was in the range of 6.3 (control) – 5.35 (samples injected with 40% soy sauce); sugar content was in the range of 0.5Brix° (control) – 1.2 (sample injected with 30% soy sauce); the values registred for natrium chloride content highlighted that the using of soy sauce in higher concetrantion had the effect on the proportional increasing of salt content in samples. Regarding the water content it was noticed that for the immersed samples were registred lower values than those injected and were situated in the range of 67%-77%. In terms of the rheological behavior there were no major differences between the studied samples.

Keywords: soy sauce, pork meat, tenderizig, maturation processes

P103

Obtaining of some spicy fruit sauce and assessing their quality characterics and nutritional profile

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The main goal the study was to prepare two assortments of spicy fruit sauce prepared from sour cherry and berry fruits (red and black currants, blackberries and strawberries), respectively. After obtaining the two types of sauce were assessed in terms of quality characteristics and were calculated the nutritional values of products. The registered values of physico-chemical parameters showed that pH of sauce samples was similary (3,02 in case of sour cherry and 3,31 for mix berries); the sugar content of sour cherries sauce was 10,4 Brix and 6,6 Brix of mix berries sauce. Sensitive higher differences were recorded for moisture (51,06%-sour cherries sauce and 77,7%-mix berries fruits); acidity (6,4grd.-sour cherries sauce and 4,4grd.- mix berries sauce) and natrium chloride content (2,27 %-sour cherries sauce and 1,17%- mix berries sauce) and could be atributed to the recipes of the two samples. The same physico-chemical parameter, except salt content, were determined for fresh fruits, the registered values being similary. In repect of microbiological parameters all samples were within the limits specified by legislation.

Keywords: fruit sauce, quality, nutritional profile

P104

Sensory analysis of some salty Vegan products: "Ecological vegan cream with eggplant and sunflower seeds"

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The study presents a sensory analysis of some Vegan products type "Ecological vegan cream with eggplant and sunflower seeds" commercialized in the West Side of Romania. Sensory analysis was performed using "5-1" scale, where "5" stands for the maximum acceptability, white "1" stands for non-acceptability. The following sensory characteristics were evaluated by the panel: aspect, color, consistency/texture, smell and taste. Sensory analysis results were subjected to multivariate statistical analysis (PCA) for sample classification and evaluation of the main characteristics for a better acceptability of the Vegan products.

Keywords: sensory analysis, salty, vegan cream, eggplant, sunflower seeds

P105

Sensory analysis of some sweet Vegan products: "Vegan cream with pumpkin, ginger and oranges"

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The study presents a sensory analysis of some Vegan products type "Ecological vegan cream with eggplant and sunflower seeds" commercialized in the West Side of Romania. Sensory analysis was performed using "5-1" scale, where "5" stands for the maximum acceptability, white "1" stands for non-acceptability. The following sensory characteristics were evaluated by the panel: aspect, color, consistency/texture, smell and taste. Sensory analysis results were subjected to multivariate statistical analysis (PCA) for sample classification and evaluation of the main characteristics for a better acceptability of the Vegan products.

Keywords: sensory analysis, sweet, cream, pumpkin, ginger, oranges

P106

Variation of antioxidant activity of roe ethanol-water extracts from commercial sources

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Roe is widely consumed through the world for its sensorial characteristics but also for their nutritional values (especially triglycerides). Another less studied aspect of roe products is the antioxidant activity. Roe has antioxidant properties due to the presence of some enolic derivatives (e.g. gadusol, 3,5,6-trihydroxy-5-hydroxymethyl-2-methoxycyclohex-2-en-1-one [1]) as well as some proteins and protein hydrolysates [2].

The aim of the study was to evaluate the antioxidant activity of some roe extracts obtained from products achieved from Romanian market and extracted with ethanol-water mixtures (roe samples from carp, herring, salmon, Northern pike, or "Manciuria" and "Cafelin" types). 2,2-Diphenyl-1-pycryl-hydrazyl (DPPH·) technique have been used for spectrophotometrically monitoring the mixture with roe extracts at 517 nm for 15 minutes. Extracts have relatively low antioxidant activity, with better results for salty roe from herring.

Keywords: antioxidant activity, roe, ethanol-water extracts, commercial sources

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P107

Fatty acid profile of Prussian carp (*Carassius gibelio*) oil

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Prussian carp (*Carassius gibelio* Bloch) is a fish species firstly used in a decorative way in Northern Asia and Europe. They are also living in Danube and Rhine rivers. They can be found in Romania in many rivers and lakes, as well as in the Danube Delta. It has a higher resistance against environmental factors (pollution, lack of oxygen etc.) and made them valuable omega-3 sources from this point of view.

The goal of the research was to evaluate the fatty acid profile of fish oil separated from Prussian carp (*C. gibelio* Bloch) using meaty part of fresh fishes from Danube River. Fish oil was separated after boiling of meaty part at a fish:water ratio of 1:2, filtering and drying over anhydrous sodium sulfate. Fish oil was derivatized to the corresponding methyl esters using $MeOH \cdot BF_3$ method and the fatty acid profile was achieved by gas chromatography-mass spectrometry analysis. The NIST/EPA/NIH Mass Spectral library was used for fatty acid identification by comparison of the experimental MS and those from the database. Monounsaturated fatty acids were the most concentrated in Prussian carp oil (28.47 ± 1.75 % for oleic acid, as methyl ester), while omega-3 fatty acids (especially EPA and DHA) had a relatively lower content in such small fishes (6.69 ± 0.51 % and 5.06 ± 1.08 %, respectively).

Keywords: *Carassius gibelio* Bloch., fatty acid, fish oil

P108

Sensory profile of some fresh pork meat-based food products

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Pork-based meat products are widely consumed through the world, especially in Europe. Among pork meat food products, Romanian traditional food such as "toba de porc" type are very much appreciated. It contains different parts of the pork, not only meat, but ears, skin, bacon, fat, liver and kidney included in a stomach membrane and gelatin. Various spices are used in order to obtain specific and particular products. This can be also made by turkey.

In this study the level of similarity-dissimilarity of various fresh pork meat-based food products ("toba de porc" type) have been evaluated using sensory analysis made by a panel of ten subjects. Results were further analyzed by Principal Component Analysis statistical multivariate technique (PCA) for smell, taste, color/aspect, transversal aspect and consistency/texture as dependent variables. There were a valuable grouping of the samples based on these sensorial parameters.

Keywords: sensory profile, pork, meat products

P109

Separation, physico-chemical and sensory analyses of orange essential oil

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The goal of the research was the valorization of some waste products from the fruit juice industry. We focused on the separation and analysis of essential oils from orange peels by steam-distillation-extraction. Up to 3% was the yield of separation for both fresh orange peel samples and waste products obtained from the juice manufacturers. The odorant profiles of these essential oil samples are similar, as was determined by gas chromatography-mass spectrometry analysis. Limonene was the most abundant compound in both samples. There are some differences related to "key compounds" and "off flavor compounds" from the oxygenated monoterpenoid class (some of the probably resulted during the storage or separation process as degradation compounds). Sensory analysis was performed for flavored tee samples and reveals well similarity and acceptability for both samples, according to Principal Component Analysis statistical multivariate method.

Keywords: orange, essential oil, separation, gas chromatography-mass spectrometry analysis

P110

Lemon essential oil: separation, GC-MS and sensory analyses

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Lemon is the fruit of Citrus lemon L. (lemon tree), which is a tree originated from Asia. The lemon juice is one of the most consumed citrus juice. It also has applications in toiletry products. It contains 5-6% citric acid. Another important compounds found in lemon juice are ascorbic acid (knows as vitamin C), as well as polyphenols, terpenes and tannins. On the other hand, lemon essential oil is used in traditional medicine (aromatherapy).

The main aim of the research was to separate and analyzes the lemon essential oil from waste materials resulted from commercial fresh juice preparations. The temperature controlled steam-distillation method provide a lemon essential oil with an overall yield of 1.69 % (density of 0.861 g/mL). Gas chromatography-mass spectrometry (GC-MS) analysis of the lemon essential oil samples allows to separate and identify more than fifty volatile compounds. The most concentrated compounds were mon- and bicyclic terpenes (e.g., α- and β-pinene, camphene and limonene). Significant concentrations were also obtained for oxygenated monoterpenoids, such as linalool and linalyl acetate, neral, geranial, as well as cyclic monoterpenoids (e.g., 1-terpinen-4-ol, α-terpineol and carvone) or other odorant derivatives. Sensory analysis of lemon essential oil-based tee samples reveals a better acceptance than non-flavored samples, according to Principal Component Analysis (PCA) statistical multivariate technique.

Keywords: lemon, essential oil, separation, GC-MS, sensory analyses