

Simpozionul Cercurilor Științifice Studentești

domeniul ALIMENTAR

CU PARTICIPARE INTERNAȚIONALĂ

Ediția a XXIV-a

23 mai 2025

PROGRAM

10.00	Deschiderea Simpozionului Cercurilor Științifice Studentești
10.15-14.15	Susținerea lucrărilor
14.15	Închiderea Simpozionului Cercurilor Științifice Studentești

Lucrările Simpozionului Cercurilor Științifice Studentești

**Specializarea Industrie Alimentară
CU PARTICIPARE INTERNAȚIONALĂ**

Ediția a XXIV-a, 623 mai 2025

Moderators:

PhD students Dură-Muraru Mihaela

Moga Valentina Mădălina

Organiser:

Assoc. Prof. dr. ing. Monica Mironescu

No	Student(s)	Study year	Study program	University	Name of the presentation	Coordinator(s)	Abstract (maximal 500 characters)
1	Antonella Schiavitto, Fabio Discenza	III	Erasmus	Università degli Studi del Molise	Obtaining and characterisation of green packaging	Monica Mironescu	This study is about starch biofilm production as a future substitute for plastic in food packaging and this is one of the most challenging research of today. In this research, the production of starch-based biofilms is investigated, by using potato starch, glycerol and acetic acid in different proportions and in different working conditions. The analysed characteristics are: water content, water activity, biodegradability. The results indicate the strong influence of duration and of acetic acid on water content and water activity.
2	Louane Loewert, Madeline Aubert	III	Erasmus	Université Claude Bernard Lyon 1	Influence of the thermal regime on dehydration kinetics and the stability of bioactive compounds in blueberries and raspberries monitored in real time with the DataBox platform	Ketney Otto, Sipos Anca	This study compares hot-air dehydration of blueberries and raspberries. Physico-chemical analyses and Arduino sensors were used. A DataBox tracked colour, spectra data, temperature and humidity, quantifying moisture loss, water activity, colour shift and anthocyanin. Kinetic models showed faster drying at higher temperatures but more pigment loss. An intermediate regime balanced speed and antioxidant preservation, offering a scalable, quality-focused drying approach.

3	Cassandre Pascal, Inès Caillac	II	Erasmus	Université Claude Bernard Lyon 1	Study of the antimicrobial action of rosemary essential oil, in meat product, used as an alternative to preservative	Monica Mironescu, Cecilia Georgescu	This study aims to find an alternative method to the preservative used in meat-based products. To do this, we collected microorganisms from meat-based products, isolated and multiplied them. In parallel, we used standard bacteria, and then, using antibiograms, we tested the oils on the microorganisms. The essential oils were analysed alone and as combinations, to evidence the synergic action of them.
4	Inès Caillac, Cassandre Pascal	II	Erasmus	Université Claude Bernard Lyon 1	Study of the antimicrobial action of rosemary essential oil, in meat product, used as an alternative to preservative	Cecilia Georgescu, Monica Mironescu	This study aims to find an alternative method to the preservative used in meat-based products. To do this, we analysed the antioxidant action of the rosemary essential oils obtained from 10 different sources. The essential oils were analysed alone and as combinations, to evidence the synergic action of them.
5	Stîngaciu Marinela Bianca	I	IPA	ULBS	Research on the production and physicochemical analysis of fresh cow's cheese with added dried cranberries and dried basil	Adelina Constantinescu	This study aims to produce an innovative dairy product by enhancing fresh cow's cheese with dried cranberries and dried basil. Several samples of fresh cheese with different concentrations of cranberry and basil were obtained and the stability of physicochemical properties (acidity, pH, dry matter, water activity, salt content) during the storage period was evaluated. This work was supported by a KING CAROL I-st research fellowship granted by the Romanian Ministry of Research, Innovation and Digitalization, contract number 14 RCI 09.12.2024.

6	Cerpac Minerva Maria	I	IPA	ULBS	Obtaining cow's milk yoghurt with the addition of rose hips and ginger powder: Research on the analysis of the physicochemical profile	Adelina Constantinescu	This study aims to realize an innovative dairy product by enhancing cow's milk yoghurt with rose hips and ginger powder, components rich in bioactive compounds. Several yogurt samples were obtained with different concentrations of rose hips and ginger, and the stability of the physicochemical properties (acidity, pH, dry matter, water activity, syneresis) during the storage period was evaluated. This work was supported by a KING CAROL I-st research fellowship granted by the Romanian Ministry of Research, Innovation and Digitalization, contract number 14 RCI 09.12.2024.
7	Comșa Mihai Sebastian	I	IPA	ULBS	Research on the analysis of the physico-chemical profile of semidry red wines of the varieties Fetească Neagră, Cabernet Sauvignon and Pinot Noir	Adelina Constantinescu	The aim of this study is the physicochemical analysis of red wines of the varieties Fetească Neagră, Cabernet Sauvignon and Pinot Noir and the realization of new products by blending red wines. Essential parameters such as acidity, total extract, alcohol concentration, sugar content and density were determined, which are necessary to assess the quality and stability of the wine before blending. This work was supported by a KING CAROL I-st research fellowship granted by the Romanian Ministry of Research, Innovation and Digitalization, contract number 14 RCI 09.12.2024.
8	Docolin Darius, Cioboată Marian Cristean, Rațiu Gabriel George, Florea Cătalîn Vlad	II	IPA+ CEPA	ULBS	Tehnici moderne de conservare a cărnii: sărarea cu ajutorul ultrasunetelor / Modern Meat Preservation Techniques: Salting Assisted by Ultrasound	Drăghici Olga, Ketney Otto	Cercetarea are ca scop evaluarea eficiența utilizării ultrasunetelor în procesul de sărare a cărnii, cu obiectivul de a reduce timpul necesar pentru pătrunderea sării în carne și de a spori siguranța alimentară, contribuind astfel la obținerea unei metode moderne și eficiente de conservare a cărnii.

9	Vîrlescu Emilian, Sbucnea Anamaria	III	IMAPA	ULBS	Dezvoltarea unui desert de tip Pavlova sugar free și gluten free/ Development of a sugar-free and gluten-free Pavlova-type dessert	Stanciu Alexandra Monica, Mironescu Monica	Our goal is to create a sweet product, already existing on the market but without added sugar and gluten-free. For this research we chose Pavlova roll as the product, where we replaced the sugar in the meringue base with fructose and the sugar in the cream with erythritol.
10	Stoian Adriana	III	IMAPA	ULBS	Dezvoltarea unui produs sănătos de tip muffin pe bază de banane, orz și stevia/ Development of a healthy muffin recipe with bananas, oat flour, and stevia	Stanciu Alexandra Monica, Mironescu Monica	This paper presents a healthy muffin recipe using bananas, walnuts, oat flour, and stevia—natural alternatives to traditional ingredients like white flour and sugar. The muffins offer high nutritional value, are rich in fiber and antioxidants, and cater to health-conscious consumers, including those with dietary restrictions. A detailed cost analysis shows a production cost of ~2.91 RON per muffin, supporting a competitive market price between 6 and 8 RON. The product aligns with current trends in clean eating, offering both nutritional benefits and commercial potential in the healthy bakery sector.
11	Popa Nicoleta	III	IMAPA	ULBS	Dezvoltarea unei tarte cu căpșuni fără zahăr adăugat și un amestec inovator de făinuri/ Development of a strawberry tart without added sugar and a novel blend of flours	Stanciu Alexandra Monica, Mironescu Monica	This project presents a healthier reinterpretation of the classic strawberry tart using whole wheat flour, oat flour, and xylitol as a natural sweetener. The base replaces refined white flour with a 50/50 mix of whole and oat flour, improving fiber content and offering a more balanced texture. Xylitol, with a similar taste to sugar but a lower glycemic index, was used in both the cream (40g) and the strawberry jelly topping. The cream was made with 300ml of milk and a vanilla pudding mix, while the base consisted of 4 eggs, baking powder, and the flour blend. Estimated production cost is ~40 RON per whole tart (8 slices), resulting in a cost of ~5 RON per slice. The product targets consumers seeking clean-label desserts and reduced-sugar options, aligning with current trends in functional, health-conscious pastry development.

12	Bianca-Gabriela Dumitru	IV	IMAPA	ULBS	Inițierea și dezvoltarea unei afaceri de tip agropensiune centrată pe cultura lavandei și valorificarea producțiilor acesteia	Romulus Iagăru, Maria Lidia Iancu, Pompilica Iagăru, Anca Șipoș	Lucrarea are ca scop crearea unui model de afacere integrată, adaptată cerințelor actuale de valorificare a resurselor endogene, cu accent pe cultura lavandei. Se detaliază resursele necesare, tehnologiile de prelucrare a lavandei, strategiile de marketing pentru atragerea turiștilor și planul de afaceri.
13	Georgiana-Mihaela Bogățan	IV	IMAPA	ULBS	Studiu privind indicatorii de dezvoltare durabilă și valorificarea resurselor din flora spontană	Anca Șipoș, Romulus Iagăru, Maria Lidia Iancu	Lucrarea se fundamentează pe importanța crucială a identificării și gestionării sustenabile a resurselor naturale locale. Aceasta vizează nu doar conservarea biodiversității și protejarea patrimoniului natural, ci și utilizarea acestor resurse în mod responsabil pentru a sprijini dezvoltarea economică și socială a comunității. Totodată, tema este aliniată obiectivelor stabilite prin Agenda 2030 pentru Dezvoltare Durabilă, urmărind să integreze principiile sustenabilității în afacerile locale, să stimuleze economia verde și să contribuie la îmbunătățirea calității vieții în comunitate din zona rurală.
14	Croitoru Elena-Ionela	IV	CEPA	ULBS	Analiza comparativă a valorilor indicatorilor de calitate ai cartofilor mov (<i>Solanum tuberosum</i> Vitelotte) și albi (<i>Solanum tuberosum</i>)	Iancu Maria Lidia	Cartoful care hrănește lumea, ce mai poate fi nou? A fost realizat acest studiu comparativ pentru evaluarea calității cartofilor mov (<i>Solanum tuberosum</i> var. Vitelotte) și a cartofilor albi (<i>Solanum tuberosum</i>). Studiul a debutat cu descrierea materiei prime cartofi albi și mov și a continuat cu evaluarea procesului tehnologic de obținere a unui produs finit sub formă de cartofi pentru prăjit, conservați prin congelare. S-a efectuat compararea caracteristicilor fizico-chimice, organoleptice ale celor două tipuri de cartofi, evaluarea potențialului tehnologic înainte și după procesul de congelare și depozitare în stare congelată, pentru a determina diferențele de calitate. Cartofii mov sunt o sursă de nutrienți superiori, dar cei albi, clasici pentru noi, au fost preferați de consumatori.

15	Rățiu George Gabriel, Hămbășan Agneta-Maria	II, IV	CEPA	ULBS	Spanacul (<i>Spinacia oleracea</i> L.) și suc de portocale (<i>Citrus sinensis</i>) la prepararea băuturilor de vară	Iancu Maria Lidia	Scopul este de a crea un prototip experimental de băutură nutraceutică. Ca obiective colaterale s-a urmărit testarea tehnicii de obținere a pulberilor de spanac, crearea unei baze de date despre sucurile de portocale cu spanac și valorile indicatorilor de calitate determinați cu factorii de influență care s-au remarcat din acest studiu. Impactul asupra consumatorului, precum și evaluarea unor posibilități de extindere a studiului au fost testate, respectiv identificate. Se obține un produs verde din suc de portocale cu aromă persistentă de portocale și indicatori de calitate care sunt specifici sucurilor tulpuri, naturale.
16	Dancu Antonia, Fuiorea Andreea, Preda Roxana, Ionescu Bianca	IV	IPA	ULBS	Studiul influenței tipului de îndulcitor asupra viscozității jeleurilor/ Study of the influence of the type of sweetener on the viscosity of jellies	Ion Dan Mironescu	There is a strong interest in finding sugar substitutes in the production of confectionery products; in addition to being sweet, these substitutes have to meet technological challenges such as rheological behavior. This research investigates the viscosity profiles of jelly obtained by using agar as a gelling agent and sugar and xylitol as sweeteners. The results indicate that the gels obtained with the two types of sweeteners and with different agar concentrations have similar behavior, as dilating fluids.
17	Raluca-Ioana Rus (căs. Călborean)	II	ACSA	ULBS	Cercetări referitoare la obținerea biscuiților cu adaos de pudră de păducel	Mihai Ognean Anca Tulbure Claudia Felicia Ognean	
18	Crangă M.-F. Maria-Florentina , Niculescu A. Elena-Alexandra , Cordea Gh. Emanuela	IV	CEPA	ULBS	Cercetări referitoare la obținerea unui produs funcțional: paste cu ouă de prepeliță și pudră de broccoli	Mihai Ognean Claudia Felicia Ognean	

19	Florea Fl.-C. Anamaria- Alina, Dincă T. T. Toma-Darius, Căliman N. Marian-Cătălin	IV	CEPA	ULBS	Cercetări referitoare la obținerea unui produs funcțional	Mihai Ognean Claudia Felicia Ognean	
20	Groza Razvan, Radu Campian	IV	IPA	ULBS	Perpetuarea tradițiilor culinare românești/ Perpetuating Romanian culinary traditions	Drăghici Olga, Mironescu Monica	Turning back to tradition is becoming the new trend of the modern world. Especially the traditional food products are started to be appreciated and solutions for revitalising the appetite of consumers for traditional food are tested. In this research, the preference of students for a very known Romanian product, namely “mici”, was tested. The products were produced by us at the didactical farm Rusiori. A number of 200 participants in the Students symposium participated in the tests and appreciated the products. Discussion on the cultural values, together with the sensorial characteristics, were made.
21	Pristav Andreea	II	ACSA	ULBS	Comparative analysis of obtaining fresh cheeses using different types of coagulant enzymes	Tita Mihaela, Ognean Mihai, Constantinescu Adelina	Plant proteases that coagulate milk have become a subject of increasing interest in the cheese industry, due to their easy availability and simple purification processes, but also due to the high price of calf rennet and its very limited availability, religious restrictions, or lacto-vegetarian diet. The paper aimed to present a comparative analysis of coagulant enzymes of vegetable and animal origin in the manufacture of soft cheeses. Which two cheeses were analyzed from a sensory, physico-chemical, textural point of view over a period of 45 days.

22	Moga Valentina Mădălina	PhD student		ULBS	Application of oil by-product flours in bakery: a circular and functional approach	Tița Ovidiu, Ognean Mihai, Georgescu Cecilia, Tița Mihaela	Raw and auxiliary materials enter the food processing chain, resulting in a finished product, but also in edible and inedible by-products and waste. The valuable components that raw materials contain are not fully extracted during processing, some of them are lost with food waste. In the food industry, there are types of flours made from by-products or alternative raw materials, which are used to valorize resources, reduce waste and add nutritional or functional value to food products. In this context, this paper addresses the potential use of flour (cake) obtained from the processing of flax, grape and pumpkin seeds for the production of oils and their potential use for the fortification of bakery products.
23	Moga Valentina Mădălina	PhD student		ULBS	Cherry plum (<i>Prunus cerasifera</i>): from underutilization to valuable resource in the development of sustainable food products	Tița Ovidiu, Tița Mihaela, Georgescu Cecilia, Constantinescu Adelina	Cherry plums are sweet-sour tasting fruits produced by the cultivated plum (<i>Prunus cerasifera</i>), a species of the genus <i>Prunus</i> . The present work aims to exploit the value of cherry plum (<i>Prunus cerasifera</i>) through an innovative approach, focused on the identification and characterization of bioactive compounds with nutritional and functional potential, as well as on the integration and interpretation of the results in the context of the current literature.
24	Dură-Muraru Mihaela	PhD student		ULBS	The influence of climatic factors on the quality of wines obtained from indigenous grape varieties	Tița Ovidiu, Constantinescu Adelina	The aim of the research is to observe how climatic factors influence the quality of wines, in order to identify the connection between climatic conditions and the organoleptic and physico-chemical characteristics of wines. This approach also aims to better understand the impact of climate on quality and adapt winemaking technologies so as to preserve the quality and typicality of the final product. The study was conducted on five grape varieties, namely: Fetească Neagră, Negru de Drăgășani, Alutus, Fetească Regală, Crâmpoșie Selecționată.