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17:05-17:15	Senzorska svojstva kvaliteta pralina punjenih medom sa dodatkom voća i lekovitog bilja Sensory properties of pralines with honey filling and addition of fruits and medicinal herbs	**Popov-Raljić et al.** Prirodno-matematički fakultet, Univerzitet u Novom Sadu Faculty of Science, University of Novi Sad
17:15-17:25	Ekstrakcija ruzmarinske kiseline iz tri medicnske I aromatične biljke uz pomoć povišene temperature primenom metode površinskog odgovora Using response surface methodology to maximize heat assisted extraction of rosmarinic acid in three medicinal and aromatic plants	**Carocho et al.** Politehnički institut Braganca i direktor Centra za istraživanje (CIMO), Braganca, Portugal. Direktor Mountain Research Centra (CIMO), Bragança, Portugalija Centro de Investigação de Montanha (CIMO), Instituto Politécnico de Bragança, Campus de Santa Apolónia, 5300-253 Bragança, Portugal
17:25-17:35	Karakterizacija tofua pripremljenog sa dodatkom inulina Characterization of tofu prepared with the addition of inulin	**Stanojević et al.** Univerzitet u Beogradu, Poljoprivredni fakultet, Beograd, Srbija University of Belgrade, Faculty of Agriculture, Belgrade, Serbia
17:35-17:45	Uticaj različitih metoda sušenja na senzorna svojstva cvekle Effects of different drying methods on changes in sensory properties of beetroot	**Tomić et al.** Univerzitet u Beogradu, Poljoprivredni fakultet, Beograd, Srbija University of Belgrade, Faculty of Agriculture, Belgrade, Serbia
17:45-17:55	Precizan farmski uzgoj u kontekstu bezbednosti hrane Precision livestock farming in a food safety context	**Nastasijević et al.** Institut za higijenu i tehnologiju mesa, Beograd, Srbija Institute for hygiene and meat technology, Belgrade, Serbia

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Predavanje i usmene prezentacije u okviru sekcija/Lecture and oral presentation within sections
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Using Response Surface Methodology to Maximize Heat Assisted Extraction of Rosmarinic Acid in Three Medicinal and Aromatic Plants

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The increasing awareness of consumers, which prefer food with natural additives, shifted the industry to pursue natural counterparts for food additives. Among them, one preservative, E392, is obtained from the rosemary plant (*Rosmarinus officinalis* L.), with its main preserving molecule being rosmarinic acid (RA). Given its expensive and costly extraction, alternative plants should be pursued. In this work, heat assisted extraction with varying hydroalcoholic mixtures as solvent (*S*, ethanol proportion in % from 0 to 100), temperatures (*T*, from 25 to 85ºC) and times (*t*, from 20 to 120 min) were tested in rosemary, basil (*Ocimum basilicum* L.) and sage (*Salvia officinalis* L.). A response surface methodology was used to define the optimum extraction conditions to maximize the RA content, using a circumscribed central composite design of three variables with five levels. The extraction results were expressed in three response format values (Y): Y1, mg of RA (determined through -HPLC-DAD) per g of leave (L) dry matter (mg RA/g L dw), specifically used to analyse the content of the plants in RA; Y2, mg of RA obtained in the extracted dried weight residue (R; mg RA/g R) to measure the purity of R; and Y3 in g R/g P dw, which provides information regarding the extraction yield in R. For rosemary, the optimal global conditions were at 87.18±6.97 min, 85.00±8.50ºC, and 39.09±0.78% of ethanol, producing 23.28±0.70 mg RA/g L dw (Y1), 82.59±4.13 mg RA/g R (Y2), and 0.31±0.02 g R/g P dw (Y3). For basil, these were at 98.44±3.94 min, 85.00±0.85ºC, and 44.91±3.59% of ethanol, producing 28.61±1.14 mg RA/g L dw (Y1), 111.74±11.17 mg RA/g R (Y2), and 0.32±0.04 g R/g P dw (Y3). And for sage at 120.00±6.00 min, 85.00±1.70ºC, and 47.25±0.47% of ethanol, producing 28.895±2.3 mg RA/g L dw (Y1), 126.63±5.07 mg RA/g R (Y2), and 0.33±0.03 g R/g P dw (Y3).
In brief, the obtained results show the potential of several plants as a source of RA, with potential uses in the food industry and others.

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