

ISSN 2334-9883



UNIVERSITY OF KRAGUJEVAC
FACULTY OF AGRONOMY ČAČAK

PROCEEDINGS
CONFERENCE OF AGRONOMY
STUDENTS
with international participation



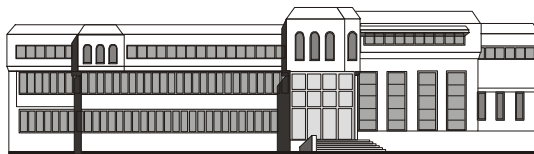
Vol. 10, Issue 10, 2017

Čačak, 23-25 August 2017

CONFERENCE OF AGRONOMY STUDENTS

ORGANISER AND PUBLISHER

Faculty of Agronomy – Čačak
Cara Dušana 34, 32000 Čačak
e-mail: afdekanat@kg.ac.rs
www.kg.ac.rs



For the Publisher:

Prof. Dr. Vladeta Stevović

ORGANISING COMMITTEE

Members: Dr. Snežana Tanasković, Assoc. Prof. – Chair; Dr. Ivan Glišić, Ass. Prof. – Vice Chair; Dr. Milevica Bojović, Foreign language lecturer; Dr. Goran Marković, Assoc. Prof.; Dr. Simeon Rakonjac; Dalibor Tomić, BSc; Dušan Marković, BSc.

PROGRAMME COMMITTEE

Members: Prof. Dr. Vladeta Stevović, Dean, Faculty of Agronomy, Čačak, Serbia; Prof. Dr. Leka Mandić, Čačak, Serbia; Prof. Dr. Lenka Ribić-Zelenović, Čačak, Serbia; Prof. Dr. Tomo Milošević, Čačak, Serbia; Prof. Dr. Radoš Pavlović, Čačak, Serbia; Prof. dr. Hristina Yancheva, Plovdiv, Bulgaria; Ing. Ivo Ondrášek, Ph.D., Lednice, Czech Republic; Dr. Cosmin Salasan, Timisoara, Romania; Prof. Dr. Djoko Bunevski, Skopje, Macedonia; Prof. Dr. Miljan Cvetković, Banja Luka, Bosnia and Herzegovina; Prof. Dr. Nada Parađiković, Osijek, Croatia; Prof. Dr. Vesna Milić, East Sarajevo, Bosnia & Herzegovina; Prof. Dr. Ljupče Kočoski, Bitola, Macedonia; Prof. Dr. Zoran Jovović, Podgorica, Montenegro; Prof. Dr. Pakeza Drkenda, Sarajevo, Bosnia & Herzegovina; Prof. Dr. Ionel Samfira, Timisoara, Romania; Prof. Dr. Tomislav Jemrić, Zagreb, Croatia; Dr. Jelena Lujčić, Gödöllő, Hungary; Prof. Dr. Milica Petrović, Zemun, Serbia; Prof. Dr. Nedeljko Tica, Novi Sad, Serbia;

Honorary Committee members: Prof. Dr. Dragutin Đukić, Čačak, Serbia; Akademik, Prof. Dr. Vsevolod Jemcev, Moscow, Russia; Prof. Dr. Sc. Vlado Kovačević, Osijek, Croatia; Dr. Yuriy S. Kravchenko, Kyiv, Ukraine; Dr. Sc. Želimir Vukobratović, Križevci, Croatia; Prof. Dr. Desimir Knežević, Kosovska Mitrovica, Serbia

Computer editing and typesetting: Dalibor Tomić, B. Sc., Dušan Marković, B. Sc.

Cover page: Dr. Snežana Tanasković

Supported by: Ministry of Education, Science and Technological Development, Republic of Serbia and City of Čačak

Printed and bound by: "Studio za dizajn", Vukašina Ignjatovića br. 12, Čačak

Number of copies: 120

X CONFERENCE OF AGRONOMY STUDENTS

Participants:

1. University of Kragujevac, Faculty of Agronomy, Čačak, Serbia;
2. University of Belgrade, Faculty of Agriculture, Belgrade, Serbia;
3. University of East Sarajevo, Faculty of Agriculture, East Sarajevo, Bosnia and Herzegovina;
4. University of Sarajevo, Faculty of Agriculture and Food Sciences, Sarajevo, Bosnia and Herzegovina;
5. University St. Kliment Ohridski, Bitola, Faculty of Biotechnical Sciences, Bitola, Republic of Macedonia;
6. University Ss. Cyril and Methodius, Faculty of Agricultural Sciences and Food, Skopje, Republic of Macedonia;
7. University of Banja Luka, Faculty of Agriculture, Banja Luka, Republic of Srpska, Bosnia and Herzegovina;
8. Trakia University, Faculty of Veterinary Medicine, Stara Zagora, Bulgaria.
9. Agricultural University - Plovdiv, Faculty of Agronomy, Plovdiv, Bulgaria.
10. National University of Life and Environmental Sciences of Ukraine, Agrobiology faculty, Kyiv, Ukraine;
11. National University of Life and Environmental Sciences of Ukraine, Faculty of Economics, Kyiv, Ukraine;
12. Perm State Agricultural Academy, Faculty of Agricultural Technologies and Forestry, Perm, Russia;
13. State University of Novi Pazar, Serbia;
14. University of Novi Sad, Faculty of Agriculture, Novi Sad, Serbia;
15. University of Montenegro, Biotechnical Faculty, Podgorica, Montenegro;
16. Banat's University of Agricultural Sciences and Veterinary Medicine "Regele Mihai I al României", Faculty of Agriculture Timisoara, Romania;
17. National Pedagogical University of Dragomanov, Faculty of Historical Education, Kyiv, Ukraine;
18. Dicle University, Faculty of Agriculture, Diyarbakir, Turkey;
19. Mendel University, Faculty of Horticulture, Lednice, Czech Republic;
20. Szent István University, Department of Aquaculture, Gödöllő, Hungary;
21. Czech University of Life Sciences Prague, Faculty of Agrobiological Sciences, Food and Natural Resources, Prague, Czech Republic;
22. University John Naisbitt Belgrade, Faculty of Biofarming, Bačka Topola, Serbia;
23. University of Kragujevac, Faculty of Science, Institute of Biology and Ecology, Kragujevac, Serbia;
24. University of Priština, Faculty of Agriculture, Kosovska Mitrovica-Lešak, Serbia;
25. "Alexandru Ioan Cuza" University of Iasi, Faculty of Biology, Iasi, Romania;



The Tenth Conference of Agronomy Students

Čačak, Serbia

23 - 25 August, 2017

INTRODUCTION

Knowledge and skill of food production have a unique role in humans' lives. It is the foremost civilization skill. Nowadays, agriculture, as one of the oldest human activities, is a highly demanding production which merges knowledge from considerable number of fundamental and biotechnical sciences. This presents a challenge for the education of the students of agronomy and agricultural faculties.

The efforts to provide a student meeting point for discussing issues related to the acquired knowledge in the field of agriculture led to the First Conference of Agronomy Students which was held at and organized by the Faculty of Agronomy in Čačak, Serbia, in 1998. Today, we hope that the Tenth Conference of Agronomy Students will provide a forum for students-researchers in the field of biotechnical sciences contributing to the vibrant life of biotechnology research.

As the organizers of the Tenth Conference of Agronomy Students we encourage the students and their mentors to actively participate in this event by submitting projects, researches, experiences, and other theoretical and practical contributions as well as by transferring knowledge and expanding academic network.

This is the tenth Conference presenting 65 students' papers at three levels of study (bachelor, master, and doctoral) from XX universities and XX European countries. The submitted, presented, and printed papers are the part of scientific and research activities of the students at different levels of studies and of their mentors. The papers are printed as submitted by the authors.

We offer out thanks to all the participants of the Tenth Conference of Agronomy Students inviting them to participate in the next Conference as contributors or mentors.

Čačak, August, 2017

Sadržaj

Introductory lecture - Vlado Kovačević and Nada Parađiković: Ten Conferences of Agronomy Students at the Faculty of Agronomy, Čačak: Participants from the Faculty of Agriculture, Osijek and their Current Status	11
Tomáš Kiss: Characterisation of 'Candidatus Phytoplasma prunorum' strains in Czech Republic	17
Rositsa Cholakova-Bimbalova: Influence of biostimulants on growth and photosynthetic performance of young maize (<i>Z. mays</i> L.) plants exposed to chilling stress	28
Stepić Vesna: Weed flora and cereals corn vegetation in Posavotamnava region	38
Jakub Láčik: Pomological and phenological characteristic of selected varieties of Asian pears in the climate of the Czech Republic	50
Iveta Angela Kyriánová: Could strongylid nematodes affect the processability of goat milk to cheese?	58
Milosav Grčak, Dragan Grčak: Effect of genotype and environment on stem height in cultivars of wheat (<i>Triticum aestivum</i> L.)	65
Petra Pavelková: Inheritance of resistance to <i>Plum pox virus</i> in apricot progeny from crossing of 'Harlayne' x 'Betinka'	73
Jelena Golijan: Trypsin inhibitors content in four different cereal/ pseudocereal and soybean grains grown under conventional and organic conditions	80
Zoran Marinović: Interspecific transplantation of brown trout and grayling germ cells into rainbow trout recipients	88
Martina Mezei: Sediment quality assessment with phytoindicators	97
Branka Popović: Some Morphological Characteristics and Yield Parameter of Maize in Conditions of Artificial Western Corn Rootworm Eggs Infestation	102
Miloš Marjanović: Appearance, harmfulness, and monitoring of <i>Xyleborus dispar</i> in western Serbia	110
Filip Vukajlović, Dragana Predojević: Development of Indian Meal Moth, <i>Plodia interpunctella</i> (Lepidoptera: Pyralidae) on Three Maize Hybrids from Serbia	119
Marian Burducea: Morphological and physiological response of a green-leaved and a purple leaved cultivar of sweet basil (<i>Ocimum basilicum</i> L.) to biosolids amendments	128
Tijana Stojanović: Toxic effect of caraway essential oil on adults of <i>Tenebrio molitor</i> Linnaeus, 1758 (Coleoptera, Tenebrionidae)	136

Ivelina Daradzhanaska: Postharvest diseases on stored ginger /<i>Gingiber officinale</i> Roscoe / and banana /<i>Musa sp.</i>/	144
Marijana Dugalić: Effect of mineral fertilizers on yield and quality of potato tubers	151
Dijana Kulačanin: Cornelian cherry selections (<i>Cornus mas</i> L.) in Novi Sad - morphological fruit properties and production of planting material	159
Katerina Petrovska: External changes in eggs depending of the storage conditions and hybrid lines	166
Kalina Dimitrova: Laryngeal Hemiplegia in Horses - Clinical Signs and Diagnostic Approach	173
Danijel Milinčić: Spectrophotometric determination of total flavonoids in grape skins using different standards	178
Nevena Janković: Phytochemical Screening of Lupine Flour after Different Methods of Grain Soaking	185
Nikolina Đekić: Effect of grafting on dynamics of ripening and yield of tomato (<i>Lycopersicon esculentum</i> Mill.)	193
Vladan Stanišić, Gordana Savić: Influence of seed age and moisture on the germination of banjaluka's wheat varieties	202
Darko Stanković, Sara Popadić: Economic viability of raising apiary	213
Berfin Kizgin, Hasan Karakus: Effect of Organic and Organo-Mineral Fertilizers on Grapevine Leaf Chlorophyll Content	221
Nataša Cvetković: Vitrification of zebrafish <i>Danio rerio</i> testicular tissue	226
Erhan Akalp: Properties of Kenger Plants' Seeds (<i>Gundelia tournefortii</i> L.) grown naturally in Karacadag Region of Turkey	232
Hilal Altunten: The effects of wastewater use on yield of cotton and soil pollution	240
Kristina Miljković: The impact of walnuts, almonds, and hazelnuts as a nutrient medium on fecundity of <i>Plodia interpunctella</i>	249
Dmytro Kravchenko: Medieval arable farming and technological mentalities Eastern Slavs on Ukrainian lands	257
Mariana Deiak, Solovey Daria: Stripe effect on different spring barley varieties.	263
Aleksandra Korićanac: The effect of frozen storage time on some parameters of sugar beet quality	268
Maria-Yoana Marinova: The effect of light spectra on cucumber plant grown under salinity stress	274

Radoslava Atanasova: Soil research in the areal of the town Lyubimets for growing vineyards	282
Zorana Miladinović: Evaluation of insecticides for control of box tree moth – <i>Cydalima perspectalis</i> (Walker, 1859)	287
Zoika Petrova: Dynamics of amylase activity in dogs with experimental acute pancreatitis	293
Elmedin Ziljkić: Effects of chlorantraniliprole on antioxidative defense system in European Corn Borer (<i>Ostrinia nubilalis</i>)	301
Haris Hot: Effects of Indoxacarb on antioxidative defense system in European Corn Borer (<i>Ostrinia nubilalis</i>)	307
Aneta Jankulovska, Julija Petrevska, Martina Kochishka: Implementation of Innovations in Agribusiness Companies and their Impact on Marketing Efficiency	314
Angelina Talevska: Improving plant	323
Jelena Kovačević: Influence of rooting hormones on propagation of lavender (<i>Lavandula angustifolia</i> L.)	330
Simona Jaćimović: Chemical features and quality assessment of the natural mineral waters in the Vrnjačka Banja area, Serbia	338
Ivana Maloparac: Study of selected physicochemical parameters in real water samples of the Zlatibor area, Serbia	344
Elena Ivanovska, Ivana Dimitrovska: Milk production during first and second lactation from Holstein-Friesian breed	350
Lora Kostovska, Aleksandra Petkovska, Biljana Trajkovska, Lidija Veljanovska, Borce Makarijevski: Physico-chemical and microbiological changes during manufacture of white brined cheese	356
Ivana Dimitrovska: Production technology and quality evaluation of fresh pork sausages	364
Ramiz Ćorović: Trout farming generates oxidative stress in amphipod crustacean species <i>Gammarus balcanicus</i>	372
Mario Dragušić, Nenad Šobot, Darko Stanković: Testing the level of financial literacy of urban and rural population in Republic of Srpska	381
Hristina Shapardanovska: The Presence of Fish in Population's Diet	389
Arneta Skršo: Trends in fruit production in the federation of Bosnia and Herzegovina for the period 2006-2015	394
Zerina Habibović: Effects of Ampligo insecticid on oxidative stress in European Corn Borer (<i>Ostrinia nubilalis</i>)	401

Lana Vasić: Faunistic research of true bugs (Heteroptera) in light traps	407
Marta Loc: Eco-friendly control of <i>Xanthomonas euvesicatoria</i>	415
Anastasiia Neoberdina: Sanitary State and Species of Poplar: Case Study Perm, Russia	424
Sergey Trukhin: Soil Contamination by Heavy Metals	436
Ivan Olifer: Long-Term Lending of Ukrainian Agrarian Operators	447
Aleksandra Jočić: Efficiency of new liquid fertilizers chap liquid in immortelle plantation production system (<i>Helichrysum italicum</i> (Roth) G. Don fil.)	451
Nicoleta Draghicescu: Habitat loss through development	456
Romina Mazare: Aspects concerning the grasslands management in Western Romania. A descriptive case	461
Viktorija Mateska, Marija Jakimovska: Ampelotechnical Measures for Producing of Dessert Wine's Raw Material from Vranec Cultivar In Skopje Wine District's Condition	469
Elena Trajkovska, Aleksandar Stojcevski: Effective size calculation for domestic breed Busha cattle	475
Mina Karadžić: Pesticide residues in cabbage	484

Chemical features and quality assessment of the natural mineral waters in the Vrnjačka Banja area, Serbia

Student: Simona Jaćimović

Second year of studies, bachelor

Mentor: dr Nebojša Pantelić

University of Belgrade, Faculty of Agriculture, Department of Chemistry and Biochemistry, 11080 Zemun-Belgrade, Serbia,

e-mail: pantelic@agrif.bg.ac.rs

Abstract: Water is one of the most precious natural resources. The aim of the study was a preliminary examination on mineral waters quality (S1–S5) in the Vrnjačka Banja area, Serbia, through the standard physico-chemical parameters: temperature, pH value, conductivity, turbidity, content of chloride as well as the total organic matter. All samples of water were collected and analysed in the period April-May 2017. The obtained results were compared to the National and World Health Organization (WHO) water quality standards. The results for temperature, pH and conductivity were within the values defined by Regulation on the quality of mineral water, except for the conductivity in samples S2 and S5 that were slightly above prescribed (2980 and 3460 $\mu\text{S cm}^{-1}$, respectively). Increased turbidity was observed in the sample S4 (5.24 NTU). The concentrations of total of organic matter in all analyzed samples were around 45 mg L^{-1} which indicates that the found values were 9 times greater than allowed and it can be result of a number of natural factors or the geographical location of the source itself.

Key words: mineral waters, water quality, chemical characteristics, Vrnjačka Banja

Introduction

Water quality is of a vital importance for mankind given the direct connection between water and human survival (Rajic et al., 2012). It is an important substance to all life both living and non-living and also is regarded as a universal solvent capable of dissolving nearly all solutes. Water quality is known to perform essential roles in human health (Boe-Hansen, 2001). Water is

a resource that has many uses, including but not limited to: recreation, transportation hydroelectric power-making, domestic, industrial, commercial uses (Bartram and Balance, 2006). In light of the current global development, water protection and management are positioning themselves as top priorities for preservation of the modern civilization. Despite the enormous amounts of water available in nature, its usability has been significantly decreased by pollution (Jiang, 2006). Human body is mostly made out of water (Turgut et al., 2005). Mineral spring waters represent a significant natural source of minerals necessary in the human organism (Baba et al., 2008). Water qualifies as “healing” or mineral if it contains more than one gram of dissolved matter per liter. Mineral waters which spring from greater depths, often have an increased temperature and therefore qualify as thermo-mineral. According to the density of occurrences and the diversity of physical and chemical features of the mineral waters, the territory of Serbia makes one of the richest areas of the European continent, but only a small quantity of these mineral waters is being bottled (Petrović et al., 2010). The global geological conditions dictate the speed of water exchange, but they do not correspond completely with the quality of the ground water. Therefore, the knowledge of the physical, chemical and biological parameters of water is very important for determining its type and quality (Kostić et al., 2016).

The purpose of this research was the preliminary quality assessment of mineral waters from the Vrnjačka Banja area, Serbia, through analysis of the following chemical and physical features: temperature, pH value, conductivity, turbidity, content of chloride and the total organic matter (TOM). Results were compared to the National and World Health Organization (WHO) water quality standards.

Material and methods

Study area

The Raška district is one of eight administrative districts of Šumadija and Western Serbia. It expands to the south-western part of the country. The administrative center of the Raška district is Kraljevo, which is about 25 kilometers away from Vrnjačka Banja (43° 37' N, 20° 54' E). The geographical position of the locations is shown in Figure 1. The following samples are collected in the Vrnjačka Banja area: thermo-mineral source Snežnik (S1), Jezero (S2), thermo-mineral source Topla voda (S3) thermo-mineral source Borjak (S4), as well as thermo-mineral source Beli izvor (S5). All samples of water were collected and analysed in the period April-May 2017, in dark glass bottles, which had previously been rinsed with distilled water and sterilized with 70% alcohol.

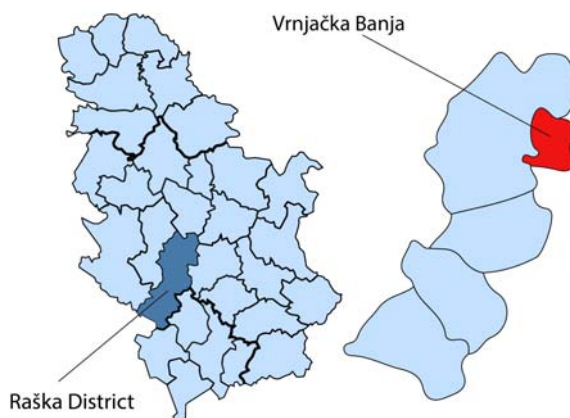


Figure 1. Geographical position of Vrnjačka Banja area

Determination of physicochemical properties

The temperature of the samples was measured with a thermometer and expressed in °C (Yu et al., 2009). The pH value and conductivity were measured using a pH meter and conductometer (sensION+ MM 374 GLP 2 channel Benchtop Meter) (APHA, 2012). Turbidity was measured by nephelometry using Handheld Turbidimeter (Turb 430 IR) (APHA, 2012). The chloride content was determined by volumetric titration using standard solution of silver-nitrate (0.1 mol L^{-1}) with potassium-chromate (K_2CrO_4) as an indicator (Mohr's method) (Waters-Doughty, 1924). The total content of organic matter was determined using Kubel-Tiemann method (titration with a potassium-permanganate in acid solution) (Feliks and Škunca-Milovanović, 1990).

Results and discussion

The results of analyzed physicochemical parameters in water samples are shown in Table 1.

The temperature of analysed water samples was in the range 17.0–36.0 °C. The highest temperature value was recorded for the sample S3, and water from that source belongs to moderately warm waters. It is important to mention that mineral water from that spring is used to enhance digestion and help treat stomach and gallbladder illnesses. It improves epithelialization of the gastrointestinal and the urogenital mucosa. This mineral water is applied orally (through drinking), through inhalation, as an enema and as a vaginal spray in treatment of the above mentioned illnesses. It is also utilized in treatment of degenerative and inflammatory diseases of skeletal system as a mineral bath.

The pH value of the analysed water samples was in the range 6.42–6.88, which is within the value range defined by the recommendations of UNESCO/WHO/UNEP

(Chapman and Kimstach, 1996). Due to the influence of the pH value on the chemical properties of water, determining it is very important (Saritpongteeraka and Chaiprapat, 2008). The obtained results showed that the studied water samples were moderately acidic as expected. The lowest pH value (6.42) was measured in sample S1 (Snežnik) while the highest pH value (6.88) was recorded in S4 (Borjak).

Conductivity is the electrical property of water, and depends on the ions present in it - their concentration, mobility and charge, as well as the temperature on which it is measured. According to the legislation of the Republic of Serbia and the World Health Organization (WHO) the maximum allowed conductivity in natural mineral water is $2500 \mu\text{S cm}^{-1}$ (Official Gazzete, 2008; WHO, 2008). As presented in Table 1, samples S3 and S5 had higher values than allowed, 2980 and $3460 \mu\text{S cm}^{-1}$ respectively, which indicates that those samples contained an increased concentration of dissolved salts.

Turbidity of water is caused by suspended inorganic and dispersed organic substances, and is the result of the optical activity of substances dissolved in it. In most tested water samples, measured turbidity was < 5.00 NTU, except in the sample S4 (5.24 NTU) that had a slightly higher value than allowed. This may be linked to several factors such as the geology of the surrounding terrain, the presence of organic and inorganic materials, and the sudden inflow of surface water in the rainy season.

Table 1. Physicochemical parameters of investigated water samples

Sample	S1	S2	S3	S4	S5	MAC*
Temperature ($^{\circ}\text{C}$)	17	27	36	19	22	-
pH	6.42	6.49	6.48	6.88	6.55	6.5-9.5
Conductivity ($\mu\text{S cm}^{-1}$)	1397	2980	2150	1215	3460	2500
Turbidity (NTU)	2.77	1.44	0.89	5.24	4.24	5
Cl^{-} (mg L^{-1})	21.62	35.09	34.74	20.56	46.79	250
Total organic matter (mg L^{-1})	48.40	45.60	46.80	47.60	44.00	5

*maximum allowed concentration (MAC) in water for human use (Official Gazzet, 2008)

In all tested samples the presence of chloride was in the range from 20.6 to 46.8 mg L^{-1} (Table 1). The greatest amount of chloride ions was found in sample S3, while sample S4 showed the lowest values of this parameter. There is no evidence that the increased concentration of chloride can affect human health. However, chloride may have an effect on taste and colour of water (WHO, 2008).

In water containing organic substances of human, animal, plant or industrial origin, a certain amount of potassium-permanganate is spent for their oxidation (depending on the amount of organic matter in water) (Chapman and Kimstach, 1996). According to the law of the Republic of Serbia, the maximum allowed concentration of total of organic matter in natural mineral waters is 5.0 mg L^{-1} . All the analyzed samples had similar values of around 45 mg L^{-1} which indicates that the found values were 9 times greater than allowed. The organic substances present in the water do not have to be pollutants, but may naturally be present in a sample because of the field geology.

Conclusion

In this research we obtained the results of physicochemical parameters for 5 different water samples from the Vrnjačka Banja area. All the samples turned out to be thermo-mineral. The analyzed parameters were within the following ranges: temperature $17\text{--}36^\circ\text{C}$, pH $6.42\text{--}6.88$, conductivity $1215\text{--}3460 \mu\text{S cm}^{-1}$, turbidity $0.89\text{--}5.24 \text{ NTU}$ and chlorides $20.56\text{--}49.79 \text{ mg L}^{-1}$. Obtained values were then compared to the referent maximum values of the analyzed natural mineral water parameters stated in the Regulations on water quality. The results showed that pH value was within the prescribed range in all samples, but the conductivity values were slightly above the prescribed in samples S2 and S5. Turbidity was higher than the prescribed maximum value in sample S4. All the tested samples displayed significant deviations from the maximum prescribed values for total organic matter, which can either be a result of a number of natural factors or the geographical location of the source itself.

Acknowledgements

This research was done at Faculty of Agriculture, University of Belgrade, Department of Chemistry and Biochemistry. The authors thank PhD V. Rac from the department for his help and support.

References

- APHA; AWWA; WPCF. (2012): Standard Methods for the Examination of Water and Wastewater, 22th ed.; APHA; AWWA; WPCF: Washington, DC, USA.
- Baba A., Ereeş F.S., Hıçsönmez Ü., Çam S., Özdilek H.G. (2008): An assessment of the quality of various bottled mineral water marketed in Turkey. *Environ. Monit. Assess.*, 139: 277–285.
- Bartram J., Balance R. (1996): Water quality monitoring-A practical Guide to the Design and Implementation of freshwater Quality Studies and Monitoring Programmes UNEP/WHO.

- Boe-Hansen R. (2001): Microbial growth in drinking water distribution systems, Ph.D. thesis, Lyngby, Denmark.
- Chapman D., Kimstach V. (1996): Selection of water quality variables. In: Chapman D (ed.), *Water Quality Assessments – A guide to use of biota, sediments and water in environmental monitoring*, chapter 3, 2nd edition UNESCO/WHO/UNEP.
- Drinking Water Standard Methods for Examination of Hygienic Correctness (1990): In: Feliks R., Škunca-Milovanović S. (eds.) *Savezni zavod za zdravstvenu zaštitu & NIP Privredni pregled*, Beograd, 134–136 (in Serbian).
- Jiang Y. (2009): China's water scarcity, *J. Environ. Manag.*, 90: 3185–3196.
- Kostić A.Ž., Pantelić N.Đ., Kaluderović L.M., Jonaš J.P., Dojčinović B.P., Popović-Djordjević J.B. (2016): Physicochemical properties of waters in Southern Banat (Serbia); potential leaching of some trace elements from ground and human health risk. *Expo Health*, 8(2): 227–238.
- Official Gazzete (2008): Regulation on hygienic quality of drinking water 42/98 and 44/99, (In Serbian).
- Petrović T., Zlokolica-Mandić M., Veljković N., Vidojević D. (2010): Hydrogeological conditions for the forming and quality of mineral waters in Serbia, *J. Geochem. Explor.*, 107: 373–381.
- Rajiv P, Salam H.A., Kamaraj M., Sivaraj R., Sankar A. (2012): Physico chemical and microbial analysis of different river waters in western Tamilnadu, India, *I. Res. J. Environment Sci.*, 1(1): 2–6.
- Saritpongteeraka K., Chaiprapat S. (2008): Effects of pH adjustment by parawood ash and effluent recycle ration on the performance of anaerobic baffled reactors treating high sulfate wastewater, *Bioresource Technol.*, 99(18): 8987–8994.
- Turgut S., Kaptanog B., Turgut G., Emmungil G., Genc O. (2005): Effects of cadmium and zinc on plasma levels of growth hormone, insulin-like growth factor I and insulin-like growth factor-binding protein, *Biol. Trace Element Res.*, 108: 197–204.
- Waters-Doughty H. (1924): Mohr's method for the determination of silver and halogens in other than neutral solutions. *J. Am. Chem. Soc.*, 46(12): 2707–2709.
- WHO - World Health Organization Guidelines for drinking water quality (2008): 3rd ed., incorporating the first and second addenda, vol. 1, Recommendations, WHO Press Geneva.
- Yu R.F., Chen H.W., Cheng W.P., Shen Y.C. (2009): Application of pH-ORP titration to dynamically control the chlorination and dechlorination for wastewater reclamation. *Desalination*, 244: 164–176.

CIP - Каталогизacija y publikaciji
Narodna biblioteka Srbije, Beograd

63

PROCEEDINGS conference of agronomy students with international participation / za izdavača Vladeta Stevović. - Vol. 10, issue 10 (2017)-
. - Čačak : Faculty of Agronomy, 2013- (Čačak : "Studio za dizajn"). - 24
cm

Je nastavak: Smotra naučnih radova studenata agronomije = ISSN 1450-
7323

ISSN 2334-9883 = Proceedings conference of agronomy students
COBISS.SR-ID 204397836