



Green Room and University of Montenegro



GREEN ROOM SESSIONS 2018

**International GEA (Geo Eco-Eco Agro) Conference
1-3 Novembar 2018, Podgorica, Montenegro**

**Plant production, Plant protection & Food safety, Genetic resources
Phytochemistry and Medicinal Plants, Animal husbandry and Dairy production
Rural development and agro-economy, Rural Environments and Architecture
Environment protection and natural resources management, Forestry**

GREEN ROOM SESSIONS 2018

Book of Abstracts



Podgorica, Montenegro, 2018

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International GEA (Geo Eco-Eco Agro) Conference
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BOOK OF ABSTRACTS

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FOREWORD

Green Room Sessions International Conference aims to be platform for international scientific discussion on agriculture in general as well as agriculture in conjunction with economics and ecology, food and nutrition science and technology, rural development, environment and forestry. Green Room Sessions brings together and is connecting research, industry, social concepts and practices. The scientific core is based on applying Eco-Eco (ecological-economical) concepts and principles to optimize interactions between natural, social and built components of the rural environments: plants, animals, soil, water, air, humans and man-made structures. In addition, Green Room Sessions will place social issues at the centre of solutions for a sustainable and fair food system. Green Room Sessions are targeting to multiple benefits to society and the environment, by bringing people together and providing them the opportunity to sit together and exchange ideas and connect the business.

In November 2018, the 1st Green Room Sessions International Conference will provide an opportunity to share experiences and build the evidence base on agriculture, forestry, human interactions and built environment, as well as reaching a consensus on the priorities for achieving more sustainable food systems. It also endorsed Institutional roles of National services, Regional and International organisations in supporting further implementation and promotion of Eco-Eco (ecological-economical) concepts and principles.

Dialogue between the participants will target:

- Enhancing smallholder and family farmers' adaptation and resilience to the impacts of climate change;
 - Improving nutrition including through more diversified diets;
 - Protecting and enhancing agro-biodiversity in support of ecosystem services;
 - Improving livelihoods in rural areas;
 - National Food Wealth, the holy trinity: agriculture, economics and ecology (a x e2).
- Mutual interconnections and how to deal with them and how this mix influence National Food Wealth and National Health.
- achieving a transformative change in agricultural practices towards sustainable development.

The Green Room Sessions International Conference will synthesize and build on the outcomes of the regional meetings, and provide an opportunity to share and discuss policies that can help scale-up and scale-out agriculture, rural development, agroecology, nutrition in order to achieve the Sustainable Development Goals.

The Symposium will also move the topic of agriculture and rural development from dialogue to activities at the regional and country level by complementing on-going initiatives to integrate biodiversity and ecosystem services in agriculture, identifying opportunities for synergies with National Strategic Programmes and Regional Initiatives, and facilitating regional and International cooperation between the scientists and business.

Green Room Sessions International Conference as a final goal is looking forward to assist people from the rural areas, related business, agriculture and allied sectors to take the advantage of:

- Natural resources, secure access to land and water, and improved natural resource management and conservation practices;
- Improved agricultural technologies and effective production services;
- Linking the interested parties with financial services;
- Transparent and competitive markets for agricultural inputs;
- Opportunities for rural off-farm employment and enterprise development;
- Local and national policy and programming.

We launch this with the aim of unlocking innovative, integrated, multidisciplinary science and technology with activation of all dimensions of sustainable development goals for all the participants.

Finally, we welcome you to Podgorica and Montenegro, nice destination for international travellers. We hope that you will take advantage of the many sights to see in Montenegro, as well as the many natural wonders nearby, during your stay.

Velibor SPALEVIC

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Predgovor

Međunarodna konferencija Green Room Sessions ima za cilj da bude platforma međunarodne naučne diskusije o poljoprivredi uopšte, poljoprivredi vezano sa pitanjima ekonomije i ekologije, nauci o tehnologiji hrane i prehrane, ruralnim razvojem, životnom sredinom i šumarstvom. Green Room Sessions okuplja i povezuje nauku, istraživanje, industriju, društvene koncepte i prakse.

Naučni principi zasnovani su na primjeni Eko-Eko (ekološko-ekonomskih) koncepata za optimizaciju interakcije između prirodnih, socijalnih i komponenti ruralnih sredina: biljka, životinja, zemljište, voda, vazduh, kao i strukture koje su nastale kao plod rada ljudi. Pored toga, Green Room Sessions će težiti da postavi društvena pitanja u centar rješenja održivog i fer sistema proizvodnje hrane. Očekivanja su da brojni sastanci održani na Konferenciji imaju višestruke koristi za društvo i sredinu koja nas okružuje, približavajući tokom ovih komunikacija ljude jedne drugima, pružajući im priliku da međusobno komuniciraju na jednom mjestu, razmenjuju ideje i povezuju poslovanja.

U novembru 2018. godine, Prva (1.) Green Room Sessions International Conference pružiće mogućnost razmjene iskustava potvrđenih praksi u poljoprivredi, šumarstvu, interakcijama čovjeka i njegovog okruženja, struktura koje su nastale kao plod rada ljudi. Očekujemo da ćemo organizovanjem susreta naučnika i stručnjaka iz ove oblasti, te razmjenom iskustava, doprinijeti unapređenju održivijeg sistema proizvodnje i prerade. Iskustva drugih koji će gostovati kod nas će istaći značaj institucionalne uloge nacionalnih službi, regionalnih i međunarodnih organizacija u podršci i daljoj promociji eko-eko (ekološko-ekonomskih) koncepata i principa.

Dijalog između učesnika će biti usmjeren na:

- Prilagođavanje malih proizvođača i porodičnih farmara i jačanje njihove otpornosti na uticaj klimatskih promjena;
- Zaštitu i unapređenje agro-biodiverziteta kao podrška održivosti ekosistema;
- Poboljšanje životnih uslova, životnog standarda u ruralnim područjima;
- Sveto trojstvo: poljoprivreda, ekonomija i ekologija (a x e2), njihove međusobne veze i kako se baviti njima, te kako ovaj miks međusobnih relacija utiče na proizvodnju domaće hrane i zdravlje nacije;
- postizanje transformativne promjene u poljoprivrednim praksama u skladu sa principima održivog razvoja.

Konferencija će dijelom uraditi sintezu i nadograđivati rezultate regionalnih sastanaka i pružiti priliku da podijeli svoja iskustva sa učesnicima, diskutuje o politikama koje mogu pomoći u povećanju poljoprivredne proizvodnje, ruralnog razvoja, agroekologije, ishrane kako bi se postigli ciljevi održivog razvoja.

Konferencija će takođe inicirati pomjeranje teme poljoprivrede i ruralnog razvoja od dijaloga ka konkretnim aktivnostima na lokalnom i regionalnom nivou (kod nas u Crnoj Gori), tražeći rješenja očuvanja biodiverziteta u poljoprivredi, identifikujući mogućnosti za sinergiju sa nacionalnim strateškim programima i regionalnim inicijativama, pospješujući regionalnu i međunarodnu saradnju između naučnika i biznisa.

Konačni cilj je traženje načina da se pruži pomoć ljudima iz ruralnih područja, njihovim malim biznisima, poljoprivredi i srodnim sektorima da iskoriste prednosti:

- Prirodnih resursa, bezbjednog pristupa zemljištu i vodama, poboljšavajući prakse upravljanja prirodnim resursima i pristupe konzervacije;
- Poboljšane poljoprivredne tehnologije i efikasnijih proizvodnih usluga;
- Povezivanje zainteresovanih strana sa finansijskim servisima;
- Mogućnosti za zapošljavanje i razvoj preduzeća u ruralnim područjima;
- Lokalnih i nacionalnih politika i programiranja.

Ovo inicijativa je pokrenuta sa ciljem otvaranja i susreta sa inovativnom, integrisanom, multidisciplinarnom naukom i tehnologijom uz aktiviranje svih dimenzija ciljeva održivog razvoja za sve učesnike.

Na kraju, želimo vam dobrodošlicu u Podgorici i Crnoj Gori, zanimljivoj destinaciji za međunarodne putnike. Nadamo se da ćete za vrijeme vašeg boravka iskoristiti priliku i da posjetite neke od mnogih znamenitosti Crne Gore.

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Content of the trace elements in corn grown on the territory of the municipality of Mali Zvornik in the Republic of Serbia

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Abstract

In the area of Mali Zvornik municipality, during 2017 on plots of agricultural land 12 soil samples to the depth of 30 cm depth and plant material was collected. The survey included observations was carried out on six types of soil and one plant species (the analysis was carried out on corn grains). The content of Pb, Ni, Cr and Cd was determined in the soil and plant material. At five sites, the trace element content in the soil was above the maximum permissible levels (MPL). At two sites, the content of lead (Pb) was above of MPL, on one site nickel (Ni) content was above of MPL, on one content of nickel (Ni) and lead (Pb), and on one site content of chromium (Cr), nickel (Ni) and lead (Pb) was above the MPL.

The content of the examined elements in the samples of plant material (corn grain) at sites with the content of trace elements above the MPL was either below the detection limit or within the limits of the normal values for this plant species, except in one sample where the lead content was above the allowed values for human consumption. Despite the value of the trace elements above the MPL for soil, the value of the examined elements in the analysed plant samples was not above the toxic values (TV), which indicates that the translocation is affected by the set of physical-chemical properties of the soil, the place of accumulation and the physiology of the plant species. The assumption is that the increased lead content in one corn grain sample is due to air pollution.

Keywords: trace elements, translocation, corn grain.