



**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**



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# BOOK OF ABSTRACTS

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# Effects of irrigation on production and quality of dill, marigold and basil in different weather conditions

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## Abstract

The application of irrigation soil is regulated and improved its water regime, where by improving production traits and growing conditions of plants which are produced on them, because of that, and for mitigation increasing and more frequent oscillations of weather conditions during the production years. The trial was conducted in irrigation medicinal, aromatic and spice herbs, whose representatives: dill, basil and marigold. The experiment was conducted on plots Institute of Field and Vegetable Crops, in Bački Petrovac, central Vojvodina, during rainy 2016 and drought, 2017, in two variants: 1. control, without irrigation and 2. variant with irrigation drop by drop. The amount of added water or irrigation norm was determined by monitoring soil water balance, and amounted to 120 mm four watering 2016 and 300 mm in 10 watering drought in 2017. The effect of irrigation on yield it was noticed in both years, rainy 2016 from 8.36% in basil to 47.41% in dill and dry 2017, 78.59% at dill to 105.46% at marigold. In the conditions of irrigation, in both years of production, increased with yields of green mass and yields of essential oils and carotenoids, as the main indicators quality cultivated crops. Environmental conditions (weather and soil) have a significant effect on grain yield and quality in sweet basil (Pejić et al., 2017) and dill (Maksimović et al., 2018). Grain shows a tendency to increase in the years having a higher total amount and better distribution of rainfall during critical plant development stages. Irrigation in these phases is a crucial factor for the successful production of dill, marigold and basil.

**Key words:** irrigation, yield, essential oils and carotenoids, dill, marigold, basil.

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