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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
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Environment protection and natural resources management, Forestry**

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Book of Abstracts



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BOOK OF ABSTRACTS

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Importance of crop rotation for increasing of biomass and yield of maize

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Abstract

Crop rotation has many positive effects on plant production and one of them can be increasing of growing parameters (height, leaf area and grain yield). The trial was set up on experimental field of Maize Research Institute “Zemun Polje” and conducted from 2009-2012. In our experiment we compared maize monoculture (MM) and three crop rotation maize-soyabean-wheat-maize (MSWM). We used two hybrids of maize and one of them was ZP 677 (elder hybrid) and second was ZP 606 (newer hybrid). Parameters which we measured were height of plant (cm), leaf area (LAI index m²/m²) and grain yield (kg/ha) of maize. After four years of experiment (2012 year), when finished first cycle in crop rotation, we got much better results in crop rotation compared to maize monoculture in both hybrids. ZP 677 had higher LAI index and higher plants when we cultivate in crop rotation than in maize monoculture. In ZP 606 results were much better, so we had higher LAI index, higher plants and 1,5 t/ha higher grain yield in crop rotation in comparison with maize monoculture. If we had more rain in 2012 year (extremely dry year) difference in grain yield could be higher. So we can conclude that maize must be cultivating in crop rotation especially newer hybrids.

Key words: Crop rotation, grain yield, hybrid.