6TH INTERNATIONAL SYMPOSIUM ON
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AGRORES
2017

BOOK OF ABSTRACTS

February 27 - March 2, 2017
Banja Luka, Republic of Srpska, Bosnia and Herzegovina

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ANTIBACTERIAL ACTIVITY OF DIFFERENT EXTRACTS OF Helianthus tuberosus*L.*

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Helianthus tuberosus L. is a plant originating from North America, which is original cultivated for human consumption. In many studies researchers pointed to the fact that the extracts obtained with polar solvents have a greater microbial activity. In accordance with this, the aim of our study was to compare antibacterial activities of extracts of Helianthus tuberosus L. obtained in polar (methanol) and non-polar (petrol-ether) solvents. The strongest antibacterial activity was expressed by Helianthus tuberosus L. methanol extract on bacteria Salmonella Typhimurium ATCC 14028 and Escherichia coli ATCC 25922 while petrol-ether extract expressed strongest antibacterial activity on Salmonella Typhimurium ATCC 14028 (7,8125 μg/mL). The lowest antibacterial activity was expressed by petrol-ether extract on Listeria monocytogenes ATCC 19112 (500 μg/mL). Results indicate that extracts obtained using a polar solvent have stronger antibacterial activity .

Keywords: *Helianthus tuberosus L.*, antibacterial activity, polar solvent, non-polar solvent.

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