

**Faculty of Agriculture
Goce Delcev University - Stip**



**2nd INTERNATIONAL MEETING
AGRISCIENCE & PRACTICE
(ASP 2019)**

BOOK OF ABSTRACTS

**12th April 2019
Stip, Republic of North Macedonia**

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**FACULTY OF AGRICULTURE
GOCE DELCEV UNIVERSITY - STIP, REPUBLIC OF NORTH MACEDONIA
12 April 2019, Stip, Republic of North Macedonia**

In the past twelve years the educational, research and applicative activities of the Faculty of Agriculture – Stip, Goce Delcev University – Stip, contributed to the development of agricultural sector in the country and abroad.

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GENETICALLY MODIFIED CROPS - CURRENT STATE, ISSUES AND PERSPECTIVES

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Abstract

The main aim of genetic engineering is to introduce, increase or delete certain characteristic of an organism which is achieved with gene manipulation. The first foreign gene was successfully incorporated into tobacco plant in 1983. Since, there are about 12% (179.7 million hectares) of global cropland produced genetically engineered crops in 2015 (FAO, 2015). Data for 2015 show that genetically modified varieties were commercially available for nine food crops (soybeans, maize, apple, canola, sugar beet, papaya, potato, squash and eggplant) three nonfood crops (alfalfa, cotton and poplar) and two types of flowers (carnation and rose). The most genetical engineering is done for herbicide, insect and virus resistance, as well as improvement of abiotic stress resistance, crop quality and ripening delay. Together with development and introduction of new genetically modified crops, consumers' and environmentalists' awareness about eventually their harmful consequences was growing worldwide, including the Macedonian consumers. In this paper, the current state and issues of genetically modified crops will be discussed, with a specific emphasis of environmental risk assessment of genetically modified crops for Macedonian conventional agriculture, Macedonian cases of detection of genetically modified seeds and food and Macedonian legislation of genetically modified crops.

Key words: GM crop, consumer awareness, environmentalist awareness, GM crop environmental risk assessment, GM legislation