



**5<sup>TH</sup> INTERNATIONAL SYMPOSIUM ON  
AGRICULTURAL SCIENCES**



**AGRORES**

**2016**

# **BOOK OF ABSTRACTS**



February 29 - March 3, 2016  
Banja Luka, Republic of Srpska, Bosnia and Herzegovina

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ON AGRICULTURAL SCIENCES



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# **SYMPOSIUM PROGRAMME**

HP31

**THE REACTION OF DIFFERENT COMMON BEAN GENOTYPES,  
AS STUBBLE CROP, TO THE PRESENCE OF  
CAUSAL AGENT OF RUST, *UROMYCES APPENDICULATUS*  
(PERS.) UNGER DURING 2015**

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The causal agent of rust, *Uromyces appendiculatus* (Pers.) Unger, is present in all countries of the world where common bean is grown. In the countries with suitable climates for pathogen development, yield losses caused by this disease may be severe. In Republic of Serbia, it appears in higher intensity on dry and snap bean plants during summer, when they are grown as stubble crops. Growing more tolerant and resistant genotypes is the most important way of protection, and constant screening of breeding material enables selection of less susceptible genotypes. The aim of this work was to investigate the reaction of different genotypes to the presence of causal agent of rust. The stubble bean planting was done on July 1, 2015, in the distance of 50x5cm in the rows. Length of one row was 2m and contained 40 plants. For the trial, 17 domestic and 4 foreign genotypes were chosen from the collection of the Institute of Field and Vegetable Crops, Novi Sad. The evaluation was done on September 22, 2015, in the condition of natural infection, with visual method using score scale from 0-5 (0: without visible symptoms of infection, 1: 1-5% of the leaf coverage with uredopustules, 2: 6-25%, 3: 26-50 %, 4: 51-75 %, 5: 76-100 %). The first symptoms of rust on the back of the leaf were observed in the first decade of September, as small, single uredopustules, dark orange in color. The average scores of infection intensity among tested genotypes on September 22 ranged from 0.29-0.95. Lowest leaf infection level was noted in cultivars Belko (Serbia) and Sataja 425 (USA), whereas the highest was in local population originating from Stejanovci (Serbia). Among tested genotypes there are statistically significant differences concerning the intensity of infection in bean leaves.

Key Words: Reaction, Tolerant Genotypes, *Uromyces appendiculatus*