



# AGRORES

IV International Symposium  
and  
XX Scientific-Professional Conference  
of Agronomists of Republic of Srpska



## BOOK OF ABSTRACTS



Bijeljina, March 2 - 6, 2015  
Republic of Srpska, Bosnia nad Herzegovina

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**EFFECT OF THE FOLIAR APPLICATION OF BORON,  
PHOSPHORUS AND POTASSIUM ON THE GRAIN YIELD OF  
FORAGE PEAS ON ACID SOIL**

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Soil acidity is one of the factors that limits growth of many legumes, because in such conditions certain nutrients are less available to plants. As forage pea (*Pisum sativum ssp. arvense* L.) has often been grown on acid soils, special attention should be paid to proper mineral nutrition. The aim of the study was to estimate the effect of foliar fertilization with boron, phosphorus and potassium on plant growth, grain yield and yield components (number of nodes with pods per plant, number of pods per plant, number of grains per plant) on forage peas, on acid soil. The experiment was set up in pots (15 L volume, one plant per pot) filled with soil substrate (Glaysol type, pH<sub>KCl</sub> 4.8) in the 2013. Cultivar of forage peas Javor (Institute of Field and Vegetable Crops, Novi Sad) was sown in five replications. Treatments with foliar fertilizers included: control (without fertilization), boron (Bor-feed, Haifa, Israel at the concentration of 0.1%) and phosphorus and potassium (P<sub>52</sub>K<sub>34</sub>, Haifa, Israel at the concentration of 1%). Foliar treatment are carried out two times: at the beginning of intensive growth and two weeks after. Significantly higher plant height was recorded at phosphorus and potassium treatment (72.6 cm) compared to boron (60.4 cm) ( $P < 0.05$ ). Foliarly applied boron positively affected the yield components, especially grain number per plant, so that grain yield in that treatment was significantly higher (0.64 g) compared to control (0.36 g) and treatment with phosphorus and potassium (0.45 g). Positive results on individual plants suggested the need to investigate the effect of foliar application of these elements in field conditions.

**Key words:** peas, foliar fertilization, boron, phosphorus, potassium, grain yield.