

## **YIELD AT 75 EUROPEAN SOYBEAN VARIETIES FROM DIFFERENT MATURITY GROUPS IN THE CLIMATIC CONDITIONS OF THE TRANSYLVANIAN PLAIN**

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### **Abstract**

Soybean being the most important legume plant for grains, the high protein and oil content determines many uses, which leads to expansion of soybean crop areas. The experiment was conducted at Agricultural Research and Development Station Turda (ARDS Turda) in the climatic conditions of the 2018 and 2019. Biological material included 75 Romanian varieties (12) and foreign genotypes (63), from different maturity groups (000 - II). The rainfall and temperature varied in the two-year study which determined differences on average yield obtained for each maturity group. The highest average yield for the maturity groups 00, 0, I, II was obtained in the climatic conditions of the year 2019, instead the behavior of the very early genotypes (000) was different, the year 2018 being more favorable. The maturity group recommended till now for the Transylvanian Plain was very early (000) and early (00), but from the data presented the highest yields were obtained by the maturity groups 0 (2719 kg/ha), I (2895 kg/ha) and I + II (2732 kg/ha). A continuation of the study is required, to establish the suitable maturity group for the new conditions of Transylvanian Plain.

**Key words:** soybean, maturity group, yield, climatic conditions