

MORPHOLOGIC EVALUATION OF SOME OILSEED RAPE CULTIVARS IN WATER DEFICIT STRESS CONDITIONS

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Abstract

Water deficit stress is considered to be one of the most limiting factors for oilseed rape having as main effect decrease of the production. During the last few years, the water deficit stress started to be a problem for the agricultural crops also in Romania. The aim of this study was to evaluate the main morphological traits of 10 oilseed rape cultivars of different origin under three levels of water deficit stress under greenhouse conditions. The experiment was made with three irrigation levels: control (100 % FC), well watered stress (75 % FC), mild watered stress (50% FC) and severe stress (25% FC). In order to evaluate the influence of the irrigation levels upon the plants development, at the end of the vegetation stage of the studied cultivars some morphological traits were measured such as: plant height (PH), number of pods per plant (NP), number of branches per plant (NB), pod length (SL), yield per plant (YP) and 1000 grain-weight (GW). We observed that the most tolerant cultivars at water deficit stress were „Arabella”, „Andol” and „Brillant” which were less influenced by the water deficit stress and the most sensible cultivars were „Perle”, „Andol” and „Olimp” which obtained the smallest values in the water deficit stress conditions.

Key words: water deficit stress, oilseed rape, morphological trait.