

## THE ROLE OF PHOTOSYNTHESIS IN CHOOSING OPTIMAL AGRO-TECHNICAL FACTORS OF AUTUMN CANOLA PRODUCTION

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**Abstract.** *We measure plant physiological parameters in Hybridrock winter oilseed rape hybrid: relative chlorophyll content (SPAD) measurements at seven different date (25.03; 01.04; 11.04; 26.04; 06.05; 24.05; 09.06.2016) in our experiment. The experiment has been set up in the University of Debrecen Látóképi Experimental Station in three different sowing times (I 28.08.2015, II. 12.09.2015 and III. 23.09.2015), three different plant density 200, 350 and 500 thousand ha<sup>-1</sup>, four replication of the same nutrient supply with using a line spacing of 45 cm. In the experiment the fore crop was winter wheat. The highest yield in the early sowing time was 5475 kg ha<sup>-1</sup> (high plant density); the average sowing time was 4485 kg ha<sup>-1</sup> (medium plant density) and the late sowing time 4104 kg ha<sup>-1</sup> (high plant density). We concluded that the photosynthetic capacity of rape is significantly influenced by the sowing time. On the basis of the Pearson correlation analysis there was significant negative correlation between the sowing time and yield of the hybrid.*

**Keywords:** winter oilseed rape, yield, LAI, SPAD, PHC

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