

## The Effect of Sowing Time on Phytopathogenic Characteristics and Yield of Sunflower Hybrids

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**Abstract :** The field research was carried out at the Látókép AGTC KIT research area of the University of Debrecen in Eastern-Hungary, on the area of the aeolian loess of the Hajdúság. We examined the effects of the sowing time on the phytopathogenic characteristics and yield production by applying various fertilizer treatments on two different sunflower genotypes (NK Ferti, PR64H42) in 2012 and 2013. We applied three different sowing times (early, optimal, late) and two different treatment levels of fungicides (control = no fungicides applied, double fungicide protection). During our investigations, the studied cropyears were of different sowing time optimum in terms of yield amount (2012: early, 2013: average). By Pearson's correlation analysis, we have found that delaying the sowing time pronouncedly decreased the extent of infection in both crop years (Diaporthe:  $r=0.663^{**}$ ,  $r=0.681^{**}$ , Sclerotinia:  $r=0.465^{**}$ ,  $r=0.622^{**}$ ). The fungicide treatment not only decreased the extent of infection, but had yield increasing effect too (2012:  $r=0.498^{**}$ , 2013:  $r=0.603^{**}$ ). In 2012, delaying of the sowing time increased ( $r=0.600^{**}$ ), but in 2013, it decreased ( $r=0.356^{*}$ ) the yield amount.

**Keywords :** fungicide treatment, genotypes, sowing time, yield, sunflower

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