

визначення відповідності критеріям відмінності, однорідності та стабільності (далі – ВОС) сортів соняшнику однорічного у кількості 191 гібрид та 216 батьківських компонентів. Комплекс польових та лабораторних досліджень забезпечували два пункти досліджень: Дніпропетровська філія УІЕСР та Кіровоградська філія УІЕСР. Здійснювали опис 44 морфологічних ідентифікаційних ознак по кожному сорту згідно Методики проведення експертизи сортів рослин групи олійних на ВОС. За результатами кваліфікаційної експертизи на ВОС у 2022 році під-

готовлено 101 Експертний висновок по гібридах та 113 по батьківських компонентах для прийняття рішення за заявкою.

Здійснення польових, лабораторних та аналітичних досліджень на відповідність сорту критеріям відмінності, однорідності та стабільності соняшнику однорічного в 2022 році дало змогу поповнити сортовий склад якісними сортами, які поєднують в собі стабільно високий рівень урожайності, високу толерантність до хвороб, а також високий вміст олії та олеїнової кислоти.

UDK 631.11 5

Öztürk İ., PhD of Agriculture, Head of Field Crops Department
Trakia Agricultural Research Institute, Edirne, Turkey
e-mail: ozturkirfan62@yahoo.com

NORMALIZED DIFFERENCE VEGETATION INDEX IN BREAD WHEAT (*TRITICUM AESTIVUM* L.) GENOTYPES AND RELATION WITH YIELD UNDER VARIOUS ENVIRONMENTS CONDITION

Bread wheat is a widely grown cereal crop and various environmental conditions reduce grain yield. Plants grow differently in various environmental conditions, so the effect of biomass on grain yield may be different. In the study, the effect of normalized difference vegetation index measured in different environmental conditions on grain yield was investigated. The research was carried out in Trakya Region, Turkey, in the 2018–2019 growing cycle. Experiments were conducted at four environments with 25 wheat genotypes in randomized completely blocks design with 4 replications. Normalized difference vegetation index (NDVI), grain yield (GY), days of heading (DH) and plant height (PH) were investigated. The analysis of variance revealed significant differences among the genotypes and environments for NDVI, grain yield, plant height, and days of heading. Over four environments mean highest grain yield was 9317 kg ha⁻¹ in environment E3 and the lowest yield was in environment E4 with 6817 kg ha⁻¹. The lowest NDVI was measured in E1 while the highest NDVI was in E2. The environmental effect differed between genotypes in terms of earliness. Earliness is an important feature, especially in arid conditions. The earliest

days to heading was detected in E4 (118 days), while the latest days of heading was established in E2 (127.9 days). Plant heights varied between 90.3 cm (E1) and 111.1 cm (E3) among environments. Correlation coefficients based on the investigated parameters were determined by Pearson's correlation analysis. Grain yield was positively correlated with plant height in environment E1 ($r=0.633^{**}$) and E3 ($r=0.582^{**}$). A significant negative correlation was determined between days of heading and plant height in four environments. The study showed significant differences among genotypes and environments for all parameters investigated. Significant differences in NDVI were determined among genotypes over four different environments. NDVI measured in the Z45 period was positively correlated with the days of heading across four environments. NDVI negatively associated with grain yield. Early genotype had also higher yield potential. The highest grain yield was determined by genotypes that have long plant heights. Different correlation coefficients were obtained among parameters effect because of the environmental factors. The study's result revealed that the environmental effect was significant among physiological parameters.