

Reactions of special bread wheat crossing block materials to leaf and yellow rust

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Purpose. One of the limiting factors for wheat production is the presence of fungal diseases, including leaf rust (caused by *Puccinia triticina* (*Pt*)) and yellow rust (caused by *Puccinia striiformis* f.sp. *tritici* (*Pst*)) diseases. Improve of resistant cultivars and use of genetic resistance are very important to control of the leaf and yellow rust diseases. The goal of this research 149 special bread wheat crossing block materials were evaluated for adult plant reactions for leaf rust Edirne (Merkez location) and for yellow rust Ankara (Ikızce location) in the 2014 season.

Methods. Test materials were sown in 3 replications with a one-meter row. The genotypes were inoculated with local *Pst* populations (virulent on *Yr 2, 6, 7, 8, 9, 25, 27, Sd, Su* and *A*, resistance genes). The genotypes were screened under natural epidemic condition for *Pt* (virulent on *Lr1, 2c, 3a, 16, 26, 3ka, 11, 17a, 30, B, 10, 14a, 18, 3bg* and *14b* resistance genes). **Results.** Leaf and yellow rust development on each entry were scored using the modified Cobb scale when the susceptible checks cv. Little Club, Morocco (for *Pst*), Gьn-91 and Thatcher (for *Pt*) had reached 80S infection severity in June, 2015. Coefficients of infections were calculated and values below 20 were considered to be resistant. Thirty-six (24%) and 140 (94%) genotypes were resistant to *Pt* and *Pst*, at the adult plant stage, respectively. **Conclusions.** The resistance sources to leaf and yellow rust were determined with this research.

Keywords: Bread wheat, leaf rust, yellow rust, reaction test, adult plant reaction

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Rust reactions of genotypes in a wheat yield trials developed by Central Research Institute for Field Crops in 2015

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Purpose. Stripe rust (caused by *Puccinia striiformis* f. sp. *tritici* (*Pst*)) and Brown rust (caused by *Puccinia triticina* (*Pt*)) are most important foliar wheat disease in Turkey. Stripe rust and brown rust can cause important yield and quality loss when susceptible cultivars are. The purpose of this research study 24 bread wheat genotypes (19

Yield Trials - Bread Wheat and 5 cultivars ('Bayraktar 2000', 'Demir 2000', 'Tosunbey', 'Bezostaja 1', 'Kenanbey') were evaluated for seedling stage reactions in January-February 2015. The experiment was carried out under greenhouse conditions in Central Research Institute for Field Crops in Yenimahalle/Ankara location. **Methods.** The