Screening Wheat Germplasm for Crown and Root Rot Diseases under Field Conditions. (C01-mergoum162613-Poster)

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Abstract:

Root and crown/foot rot disease is often a major challenge that faces the agronomists in general, to improve productivity of wheat in the dryland environments of West Asia and North Africa (WANA) regions. The most commonly reported causal pathogens in the region are Cochliobolus sativus; Fusarium culmorum; Fusarium pseudograminearum, Fusarium avenaceum and Rhizoctonia cerealis. The main objective of these studies is to identify sources of resistance/tolerance to root rot disease and incorporate this resistance/tolerance in elite superior wheat germplasm. In1999-2001 period, 3300 wheat genotypes, including widely grown cultivars and advanced lines were artificially inoculated with the above listed root rot pathogens in WANA and planted at Cumra Experimental Station in Konya region, Turkey. Each entry was planted in a single two rows, 2 meters long plot. The evaluation for reaction to root rot disease was based on plant stand and white head percentage, the typical root rot symptoms in the region. The results from the two years screening allowed the identification of 50 genotypes with high to moderate resistance to the disease. These genotypes along with other genotypes are being tested in 2001-02 crop cycle to confirm their reaction to root rot infection.

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