

Water Use Efficiency of Sunflower Genotypes Under Drip Irrigation

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Abstract : This Investigation was conducted to determine the productivity and water use efficiency for new sunflower genotypes. Ten sunflower genotypes were evaluated under drip irrigation using two treatments of. Results indicate that decreasing the amount of irrigation water from 1500 to 1130 mm/hectar significantly reduced all studied traits. Mutation (M1-63) surpassed all the other one genotypes in seed yield and WUE. Lines which gave the highest yield of the seed have water use efficiency under drought conditions higher than water use efficiency under normal irrigation. The lowest depression in seed yield due to drought conditions has been registered for Line 20, Line M1-63 and Sakha 53 genotypes (11 , 18 and 16 %, respectively). Genotypes (Line 20 , Line M1-63 and Sakha 53) are more tolerant to drought than others and we can used its in breeding program to develop sunflower hybrids suitable for cultivation under drought condition.

Keywords : sunflower genotypes, water use efficiency, mutation, inbred lines

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