

Root Biomass Growth in Different Growth Stages of Wheat and Barley Cultivars

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Abstract : This work was conducted in greenhouse conditions in order to investigate root biomass growth of two bread wheat, two durum wheat and two barley cultivars that were grown in irrigated and dry lands, respectively. This work was planned with four replications at a Completely Randomized Block Design in 2011-2012 growing season. In the study, root biomass growth was evaluated at stages of stem elongation, complete of anthesis and full grain maturity. Results showed that there were significant differences between cultivars grown at dry and irrigated lands in all growth stages in terms of root biomass ($P < 0.01$). According to research results, all of growth stages, dry typed-bread and durum wheats generally had higher root biomass than irrigated typed-cultivars, furthermore that dry typed-barley cultivar, had higher root biomass at GS 31 and GS 69, however lower at GS 92 than Larende. In all cultivars, root biomass increased between GS 31 and GS 69 so that dry typed-cultivars had more root biomass increase than irrigated typed-cultivars. Root biomass of bread wheat increased between GS 69 and GS 92, however root biomass of barley and durum wheat decreased.

Keywords : bread and durum wheat, barley, root biomass, different growth stage

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