

Turkish Journal of Agriculture and Forestry

Turkish Journal

of

Agriculture and Forestry

The Effect of Drought on the Growth and Yield of Winter Wheat

Ali ÖZTÜRK

Atatürk Üniversitesi Ziraat Fakültesi Tarla Bitkileri Bölümü, 25240 Erzurum-TÜRKİYE

 [Keywords](#)
 [Authors](#)



agric@tubitak.gov.tr

[Scientific Journals Home Page](#)

Abstract: The effect of drought on the growth and yield of "Dogu-88" winter wheat variety was investigated in this field experiment using plot covers. Fully irrigated (FI), rainfed (R), early drought (ED), late drought (LD) and continuous drought (CD) treatments were studied under Erzurum conditions. ED decreased grain number per unit area by 44.4 %, 1000 kernel weight by 6.9 % and grain yield by 40.6 % compared with FI. A rapid senescence of green tissues in LD treatment also led to shorter green area duration (27.5 days), lighter 1000 kernel weight (3.8 g) and lower grain yield (24.0 %). CD treatment decreased grain number per unit area by 54.9 %, 1000 kernel weight by 19.9 % and grain yield by 65.6 % compared with FI. Variations in grain yield depended mainly on the effects of treatments on grain number per unit area. ED limited primarily grain number per unit area while LD affected kernel weight. The negative effect of ED on grain yield was more significant than that of LD.

Turk. J. Agric. For., **23**, (1999), 531-540.

Full text: [pdf](#)

Other articles published in the same issue: [Turk. J. Agric. For., vol.23, iss.5.](#)