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
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Genotypic Differences for Reproductive Growth, Yield, and Yield Components in Groundnut (*Arachis hypogaea* L.)

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Abstract: This study was conducted to evaluate reproductive growth, oil and protein accumulation in seeds, and some yield components of 8 groundnut genotypes in 2001 and 2002. The number of flowers, pegs, and pods per plant during the reproductive period were determined with periodic counts starting from flowering. The percentage of flowers turned to pegs and pods, and the percentage of pegs turned to pods were calculated at the end of the growing period. After pod setting, 6 plants per plot were harvested at 15-day intervals to determine oil and protein content of seeds. At final harvest pod yield and some yield components were determined, and correlations between reproductive growth parameters and pod yield were calculated. Genotypes had significantly different reproductive growth parameters. Total number of flowers per plant was negatively correlated with the percentage of flowers turned to pegs and pods, whereas the percentage of flowers turned to pegs and pods was positively correlated with pod yield. The highest pod yield was obtained from cv. Osmaniye 2005, which had the lowest number of flowers per plant and the highest percentage of flowers turned to pods. The results of the current study showed that percentage of flowers turned to pegs and the percentage of pegs turned to pods were the most promising generative plant characteristics that could contribute to seed yield increase in groundnut production in a typical eastern Mediterranean climate. Seed oil content of the groundnut genotypes increased rapidly until initiation of first maturity (R7) and then declined in the later growth stages, whereas protein content generally increased gradually until physiological maturity (R8) in all genotypes.

Key Words: Groundnut, *Arachis hypogaea* L., reproductive growth, oil accumulation, protein accumulation

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