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
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A Study on The Relationship of Yield With Stability in Lentil

Metin ALTINBAŞ, Bahattin TANYOLAÇ

Ege Üniversitesi, Ziraat Fakültesi, Tarla Bitkileri Bölümü, İzmir-TÜRKİYE

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



agric@tubitak.gov.tr

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Abstract: Two lentil (*Lens culinaris medic.*) populations, one of them were of large-seeded genotypes and other one were small-seeded genotypes, were tested at one location in 1990 and at two locations in the years of 1991 and 1992 and some stability statistics were estimated for grain yield. The relationship between yield and stability were studied in both populations using the simple correlations among mean yields and six stability parameters. The significant correlations between mean yield and stability statistics (b , r^2 , s^2_d , W^2 , σ^2) except S^2 occurred in large-seeded genotypes, while all stability parameters were not significantly correlated with mean yield in small-seeded genotypes. Correlations between regression coefficient (b) and variance across environments (S^2) were positive and significant in both populations. It was determined that two parameters, between which highest correlations (1.000** and 0.999**) were obtained, ecovalance (W^2) and stability variance (σ^2) rank genotypes identically for stability. Results from stability and correlation analyses suggested that high yield potential was related with instability in large - seeded genotypes, whereas the possibilities to identify the desirable genotypes for high yield and stability could be more within small - seeded ones because of no meaningful relationship between mean yield and stability.

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