



Turkish Journal of Agriculture and Forestry

Turkish Journal

of

Agriculture and Forestry

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**A study on the Determination of the Relationship Between Grain Yield and
Certain Yield Components of Corn Using Correlation and Path Analysis**

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Abstract: A study was conducted to provide some useful information for corn breeding programmes in the Black Sea Region of Turkey. Correlation and path analysis were performed to determine the relationship between grain yield and certain yield components and the characters influencing the yield of corn. Experiments were carried out between 1988-1990, in three locations each year, representing clay and loamy-clay soils in the Çarşamba Plain of the Samsun Province. Four varieties (Yerli, Karadeniz Yıldızı, TTM-8119, P.3377) and six nitrogen levels (0, 4, 8, 12, 16 and 20 kg/da N) were tested. Number of kernels per ear, number of rows per ear and ear length had a significant direct effect, while plant height, shelling percentage and lodging had no significant effect on grain yield. In addition, plant height had a negative indirect effect on grain yield. It was concluded that ear length, number of rows per ear, number of kernels per ear and plant height should be considered for selection in corn in the Black Sea Region.

Turk. J. Agric. For., **23**, (1999), 1021-1028.

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