# CORRELATION AND PATH COEFFICIENT ANALYSIS FOR YIELD AND SOME OF ITS COMPONENTS IN BREAD WHEAT (Triticum aestivum L.)

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## ABSTRACT

Six varieties of bread wheat (IPA 95, IPA 99, Abo-Graib, Fateh, Tahadi and Taka1) were used in this study. These varieties were planted at two locations in Diyala Governorate, the first Baladrose and the second Mandely, using randomized complete block design with three replications. Data recorded on plant height, spike length, number of tillers per m2 , number of grains per spike, 1000-grain weight and plant yield, to determine the growth and yield component characters that correlated (environmentally, genetically and phenotypically) with yield, and partition the correlation coefficients to direct and indirect effects, through path coefficient analysis, to use it as a selection indices for plant yield improvement in wheat. The results showed that the most characters positively and significantly correlated with plant yield, and path analysis method (environmentally, genetically and phenotypically) showed that number of grain per spike and 1000-grain weight high and positive direct effects (genetically and phenotypically) with yield at the two locations. In addition the total direct and indirect effects (environmentally, genetically and phenotypically) of these two characters was positive and high, thus the two characters could be used as effective selection indices for plant yield improvement in wheat.