CHARACTER ASSOCIATION ANALYSIS FOR QUALITY AND YIELD RELATED TRAITS IN BARLEY (*HORDEUM VULGARE* L.)

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Abstract: Thirty five genotypes of barley were studied for the character association among quality and yield related. Grain yield per plant showed highly significant and positive correlation with biological yield per plant and harvest index. Similarly, positive and significant correlations of grain yield per plant were also observed for number of spikelets per ear, number of seeds per spike and tiller number per plant. Path coefficient analysis revealed that the traits biological yield per plant and harvest index consistently showed high positive direct effect on grain yield per plant. Whereas, the traits, number of tillers per plant, number of spikelets per ear, number of seeds per spike, had low direct but contributed towards grain yield per plant mainly through biological yield per plant.

Therefore, it is concluded that the traits biological yield per plant and harvest index exhibiting positive and significant correlation with grain yield per plant and it also had high positive direct effects on grain yield per plant, which reveals that true relationship between yield and both traits therefore, direct selection for these traits will be rewarding for yield improvement.

Keywords: Character association, correlation coefficient, path analysis, barley

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