

Studies on Gene action for Yield and Quality Traits in Okra (*Abelmoschus esculentus* (L.) Moench)

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ABSTRACT

Selection of suitable breeding methodologies in bringing desirable improvement in crop plant require the complete knowledge about the nature of gene action involved in the inheritance of quantitative and quality traits. Gene action of fruit yield and quality traits in okra (*Abelmoschus esculentus* (L.) Moench) were studied through half diallel analysis of 15 F1 hybrids derived by crossing 6 parental lines (VRO-3, VRO-6, 440-10-1, TCR-1674, JPM-20-16-39 and HRB-9-2). The ratio of *gca* to *sca* variances revealed that non-additive gene action was predominant over additive gene action in the inheritance of all the characters studied except internodal length and number of fruits per plant. Hence, heterosis breeding is required to be followed for exploitation of these traits.

Keywords: *Diallel, Fruit yield, Gene action, Okra and Variance.*