

**BIAS AND MEAN SQUARE ERROR OF A VARIANCE ESTIMATOR
BASED ON CONDITIONAL SPECIFICATION IN SPLIT-PLOT DESIGN**

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ABSTRACT

In this paper, an estimator of the error variance for a split-plot design in analysis of variance model-II incorporating two preliminary tests of significance has been proposed. Expressions for bias and mean square error (MSE) of the proposed estimator have been derived and partial checks have been made. It has been observed that the proposed estimator dominates unbiased estimator of error variance in certain range of nuisance parameters. Recommendations regarding its applications have been made.