

# CORRIGENDA TO THE COMPUTER PROGRAMME FOR ANALYSIS OF PARTIAL DIALLEL CROSSES

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Accepted: 1-v-62

IN the computer programme published earlier (Arunachalam, 1967), two errors were noted and reported (Bray, 1971). The first error has crept in in the course of printing and has not been detected at the proof stage, unfortunately. The original programme did not contain this error. Regarding the second error, a minor modification can be made in the programme to conform to the expected mean squares given by Kempthorne and Curnow (1961). This differs from the analysis based on means suggested by Bray. It is found useful to maintain uniformly an analysis based on totals, the advantage being that the G.C.A. SS and S.C.A. SS will total up to CROSS SS here. However, the estimates of combining ability parameters will remain the same regardless of whether the totals or means are used. Some of the comments of Bray on a paper utilizing this programme are not valid and a separate paper on this subject is under publication elsewhere. However, the following amendments need to be made in the published programme.

1. The card 017 should be read as  
$$KDF = (N - IS - 1) / 2$$
2. In the cards 037 and 040, SUMXQ should be replaced by SUMSQ.
3. After the card 167, the card  
$$GCA = GCA * (RDF + 1).$$
should be inserted.
4. In the card 169, the word GCA should be replaced by CROSS.

In addition, the published programme contains a few obvious printing mistakes which can be corrected by anyone working in this field.

The numerical example given in the published paper has used the wrong statement in the card 169 and hence contained errors. However, the published results up to Analysis of Variance are correct. The following are the correct results of Analysis of Variance and other estimates.

*Analysis of variance*

Source	D.F.	S.S.	M.S.	V.R.
REPLICATIONS	2	82.5100		
G.C.A.	9	2056.5441	228.5049	8.0747
S.C.A.	5	154.1359	30.8271	1.0893
ERROR	28	792.3600	28.2985	
Total	44	3084.5500		

Sigma (GSQ) 24.70 Log (Sigma (GSQ)/Sigma (ESQ)) = -0.13.

Sigma (ESQ) 28.29 (Sigma (SSQ) = .84 Log (Sigma (SSQ)/Sigma (ESQ)) = -3.51

AV. VAR (GI-GJ) = 17.17 AV. S.E. (GI-GJ) = 4.14.

## REFERENCES

- Arunachalam, V. (1967). Computer programmes in biometrical genetics-IV. Analysis of combining ability by partial diallel crosses. *Indian J. Genet.*, **27**: 392-400.
- Bray, R. A. (1971). Quantitative evaluation of the circulant partial diallel crosses. *Heredity*, **27**: 189-202
- Kempthorne, O. and Curnow, R. N. (1961). The partial diallel cross. *Biometrics*, **17**: 229-50.