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26R FOREST SERVICE - U. S. DEPARTMENT OF AGRICULTURE

PACIFIC SOUTHWEST FOREST AND RANGE EXPERIMENT STATION BERKELEY - CALIFORNIA

RESEARCH NOTE

No. 176

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XAN IBM 704 COMPUTER PROGRAM

FOR COMPUTING BARTLETT'S TEST OF HOMOGENIETY OF VARIANCE X

U.S. DEPT. OF AGRICULTURE LIBRARY By AUG 8 - 1961 Sharon B. Davidson, Statistical Assistant and George D. Frazier, Research Forester CURRENT SERIAL RECORDS

A test of homogeniety of variance is necessary before class means can be compared.

Bartlett¹/ has described a method of testing the significance of difference between two or more sample variances. The details necessary for the calculation of a corrected Chi Square relationship are described in Snedecor. $\frac{2}{}$

An IBM 704 computer program has been developed at the Pacific Southwest Forest and Range Experiment Station <u>3</u>/ using the procedure described by Snedecor. This peogram computes a corrected Chi Square for "n" samples with either equal or unequal sample sizes.

A copy of the program deck, a sample output listing, operating instructions, and input card format can be obtained by writing to the:

Director Pacific Southwest Forest and Range Experiment Station P. O. Box 245 Berkeley 1, California.

1/ M. S. Bartlett, "Supplement to the Journal of the Royal Statistical Society," 4: 137, 1937.

2/ George W. Snedecor, Statistical Methods, 5th Ed.; 2nd printing; The Iowa State College Press, Ames, 1957, pp. 285-289.

3/ The University of California Computer Center provided time on the IBM 704 for compiling and debugging this program.

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