

APPENDIX

Evaluation (Risk) of Research Results from Research Stations for Extension Purposes

The following step by step procedure is a crude method of assessing "Climatic Risk" to be used with an economic evaluation.

1. Use only those results which have a C.V. of 25 or less.
2. Carry out an economic analysis as detailed in CIMMYT information bulletin 27 (An Economic Training Manual by R.K. Perrin -- J.R. Anderson).
3. Use the publication: "Agroclimatological analysis of growing season in Natural regions III, IV, V of Zimbabwe" by J Hussein. This publication contains, for selected meteorological stations, frequency distributions for the start, end, and length of the growing season. Determine the nearest station to which you can apply the data. If research station is in natural region I or II calculate the start, end, and length of the growing season as described in the publication.
4. Determine the length of the growing season for the year of the trial.
5. Carry out a significance test in the normal way of using,
$$\frac{\text{"Length of growing season" - mean}}{\text{Standard deviation}}$$
6. Your results from 5 should give you a measure of reliability, which can be used for extension purposes. Any number over 2 standard deviations should be used with caution, particularly the negative which has little application. As an example: a marginal net benefit of "X\$" was obtained using factor "Y". This result is estimated to have an occurrence of not less than 25 out of 30 years, which involves a low risk.