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ENVIRONMENTAL ADAPTATION OF GROUNDNUT CULTIVARS

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Twelve groundnut cultivars were tested for their yield and other agronomic characters at 6 locations of the dry and intermediate zones in *Maha* 1981/82 and *Yala* 1982 seasons. At each location the treatments were arranged in a randomized complete block design with 3 replications. The recommended cultivar No. 45 served

as the check. South China and No. 45 recorded the highest mean yields. Varietal differences for the number of pods, seed size, shelling percentage and the number of seeds per pod were observed.

The regression analysis[1] of the yield data showed that the cultivars South China X-14-4-b-19-b, V-53 tatu and No. 45 have general adaptability. These cultivars recorded above average pod yields in all the environments. Six of the remaining cultivars recorded regression coefficients close to unity and had regression lines below the average line showing poor adaptation to all the environments.

A 92 and Red Spanish were classified as having above average stability. However, Red Spanish produced below average yields in all the environments whereas A 92 produced above average yields in poor environments.

Reference

1. Finlay, K. W. and Wilkinson, G. N. (1963). The analysis of adaptation in plant breeding programme, *Aust. J. Agric. Res.*, **14**, 742-754.