A STUDY ON ASSOCIATION OF YIELD COMPONENTS IN CARDAMOM (ELETARIA CARDAMOMUM) FOUND IN SRI LANKA.

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A study was carried out on the yield components of cardamom, using the pre-experimental data from a fertiliser trial. The data collected on various plant growth parameters of ninety clumps of cardamom were subjected to regression and path analyses. Total number of capsules per clump was considered as yield of the clump. The direct and indirect effects of yield components on total number of capsules per clump were computed. Very high co-eficients of variability were found with characteristics such as number of panicles per clump and total number of capsules per clump (>75%), while girth, height, number of leaves of a pseudostem and leaf length showed low variability (<20%).

The number of panicles and the length of panicles showed the highest correlation to the yield of a cardeamom clump (0.66 and 0.64 respectively). Then, assuming that the apparent multicollinearity is not large enough to cause concern, a regression model was fitted to study the relationship of yield to the growth characteristics, using stepwise selection procedure. This revealed that the total number of pseudostems, total number of panicles, length of a panicle and total number of capsules on a panicle significantly contributed to the yield. As a further check on the contribution of the selected characteristics, the technique of path analysis was also used. Path analysis showed that apart from the plant characteristics given above the leaf length also had a high association with yield. The number of panicles per clump had the highest direct effect on the yield (0.53).

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