TIME OF ANTHESIS AND FLOWERING CHARACTERISTICS OF COWPEA AND MUNGBEAN

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Five mungbean varieties (Vigna radiata (L.) Wilczek) and four cowpea varieties (Vigna unguiculata (L.) Walp) were grown at Peradeniya. The main objective was to find the time of anthesis which is very important for artificial hybridization in self-pollinated crops.

Results showed that cowpea varieties could be categorized as early, intermediate and late flowering types. The difference between mungbean varieties for days to flowering was about 5 days. Arlington and IPBM 79-13.29 showed skewed distributions. Cowpea Bombay, Cowpea Brown, Arlington and MI 35 began flowering after 4.45, 5.15, 6.00 and 6.15 am. respectively but showed significant skewness. IPBM 79-13.29, MI 5 Type 77 began flowering after 5.45 am. whereas VC 1973A and VC 1562A did so after 6.00 am. They showed highly significant skewed distributions. Arlington and Cowpea Brown anthers started to dehise after 7.45 pm. whereas Cowpea Bombay and MI 35 after 8.00 pm. Cowpea Bombay and Cowpea Brown and all mungbean varieties except MI 5 showed significant skewed distributions. MI 5, IPBM 79-13.29 and VC 1973A shed pollen after 5.00 pm. whole the other two varieties, after 5.30 pm.

The present study also indicated that at time of anthesis the closed bud begins to turn yellow and could be used as a marker for emasculation.