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Diversity assessment of finger millet germplasm (*Elusiene coracana* (L.) Gaert*)*

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Finger millet is mainly cultivated as a rainfed crop in Sri Lanka. The extent of cultivation has reduced during the recent past due to lack of suitable varieties for rainfed cultivation, difficulties in post harvest processing, adaptation for other cash crops and increased consumption of rice based products. Improvement of varieties suitable for farmer grown conditions with the farmer participatory approach will provide more adaptable varieties for the specific niches. Assessment of genetic diversity of finger millets available within the farming community of the divisional secretariat Thanamalvila (Kahakurullanpellessa, Mahawewa and Sooriya Ara) and the germplasm collections of Plant Genetic Resource Centre was carried out to find out suitable genetic material for further improvement of the crop. Forty nine germplasm accessions were evaluated in Randomized Complete Block Design with two replicates at the Grain Legumes and Oil Crops Research and Development Center, Angunukolapellessa during 2012 *Yala*. From the hierarchical cluster analysis using average linkage method based on descriptive data, two major clusters were observed joined between 15 – 20 Euclidian distances. A considerable amount of genetic variation was observed within the overall finger millet germplsm collection. Finger millet diversity within Mahaweva and Kahakurullanpelleassa were comparatively low. Yet germplasm collected from Anuradhapura District were of wider genetic diversity. From correlation analysis between descriptive characters, significant positive correlations ($p > 0.01$) were observed for panicle size, number of fingers and finger length with yield at $r = 0.48$, 0.41 and 0.67 respectively.

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