

DII 05 Diversity ofAWN characteristics of weedy rice populations in Matara and Ampara in Sri Lanka

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Awning is one of the most primitive and highly diverse traits for the Sri Lankan weedy rice (*Oryza sativa* f. *spontanea*). This is phenotypically very similar to cultivated rice at the early growth stages and is highly variable at late stages. Therefore, the study was carried out to determine the diversity in awn characteristics of different weedy rice populations collected from Matara and Ampara Districts representing dry and wet zone to explore the effect of ecological diversity for the variation of awn characteristics. A field survey was carried out in rice growing areas and seeds were collected from six (06) weedy rice infected locations; Akuressa-P1, Thihagoda-P2, and Mulatiyana-P3 and Akkareipattu-P4, Ampara-P5 and Lahugala-P6. Representative seed samples from each population was grown in a field with a plot size of 1m x 1m with four replicates under completely randomized design at 20cm x 20cm spacing, single seedling per hill. The standard evaluation system for rice, developed by International Rice Research Institute was used to score the awn lengths. The awn lengths were rated as awnless-0, short-1, medium-2 and long-3, in 9 individuals from each replicate, totally 36 individuals from each population. There were no significant difference in awn length between dry and wet zone and it could be as a result of overlap among populations from different localities through management practices, exchange of seed materials, farmer utensils etc. The different lengths of awns (awnless, short, medium, long) were fairly distributed within population showing high awn diversity in all Matara populations but no significant difference among them. In Ampara, comparatively long awns prominent in Lahugala (58.33%) while awnless were observed in Akkareipattu (75%) and Ampara (94.12%) showing high variation of the awn characteristics within populations in Ampara District.

Keywords: weedy rice, awn diversity, dry zone, wet zone