

Genetic Divergence of Bermudagrass (*Cynodon* spp.) Population Using ISSR Markers

ABSTRACT

Bermudagrass is a widely distributed turf grasses use in Malaysia. Nevertheless, the genetic variation on molecular level of bermudagrass was insufficient. In this study, a sum of 15 cultivars were collected from different accessions in Malaysia and being analyzed using Inter-simple Sequence Repeat Markers (ISSR). A total of 172 fragments were generated from 15 selected ISSR primers. There are 164 polymorphic bands with 95.3% of polymorphism. Fragment size ranged from 120 to 1867bp. The cultivars were clustered into 5 major groups at coefficient level of 0.5 through arithmetic average (UPGMA) cluster analysis of Jaccard's similarity coefficient. The genetic similarity coefficient was range from 0.25 to 0.61 with an average of 0.43. Satiri and Melaka cultivars were clustered separately from their own hybrid and common clusters, respectively. These findings indicated that ISSR marker is an effective molecular method use to study genetic variation of bermudagrass and could be used for varietal development program.