

Variation in turfgrasses demonstrated by amplified fragment length polymorphism (AFLP)

ABSTRACT

The classification of turfgrass cultivars is difficult as it has mostly relied on morphological characteristics that are multigenic, quantitative, and susceptible to modification by environmental factors. In this study, we employed an Amplified Fragment Length Polymorphic (AFLP) technique to distinguish between several turfgrass samples (including two *Cynodon* types) that were collected from Malaysian golf courses in comparison to four Australian *Cynodon* samples. The results clearly demonstrated the applicability of AFLP as a method to identify and fingerprint turfgrass samples and their relationships. The agreement of the three dendrograms generated by AFLP, Arbitrary Primed Polymorphic DNA (AP-PCR) and Internal Transcribed Spacer (ITS) gives good confidence in the use of the AFLP data for identification and analysis of relationships between the Australian *Cynodon* samples. The occurrence of a *Cynodon* type at one of the Malaysian golf courses is possibly a result from somatic mutation (TD6) or sod contamination at planting (TW4).

Keyword: Turf grass; AFLP; Genetic variation