Abstract:

Amplified fragment length polymorphism (AFLP) is a marker based on polymerase chain reaction amplification of restricted fragments ligated to synthetic adaptors and amplified using primers which carry selective nucleotides at their 3' ends. The technique generates highly reproducible markers from DNA of any organism and allows high resolution genotyping. AFLP has broad applications and has been used to investigate genomes of different complexity from microbes to higher organisms for purposes of species, strains and varieties identification, systematics, pathotyping, population genetics, simple and complex trait mapping, population genetics, construction of linkage and physical maps. In addition, it is being used in medical diagnostics, forensic analysis and microbial typing. AFLP is superior compared to other markers in that it has time efficiency, generates more information, is highly reproducible and has a wide range of applications. The marker has a drawback in that it generates dominant rather than co-dominant markers and can also be expensive if automated systems are used.