Table S2. Comparison of different molecular marking techniques and the application in lotus

Mark	Repeatability	Stability	Polymorphism	The scope of test	Application in lotus	Advantage	Disadantages	References
RAPD	Medium	Low	High	Complete DNA sample	Genetic diversity analysis; Cluster analysis; DNA fingerprinting	Strong specificity; Easy operation	Poor stability and repeatability	[47-61]
AFLP	High	High	High	Complete DNA sample	Genetic diversity analysis; Cluster analysis; QTL mapping analysis	Strong polymorphism; Stable results; High repeatability	Higher cost	[61-64]
SRAP	High	High	High	Complete DNA sample	Genetic diversity analysis; Cluster analysis; Genetic linkage map construction; QTL mapping analysis	Simple; No need to predict the sequence; Column information; Strong polymorphism	Depends on PCR inverse amplification efficiency; Molecular markers are randomly distributed	[64,74,78]
SSR	High	High	Medium	Repetitive sequence region	Genetic diversity analysis; Cluster analysis; DNA fingerprinting map drawing; Genetic linkage map construction; QTL mapping analysis	Rich in polymorphism; high coverage; good repeatability	Relying on PCR amplification efficiency; The number of existing markers is limited; Marker development is difficult	[3,27,61-64,74-75,79]
SNP	High	High	High	Complete DNA sample	Genetic linkage map construction; QTL mapping analysis	Large quantity; Wide distribution; automatic detection	High cost	[65,67,75,78,79]