List of tables

Table 2.1. Comparison of various molecular techniques for characterization of genetic diversity/genetic resources. 42

Table 3.1. Tea accessions collected from IHBT, Palampur 44

Table 3.2. List of accessions collected from Tea Research Association(TRA), Jorhat and their characteristics 46

Table 3.3. The following accessions were collected from UPASI, Valparai, Tamil Nadu 48

Table 3.4. Composition of restriction ligation reaction 52

Table 3.5. Composition of preamplification reaction. 53

Table 3.6. Composition of selective amplification reaction 54

Table 3.7. List of EcoRI and MseI primers used for selective amplification. The selective nucleotides are shown in bold 55

Table 3.8. Composition of restriction ligation reaction for TE-AFLP. 56

Table 3.9. List of EcoRI and PstI primers used for selective amplification in TE-AFLP method. The selective nucleotides are shown in bold 57

Table 3.10. Composition of polyacrylamide gels used for separation of AFLP fragments. 58

Table 3.11. Composition of ligation reaction for cloning in pGem-T vector 64

Table 3.12. Composition of reaction for Colony PCR 66

Table 4.1. Banding attributes obtained by 4-select AFLP. 75

Table 4.2. Banding attributes obtained by TE-AFLP. 76

Table 4.3. Comparative marker efficiency of 4-select AFLP and TE-AFLP 77

Table 4.4. Percent polymorphism and average heterozygosity among the China type and Assam type accessions 77

Table 4.5. Comparative table showing cophenetic correlations ratios of 4-select AFLP, TE-AFLP and combined data. 84

Table 4.6. List of primer combinations and their various marker attributes 86

Table 4.7. Cophenetic correlation ratio among the various similarity matrices and clustering methods. 89

Table 4.8. List of primer combinations and their analysis using different marker attributes 93
Table 4.9. Cophenetic correlation ratios among the various similarity matrices and clustering methods

Table 4.10. List of primer combinations and their analysis using different Marker attributes

Table 4.11. Dissimilarity values between different groups/subgroups obtained with Jaccard’s coefficient.

Table 4.12. Cophenetic correlation ratio among the various similarity matrices and clustering methods

Table 5.1. Composition of restriction digestion reaction.

Table 5.2. Components of adaptor ligation reaction.

Table 5.3. Components of preamplification reaction.

Table 5.4. Components of oligo hybridization reaction.

Table 5.5. Components of restriction ligation reaction.

Table 5.6. Components of preamplification reaction.

Table 5.7. Repeat motifs, no of repeats and length of repeats of various SSR repeat clones.

Table 5.8. Brief status of PCR amplification products of various primer pairs tested on a set of genotypes.

Table 5.9. Repeat motifs, no of repeats and repeat length of various SSR repeat clones.

Table 5.10. Summary of the distribution of different types of repeat motifs.

Table 5.11. Lengths of various type of repeat motifs.

Table 5.12. Status of screening of various SSR primres tested on a set of 8 accessions.

Table 5.13. Comparison of various attributes using two methods of SSR library preparation.

Table 6.1. PCR amplification of RT gene.

Table 6.2. Details of the primers employed for PCR-walk to isolate RNase H-LTR regions.

Table 6.3. Composition of restriction digestion reaction.

Table 6.4. Composition of adaptor ligation reaction.

Table 6.5. Composition of primary PCR reaction.