Table 1 List of primers used for the initial screening of date palm leaf samples

Sr. No.	Primers	Details
1.	SCAR1	`Male specific-sequence characterized amplified region
2.	GPAT3	Glycerol 3 phosphate acetyltransferase
3.	LOG 1	Lonely Guy
4.	Dp_1	Date palm 1
5.	Dp_2	Date palm 2
6.	SRY	Sex determining region Y protein
7.	SCAR 2	Male-specific sequence characterized amplified region
8.	SCoT36	Start Codon Targeted region
9.	SCoT41	Start Codon Targeted region
10.	Op_A11	RAPD Primer
11.	Op_M11	
12.	Op_O07	
13.	Op_S07	

Table 2 Sample collection from various areas.

Sr. No.	Area	No of samples/Sample code		Description of date palm plant
		Male	Female	
1	Anand	2 AM1, AM2	2 AF1, AF2	Red color fruit Variety: Local
2	Dantiwada	2 DM1, DM2	1 DF1	Fruit color: Yellow Variety:Bahree
3	Sarangpur	1 SM1	2 SF1, SF2	Fruit color: Red and Yellow Variety: Unknown
4	Mundra	2 MM1, MM2	2 MF1, MF2	Fruit color: Yellow Variety:Bahree
5	Gandhinagar	19 (G1 to G19)		Fruit color: Yellow Variety:Bahree
6	Kutch-Bhuj	Balram Farm-140	48	Fruit color: Red and Yellow Variety: Variable varieties

Table 3 Primer Sequences and their references

Primer	Sequence	Amplicon size (bp)
GPAT3	Forward- AGAAAACCTGATATGCTCTCTG Reverse - TGTGATGCACTTGGTAACTACT	450
LOX 5.1	Forward- CTACACCGCAGAGTTTGTCG	156

Table 4 BLAST Analysis of sequencing products of GPAT Primers amplified PCR products

Sample	Per. Identity	Query Cover	Accession No.	Organism	Prediction
Male Anand	100%	99%	XM_03921660.1	*Phoenix dactylifera*	*Phoenix dactylifera* glycerol-3-phosphate acyltransferase
Male Dantiwada 11	100%	99%	XM_03921660.1	*Phoenix dactylifera*	
Male Sarangpur 3	100%	97%	XM_03921660.1	*Phoenix dactylifera*	
Male Mundra 1	99.77%	99%	XM_03921660.1	*Phoenix dactylifera*	