

Supplementary information

Table S1. Data for biochemical tests Phenolic, flavonoid, antioxidant, anthocyanin, proanthocyanin, and Data is expressed as means $\pm$ SD, values are significantly different. Tukey HSD test ($P \leq 0.005$)

Genotype		Phenolic Content (mg GAE/g fl)	Flavonoid Content (MG CE/g fl)	Antioxidant activity (mg GAE/g fl)	Anthocyanin content (mg. L ⁻¹)	Proanthocyanin content (mg/g fl)
L7-G	Mean $\pm$ SD	0.39 $\pm$ 0.02	0.06 $\pm$ 0.00	0.51 $\pm$ 0.12	94.332 $\pm$ 15	7.6E-06 $\pm$ 0.00
L7-5.5	Mean $\pm$ SD	0.37 $\pm$ 0.04	0.08 $\pm$ 0.00	0.56 $\pm$ 0.09	733.69 $\pm$ 28	7.3E-06 $\pm$ 0.00
L7-8.5	Mean $\pm$ SD	0.21 $\pm$ 0.00	0.04 $\pm$ 0.00	0.53 $\pm$ 0.04	172.193 $\pm$ 19	5.6E-06 $\pm$ 0.00
LHS1-G	Mean $\pm$ SD	0.41 $\pm$ 0.00	0.08 $\pm$ 0.00	0.70 $\pm$ 0.05a	416.29 $\pm$ 66	9.4E-06 $\pm$ 0.00
LHS1-5.5	Mean $\pm$ SD	0.41 $\pm$ 0.00	0.09 $\pm$ 0.00	0.81 $\pm$ 0.04	1441.93 $\pm$ 252	1E-05 $\pm$ 0.00
LHS1-8.5	Mean $\pm$ SD	0.37 $\pm$ 0.00	0.08 $\pm$ 0.00	0.59 $\pm$ 0.03	628.88 $\pm$ 51	6.9E-06 $\pm$ 0.00

Table S2. Data with mean and standard deviation (SD) for Superoxide dismutase (SOD)

Genotype	Mean	SD
L7-G	46.72	6.30
L7-5.5	75.68	1.37
L7- 8.5	69.39	3.39
LHS1-G	67.09	3.98
LHS1- 5.5	90.57	14.19
LHS1- 8.5	68.39	3.21

Table S3. Data with mean and standard deviation (SD) for Catalase activity (CAT) per minute.

Genotype	CAT 1 MIN	
	MEAN	SD
L7-G	6.22	0.88
L7-5.5	23.05	4.07
L7- 8.5	25.95	2.48
LHS1-G	6.49	1.16
LHS1- 5.5	17.83	0.67

LHS1- 8.5	16.51	0.33
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CAT 2 MIN		CAT 3 MIN	
MEAN	SD	Mean	SD
5.4	1.03	3.5	0.74
19.9	6.13	16.45	7.16
22.6	3.37	16.4	3.78
5.4	1.78	4.23	2.11
17.07	0.51	14.24	2.55
13.6	1.44	12.59	1.09

Table S4. Data for Glutathione reductase activity

Genotype				
		1 min	2 min	3 min
L7-G				
	Mean±SD	2.42±0.12	2.39±0.08	2.36±0.08
L7-5.5				
	Mean±SD	2.22±0.20	2.19±0.17	2.11±0.13
L7-8.5				
	Mean±SD	2.24±0.11	2.23±0.09	2.21±0.09
LHS1-G				
	Mean±SD	2.46±0.18	2.33±0.05	2.30±0.03
LHS1-5.5				
	Mean±SD	2.46±0.19	2.29±0.10	2.28±0.08
LHS1-8.5				
	Mean±SD	2.44±0.19	2.39±0.14	2.29±0.16

Figure S1. Clonal fidelity performed with Genomic SSR, VCC_I8 and VCC_S10 primer in polyacrylamide gel electrophoresis. Ladders used 100bp and 1kb. Treated samples showed monomorphic banding patterns.

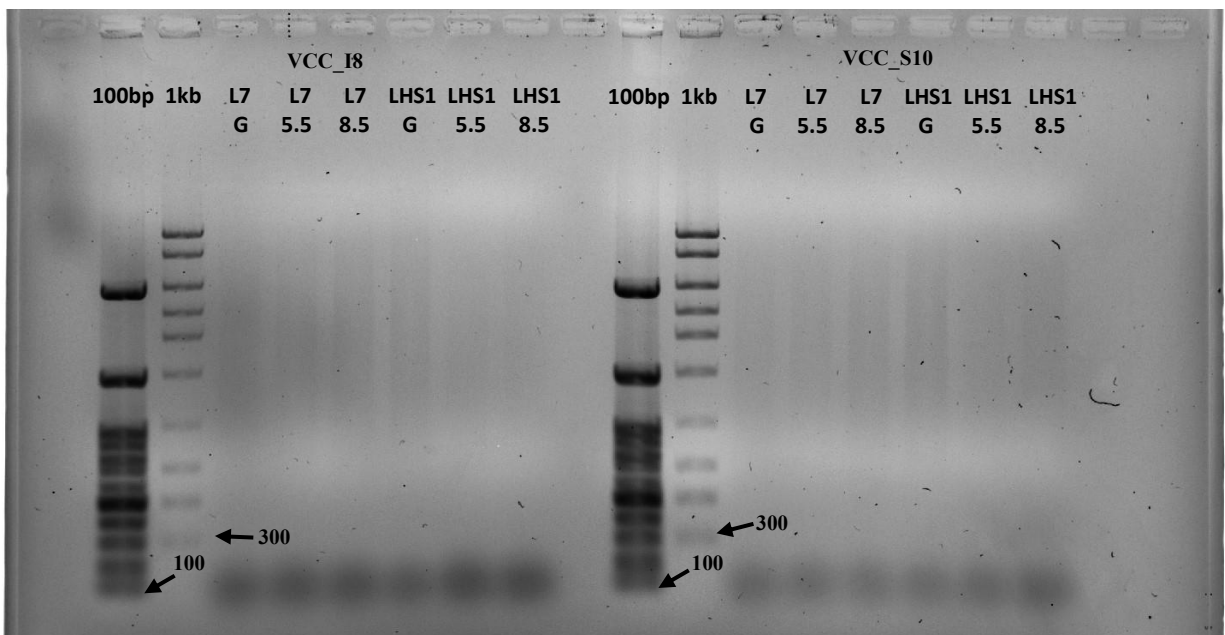


Figure S2. Clonal fidelity performed with Genomic SSR VCC_J3 and EST-SSR CA794 primer in polyacrylamide gel electrophoresis. Ladders used 100bp and 1kb. Treated samples showed monomorphic banding patterns.

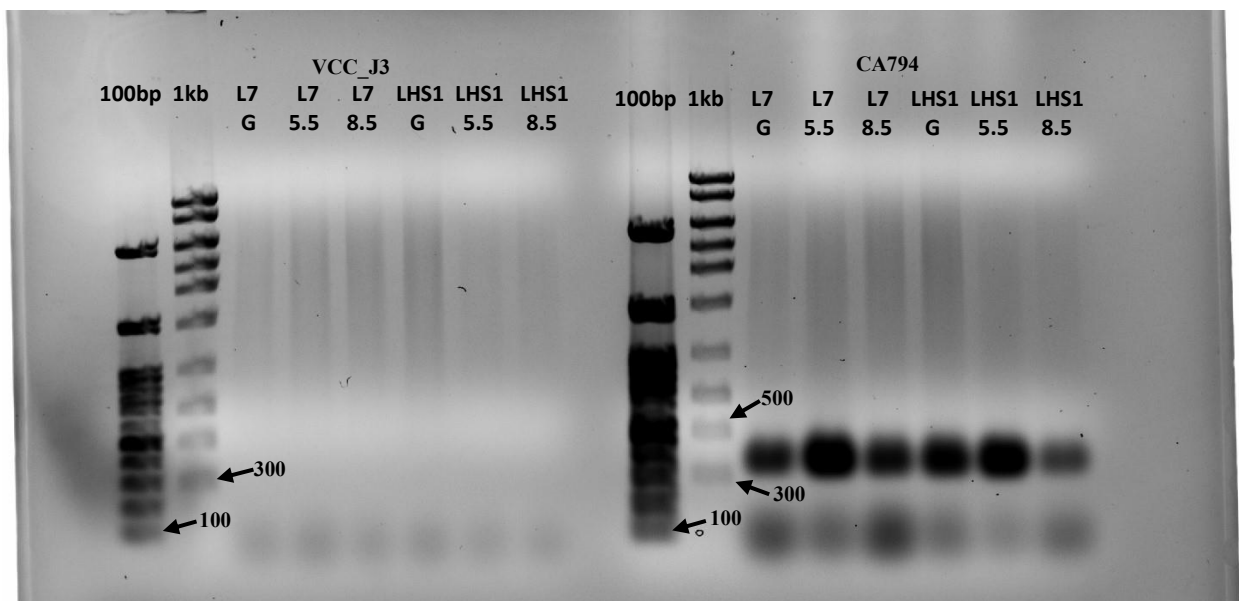


Figure S3. Clonal fidelity performed with EST-PCR, CA1029 and EST-PCR, CA1423 primer in polyacrylamide gel electrophoresis. Ladders used 100bp and 1kb. Treated samples showed monomorphic banding patterns.

