

Appendix A Flower traits of Dongkui (*Myrica rubra*) and its two mutants DB1 and DB2

Cultivar	Flower		Inflorescence		Flower branch length/cm	Number of Inflorescence
	Length/cm	Width/cm	Length/cm	Width/cm		
DK	0.7±0.1c	0.2±0.1a	0.9±0.2b	1.18±0.12c	18.0±4.2c	14.8±0.8b
DB1	0.92±0.1d	0.32±0.02b	1.26±0.24c	1.24±0.34c	13.8±2.8ab	6.6±2.6a
DB2	0.58±0.08b	0.24±0.04a	0.64±0.14a	0.48±0.28a	11.5±1.5a	7.2±2.0a

Note: The different small letters indicate the significant differences at $p < 0.05$. The same as below.

Appendix B Cytological morphology, anthocyanin content ,polyphenols, total flavonoids, soluble sugar, total acidity, TSS content of Dongkui (*Myrica rubra*) and its two mutants DB1 and DB2

Cultivar	Cytological morphology (μm)		Anthocyanin content (mg/100 g)				Polyphenols (mg/100 g)	Total flavonoids (mg/100 g)	Soluble sugar (g/100 g)	Total acidity (g/100 g)	Total soluble solid (%)
	Leaf thickness	Palisade thickness	Young fruit	Stone hardening	Color turning	Ripening					
DK	122.5 \pm 9.87a	47.74 \pm 3.31a	25.82 \pm 0.03b	13.28 \pm 0.02a	12.89 \pm 0.03a	40.19 \pm 0.70a	0.19 \pm 0.01a	0.44 \pm 0.01a	7.78 \pm 0.07a	9.69 \pm 0.14a	11.70 \pm 1.15ab
DB1	202.2 \pm 6.69c	79.17 \pm 4.79c	25.04 \pm 0.22b	14.53 \pm 0.20a	24.37 \pm 0.30c	51.38 \pm 1.10b	0.24 \pm 0.04c	0.55 \pm 0.02b	7.72 \pm 0.05a	10.80 \pm 0.13bc	12.60 \pm 1.03bc
DB2	169.0 \pm 10.49b	54.15 \pm 7.59b	16.56 \pm 0.20a	18.68 \pm 0.20b	22.34 \pm 0.50b	49.64 \pm 1.00b	0.20 \pm 0.02b	0.66 \pm 0.03c	7.49 \pm 0.12b	10.44 \pm 0.03ab	11.30 \pm 0.98a

Appendix C Gene mapping results at two fruit stages of Dongkui (*Myrica rubra*) and its two mutants DB1 and DB2

Sample ID	Total reads	Total base pairs	Total mapped reads	Perfect match	≤2-bp mismatch	Unique match	Multi-position match	Total unmapped reads
DB1*	3,708,809 (100.00%)	181,731,641 (100.00%)	3,174,544 (85.59%)	2,565,364 (69.17%)	609,180 (16.43%)	2,873,118 (77.47%)	301,426 (8.13%)	534,265 (14.41%)
DB1	3,606,358 (100.00%)	176,711,542 (100.00%)	3,117,364 (86.44%)	2,525,756 (70.04%)	591,608 (16.40%)	2,819,792 (78.19%)	297,572 (8.25%)	488,994 (13.56%)
DB2*	3,575,119 (100.00%)	175,180,831 (100.00%)	3,130,386 (87.56%)	2,520,306 (70.50%)	610,080 (17.06%)	2,846,377 (79.62%)	284,009 (7.94%)	444,733 (12.44%)
DB2	3,787,895 (100.00%)	185,606,855 (100.00%)	3,325,509 (87.79%)	2,649,375 (69.94%)	676,134 (17.85%)	3,110,396 (82.11%)	215,113 (5.68%)	462,386 (12.21%)
DK*	3,610,954 (100.00%)	176,936,746 (100.00%)	2,537,553 (70.27%)	2,059,232 (57.03%)	478,321 (13.25%)	2,314,240 (64.09%)	223,313 (6.18%)	1,073,401 (29.73%)
DK	3,594,742 (100.00%)	176,142,358 (100.00%)	3,149,334 (87.61%)	2,581,484 (71.81%)	567,850 (15.80%)	2,853,553 (79.38%)	295,781 (8.23%)	445,408 (12.39%)

* Mature late