

Supplementary Table 1. Genotyping at eight SNPs in the LELCC (*Letinula edodes* laccase) gene from each shiitake line

KFRI No.	Origin	SNP1	SNP2	SNP3	SNP4	SNP5	SNP6	SNP7	SNP9
401	KFRI	A/G	G/C	G/A	G/A	T/A	A/G	G/A	G/A
402	KFRI	?/?	G/C	G/A	G/A	T/T	A/G	G/A	G/A
403	KFRI	G/G	C/C	A/A	G/G	T/T	G/G	A/A	G/G
404	KFRI	A/G	G/G	G/G	A/A	T/T	A/G	G/A	G/A
405	KFRI	A/G	G/G	?/?	A/A	T/T	A/G	G/A	G/A
406	KFRI	?/?	G/C	G/A	G/G	A/A	A/A	G/G	A/A
407	KFRI	G/G	C/C	A/A	G/G	T/T	G/G	A/A	G/G
408	KFRI	G/G	C/C	A/A	G/G	T/T	G/G	A/A	G/G
299	KFRI	?/?	G/C	G/A	G/A	T/A	A/G	G/A	G/A
169	KFRI	A/G	G/C	G/A	G/A	T/A	A/G	G/A	G/A
1	FMRI	?/?	G/C	G/A	G/A	T/A	A/G	G/A	G/A
2	FMRI	?/?	G/C	G/A	G/A	T/T	A/G	G/A	G/A
3	FMRI	A/G	G/G	G/G	A/A	T/A	A/G	G/A	G/A
5	FMRI	A/G	G/G	G/G	A/A	T/T	A/G	G/A	G/A
137	FMRI	A/G	G/C	G/A	G/A	T/A	A/G	G/A	G/A
180	FMRI	A/G	G/C	G/A	G/A	T/T	A/G	G/A	G/A
504	FMRI	A/G	G/C	G/A	G/A	T/A	A/G	G/A	G/A
689	FMRI	?/?	G/C	G/A	G/A	T/A	A/G	G/A	G/A
192	RDA	A/G	G/C	G/A	G/A	T/T	A/G	G/A	G/A
36	Wild	G/G	C/C	A/A	G/G	T/T	G/G	A/A	G/G
37	Wild	G/G	?/?	?/?	?/?	?/?	G/G	A/A	?/?
38	Wild	G/G	C/C	A/A	G/G	?/?	G/G	A/A	G/G
42	Wild	G/G	?/?	?/?	?/?	T/T	G/G	A/A	?/?
51	Wild	G/G	?/?	?/?	?/?	?/?	G/G	A/A	?/?
53	Wild	G/G	?/?	?/?	?/?	?/?	?/?	A/A	G/G
55	Wild	A/G	G/G	G/A	?/?	T/A	A/G	G/A	G/A
57	Wild	A/G	G/C	G/A	G/A	T/A	A/G	G/A	G/A
60	Wild	A/G	?/?	?/?	?/?	?/?	?/?	G/A	?/?
62	Wild	A/G	G/C	G/A	G/A	T/A	A/G	G/A	G/A
63	Wild	A/G	G/G	G/G	A/A	T/A	A/A	G/A	G/A
64	Wild	G/G	C/C	A/A	G/G	T/T	G/G	A/A	G/G
128	Wild	G/G	?/?	?/?	?/?	?/?	G/G	A/A	G/G
129	Wild	A/A	?/?	?/?	?/?	?/?	?/?	G/G	?/?
135	Wild	G/G	?/?	?/?	?/?	T/T	?/?	A/A	G/G
136	Wild	G/G	?/?	?/?	?/?	?/?	?/?	A/A	G/G
176	Wild	G/G	?/?	A/A	?/?	T/T	G/G	A/A	G/G
177	Wild	?/?	G/C	G/A	G/A	T/A	A/G	G/A	G/A
188	Wild	G/G	C/C	A/A	G/G	T/T	G/G	A/A	G/G
369	Wild	G/G	C/C	A/A	G/A	T/A	A/G	G/A	G/A
370	Wild	G/G	C/C	A/A	G/A	T/A	A/G	G/A	G/A
411	Wild	A/G	G/G	?/?	A/A	?/?	A/A	G/A	G/A
665	Wild	A/A	?/?	?/?	?/?	T/T	?/?	A/A	G/G
666	Wild	G/G	C/C	A/A	A/A	A/A	A/G	G/G	G/A
669	Wild	?/?	?/?	?/?	?/?	?/?	?/?	?/?	?/?
672	Wild	G/G	?/?	?/?	?/?	T/T	G/G	A/A	G/G
674	Wild	A/G	G/G	G/G	A/A	T/A	A/A	G/A	G/A
675	Wild	G/G	C/C	A/A	G/G	T/T	G/G	A/A	G/G
731	Wild	G/G	C/C	A/A	G/G	T/T	G/G	A/A	G/G
478	China	A/G	G/C	G/A	G/A	T/A	A/G	G/A	G/A
480	China	A/G	G/C	G/A	G/A	T/T	A/G	G/A	G/A
481	China	G/G	?/?	A/A	?/?	T/T	G/G	A/A	G/G
482	China	A/G	G/C	G/A	G/A	T/A	A/G	G/A	G/A
483	China	A/G	G/C	G/A	G/A	T/T	A/G	G/A	?/?
484	China	A/G	G/C	G/A	G/A	T/A	A/G	G/A	?/?
485	China	A/A	G/G	G/G	A/A	A/A	A/A	G/G	?/?
486	China	A/G	G/C	G/A	G/A	T/T	A/G	G/A	?/?
487	China	?/?	?/?	?/?	?/?	?/?	?/?	G/A	?/?
488	China	A/G	G/C	G/A	G/A	T/A	A/G	G/A	?/?

Supplementary Table 1. Continued

KFRI No.	Origin	SNP1	SNP2	SNP3	SNP4	SNP5	SNP6	SNP7	SNP9
489	China	A/G	G/C	G/A	G/A	A/A	A/G	G/A	G/A
490	China	A/G	G/C	G/A	G/A	T/T	A/G	G/A	G/A
491	China	A/G	G/C	G/A	G/A	T/A	A/G	G/A	G/A
494	China	A/G	G/C	G/A	G/A	T/A	A/G	G/A	??
495	China	A/G	G/C	G/A	G/A	T/A	A/G	G/A	??
497	China	A/G	G/C	G/A	G/A	T/A	A/G	G/A	G/A
816	China	A/A	G/G	G/G	A/A	A/A	A/A	G/G	A/A
817	China	A/G	G/C	G/A	G/A	T/T	A/G	G/A	G/A
754	Japan	A/G	G/C	G/A	G/A	T/A	A/G	G/A	G/A
755	Japan	A/G	G/C	G/A	G/A	T/A	A/G	G/A	G/A
760	Japan	A/G	G/C	G/A	G/A	T/A	A/G	G/A	??
761	Japan	A/G	G/G	G/G	??	??	A/G	G/A	??
751	Japan	A/G	G/C	G/A	G/A	T/T	A/G	G/A	??
756	Japan	G/G	C/C	A/A	G/G	T/A	A/G	G/A	G/A
803	Japan	A/G	G/C	G/A	G/A	T/A	A/G	G/A	G/A
804	Japan	G/G	C/C	A/A	G/G	T/T	G/G	A/A	G/G
805	Japan	G/G	C/C	A/A	G/G	T/A	A/G	G/A	G/A
806	Japan	A/G	G/C	G/A	G/A	T/T	A/G	G/A	G/A
807	Japan	A/G	G/C	G/A	G/A	T/T	A/G	G/A	G/A
808	Japan	G/G	C/C	A/A	G/G	T/T	G/G	A/A	G/G
809	Japan	A/G	G/G	G/G	A/A	T/A	A/G	G/A	G/A
810	Japan	A/G	G/C	G/A	G/A	T/A	A/G	G/A	G/A
812	Japan	A/G	G/C	G/A	G/A	T/T	A/G	G/A	G/A
813	Japan	A/G	G/C	G/A	G/A	T/T	A/G	G/A	G/A
814	Japan	G/G	C/C	A/A	G/G	T/T	G/G	A/A	G/G
815	Japan	G/G	C/C	A/A	G/G	T/T	G/G	A/A	G/G
812	Japan	A/G	G/C	G/A	G/A	T/T	A/G	G/A	G/A
813	Japan	A/G	G/C	G/A	G/A	T/T	A/G	G/A	G/A

Shiitake lines highlighted in bold could not be distinguished by the SNP markers developed.

SNP, single nucleotide polymorphism; KFRI, Korea Forest Research Institute; FMRI, Forest Mushroom Research Institute, Korea; RDA, Rural Development Administration, Korea; Wild: Korea wild type; ??, amplification failure.