Supplemental Information

Title: Genome-wide identification of *R2R3 MYB* family genes related to abscission zone separation exposure to environmental stress induced abscission in cassava

Authors:

Wenbin Liao

Institute of Tropical Bioscience and Biotechnology, Chinese Academy of Tropical Agricultural Sciences, Haikou 571101, China

Yiling Yang

Institute of Tropical Bioscience and Biotechnology, Chinese Academy of Tropical Agricultural Sciences, Haikou 571101, China

Yayun Li

Institute of Tropical Bioscience and Biotechnology, Chinese Academy of Tropical Agricultural Sciences, Haikou 571101, China

Gan Wang

Institute of Tropical Bioscience and Biotechnology, Chinese Academy of Tropical Agricultural Sciences, Haikou 571101, China

Ming Peng

Institute of Tropical Bioscience and Biotechnology, Chinese Academy of Tropical Agricultural Sciences, Haikou 571101, China

Email: mingpengcatas@gmail.com

Additional file 1. The amino acid sequences of 166 R2R3 MYB genes form cassava

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MSRTTNESDDGVLSKDQTESPLAEEGSCGGSANGGVVLKKGPWTSAEDAILIEYVKKHGE
GNWNAVQKHSGLSRCGKSCRLRWANHLRPNLKKGAFTQEEEQLIIELHAKMGNKWARMA
AHLPGRTDNEIKNYWNTRIKRRQRAGLPLYPPEVSLQALHESQRGLNISGINSGDKGHQDL
CRTNNYEIPDVIFDSLKANHGISPYVPELPDITASSMLMKGLGSSQYGSFMLPTIHRQKRLRE
STTLIPGYGGSVKTEFPLFDQFQGNPCDKVAQSFGLSFPFDPDPTNKNPQSFGDNQGSHTFA
NGNFSASKPASGLVKMELPSLQYPDIDLGSWGTSPPPLLETVDTFIQSPPMGTVECSPRNSG
LLDALLQEAKTLSSGKHHSSEKSSNSSTVTPGELAESSALNKCKTEWEDYGDPLSPLGHTA
TSLFSECTPMSTSGSSLDETPVTETLTGCNVKSELTTRAWSPEREQETTTRLNITRPDALLAS
DWIEQDSSYVKDQVVMTDNIASLLGDDLSSDYKQMSAEASTSNEGWGLSSCAWNNMPAV
CQMSEFPSENCYLSNL
>Manes.06G066600
MRSMRAPSVANRMCNSREDESELRRGPWTLEEDTLLTHYIARHGEGRWNMLASYAGLKR
TGKSCRLRWLNYLKPDIKRGNLTPQEQLLILELHSKWGNRWSKIAQHLPGRTDNEIKNYW
RTRVQRQARQLNIESNSKSFLDAVRCFWMPRLLQKVEQNCYSSPSSTLDSQTHAIASASSSN
FEQVANSFSSETFPPQPKLTQYSNPASEHSCSVTSSSVLSTDFIPISHQTEILENPASSCPPLLDS
TVYNNLLLSDIYYVENSGYGMDAFNPASMPEFDTFGDSTSECNMADGNWVFDDYMADPL
WNMNDMWQV
>Manes.S051400
MISNGGAAKETGLSGQKATNQSLKKGPWTATEDAVLIDYVKKHGEGNWNSVQKNSGLMR
CGKSCRLRWANHLRPNLKKGSFTPEEERIIIELHAKLGNKWARMASQLPGRTDNEIKNFWN
TRMKRRQRAGLPIYPQEFQEETIPFHIKNQIQHQHQEQNHPNVTNPSSSSFSSLFPSPRKASY
NPSLTLLDPINFSPALDPLNNNLTRSFYSNPAVQFKSFPDNNASNCGLALPLSSYGRSPSSITG

FNQNFPAQSIPMTPPSLHYSTSDFETNMSFTSLIMGAQVEPNELFPGLGSEIPSDQTPPRPNTP
FSSNTSGGVCVREESSKNTDNDSETVVPEMMHDNRNSGLLDALLLESQNLSRKEGKLTGE
NSLVATDQKGKRVVDESAEEEEETEKEAA
KRVKLSAMNGSENSGENNCCDDLSSSQSSIGVKPNEEPMDEMNSMDDDLLSLLDNFPTTT
PLPEWYRSRNIASGLSSSTVVEGGEVEAEQEASLAGGETTDETPNVDWAFGSSYWNNMPG
IC
>Manes.13G072300
MADLDHSSSDDVSVDSREESSQESKLEFTEDEETLITRMYNLVGERWPLIAGRIPGRTAEEIE
KYWNSRFSSSQ
>Manes.17G035600MAESEHSSSDETYVNSQERRNLEARLEFSEEEEELVIRMFNLVGERWPL
IAGRIPGKTAEEIEKYWKSRYSTSE

Additional table 2. 166 R2R3 MYB genes expressed in both ethylene- and water-deficit stress-induced leaf abscission

gene	KEGG orthology	treatment	T1	T2	T3	T4	T5	T6
Manes.05G098700	AT2G02820.2	et	0	0.378401	0.295723	0.309293	0.330788	1.226632
Manes.05G007400	AT4G01680.1	et	0	1.044814	0.27965	0.051859	-1.04961	-1.9771
Manes.05G007400	AT4G01680.1	wd	0	0.877587	0.015069	-0.69245	-1.52699	-0.99022
Manes.01G235800	AT4G01680.1	et	0	-0.59074	-1.5454	-1.23175	-2.37782	-2.98051
Manes.08G106900	AT1G09540.1	et	0	0.534958	-0.87541	-0.74855	-3.15072	-2.39289
Manes.08G106900	AT1G09540.1	wd	0	-0.25017	-1.15104	-1.87197	-2.28279	-1.94508
Manes.02G047900	AT3G01140.1	wd	0	0.235605	-0.84089	-1.31043	-1.89057	-1.61838
Manes.01G226200	AT5G49330.1	wd	0	-1.68131	0.866156	-0.82393	-1.27928	-2.44693
Manes.08G151800	AT1G69560.1	et	0	2.484628	2.692851	2.938963	3.175397	3.567424
Manes.12G108500	AT4G37260.1	et	0	-0.53784	-0.55809	-0.80465	-1.18508	-1.33862
Manes.12G083100	AT4G38620.1	wd	0	-0.7051	-0.6783	-1.074	-1.17723	-1.94009
Manes.06G066600	AT1G68320.1	et	0	1.813607	3.888714	4.453695	5.505084	5.668091
Manes.06G066600	AT1G68320.1	wd	0	-1.26569	2.308536	3.459327	3.360954	3.677035
Manes.05G114400	AT1G68320.1	et	0	0.032524	2.284218	2.313391	3.320066	3.402067
Manes.05G114400	AT1G68320.1	wd	0	0.999278	1.915521	2.957673	2.872494	2.969215
Manes.14G077700	AT5G62470.2	et	0	0.814509	0.28404	0.397036	-0.50943	-1.06462
Manes.14G077700	AT5G62470.2	wd	0	0.339822	-0.72023	-1.72309	-1.39821	-2.24948
Manes.08G011300	AT5G57620.1	et	0	-0.70392	-1.13289	-1.07704	-1.13543	-0.56897
Manes.03G052800	AT3G13540.1	et	0	0.254715	1.440899	1.327342	2.012497	2.452912
Manes.03G052800	AT3G13540.1	wd	0	-1.15586	-1.35993	-0.67669	-1.25291	-0.24161
Manes.01G118700	AT5G16600.1	et	0	-1.92741	-3.20423	-3.87408	-3.72738	-4.64025
Manes.01G118700	AT5G16600.1	wd	0	2.581954	2.283418	1.99675	3.290115	2.217231
Manes.05G020800	AT1G22640.1	et	0	-1.74082	-1.66658	-3.4112	-1.36885	-1.45759
Manes.05G020800	AT1G22640.1	wd	0	-1.75779	-1.79336	-2.28069	-1.90509	-3.48036
Manes.01G074400	AT4G12350.1	et	0	0.245252	-2.50144	-4.66933	-4.24332	-5.8039
Manes.01G074400	AT4G12350.1	wd	0	0.309875	-0.74637	-0.9487	-1.40163	-2.76415
Manes.05G012100	AT5G49620.1	et	0	-1.02503	2.830783	2.769856	4.062286	4.049247
Manes.05G012100	AT5G49620.1	wd	0	-0.41254	2.498583	3.171911	3.046578	3.417056
Manes.16G085200	AT5G35550.1	et	0	0.313826	0.006478	-0.04186	-1.07552	-0.96438
Manes.16G085200	AT5G35550.1	wd	0	-0.28051	-0.60231	-0.57777	-0.35107	-1.90725
Manes.15G040700	AT3G23250.1	et	0	0.370388	3.316334	2.624148	2.019844	2.270021
Manes.15G040700	AT3G23250.1	wd	0	0.437015	0.306612	1.035272	-0.54835	0.405121
Manes.11G134300	AT3G46130.1	et	0	-0.16553	-0.9526	-1.46953	-2.89539	-4
Manes.11G134300	AT3G46130.1	wd	0	-0.9032	-1.35292	-2.0517	-2.94231	-2.89432
Manes.02G074300	AT4G38620.1	wd	0	-1.4135	-0.50042	-0.84606	-1.13226	-1.41465
Manes.01G115400	AT4G38620.1	wd	0	-2.52949	-1.49411	-1.95232	-2.83033	-2.95232
Manes.04G144400	AT5G14750.1	et	0	0.464041	0.492315	0.62499	-1.10998	-1.82623
Manes.04G144400	AT5G14750.1	wd	0	-0.79236	-1.58251	-2.88897	-3.59423	-2.84581
Manes.11G127600	AT1G17950.1	et	0	-0.91757	-1.82828	-2.50144	-2.10408	-2.87832

Manes.11G127600	AT1G17950.1	wd	0	-0.50512	-0.84296	-2.45878	-2.18246	-1.52367
Manes.14G104200	AT1G68320.1	et	0	1.143589	2.738746	3.645851	4.119688	4.351876
Manes.14G104200	AT1G68320.1	wd	0	-0.61198	1.265437	1.730575	1.549176	1.770322
Manes.11G020600	AT2G16720.1	et	0	-0.53659	0.170822	0.678342	1.653381	1.914985
Manes.03G117500	AT4G21440.1	et	0	2.709379	3.747226	4.096388	3.943528	3.920389
Manes.03G117500	AT4G21440.1	wd	0	-1.32085	0.715718	1.288063	1.511417	1.893595
Manes.01G231300	AT2G47190.1	et	0	#NUM!	3.559369	3.728149	6.024694	5.911814
Manes.05G177900	AT4G37260.1	et	0	0.205393	1.185486	1.056167	0.925696	0.847115
Manes.05G177900	AT4G37260.1	wd	0	0.035905	0.65205	1.441749	-0.00405	0.679244
Manes.14G034400	AT4G12350.1	wd	0	-1.40469	-0.90077	-2.72738	-4.14816	-4.12281
Manes.15G081900	AT4G21440.1	et	0	#NUM!	1.402067	1.005112	2.770744	3.310718
Manes.15G081900	AT4G21440.1	wd	0	0.97475	1.395885	2.858001	2.915636	3.117462
Manes.08G145500	AT3G13540.1	wd	0	-1.62593	-0.39916	-0.74034	-1.42701	-1.06975
Manes.03G208500	AT3G06490.1	et	0	0.460061	2.393691	2.481971	3.336812	3.544498
Manes.06G109000	AT5G26660.1	et	0	-0.56235	-1.1078	-3.30472	-3.32337	-4.45166
Manes.08G151100	AT1G08810.1	et	0	1.007985	-0.26986	-0.21709	-0.80768	-1.80591
Manes.08G151100	AT1G08810.1	wd	0	0.34426	-0.54519	-1.69385	0.340847	-0.86145
Manes.15G006600	AT2G47460.1	et	0	-0.0613	-3.18442	-2.67208	-4.08314	-4.42043
Manes.15G006600	AT2G47460.1	wd	0	0.766807	-1.09974	-0.84192	-2.21759	-1.75341
Manes.02G194800	AT1G22640.1	et	0	-0.2676	1.159177	1.148934	1.460166	1.606774
Manes.02G194800	AT1G22640.1	wd	0	0.39594	1.043624	1.656679	1.70075	1.928238
Manes.02G017300	AT1G63910.1	wd	0	-1.53324	-1.05559	-3.0315	-3.59248	-3.5649
Manes.01G057200	AT1G63910.1	et	0	-0.90293	-0.75901	-1.87938	-3.4852	-3.52118
Manes.01G057200	AT1G63910.1	wd	0	-0.75706	-1.32301	-2.9737	-2.74371	-2.90725
Manes.11G020400	AT5G14750.1	wd	0	-0.54036	-1.52077	-1.80239	-2.09357	-1.46395
Manes.02G034300	AT4G12350.1	et	0	0.02432	-2.53701	-4.27649	-1.8762	0.258459
Manes.02G034300	AT4G12350.1	wd	0	0.482848	-0.86907	-1.81502	-1.87673	-1.7471
Manes.06G136500	AT4G12350.1	et	0	0.638584	-0.75633	-0.56512	-3.12532	-4.85726
Manes.06G136500	AT4G12350.1	wd	0	-0.89943	-1.75195	-3.88257	-4.39593	-5.29336
Manes.09G135700	AT3G28910.1	et	0	0.173639	-0.90644	-1.09696	-1.18017	-1.69759
Manes.09G135700	AT3G28910.1	wd	0	0.887369	0.358846	-0.55216	1.384492	-0.19429
Manes.18G103600	AT4G09460.1	et	0	0.606821	1.480782	1.62396	2.052346	2.047818
Manes.14G061700	AT5G26660.1	et	0	0.244644	-0.38007	-1.23379	-2.04931	-3.64747
Manes.14G061700	AT5G26660.1	wd	0	0.735262	0.257976	-1.32554	-0.42721	-1.68919
Manes.15G003000	AT3G06490.1	et	0	#NUM!	1.142087	0.562865	1.231371	3.047573
Manes.14G066200	AT5G14750.1	et	0	-1.01829	-2.39593	-2.91376	-3.3555	-4.24332
Manes.14G066200	AT5G14750.1	wd	0	-1.53032	0.165944	-0.54309	-1.69806	-1.89808
Manes.18G042000	AT5G67300.1	wd	0	0.927214	0.747516	1.180784	0.161307	0.551393
Manes.S062600	AT2G31180.1	et	0	1.351515	3.179256	1.002166	0.585251	-0.57949
Manes.01G083100	AT5G14750.1	et	0	0.750349	2.637147	4.49211	0.901572	1.47254

Red font represents the R2R3 MYB genes that express in water-deficit stress induced abscission; Black font represents the R2R3 MYB genes that express in ethylene induced abscission; and yellow shadow represents the R2R3 MYB genes that express both in ethylene- and water-deficit stress-

induced abscission.

Additional table 3. SOTA clustering of R2R3 MYB genes expressed in response to water-deficit stress induced abscission.

id	T1	T2	T3	T4	T5	T6	Cluster
Manes.15G040700	0	0.437015	0.306612	1.035272	-0.54835	0.405121	**WS1**
Manes.05G177900	0	0.035905	0.652051	1.441749	-0.00405	0.679244	**WS1**
Manes.18G042000	0	0.927214	0.747516	1.180784	0.161307	0.551393	**WS1**
Manes.05G114400	0	0.999279	1.915521	2.957673	2.872494	2.969215	**WS2**
Manes.01G118700	0	2.581954	2.283418	1.99675	3.290115	2.217231	**WS2**
Manes.15G081900	0	0.97475	1.395885	2.858001	2.915636	3.117462	**WS2**
Manes.02G194800	0	0.39594	1.043625	1.656679	1.700751	1.928238	**WS2**
Manes.06G066600	0	-1.26569	2.308536	3.459327	3.360954	3.677035	**WS3**
Manes.05G012100	0	-0.41254	2.498583	3.171911	3.046578	3.417056	**WS3**
Manes.14G104200	0	-0.61198	1.265437	1.730575	1.549176	1.770322	**WS3**
Manes.03G117500	0	-1.32085	0.715718	1.288063	1.511417	1.893595	**WS3**
Manes.12G083100	0	-0.7051	-0.6783	-1.074	-1.17723	-1.94009	**WS4**
Manes.05G020800	0	-1.75779	-1.79336	-2.28069	-1.90509	-3.48036	**WS4**
Manes.16G085200	0	-0.28051	-0.60231	-0.57777	-0.35107	-1.90725	**WS4**
Manes.11G134300	0	-0.9032	-1.35292	-2.0517	-2.94231	-2.89432	**WS4**
Manes.14G034400	0	-1.40469	-0.90077	-2.72738	-4.14816	-4.12281	**WS4**
Manes.02G017300	0	-1.53324	-1.05559	-3.0315	-3.59248	-3.56491	**WS4**
Manes.01G226200	0	-1.68131	0.866156	-0.82393	-1.27928	-2.44693	**WS5**
Manes.03G052800	0	-1.15586	-1.35993	-0.67669	-1.25291	-0.24161	**WS5**
Manes.02G074300	0	-1.4135	-0.50042	-0.84607	-1.13226	-1.41465	**WS5**
Manes.01G115400	0	-2.52949	-1.49411	-1.95232	-2.83033	-2.95232	**WS5**
Manes.08G145500	0	-1.62593	-0.39916	-0.74034	-1.42701	-1.06975	**WS5**
Manes.14G066200	0	-1.53032	0.165944	-0.54309	-1.69806	-1.89808	**WS5**
Manes.05G007400	0	0.877587	0.015069	-0.69245	-1.52699	-0.99022	**WS6**
Manes.08G106900	0	-0.25017	-1.15104	-1.87197	-2.28279	-1.94508	**WS6**
Manes.02G047900	0	0.235605	-0.84089	-1.31043	-1.89057	-1.61838	**WS6**
Manes.14G077700	0	0.339822	-0.72023	-1.72309	-1.39821	-2.24948	**WS6**
Manes.01G074400	0	0.309875	-0.74637	-0.9487	-1.40163	-2.76415	**WS6**
Manes.04G144400	0	-0.79236	-1.58251	-2.88897	-3.59423	-2.84581	**WS6**
Manes.11G127600	0	-0.50512	-0.84296	-2.45878	-2.18246	-1.52367	**WS6**
Manes.08G151100	0	0.34426	-0.54519	-1.69385	0.340847	-0.86145	**WS6**
Manes.15G006600	0	0.766807	-1.09974	-0.84192	-2.21759	-1.75341	**WS6**
Manes.01G057200	0	-0.75706	-1.32301	-2.9737	-2.74371	-2.90725	**WS6**
Manes.11G020400	0	-0.54036	-1.52077	-1.80239	-2.09357	-1.46395	**WS6**
Manes.02G034300	0	0.482848	-0.86907	-1.81502	-1.87673	-1.7471	**WS6**
Manes.06G136500	0	-0.89943	-1.75195	-3.88257	-4.39593	-5.29336	**WS6**
Manes.09G135700	0	0.887369	0.358846	-0.55216	1.384492	-0.19429	**WS6**
Manes.14G061700	0	0.735262	0.257976	-1.32554	-0.42721	-1.68919	**WS6**

Additional table 4. SOTA clustering of R2R3 MYB genes expressed in response to ethylene induced abscission.

id	T1	T2	T3	T4	T5	T6	Cluster
Manes.05G098700	0	0.378401	0.295723	0.309293	0.330788	1.226632	ES1
Manes.05G114400	0	0.032524	2.284218	2.313391	3.320066	3.402067	ES1
Manes.03G052800	0	0.254715	1.440899	1.327343	2.012497	2.452912	ES1
Manes.05G012100	0	-1.02503	2.830783	2.769857	4.062286	4.049247	ES1
Manes.11G020600	0	-0.53659	0.170822	0.678342	1.653381	1.914985	ES1
Manes.01G231300	0	0	3.559369	3.728149	6.024694	5.911814	ES1
Manes.15G081900	0	0	1.402067	1.005113	2.770745	3.310718	ES1
Manes.03G208500	0	0.460061	2.393691	2.481971	3.336812	3.544498	ES1
Manes.02G194800	0	-0.2676	1.159177	1.148934	1.460166	1.606774	ES1
Manes.15G003000	0	0	1.142087	0.562865	1.231371	3.047573	ES1
Manes.08G151800	0	2.484628	2.692851	2.938963	3.175397	3.567424	ES2
Manes.06G066600	0	1.813607	3.888714	4.453695	5.505084	5.668091	ES2
Manes.15G040700	0	0.370388	3.316334	2.624148	2.019844	2.270021	ES2
Manes.14G104200	0	1.143589	2.738746	3.645852	4.119688	4.351876	ES2
Manes.03G117500	0	2.709379	3.747226	4.096388	3.943528	3.920389	ES2
Manes.05G177900	0	0.205393	1.185486	1.056167	0.925696	0.847115	ES2
Manes.18G103600	0	0.606821	1.480782	1.623961	2.052346	2.047818	ES2
Manes.01G083100	0	0.750349	2.637147	4.49211	0.901572	1.47254	ES2
Manes.05G020800	0	-1.74082	-1.66658	-3.4112	-1.36885	-1.45759	ES3
Manes.14G066200	0	-1.01829	-2.39593	-2.91376	-3.3555	-4.24332	ES3
Manes.08G011300	0	-0.70392	-1.13289	-1.07704	-1.13543	-0.56897	ES4
Manes.02G034300	0	0.02432	-2.53701	-4.27649	-1.8762	0.258459	ES4
Manes.12G108500	0	-0.53784	-0.55809	-0.80465	-1.18508	-1.33862	ES5
Manes.01G118700	0	-1.92741	-3.20423	-3.87408	-3.72738	-4.64025	ES5
Manes.01G074400	0	0.245252	-2.50144	-4.66933	-4.24332	-5.8039	ES5
Manes.11G127600	0	-0.91757	-1.82828	-2.50144	-2.10408	-2.87832	ES5
Manes.06G109000	0	-0.56235	-1.1078	-3.30472	-3.32337	-4.45166	ES5
Manes.15G006600	0	-0.0613	-3.18442	-2.67208	-4.08314	-4.42043	ES5
Manes.09G135700	0	0.173639	-0.90644	-1.09696	-1.18017	-1.69759	ES5
Manes.05G007400	0	1.044814	0.27965	0.051859	-1.04961	-1.9771	ES6
Manes.01G235800	0	-0.59074	-1.5454	-1.23175	-2.37782	-2.98051	ES6
Manes.08G106900	0	0.534958	-0.87541	-0.74855	-3.15072	-2.39289	ES6
Manes.14G077700	0	0.814509	0.28404	0.397036	-0.50943	-1.06462	ES6
Manes.16G085200	0	0.313826	0.006478	-0.04186	-1.07552	-0.96438	ES6
Manes.11G134300	0	-0.16553	-0.9526	-1.46953	-2.8954	-4	ES6
Manes.04G144400	0	0.464041	0.492315	0.62499	-1.10998	-1.82623	ES6
Manes.08G151100	0	1.007985	-0.26986	-0.21709	-0.80768	-1.80591	ES6
Manes.01G057200	0	-0.90293	-0.75901	-1.87938	-3.4852	-3.52118	ES6
Manes.06G136500	0	0.638584	-0.75633	-0.56512	-3.12532	-4.85726	ES6
Manes.14G061700	0	0.244644	-0.38007	-1.23379	-2.04931	-3.64747	ES6

Manes.S062600	0	1.351515	3.179256	1.002166	0.585251	-0.57949	**ES6**

Additional table 5. Summary of abiotic stress-inducible cis-elements in cassava ERF subfamily transcription factor promoter regions.

Abiotic stress	**Gene name** / ***cis*-element**	**motif sequence**	**Manes.15G040700**	**Manes.05G177900**	**Manes.05G114400**	**Manes.01G118700**	**Manes.15G081900**
Drought-stress	S000133	CCACGTGG	0	0	0	0	0
	S000153	CCGAC	0	4	0	2	0
	S000174	CACATG	6	0	2	0	4
	S000175	CTAACCA	0	0	0	0	0
	S000176	CNGTTR	2	24	4	0	8
	S000177	TAACTG	0	4	0	0	2
	S000402	ACCGAC	0	0	0	2	0
	S000408	WAACCA	6	2	8	2	6
	S000413	CATGTG	6	0	2	0	4
	S000414	ACGTG	4	10	0	8	10
	S000415	ACGT	16	24	4	16	32
	S000418	RCCGAC	0	2	0	0	0
	total		**40**	60	20	30	66
Wound-stress	S000244	AACGTGT	0	0	0	0	0
	S000444	AGATCCAA	0	0	0	0	0
	S000457	TGACY	8	12	10	8	22
	S000037	AWTTCAAA	2	2	0	2	8
	total		**10**	14	10	10	30

Abiotic stress	**Gene name** / ***cis*-element**	**motif sequence**	**Manes.02G194800**	**Manes.06G066600**	**Manes.05G012100**	**Manes.14G104200**	**Manes.03G117500**
Drought-stress	S000133	CCACGTGG	0	0	0	0	0
	S000153	CCGAC	0	2	2	0	4
	S000174	CACATG	0	2	2	4	4
	S000175	CTAACCA	0	0	0	0	0
	S000176	CNGTTR	16	10	4	2	2
	S000177	TAACTG	6	0	0	0	0
	S000402	ACCGAC	0	0	0	0	2
	S000408	WAACCA	10	0	2	2	2
	S000413	CATGTG	0	2	2	4	4
	S000414	ACGTG	4	2	2	4	8
	S000415	ACGT	8	4	12	24	20
	S000418	RCCGAC	0	0	0	0	2
	total		44	**22**	**26**	**40**	**48**
Wound-stress	S000244	AACGTGT	0	0	2	0	0
	S000444	AGATCCAA	0	0	0	0	0
	S000457	TGACY	8	6	14	8	16
	S000037	AWTTCAAA	0	2	4	2	0
	total		**8**	**8**	18	**10**	**16**

Additional table 6. Forward and reverse primers used for qRT-PCR analysis of R2R3 MYB gene expression.

Gene ID	Primer Designation	Sequences
Manes.15G040700	Forward	TGCTGGGAAATAGTGGTCAGC
	Reverse	TGCAAGATTCCCCTGGATGT
Manes.05G177900	Forward	CTTGAGCCTATCTCTTCCTG
	Reverse	CTGTTTCTCTACTCGATTCCAC
Manes.05G114400	Forward	CTCAAGTATCAGAATACCCAGC
	Reverse	CTTCAGATACTTAACCACTGAGT
Manes.01G118700	Forward	CTTGGAAACAGATGGTCCAGG
	Reverse	CTGAAGCAACTAACAAACAAGC
Manes.15G081900	Forward	GATGAGTAACCAAGCCATGATG
	Reverse	GATGATTGAGAAGAGACGAACG
Manes.02G194800	Forward	CGATAGGGCTACCTCCAATGC
	Reverse	CATTCAATTGCTCGAATCTAACC
Manes.06G066600	Forward	CACCTCTTCTCGATAGTACAG
	Reverse	GGACCCTAATCATCAGATCCAC
Manes.05G012100	Forward	GGCAATAGGTGGTCGAAAATAG
	Reverse	GTTCACACACTTGATGAGTCA
Manes.14G104200	Forward	TCCACCAGTGCTTGATAACAC
	Reverse	CTAACCATAATCACAGAGCCA
Manes.03G117500	Forward	AGAGCTTGACGCCATACTGTG
	Reverse	CGTAAGCTGCTTACTAGATTATC

Additional table 7. Forward and reverse primers used for qRT-PCR analysis of *CAT*s and *KNOX*s acted downstream of selected *MYB*s.

Gene ID	Primer Designation	Sequences
Manes.05G130700 (*CAT1*)	Forward	CTGGACACAGTGTGACCGAT
	Reverse	GATTCTGAACCAGTATCCTCG
Manes.05G130500 (*CAT2*)	Forward	TACTGGTCTCAGTGCGACAA
	Reverse	CTTCCTGAGAACTCGCCACC
Manes.14G138700 (*KNOX1*)	Forward	GGTGGACGAGAAAGAGCTTG
	Reverse	TCAGAGAGTGACACACAACG
Manes.06G106700 (*KNOX2*)	Forward	ATGCAGAGAGGTGGTGGTGC
	Reverse	CCTTCTGGCAATCAATATAAGC