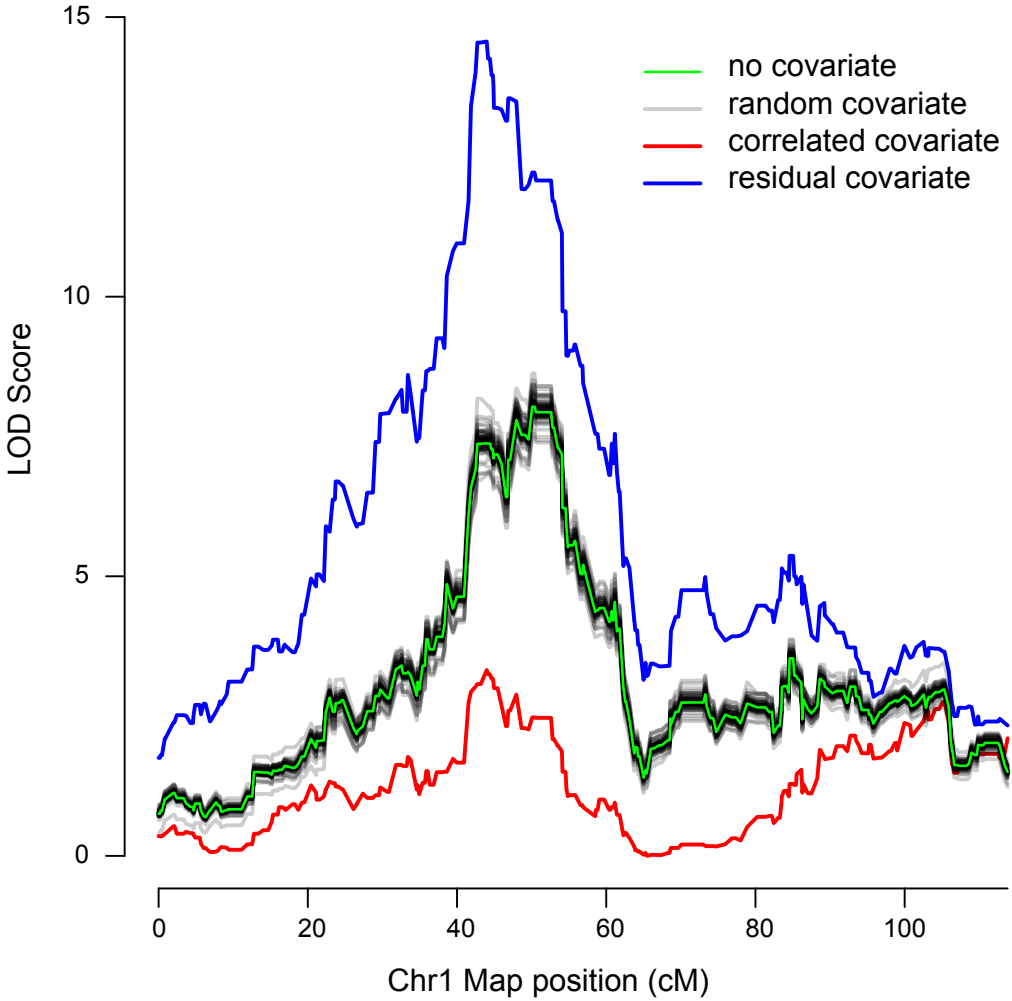
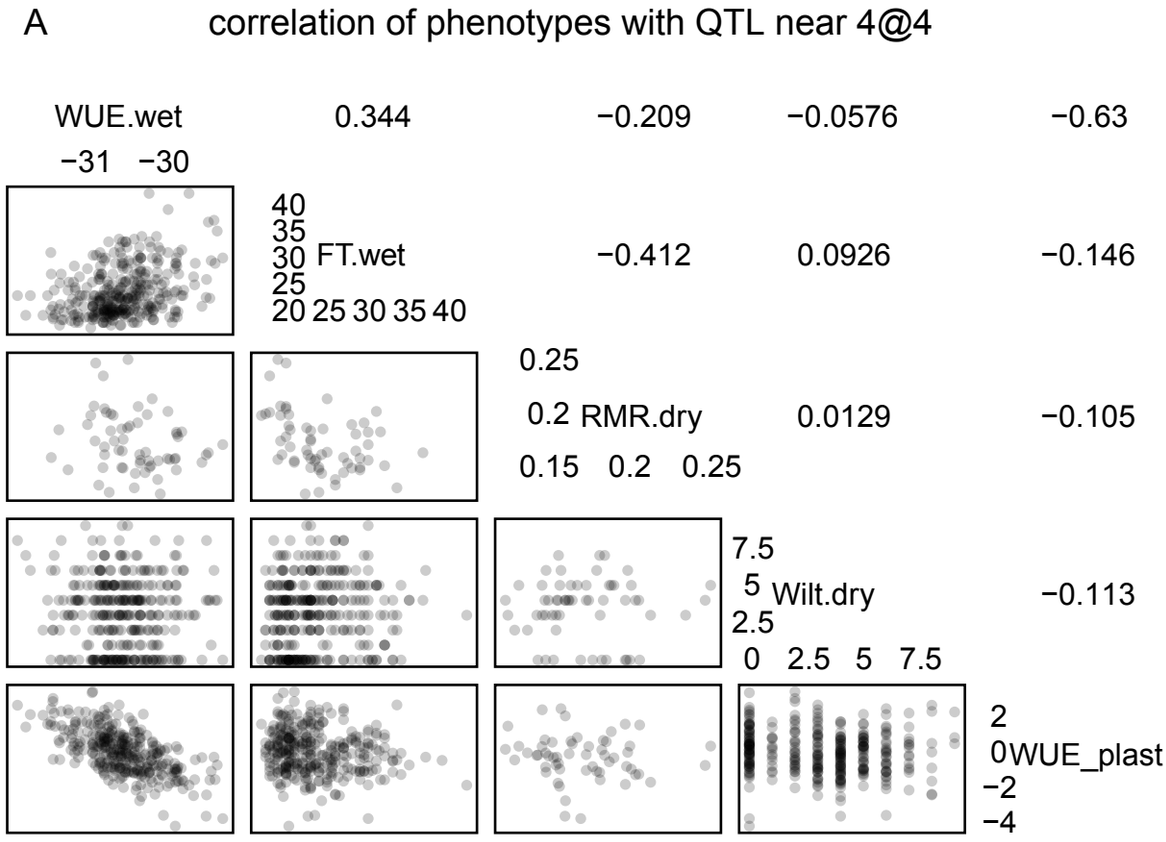
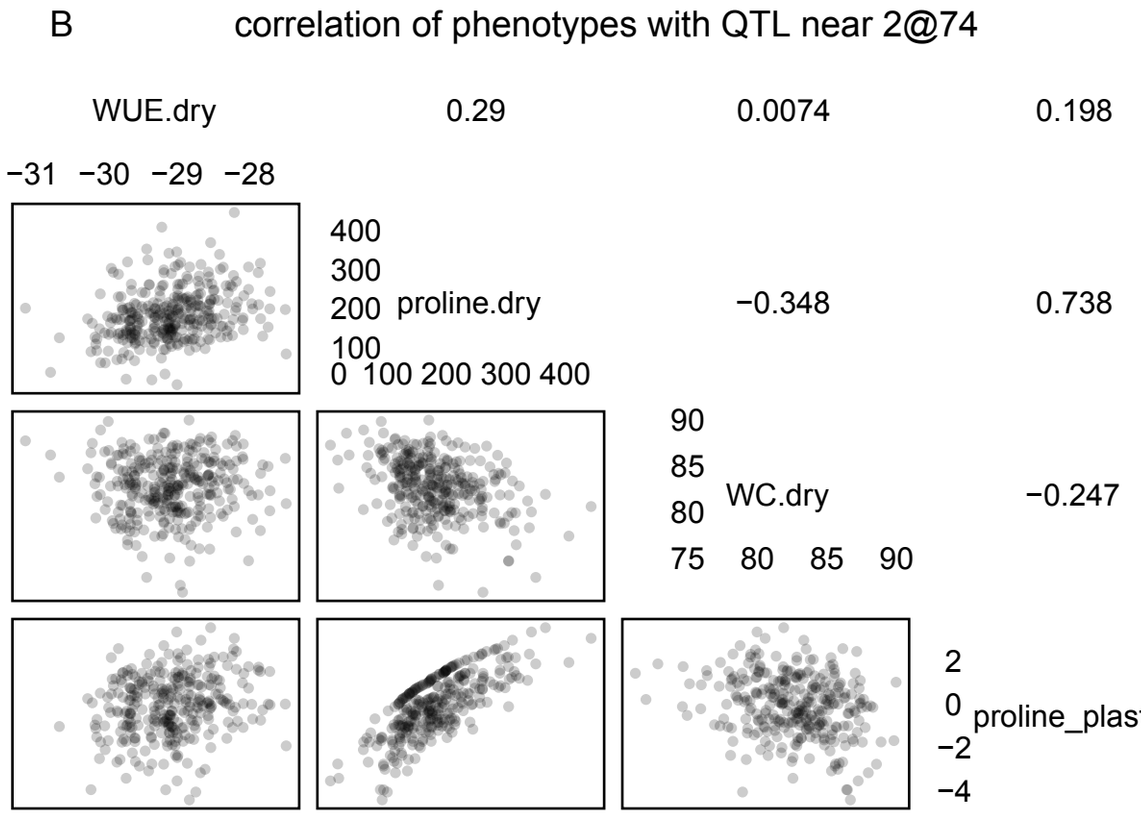
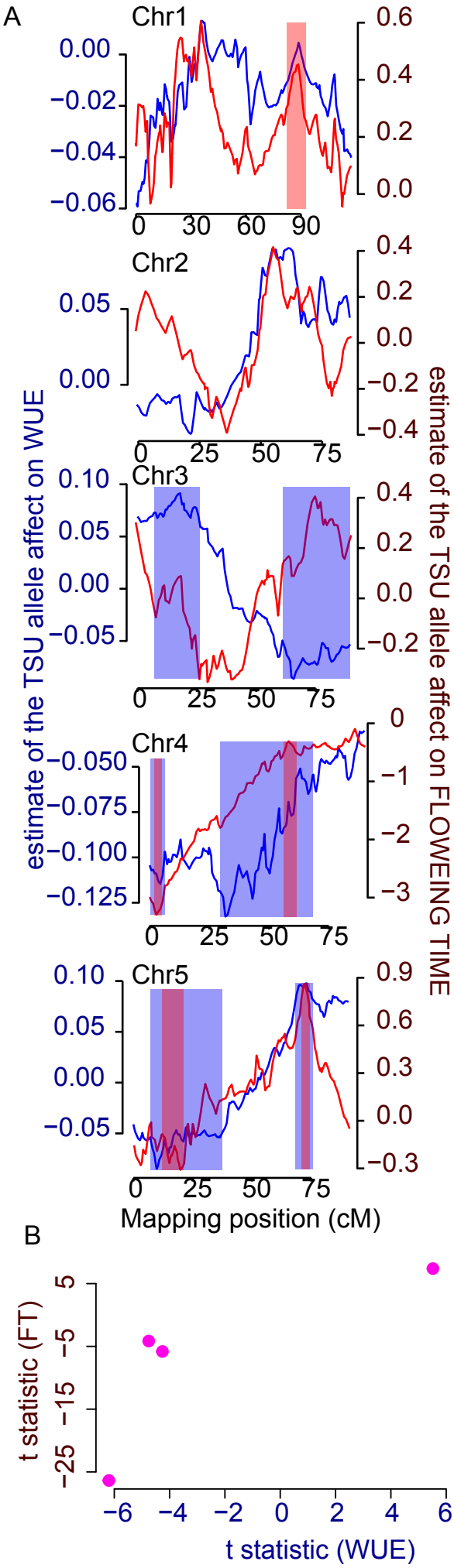


Supplemental Figure 1. Visualization of the concept of the covariate scan approach. A phenotype was simulated within a simulated map so that a QTL with an effect size of 1 would be found at 45cM on Chr 1. A one-QTL scan was performed using no covariates (green line) and several simulated covariates. The covariates were generated so that the normal distribution, sample size, mean and standard deviation of the simulated phenotype data were maintained. The random covariates (grey lines) were 100 sets of permuted vectors of the simulated phenotype data. A correlated covariate (red line) value was generated for each RIL by making a draw from a distribution around the RIL phenotype value with a standard deviation of the entire RIL population. The residual covariate (blue line) was generated in an identical manner to the correlated covariate, except that the RIL phenotypic value was replaced with its residual from the original QTL model.

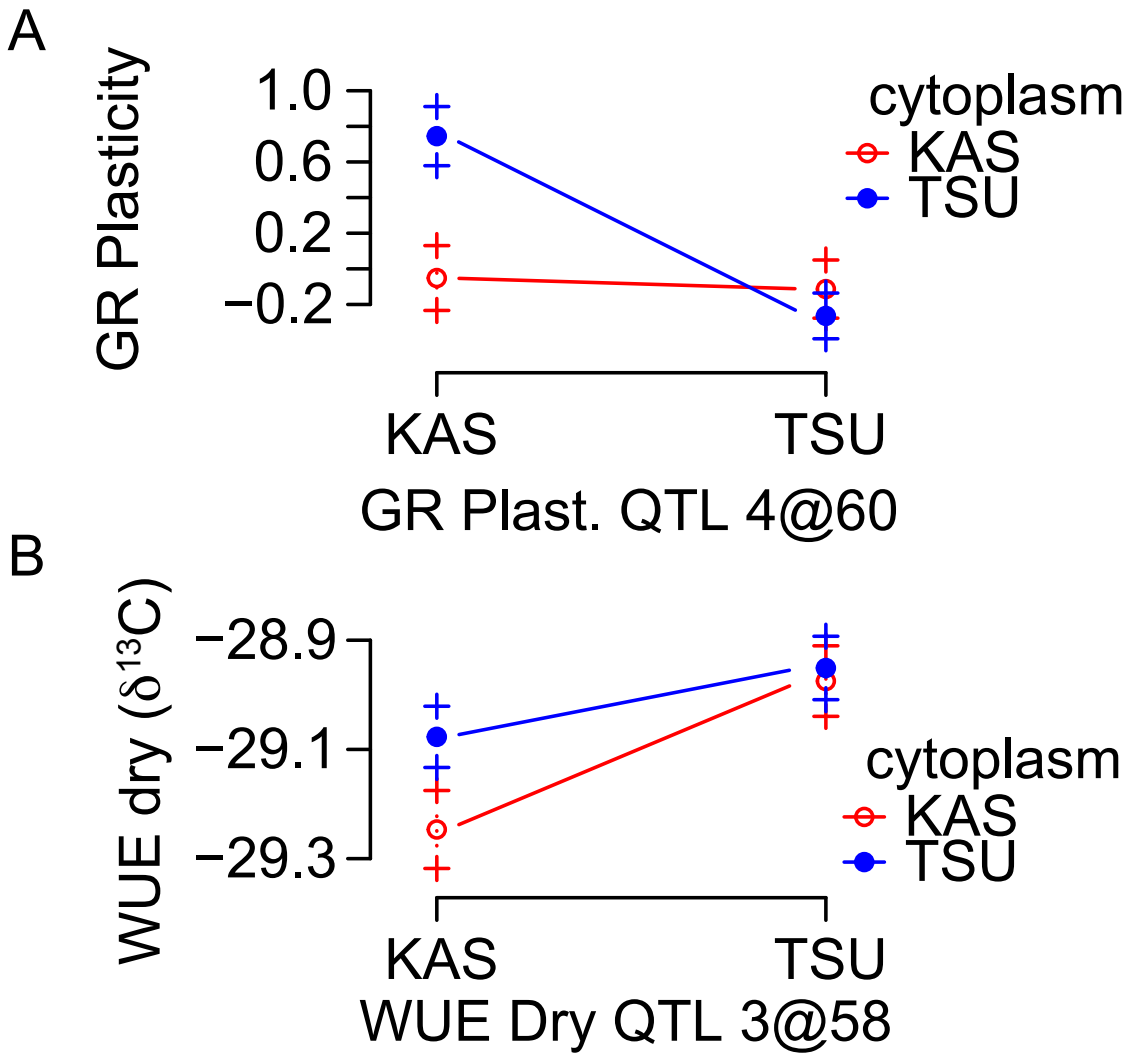




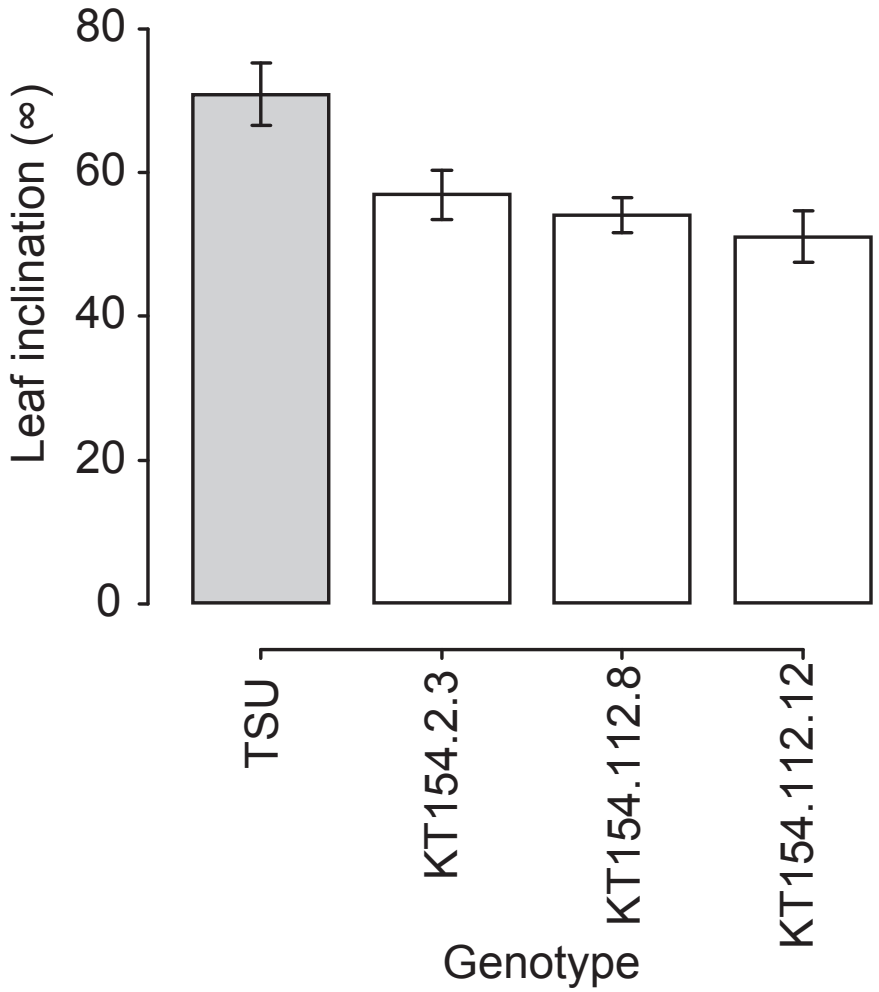
Supplemental Figure 2. Correlation of phenotypes with colocalized QTL on proximate Chr4 (A) and distal Chr2 (B). Pearson's correlation coefficients (r) are printed in the upper diagonal of each matrix.



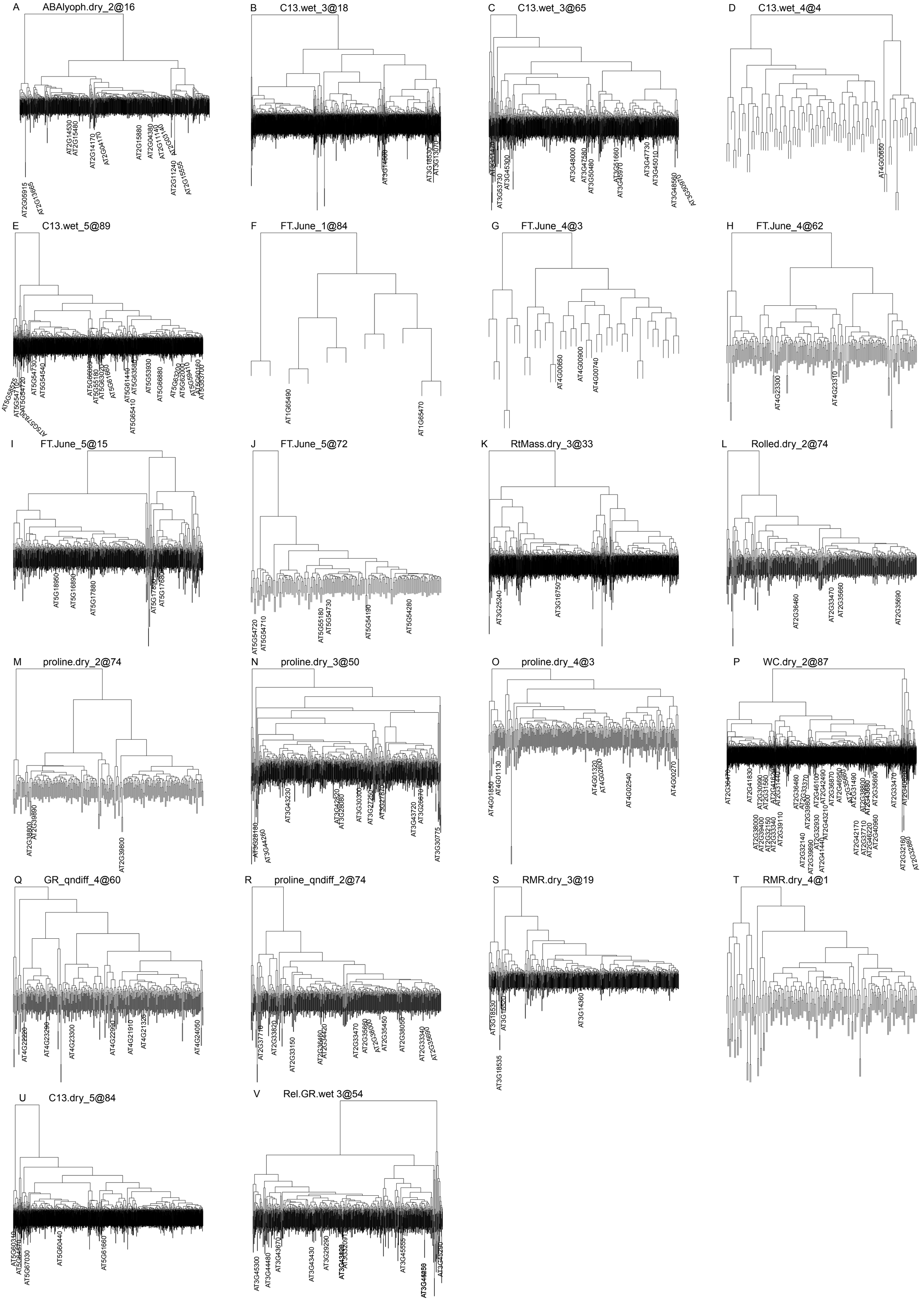
Supplemental Figure 3. Effect of allelic variation on the correlation between WUE and FT. Allelic effects at each marker for WUE (blue) and FT (red) are plotted as solid lines and are standardized by the maximum values for each trait and chromosome (A). The QTL confidence intervals are shaded with the respective colors. The four pleiotropic QTLs (for both WUE and FT) promoted a positive correlation between WUE and FT (B).



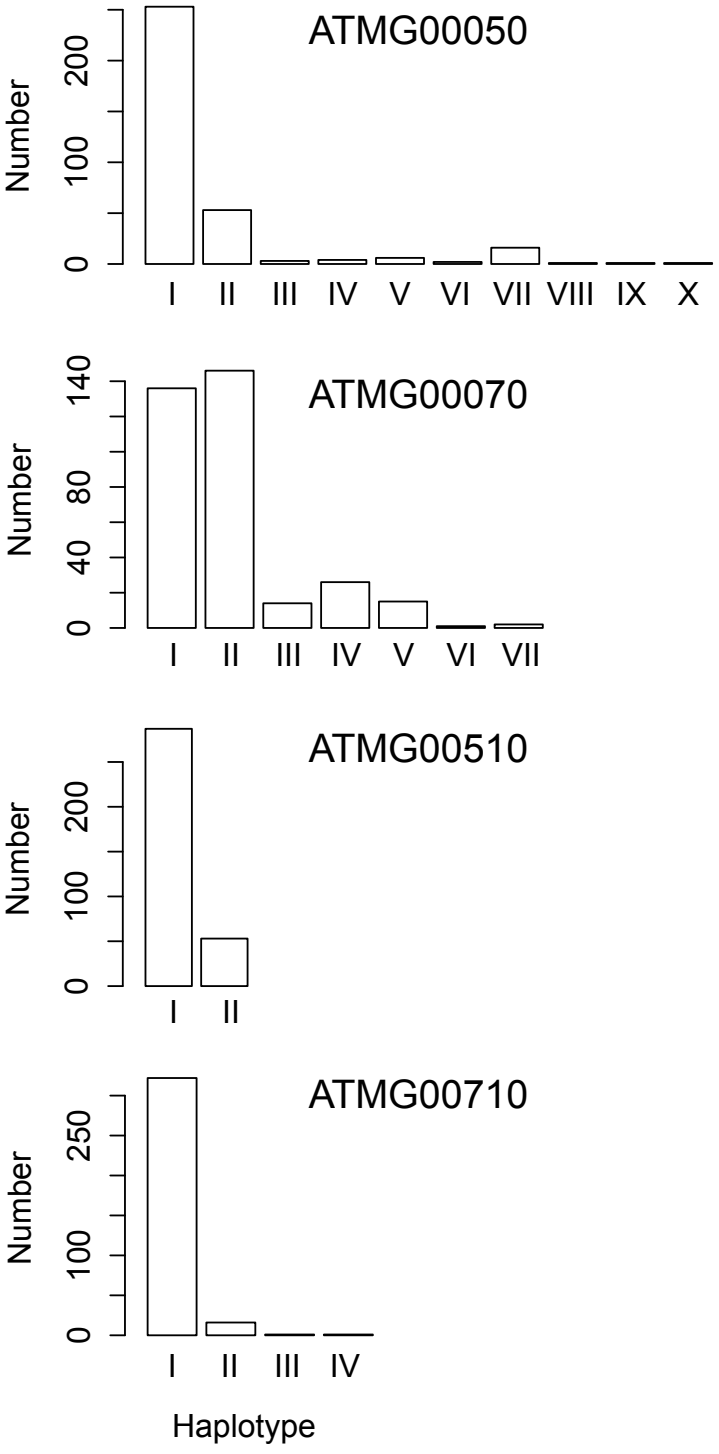
Supplemental Figure 4. Cytoplasmic interactions with genomice QTLs. Data are presented for two significant QTLs for growth rate plasticity (A) and WUE in the dry environment (B). Allelic means +/- SE are reported.



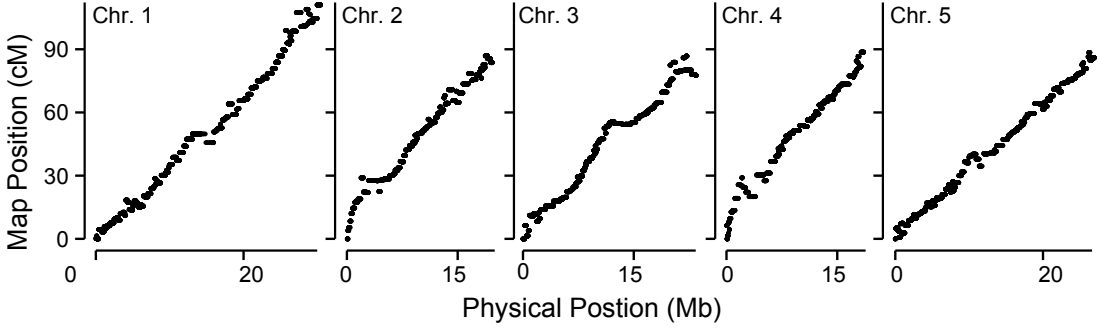
Supplemental Figure 5. Validation of the allelic effect of *CSA1* using NILs. Leaf inclination of four genotypes- the NILs have KAS alleles at FT QTL 5@15, but TSU alleles elsewhere. Leaf inclination was measured in ImageJ. Means +/- SE are reported.



Supplemental Figure 6. Hierarchical clustering of the covariance of all genes within each narrow QTL interval.
Tip labels indicate the names of significant candidate genes. Empty tips signifiy genes that were not significant candidates.
Gene labels that overlapped aredistinguished by the positioning of the right-most overlapping gene at an angle to the left label.



Supplemental Figure 7. Haplotype diversity of the four genes that contained SNPs in the mitochondrial genome. The total membership of each haplotype is represented by vertical bars, n = 340. The 340 mitochondrial gene sequences for each of the four genes were downloaded from the 1001 genomes project.



Supplemental Figure 8. Comparison of the physical position (bp) for all TAIR10 gene models with the mapping position in cM.

Supplemental Data. Lovell et al. (2015). Plant Cell 10.1105/tpc.15.00122

Supplemental Table 1. Phenotypic correlations between plasticity and mean breeding values for all measured phenotypic traits. Correlation coefficients are reported; * indicates significant correlations at $\alpha = 0.05$.

	LA	SFM	SDM	RDM	RMR	WUE	proline	SR	GR	WC
LA										
SFM	0.89*									
SDM	0.77*	0.84*								
RDM	0.65*	0.69*	0.60*							
RMR	-0.03	-0.08	-0.06	0.35*						
WUE	-0.02	0	-0.02	0.09	0.07					
proline	0.12*	0.1	0.06	0.11	0.06	-0.21*				
SR	-0.01	0.02	0.14	-0.31*	-0.73*	-0.1	0.04			
GR	0.51*	0.41*	0.29*	0.16	-0.25	0.03	0.12*	0.2		
WC	0.21*	0.20*	-0.09	-0.03	0.14	-0.01	0.33*	0	0.25*	
ABA	0.04	0	0.02	0.05	0.14	-0.02	0.02	-0.05	-0.02	-0.01

Supplemental Table 2 . Summary statistics for all terms in each QTL models. ANOVA statistics (LOD, % variance explained, F-statistic and P-value of the F statistic) are derived by calculating the difference between a full ANOVA model and one where terms are iteratively removed. Effect estimates (Effect) are calculated through a t-test of the effect of alleles at the QTL position on the respective phenotype. The associated standard error and t statistic are reported.

Phenotype	Treatment	Chr.	Pos. (cM)	LOD	% Var	F	P-value	Effect	SE	t-statistic
LA	dry	1	31.651	2.7	3.49	12.55	0.0005	-0.6144	0.1734	-3.5433
LA	dry	3	89.501	2.56	3.3	11.89	0.0006	0.5843	0.1694	3.4486
RMR	dry	3	18.982	3.58	19.79	18	0.0001	0.0122	0.0029	4.2424
RMR	dry	4	1.473	2.96	15.98	14.53	0.0003	0.011	0.0029	3.8115
RGR	dry	1	12.321	2.4	3.31	11.15	0.0009	-0.0098	0.0029	-3.3399
RGR	dry	3	29.815	2.77	3.81	12.87	0.0004	-0.0102	0.0028	-3.5875
Wilt	dry	4	2.132	2.85	4.01	70.95	0.0003	-0.4779	0.1309	-3.651
WUE	dry	2	74.357	2.81	3.6	13.02	0.0004	0.117	0.0324	3.6079
WUE	dry	3	58.473	2.93	3.77	13.61	0.0003	-0.115	0.0312	-3.6888
WUE	dry	5	84.177	2.75	3.53	12.77	0.0004	0.113	0.0316	3.5728
ABA	dry	2	15.5013	3.64	5.16	270.04	<0.0001	-0.9857	0.2385	-4.1333
RGR	wet	cytoplasm		0.06	0.08	0.28	0.5938	-0.0029	0.0055	-0.5339
RGR	wet	3	53.591	4.77	6.7	22.54	<0.0001	-0.0132	0.0028	-4.7481
WUE	wet	cytoplasm		2.36	2.35	10.78	0.0011	-0.1427	0.0435	-3.2826
WUE	wet	3	17.916	3.12	3.13	14.33	0.0002	0.0866	0.0229	3.785
WUE	wet	3	64.783	5.06	5.15	23.57	<0.0001	-0.1147	0.0236	-4.8549
WUE	wet	4	4.408	6.89	7.1	32.49	<0.0001	-0.1281	0.0225	-5.7001
WUE	wet	4	42.395	2.59	2.59	11.87	0.0006	-0.0777	0.0225	-3.4453
WUE	wet	5	37.2105	3.47	3.49	15.98	0.0001	-0.0923	0.0231	-3.9976
WUE	wet	5	89.2057	6.18	6.33	29	<0.0001	0.1261	0.0234	5.385
FT	wet	cytoplasm		0.26	0.12	1.15	0.2837	0.3242	0.3019	1.0737
FT	wet	1	83.846	7.9	3.95	37.48	<0.0001	0.9542	0.1559	6.122
FT	wet	4	2.791	72.94	59.12	280.3	<0.0001	-3.6757	0.1553	-23.6752
FT	wet	4	62.073	10.21	5.19	24.62	<0.0001	-0.8558	0.1553	-5.51
FT	wet	5	15.25	3.78	1.84	17.42	<0.0001	-0.6427	0.154	-4.1743
FT	wet	5	71.677	8.44	4.24	40.22	<0.0001	0.9833	0.1551	6.3416
FT	wet	4*4	2.8*62.1	4.85	2.38	22.54	<0.0001	0.747	0.1573	4.748
RDM	dry	cytoplasm		0	0.01	0.01	0.9197	-0.0001	0.0008	-0.1013
RDM	dry	3	32.992	2.83	19.23	13.81	0.0005	0.0014	0.0004	3.7161
GR	dry	cytoplasm		0.01	0.02	0.05	0.8235	-0.073	0.3272	-0.2233
GR	dry	3	3.905	3.23	4.57	15.08	0.0001	-0.6342	0.1633	-3.8833
roll	dry	cytoplasm		3.45	4.55	16.11	0.0001	-0.9839	0.2451	-4.0141
roll	dry	2	73.572	4.68	6.24	22.08	<0.0001	-0.5878	0.1251	-4.6992
proline	dry	cytoplasm		11.68	10.63	57.41	<0.0001	42.8159	5.6506	7.5773
proline	dry	2	74.357	24.81	24.9	67.25	<0.0001	34.0946	3.0141	11.3118
proline	dry	3	50.173	5.64	4.91	13.27	<0.0001	-10.5931	2.8986	-3.6546
proline	dry	4	2.791	4.02	3.46	18.72	<0.0001	-12.1285	2.8036	-4.3261
proline	dry	2*3	74.4*50.2	2.68	2.29	12.35	0.0005	-10.8614	3.0909	-3.514
WC	dry	cytoplasm		3.06	4.07	14.25	0.0002	-1.279	0.3388	-3.7755
WC	dry	2	86.92	2.53	3.35	11.73	0.0007	-0.6043	0.1764	-3.4254
LA	plast	cytoplasm		1.48	1.88	6.82	0.0094	-0.3405	0.1303	-2.6121
LA	plast	1	3.304	2.46	3.14	11.38	0.0008	-0.2239	0.0664	-3.3732
LA	plast	3	27.474	3.26	4.18	15.18	0.0001	-0.2573	0.0661	-3.8956
GR	plast	cytoplasm		0.43	0.61	1.97	0.1615	0.2197	0.1565	1.4035
GR	plast	3	3.905	3.06	4.39	14.26	0.0002	-0.2944	0.078	-3.7756
GR	plast	4	59.798	3.36	4.83	15.68	0.0001	-0.3221	0.0813	-3.96
WUE	plast	cytoplasm		1.9	2.6	8.81	0.0032	0.4016	0.1353	2.9674
WUE	plast	4	4.408	2.53	3.47	11.77	0.0007	0.2336	0.0681	3.4309
proline	plast	cytoplasm		1.79	2.29	8.26	0.0043	0.4286	0.1491	2.8744
proline	plast	2	73.572	10.01	13.66	49.25	<0.0001	0.5289	0.0754	7.0179

Supplemental Table 3. T statisics for the addititve effect of cytoplasm. Significance is measured by a Bonferroni threshold.

phenotype	*t*	*df*	*P*	significance
LA.wet	-1.4	327.17	1.64E-01	
LA.dry	1.65	314.44	9.94E-02	
SFM.wet	-1.47	313.36	1.41E-01	
SFM.dry	1.49	307.21	1.37E-01	
SDM.wet	-2.2	324.58	2.88E-02	
SDM.dry	-2.03	310.15	4.36E-02	
RDM.wet	-2.06	27.69	4.88E-02	
RDM.dry	0.03	31.91	9.78E-01	
RMR.wet	1.03	36.91	3.08E-01	
RMR.dry	2.17	45.03	3.55E-02	
SR.wet	-0.6	15.61	5.57E-01	
SR.dry	-2.22	14.03	4.38E-02	
GR.wet	2.2	277.71	2.85E-02	
GR.dry	0.08	268.85	9.36E-01	
RGR.wet	0.11	297.42	9.14E-01	
RGR.dry	-0.38	281.68	7.03E-01	
Wilt.dry	0.03	305.15	9.79E-01	
Roll.dry	3.58	282.09	4.10E-04	**
WUE.wet	3.23	308.45	1.39E-03	**
WUE.dry	-1.26	267.93	2.08E-01	
ABA.wet	-4.74	305.91	3.32E-06	**
ABA.dry	-6.85	290.67	4.29E-11	**
proline.wet	-0.12	201.55	9.05E-01	
proline.dry	-5.59	302.63	5.04E-08	**
FT.wet	-0.77	313.88	4.45E-01	
WC.dry	3.44	287.6	6.60E-04	**
WC.wet	0.75	315.75	4.57E-01	

Supplemental Table 4. Significance of cytoplasm epistasis on each QTL. Statistics were derived from iterative post-hoc ANOVAs comparing a complete model to one without the cytoplasm epistas

QTL Interact	phenotype	Type.III.SS	LOD	%var	F.value	Pvalue.Chi2.
3@53.6:cyto$	RGR.wet	0	0.05	0.06	0.21	0.64
3@17.9:cyto$	WUE.wet	0.03	0.04	0.04	0.18	0.67
3@64.8:cyto$	WUE.wet	0.16	0.24	0.23	1.07	0.29
4@4.4:cyto$c	WUE.wet	0.21	0.31	0.31	1.41	0.23
4@42.4:cyto$	WUE.wet	0.01	0.01	0.01	0.06	0.81
5@37.2:cyto$	WUE.wet	0	0	0	0	0.97
5@89.2:cyto$	WUE.wet	0.08	0.12	0.12	0.54	0.46
1@83.8:cyto$	FT.wet	2.73	0.08	0.04	0.36	0.54
4@2.8:cyto$c	FT.wet	8.25	0.25	0.12	1.1	0.29
4@62.1:cyto$	FT.wet	18.04	0.54	0.25	2.43	0.12
5@15.2:cyto$	FT.wet	3.02	0.09	0.04	0.4	0.52
5@71.7:cyto$	FT.wet	8.2	0.24	0.12	1.1	0.29
1@31.7:cyto$	LA.dry	6.73	0.16	0.2	0.74	0.39
3@89.5:cyto$	LA.dry	10.6	0.26	0.32	1.16	0.28
3@33.0:cyto$	RDM.dry	0	0.07	0.45	0.32	0.56
3@19.0:cyto$	RMR.dry	0	0.01	0.03	0.02	0.88
4@1.5:cyto$c	RMR.dry	0	0.71	3.3	3.08	0.07
3@3.9:cyto$c	GR.dry	7.1	0.19	0.26	0.86	0.35
1@12.3:cyto$	RGR.dry	0	0.16	0.22	0.75	0.38
3@29.8:cyto$	RGR.dry	0	0.08	0.1	0.35	0.55
4@2.1:cyto$c	Wilt.dry	0.54	0.02	0.03	0.1	0.75
2@73.6:cyto$	Roll.dry	0.12	0.01	0.01	0.03	0.87
2@74.4:cyto$	WUE.dry	1.13	0.87	1.09	3.97	0.04*
3@58.5:cyto$	WUE.dry	0.36	0.28	0.35	1.27	0.26
5@84.2:cyto$	WUE.dry	0.02	0.01	0.01	0.05	0.82
2@15.5:cyto$	ABA.dry	62.79	0.98	1.2	4.47	0.03*
2@74.4:cyto$	proline.dry	5904.98	0.54	0.45	2.42	0.12
3@50.2:cyto$	proline.dry	233.73	0.02	0.02	0.1	0.76
4@2.8:cyto$c	proline.dry	674.45	0.06	0.05	0.28	0.6
2@86.9:cyto$	WC.dry	19.72	0.47	0.61	2.15	0.14
1@3.3:cyto$c	LA.plast	0.63	0.1	0.13	0.46	0.49
3@27.5:cyto$	LA.plast	0.65	0.1	0.13	0.48	0.49
3@3.9:cyto$c	GR.plast	0.34	0.04	0.06	0.19	0.66
4@59.8:cyto$	GR.plast	12.41	1.58	2.18	7.23	<0.01*
4@4.4:cyto$c	WUE.plast	0.08	0.01	0.02	0.06	0.81
2@73.6:cyto$	proline.plast	1.03	0.14	0.17	0.63	0.43

Supplemental Table 5. Significance, effect, and divergence for each candidate gene within each narrow QTL.
P-value was calcuated from 10000 permutations of the gene expression data with the rest of the model fixed.
Q-values corrections for multiple comparisons were calculated in the R packge "qvalue".
Protein and DNA sequence divergence were calculated through a custom script by comparing the parental genomes.

Gene Model	QTL ID	Phenotype	Chromosome	Position (cM)	Marker	Treatment	Cytoplasm in model?	P-value	Effect	Q-value	nucleotide divergence	protein divergence
AT2G03140	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0	0.926520841	0	0.003691399	0.005540166
AT2G04380	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0	0.895214156	0	0	0
AT2G13665	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0	0.875073654	0	NA	NA
AT2G14170	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	1.00E-04	0.753738711	0.001328571	0.025995415	0.018877941
AT2G15555	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	2.00E-04	0.648873509	0.002367273	NA	NA
AT2G11240	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	2.00E-04	0.644870164	0.002367273	NA	NA
AT2G04170	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	2.00E-04	0.572182801	0.002367273	0.001692667	0
AT2G15480	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	6.00E-04	0.53493593	0.006103125	0.002061856	0.004132231
AT2G05915	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	3.00E-04	0.503874413	0.003367241	0.005698006	0.00862069
AT2G11140	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.0011	0.439944514	0.009548	NA	NA
AT2G15880	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.0059	0.328490891	0.034602703	0.003663004	0.005502063
AT2G14530	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.0089	0.296667391	0.047104878	0.021791768	0.041262136
AT2G14260	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.0327	0.198516007	0.11445	0	0
AT2G12920	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.0493	0.168047414	0.159673134	NA	NA
AT2G03800	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.0486	0.167336317	0.158193	0	0
AT2G13840	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.0536	0.157951833	0.170530244	0.001532567	0
AT2G14460	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.0591	0.152447155	0.182341706	0	0
AT2G05810	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.0656	0.144770466	0.199558879	0.006310958	0.010344828
AT2G03070	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.0931	0.11399329	0.260120601	0.000634921	0
AT2G14080	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.1274	0.091214733	0.327037795	0.032894737	0.06090535
AT2G15080	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.1258	0.089860913	0.326278088	0.002371274	0.002034588
AT2G04940	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.1276	0.087410872	0.327037795	0.002544529	0.00255102
AT2G14560	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.1355	0.083858859	0.340581081	0.003454416	0.005208755
AT2G14570	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.1487	0.078932518	0.366680682	NA	NA
AT2G04230	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.1586	0.070810537	0.387430337	0.020044543	0.035714286
AT2G13660	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.2165	0.049371436	0.479392857	0.005617978	0.011299435
AT2G15390	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.2227	0.047292502	0.488905369	0.001283266	0.001928615
AT2G15042	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.3273	0.021556185	0.628531858	0.011029412	0.023941068
AT2G15050	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.3593	0.015335659	0.672576	0.008271762	0.008340818
AT2G07215	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.4274	0.005286078	0.77074072	0.005420054	0.012244898
AT2G15560	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.5112	-0.000787285	0.866590909	0.021768707	0.026584867
AT2G03220	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.5502	-0.004506474	0.915717857	0	0
AT2G15292	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.6937	-0.025830663	1	NA	NA
AT2G10990	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.6997	-0.027688049	1	NA	NA
AT2G13530	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.77	-0.044658868	1	NA	NA
AT2G07340	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.896	-0.117294859	1	0.003886063	0
AT2G04378	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.9052	-0.117997482	1	0	0
AT2G15040	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.9069	-0.124454045	1	NA	NA
AT2G05840	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.9911	-0.36173292	1	0.005715647	0
AT2G14740	ABA.dry_2_16	ABA.dry	2	15.50133333	2_948610	dry	NO	0.9965	-0.458215385	1	0.001589825	0.001592357
AT5G64570	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.0061	0.372130337	0.035142478	0	0
AT5G60440	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.0062	0.36767443	0.035405263	0.003333333	0.003344482
AT5G61660	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.0076	0.355927686	0.041576471	0.004938272	0.007462687
AT5G67030	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.0101	0.319327802	0.051367969	0.005745057	0.006277189
AT5G60310	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.0187	0.261488248	0.07896	0.002160994	0.003246753
AT5G62350	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.0277	0.221141727	0.103044	0.022988506	0.014851485
AT5G66630	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.0312	0.220656473	0.110990164	0.004741584	0.00997151
AT5G55180	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.0379	0.209392521	0.130544444	0.021575601	0.002173913
AT5G65460	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.037	0.203509809	0.12812234	0.001560062	0.00312256
AT5G64572	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.0449	0.182194811	0.148375127	NA	NA
AT5G64310	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.0532	0.172458694	0.170530244	0.01010101	0.007633588
AT5G56850	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.0628	0.158285044	0.191938028	0	0
AT5G54710	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.0668	0.149718828	0.202264186	0.006121313	0.008361204
AT5G54720	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.0722	0.14127434	0.215606422	0.001792115	0
AT5G53680	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.1011	0.114911704	0.276538235	0	0
AT5G63710	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.1071	0.113118474	0.28930332	0.001084011	0
AT5G60850	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.1116	0.110152832	0.296537143	0	0
AT5G61410	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.1184	0.104668599	0.3108	0	0
AT5G64330	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.1349	0.091990579	0.340387209	0.000744381	0
AT5G64870	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.1612	0.082542385	0.389876667	0.002777778	0.006263048
AT5G61820	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.1625	0.080374679	0.390359779	0	0
AT5G60840	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.1683	0.07292475	0.40280625	0	0
AT5G62680	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.2065	0.058080011	0.466475172	0.001080497	0
AT5G63030	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.2051	0.057988419	0.466475172	0.015873016	0.016
AT5G54770	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.2284	0.04833375	0.49693	0.016190476	0.005730659
AT5G59150	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.3005	0.031278252	0.601924615	0	0
AT5G56910	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.2964	0.030191033	0.597589783	0.001481481	0
AT5G58070	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.3039	0.027630743	0.602224169	0	0
AT5G54730	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.3059	0.026849332	0.602224169	0.002617801	0.003931848
AT5G64160	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.3357	0.021521052	0.640881818	0.002923977	0.008810573
AT5G54180	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.3436	0.019104262	0.652138776	0.000665336	0.002
AT5G66420	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.3598	0.017744387	0.672576	0.000220751	0.00066313
AT5G54540	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.3616	0.016283087	0.672576	0.005592841	0.003367003
AT5G53830	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.4488	0.003689067	0.796100272	0.015027322	0.016460905
AT5G54190	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.5108	-0.001008289	0.866590909	0.000410509	0
AT5G58575	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.5693	-0.006206934	0.938264051	0	0
AT5G53700	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.5899	-0.00867962	0.955285821	0.007936508	0.015936255
AT5G53930	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.5927	-0.009365214	0.956728889	0.006918239	0.015122873
AT5G62000	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.6735	-0.022629801	1	0.000775194	0
AT5G63020	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.6974	-0.029852661	1	0.023622047	0.040540541
AT5G54940	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.7206	-0.035228284	1	0.005899705	0
AT5G63200	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.7288	-0.037049482	1	0.002051282	0.003081664
AT5G55450	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.7782	-0.053233932	1	0	0
AT5G65620	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.7793	-0.053368191	1	0.000420875	0.001264223
AT5G53550	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.7885	-0.056018622	1	0.008382643	0.007407407
AT5G53620	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.7831	-0.056266673	1	0.000488043	0.001466276
AT5G57830	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.7912	-0.058132398	1	0.009450172	0.010335917
AT5G53970	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.8056	-0.066493659	1	0.000803213	0.002415459
AT5G64750	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.8289	-0.07514951	1	0.00170068	0.002557545
AT5G62770	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.8408	-0.081771678	1	0	0
AT5G53750	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.8427	-0.082733084	1	0.011409943	0.004901961
AT5G63860	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.8506	-0.087832426	1	0.000755858	0
AT5G63000	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.8587	-0.095058291	1	0.011551155	0.009950249

AT5G53560	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.8856	-0.114695685	1	0	0
AT5G63370	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.895	-0.122031059	1	0.001163608	0.001863019
AT5G65720	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.8983	-0.123274371	1	0.000878355	0.002642214
AT5G62090	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.9096	-0.130311797	1	0.000407997	0
AT5G62720	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.9105	-0.140255203	1	0.001512248	0.004557613
AT5G65410	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.91	-0.141303102	1	0	0
AT5G65400	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.9783	-0.299270368	1	0.001317523	0.003968254
AT5G64070	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.9801	-0.309805531	1	0.001188354	0.002676182
AT5G65300	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.9879	-0.377421083	1	0.004415011	0.006666667
AT5G59830	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.9921	-0.391937367	1	0	0
AT5G59870	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.9909	-0.397518351	1	0.002207506	0.006666667
AT5G66080	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.9902	-0.399346895	1	0.000863558	0
AT5G66730	WUE.dry_5_84	WUE.dry	5	84.177	C5_26396744	dry	NO	0.992	-0.427883675	1	0.000665336	0.002
AT3G13070	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.0057	0.283541802	0.034602703	0.001510574	0.003025719
AT3G14600	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.0154	0.217176389	0.068667123	0.003724395	0
AT3G18530	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.0139	0.213494444	0.0651	0.003683241	0.008310249
AT3G17200	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.0294	0.18011864	0.107524719	NA	NA
AT3G14595	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.0304	0.171518791	0.109339227	0.010025063	0.007575758
AT3G08885	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.0453	0.145055718	0.148940909	NA	NA
AT3G10840	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.0599	0.12606676	0.183938208	0.001427552	0.004291845
AT3G11930	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.1793	0.053664226	0.418366667	0	0
AT3G16780	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.1756	0.05304143	0.414186957	0	0
AT3G19420	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.1778	0.052077016	0.417862094	0.004901961	0.008183306
AT3G09490	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.2059	0.042885337	0.466475172	0	0
AT3G20290	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.2646	0.028910835	0.548581529	0.001221001	0
AT3G08030	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.3181	0.019643675	0.61631875	0	0
AT3G18145	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.5514	-0.003182134	0.915717857	NA	NA
AT3G16400	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.6038	-0.008135445	0.962333985	0.006369427	0.006382979
AT3G09840	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.6592	-0.01605905	1	0.000411523	0
AT3G15120	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.6734	-0.018997133	1	0.00170503	0.004094166
AT3G12100	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.6852	-0.020406643	1	0.009990172	0.008092062
AT3G13810	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.7018	-0.023816713	1	0.000648508	0.001949318
AT3G15820	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.7222	-0.026398605	1	0.005518764	0
AT3G20200	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.7546	-0.033273753	1	0.00128041	0.002564103
AT3G09300	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.8005	-0.047656077	1	0	0
AT3G20060	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.8171	-0.052900061	1	0.002132296	0
AT3G14870	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.8186	-0.053898907	1	0	0
AT3G15180	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.8286	-0.056245358	1	0	0
AT3G12810	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.8978	-0.091461621	1	0.004053178	0.006326034
AT3G18535	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.902	-0.098866165	1	NA	NA
AT3G17900	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.9148	-0.108291532	1	0.00238379	0.002386635
AT3G17860	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.9428	-0.141401013	1	0.000988782	0
AT3G18270	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.9483	-0.141658165	1	0.00162206	0.004878049
AT3G14840	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.9616	-0.160147864	1	0.003441012	0.004955928
AT3G19320	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.9587	-0.16715106	1	0.016869096	0.026369168
AT3G18830	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.9932	-0.336538266	1	0.014197531	0.001855288
AT3G16640	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.9952	-0.35497163	1	0	0
AT3G07195	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.9952	-0.359908631	1	0	0
AT3G16770	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.9963	-0.375910035	1	0.033467202	0.036290323
AT3G16520	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.9968	-0.379286756	1	0.005140608	0.002207983
AT3G10985	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.9979	-0.400490687	1	0	0
AT3G20310	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.9977	-0.411692326	1	0.001360544	0
AT3G18540	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.998	-0.460153812	1	0.009913259	0.026119403
AT3G18240	WUE.wet_3_18	WUE.wet	3	17.916	C3_4648688	wet	YES	0.9997	-0.626848083	1	0.000793651	0
AT3G50480	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	1.00E-04	0.514347805	0.001328571	0.00331675	0.01
AT3G47730	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.0025	0.264277183	0.018083333	0.001355014	0
AT3G45010	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.0042	0.256143209	0.0279	0.008480104	0.009803922
AT3G48000	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.0058	0.231252571	0.034602703	0	0
AT3G47580	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.0078	0.22657201	0.042315	0.0085639	0.012858556
AT3G45300	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.0074	0.21630126	0.040825424	0.008130081	0.007334963
AT3G53730	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.0107	0.207491142	0.053582308	0.009615385	0
AT3G45970	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.0157	0.184389957	0.069498649	0.00877193	0.00754717
AT3G51470	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.0127	0.18391265	0.061242222	0	0
AT3G48560	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.0219	0.163675425	0.089105625	0.00993542	0.002985075
AT3G51660	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.0235	0.160831962	0.092718182	0	0
AT3G50970	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.025	0.153636102	0.096686982	0.008591065	0.005181347
AT3G47300	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.034	0.137545168	0.118363636	0.001587302	0
AT3G46110	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.03	0.137327976	0.1085	0.024932916	0.035177599
AT3G53990	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.0524	0.111458199	0.168873267	0	0
AT3G45290	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.0851	0.085904217	0.245133186	0.001309758	0
AT3G51160	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.1098	0.070793159	0.294155556	0.009803922	0.002680965
AT3G52780	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.1341	0.058244427	0.339685214	0.002089035	0.005112003
AT3G47660	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.1423	0.057535738	0.354322901	0.001396161	0.001048218
AT3G52840	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.1724	0.044403123	0.409607299	0.000457875	0
AT3G48710	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.1791	0.041482692	0.418366667	0.012239021	0.028138528
AT3G53390	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.2094	0.036209059	0.468451546	0.001788909	0.003584229
AT3G51730	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.2231	0.03174243	0.488905369	0.001557632	0.004694836
AT3G47290	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.2298	0.029879063	0.497009302	0.001879699	0
AT3G51070	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.2471	0.025993524	0.529151645	0.003720238	0.006703911
AT3G45740	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.2839	0.020790676	0.577559063	0.018567639	0.026595745
AT3G54280	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.3054	0.016832729	0.602224169	0.000980873	0.000490677
AT3G50240	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.3259	0.013417404	0.62769497	0.002217997	0.002854424
AT3G51000	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.3607	0.010396267	0.672576	0.002057613	0.003095975
AT3G52560	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.3757	0.008788212	0.694831534	0.010030439	0
AT3G47250	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.4466	0.002863942	0.796100272	0.008316008	0.016666667
AT3G48740	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.5866	-0.005172027	0.952310723	0.003448276	0
AT3G45256	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.7055	-0.01855317	1	NA	NA
AT3G53350	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.7238	-0.022105183	1	0.000841756	0
AT3G50340	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.7699	-0.029922709	1	0.005775578	0
AT3G48690	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.8787	-0.068184881	1	0.023589744	0.024691358
AT3G52470	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.8853	-0.069156225	1	0	0
AT3G49650	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.9009	-0.078240226	1	0.016789517	0.020910209
AT3G48090	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.927	-0.095787087	1	0.00826128	0.019507862
AT3G50690	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.9386	-0.107538662	1	0.00297619	0.008948546
AT3G46530	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.9444	-0.110182986	1	0.014752791	0.026347305
AT3G47680	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.9637	-0.144048644	1	0.00220022	0
AT3G50500	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.9727	-0.162914932	1	0.012855831	0
AT3G51075	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.9807	-0.186516974	1	NA	NA

AT3G45253	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.9843	-0.189757118	1	NA	NA	
AT3G45860	WUE.wet_3_65	WUE.wet	3	64.783	C3_18396211	wet	YES	0.9985	-0.380088717	1	0.017725258	0.039940828	
AT4G00650	WUE.wet_4_4	WUE.wet	4	4.408	MSAT4.8	wet	YES	0.0057	0.181180619	0.034602703	0.002089864	0.006289308	
AT4G00740	WUE.wet_4_4	WUE.wet	4	4.408	MSAT4.8	wet	YES	0.098	0.054947834	0.270288608	0.001663894	0.001666667	
AT4G00250	WUE.wet_4_4	WUE.wet	4	4.408	MSAT4.8	wet	YES	0.2309	0.022717183	0.497734768	0.007291667	0.015673981	
AT4G00900	WUE.wet_4_4	WUE.wet	4	4.408	MSAT4.8	wet	YES	0.6723	-0.011027317	1	0.012006319	0.000948767	
AT4G00620	WUE.wet_4_4	WUE.wet	4	4.408	MSAT4.8	wet	YES	0.9827	-0.137440911	1	0.000923361	0	
AT5G54710	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0	0.535409362	0	0.006121313	0.008361204	
AT5G55180	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0	0.51250938	0	0.021575601	0.002173913	
AT5G54720	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0	0.404446002	0	0.001792115	0	
AT5G62000	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	1.00E-04	0.380560043	0.001328571	0.000775194	0	
AT5G54730	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	1.00E-04	0.339874696	0.001328571	0.002617801	0.003931848	
AT5G63020	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	2.00E-04	0.326409692	0.002367273	0.023622047	0.040540541	
AT5G53700	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	1.00E-04	0.324262237	0.001328571	0.007936508	0.015936255	
AT5G66880	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0	0.319163352	0	0.007366483	0.002770083	
AT5G60160	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	1.00E-04	0.315472646	0.001328571	0	0	
AT5G61660	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	7.00E-04	0.279192728	0.006801493	0.004938272	0.007462687	
AT5G63200	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.002	0.215079697	0.015139535	0.002051282	0.003081664	
AT5G59410	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.0027	0.199735775	0.019315385	0	0	
AT5G53930	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.0061	0.171684934	0.035142478	0.006918239	0.015122873	
AT5G65410	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.0059	0.171504866	0.034602703	0	0	
AT5G61410	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.0056	0.16881822	0.034602703	0	0	
AT5G54540	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.007	0.168514361	0.038948718	0.005592841	0.003367003	
AT5G63580	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.0108	0.140281366	0.053670229	0.011952191	0.028	
AT5G57830	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.0154	0.131788424	0.068667123	0.009450172	0.010335917	
AT5G66080	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.0198	0.122466637	0.082100637	0.000863558	0	
AT5G58575	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.0228	0.11584806	0.091060123	0	0	
AT5G57900	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.0265	0.10433977	0.100677907	0.002214839	0.003333333	
AT5G54190	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.057	0.074575031	0.178168421	0.000410509	0	
AT5G53620	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.058	0.072915821	0.1798	0.000488043	0.001466276	
AT5G66630	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.1559	0.036052514	0.382984528	0.004741584	0.00997151	
AT5G56850	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.1596	0.03450626	0.387685075	0	0	
AT5G63030	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.2231	0.022952264	0.488905369	0.015873016	0.016	
AT5G53570	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.3491	0.008542158	0.660651453	0.001181662	0	
AT5G65460	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.4243	0.003163245	0.769413092	0.001560062	0.00312256	
AT5G63710	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.4951	0.000146426	0.845958268	0.001084011	0	
AT5G65510	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.5592	-0.002537415	0.92395736	0.000668003	0	
AT5G60840	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.5722	-0.002806858	0.940662121	0	0	
AT5G60850	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.5952	-0.003915186	0.956728889	0	0	
AT5G53970	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.6184	-0.006103369	0.97304058	0.000803213	0.002415459	
AT5G65620	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.6347	-0.006743226	0.988803589	0.000420875	0.001264223	
AT5G60470	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.7202	-0.015123485	1	0.001478197	0.002222222	
AT5G62770	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.8044	-0.028545745	1	0	0	
AT5G55450	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.8694	-0.043819516	1	0	0	
AT5G60970	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.8874	-0.04959055	1	0	0	
AT5G61140	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.8872	-0.050459863	1	0.000776277	0.000465983	
AT5G53550	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.9149	-0.059411203	1	0.008382643	0.007407407	
AT5G57960	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.9233	-0.066975835	1	0.001848429	0.003703704	
AT5G66210	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.9605	-0.092998253	1	0.002082322	0.002086692	
AT5G54770	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.979	-0.117775307	1	0.016190476	0.005730659	
AT5G55460	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.9814	-0.128895443	1	0	0	
AT5G56910	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.9798	-0.131597129	1	0.001481481	0	
AT5G54650	WUE.wet_5_89	WUE.wet	5	89.20566667	MSAT5.18	wet	YES	0.9913	-0.162037983	1	0.006289308	0.007777778	
AT1G65490	FT.Wet_1_84	FT.Wet	1	83.846	F5I14	wet	YES	0.0016	0.23728855	0.0124	0.014981273	0.034090909	
AT1G65470	FT.Wet_1_84	FT.Wet	1	83.846	F5I14	wet	YES	0.0053	0.174609414	0.033826471	0.022058824	0.026993865	
AT4G00740	FT.Wet_4_3	FT.Wet	4	2.791	4.FRI	wet	YES	0.0066	0.052399616	0.037039655	0.001663894	0.001666667	
AT4G00650	FT.Wet_4_3	FT.Wet	4	2.791	4.FRI	wet	YES	0.01	0.046763032	0.051259843	0.002089864	0.006289308	
AT4G00900	FT.Wet_4_3	FT.Wet	4	2.791	4.FRI	wet	YES	0.0123	0.041003474	0.05975597	0.012006319	0.000948767	
AT4G23300	FT.Wet_4_62	FT.Wet	4	62.073	4_12900428	wet	YES	0.0032	0.182662112	0.0224	0.001512859	0.003030303	
AT4G23310	FT.Wet_4_62	FT.Wet	4	62.073	4_12900428	wet	YES	0.0174	0.116079006	0.074522368	0.001203369	0.003614458	
AT4G23885	FT.Wet_4_62	FT.Wet	4	62.073	4_12900428	wet	YES	0.0396	0.082354397	0.134971728	0	0	
AT4G24340	FT.Wet_4_62	FT.Wet	4	62.073	4_12900428	wet	YES	0.0482	0.076532358	0.157679397	0.008849558	0.00887574	
AT4G23780	FT.Wet_4_62	FT.Wet	4	62.073	4_12900428	wet	YES	0.2701	0.01494175	0.558206667	0	0	
AT4G24030	FT.Wet_4_62	FT.Wet	4	62.073	4_12900428	wet	YES	0.4568	0.000912949	0.805899187	0.010335917	0.03125	
AT4G24090	FT.Wet_4_62	FT.Wet	4	62.073	4_12900428	wet	YES	0.6729	-0.010574871	1	0	0	
AT4G24990	FT.Wet_4_62	FT.Wet	4	62.073	4_12900428	wet	YES	0.7975	-0.025863236	1	0.00280112	0	
AT4G24080	FT.Wet_4_62	FT.Wet	4	62.073	4_12900428	wet	YES	0.914	-0.05830817	1	0.001360544	0	
AT5G17880	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0	0.99997604	0	0.003338898	0.005847953	
AT5G17890	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0	0.921956178	0	0.01094589	0.020458772	
AT5G18950	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	1.00E-04	0.527817216	0.001328571	0.000688705	0.002070393	
AT5G16890	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	5.00E-04	0.493383734	0.00525	0.001953125	0.001956947	
AT5G17680	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.0051	0.294761449	0.033536364	0.001287001	0.001545595	
AT5G17990	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.0308	0.184342549	0.110169231	0.023970037	0.018018018	
AT5G18170	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.0273	0.182594902	0.102139655	0	0	
AT5G17770	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.0284	0.176836106	0.105047727	0.002364066	0	
AT5G16120	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.0813	0.109484507	0.236278125	0.002771806	0.00555903	
AT5G19390	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.0802	0.107581655	0.234126457	0.001098524	0.002044167	
AT5G18480	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.0882	0.100883931	0.252943612	0.001239157	0	
AT5G14330	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.1026	0.090368151	0.279466946	0.002583979	0	
AT5G17300	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.106	0.08875776	0.287525	0.011168385	0.002583979	
AT5G14450	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.1809	0.050193471	0.4205925	0.000854701	0.002570694	
AT5G13800	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.4356	0.003707258	0.783358011	0.00137457	0.002066116	
AT5G13640	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.4776	0.001159457	0.8291136	0.000496032	0	
AT5G19100	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.5073	-0.000171763	0.864534817	0.00085034	0.002557545	
AT5G18780	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.6066	-0.008671602	0.963162439	0.001508296	0.002267574	
AT5G18830	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.6139	-0.009169432	0.972381752	0.003803314	0.001269381	
AT5G18750	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.6624	-0.016003052	1	0.000753296	0.001131222	
AT5G18470	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.7497	-0.032727267	1	0.000805153	0.002421308	
AT5G15390	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.7543	-0.034976951	1	0.007597341	0.008571429	
AT5G17580	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.8457	-0.067530169	1	0.002428658	0.005474453	
AT5G18670	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.8701	-0.076920135	1	0	0	
AT5G12120	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.9258	-0.118044107	1	0.000537634	0	
AT5G15360	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.9604	-0.170353163	1	0.023622047	0.051383399	
AT5G15870	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.9587	-0.170704176	1	0.001340483	0.002684564	
AT5G14920	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.9608	-0.17210608	1	0.001347912	0.004060334	
AT5G15700	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.9641	-0.178607194	1	0	0	
AT5G16880	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.9866	-0.257329848	1	0.000967781	0.002912003	
AT5G16270	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.9863	-0.266027959	1	0.005167959	0.007759457	

AT5G12210	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.9889	-0.287867431	1	0	0
AT5G15410	FT.Wet_5_15	FT.Wet	5	15.25	5_4721336	wet	YES	0.9928	-0.315857599	1	0.000739089	0
AT5G54730	FT.Wet_5_72	FT.Wet	5	71.677	MSAT5.13	wet	YES	0	0.777758281	0	0.002617801	0.003931848
AT5G55180	FT.Wet_5_72	FT.Wet	5	71.677	MSAT5.13	wet	YES	0	0.705201389	0	0.021575601	0.002173913
AT5G54710	FT.Wet_5_72	FT.Wet	5	71.677	MSAT5.13	wet	YES	0	0.584853471	0	0.006121313	0.008361204
AT5G54720	FT.Wet_5_72	FT.Wet	5	71.677	MSAT5.13	wet	YES	0	0.575607191	0	0.001792115	0
AT5G54190	FT.Wet_5_72	FT.Wet	5	71.677	MSAT5.13	wet	YES	4.00E-04	0.337828613	0.00434	0.000410509	0
AT5G54280	FT.Wet_5_72	FT.Wet	5	71.677	MSAT5.13	wet	YES	0.0059	0.213084186	0.034602703	0.001627278	0.001305109
AT5G55460	FT.Wet_5_72	FT.Wet	5	71.677	MSAT5.13	wet	YES	0.2495	0.0241352	0.53079902	0	0
AT5G55450	FT.Wet_5_72	FT.Wet	5	71.677	MSAT5.13	wet	YES	0.2721	0.020112486	0.558792114	0	0
AT5G55290	FT.Wet_5_72	FT.Wet	5	71.677	MSAT5.13	wet	YES	0.2761	0.01977288	0.563451724	0	0
AT5G54650	FT.Wet_5_72	FT.Wet	5	71.677	MSAT5.13	wet	YES	0.2995	0.01691457	0.601773148	0.006289308	0.007777778
AT5G55130	FT.Wet_5_72	FT.Wet	5	71.677	MSAT5.13	wet	YES	0.3131	0.014874033	0.60844209	0.010703589	0.008887004
AT5G54770	FT.Wet_5_72	FT.Wet	5	71.677	MSAT5.13	wet	YES	0.4833	0.000803301	0.83235	0.016190476	0.005730659
AT5G54290	FT.Wet_5_72	FT.Wet	5	71.677	MSAT5.13	wet	YES	0.8104	-0.037287503	1	0.036619718	0.016949153
AT5G54540	FT.Wet_5_72	FT.Wet	5	71.677	MSAT5.13	wet	YES	0.9411	-0.099077114	1	0.005592841	0.003367003
AT4G23300	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	0	0.862622545	0	0.001512859	0.003030303
AT4G23290	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	0	0.648162754	0	0.002074048	0.001557971
AT4G22990	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	1.00E-04	0.612928776	0.001328571	0.01952381	0.005722461
AT4G24050	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	1.00E-04	0.578086228	0.001328571	0.001001001	0
AT4G22220	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	0.0013	0.450418222	0.010448148	0.007936508	0.005988024
AT4G21910	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	0.0012	0.408883061	0.009888608	0.001309763	0.001968512
AT4G21326	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	0.0202	0.244251178	0.083229114	0.001323919	0.082228117
AT4G21790	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	0.0266	0.214834299	0.100677907	0.001141553	0
AT4G23270	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	0.0888	0.116478143	0.253547368	0.00877193	0.00620155
AT4G21860	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	0.7993	-0.057188496	1	0	0
AT4G23150	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	0.8301	-0.068622126	1	0.016666667	0.036418816
AT4G22200	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	0.8432	-0.077770408	1	0	0
AT4G21770	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	0.8529	-0.082147323	1	0.028188865	0.031779661
AT4G23220	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	0.8692	-0.086235114	1	0.0347508	0.046703297
AT4G22280	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	0.8658	-0.088143686	1	0.009412056	0.014759036
AT4G21650	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	0.8707	-0.092218047	1	0.001303781	0.003916449
AT4G22700	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	0.8968	-0.110257957	1	0.001727116	0
AT4G23610	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	0.9372	-0.158727193	1	0.023289665	0.039473684
AT4G24175	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	0.9751	-0.247708094	1	0.002171553	0
AT4G23470	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	0.9925	-0.378674034	1	0	0
AT4G22490	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	0.9944	-0.392595424	1	0.002754821	0.008333333
AT4G23170	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	0.9967	-0.515529824	1	0.013784461	0.022641509
AT4G23215	GR.plast_4_60	GR.plast	4	59.798	Msat4.19	wet	YES	0.9999	-0.698752694	1	NA	NA
AT2G36460	proline.plast_2_74	proline.plast	2	73.572	2-15986145	wet	YES	0	0.746961635	0	0.001550396	0.003269307
AT2G35690	proline.plast_2_74	proline.plast	2	73.572	2-15986145	wet	YES	1.00E-04	0.37123834	0.001328571	0.001002506	0
AT2G35660	proline.plast_2_74	proline.plast	2	73.572	2-15986145	wet	YES	0	0.3069328	0	0.020073434	0.019481339
AT2G33150	proline.plast_2_74	proline.plast	2	73.572	2-15986145	wet	YES	2.00E-04	0.28215594	0.002367273	0	0
AT2G33470	proline.plast_2_74	proline.plast	2	73.572	2-15986145	wet	YES	1.00E-04	0.27107368	0.001328571	0.006568144	0
AT2G33820	proline.plast_2_74	proline.plast	2	73.572	2-15986145	wet	YES	9.00E-04	0.21386503	0.008252113	0.002136752	0.006430868
AT2G33340	proline.plast_2_74	proline.plast	2	73.572	2-15986145	wet	YES	0.0033	0.171292356	0.022854255	0.001319585	0.003966618
AT2G34420	proline.plast_2_74	proline.plast	2	73.572	2-15986145	wet	YES	0.0142	0.113674156	0.065558451	0	0
AT2G38000	proline.plast_2_74	proline.plast	2	73.572	2-15986145	wet	YES	0.0219	0.103763759	0.089105625	0.000793651	0.002386635
AT2G35450	proline.plast_2_74	proline.plast	2	73.572	2-15986145	wet	YES	0.0188	0.102865854	0.07896	0.004803074	0.00867052
AT2G37710	proline.plast_2_74	proline.plast	2	73.572	2-15986145	wet	YES	0.0232	0.095819743	0.092092683	0.024654832	0.017777778
AT2G38050	proline.plast_2_74	proline.plast	2	73.572	2-15986145	wet	YES	0.0251	0.092851325	0.096686982	0	0
AT2G35960	proline.plast_2_74	proline.plast	2	73.572	2-15986145	wet	YES	0.0315	0.085474432	0.11144837	0	0
AT2G37460	proline.plast_2_74	proline.plast	2	73.572	2-15986145	wet	YES	0.1844	0.025114496	0.426612766	0.002624672	0.002631579
AT2G34760	proline.plast_2_74	proline.plast	2	73.572	2-15986145	wet	YES	0.1963	0.024081016	0.448618947	NA	NA
AT2G36470	proline.plast_2_74	proline.plast	2	73.572	2-15986145	wet	YES	0.2712	0.013808611	0.558706329	0.00203252	0
AT2G33370	proline.plast_2_74	proline.plast	2	73.572	2-15986145	wet	YES	0.7568	-0.017555285	1	0	0
AT2G36305	proline.plast_2_74	proline.plast	2	73.572	2-15986145	wet	YES	0.9446	-0.068558358	1	0.003205128	0.006430868
AT2G38800	proline.dry_2_74	proline.dry	2	74.357	2-15986145	dry	YES	0	0.310119589	0	0.002175095	0.004901961
AT2G39800	proline.dry_2_74	proline.dry	2	74.357	2-15986145	dry	YES	0.0012	0.15852166	0.009888608	0.001006258	0.001511682
AT2G39890	proline.dry_2_74	proline.dry	2	74.357	2-15986145	dry	YES	0.0019	0.150933083	0.014551765	0.005267118	0
AT3G43230	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	9.00E-04	0.285493384	0.008252113	0.000685871	0.002061856
AT3G28080	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.0016	0.275826416	0.0124	0.003756345	0.008475658
AT3G42820	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.0013	0.271094981	0.010448148	NA	NA
AT3G27250	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.0053	0.216252579	0.033826471	0.003533569	0.010638298
AT3G28180	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.0063	0.188229748	0.035663478	0.007912957	0.001485884
AT3G30300	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.0128	0.169295881	0.061270588	0.001966568	0
AT3G27870	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.0143	0.155033924	0.065558451	0.019007092	0.01362862
AT3G43720	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.0172	0.151445832	0.074153642	0.022453107	0.020833898
AT3G26670	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.0172	0.147326762	0.074153642	0.000754148	0
AT3G30775	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.0237	0.141492986	0.092943976	0.003333333	0.002004008
AT3G44260	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.0246	0.131643727	0.095895808	0.004744958	0
AT3G28910	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.0289	0.122809661	0.10629322	0.002057613	0.003095975
AT3G44190	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.0682	0.081818936	0.2046	0.000905797	0.002724796
AT3G28220	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.0752	0.078475803	0.222523636	0.000898473	0.002702703
AT3G29320	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.0832	0.073365321	0.240725333	0.019037729	0.014553015
AT3G26980	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.0928	0.067495472	0.260120601	0.002754821	0.008333333
AT3G28040	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.1115	0.058170231	0.296537143	0.001638807	0
AT3G27240	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.1249	0.053961051	0.3252396	0	0
AT3G27020	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.1219	0.052774168	0.31870241	0.001477105	0.00147929
AT3G27550	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.1272	0.050587161	0.327037795	0.000677507	0
AT3G26680	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.1476	0.044952057	0.365352091	0.00137457	0
AT3G29430	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.1617	0.040930617	0.389876667	0.018621974	0.030812325
AT3G27540	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.1964	0.033647549	0.448618947	0.000852515	0
AT3G42660	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.2147	0.029242243	0.477029693	0.002096436	0.004197272
AT3G30210	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.2126	0.028853608	0.473981507	0.003610108	0.003623188
AT3G28270	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.2238	0.026236083	0.488905369	0.015111111	0.013368984
AT3G26810	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.229	0.025975155	0.49693	0.002893519	0
AT3G43300	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.2336	0.025934666	0.501893069	0.000947508	0.000568828
AT3G29035	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.2603	0.021121416	0.548399029	0.003134796	0.006289308
AT3G27060	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.2643	0.019555915	0.548581529	0.013013013	0
AT3G28520	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.2863	0.015838775	0.580627103	0.029227557	0.035564854
AT3G27100	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.3048	0.015322637	0.602224169	0	0
AT3G30841	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.3024	0.014783109	0.602224169	0.002016129	0.002020202
AT3G28860	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.3112	0.013783407	0.608381982	0.001862197	0.001597444
AT3G30180	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.3241	0.012305429	0.626080415	0.004291845	0.004301075
AT3G26780	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.3355	0.010303669	0.640881818	0	0
AT3G27960	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.3692	0.008081345	0.684755556	0.017570281	0.010558069
AT3G26700	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.3923	0.006287001	0.717380056	0.001749781	0

AT3G32980	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.3868	0.00597091	0.711318644		0.000944287	0
AT3G43590	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.3921	0.005885415	0.717380056		0.003019324	0.00907441
AT3G42803	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.4116	0.004143866	0.748468156	NA	NA	
AT3G29810	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.4255	0.00338542	0.769445833		0.00678733	0
AT3G27300	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.4432	0.002816538	0.794829752		0.005157963	0.005813953
AT3G26960	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.4448	0.001753743	0.795507692		0	0
AT3G43270	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.4519	0.001709317	0.799420924		0.007575758	0.0056926
AT3G27180	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.4608	0.001530058	0.808573585		0	0
AT3G43430	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.4488	0.001404556	0.796100272		0.029761905	0.041916168
AT3G26740	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.4584	0.00129775	0.806536216		0.011737089	0.014184397
AT3G30818	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.4747	0.000594329	0.82750107	NA	NA	
AT3G27570	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.492	9.68E-05	0.842873684		0.000877193	0
AT3G27280	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.5203	-0.001061591	0.875906202		0	0
AT3G44200	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.553	-0.002773557	0.916038168		0.001741553	0.001046025
AT3G30260	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.5779	-0.003687007	0.947639547		0	0
AT3G30240	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.5861	-0.005009134	0.952310723	NA	NA	
AT3G28600	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.5835	-0.005041457	0.952026316		0.00209205	0.006289308
AT3G28420	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.5828	-0.005429007	0.952026316		0	0
AT3G27050	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.6046	-0.006321439	0.962333985		0	0
AT3G44110	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.6029	-0.006630793	0.962333985		0.000880379	0
AT3G27220	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.5951	-0.006661888	0.956728889		0	0
AT3G44290	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.6188	-0.007676415	0.97304058		0.020833333	0.008955224
AT3G27260	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.6158	-0.007781818	0.973023786		0.0004095	0.001230012
AT3G29270	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.6365	-0.008822051	0.988929594		0.002525253	0.007604563
AT3G29160	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.6299	-0.00926879	0.985732933		0	0
AT3G29400	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.6449	-0.010009539	0.997381132		0.002023268	0.001519757
AT3G29775	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.6496	-0.011228629	0.997381132	NA	NA	
AT3G27470	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.6562	-0.01170539	1		0.008354219	0
AT3G26910	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.6995	-0.016400351	1		0.002723377	0.004910102
AT3G29575	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.714	-0.018339606	1		0.012931034	0.008658009
AT3G42790	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.7182	-0.01908597	1		0	0
AT3G27770	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.7326	-0.022033488	1		0.007965487	0.006851074
AT3G27560	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.7473	-0.022616816	1		0.001867414	0
AT3G29370	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.7442	-0.023324282	1		0	0
AT3G27820	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.7572	-0.025456641	1		0.010906612	0
AT3G29090	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.7622	-0.02573763	1		0	0
AT3G43850	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.7939	-0.031961156	1		0.011070111	0.007407407
AT3G26830	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.8357	-0.042873983	1		0.001357773	0
AT3G27110	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.8411	-0.043705368	1		0.001932367	0
AT3G43175	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.846	-0.045421601	1	NA	NA	
AT3G44050	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.8637	-0.049108941	1		0.01300813	0.016273393
AT3G42950	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.8524	-0.049768954	1		0.000687285	0
AT3G43960	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.865	-0.052373574	1		0.015915119	0.021276596
AT3G43200	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.8738	-0.058780879	1	NA	NA	
AT3G30390	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.8982	-0.066856868	1		0.018799711	0.017391304
AT3G27890	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.9024	-0.069350658	1		0	0
AT3G26950	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.9082	-0.073128072	1		0.000607165	0.001824818
AT3G27210	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.9186	-0.078890227	1		0.005673759	0.004273504
AT3G28730	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.9126	-0.079514902	1		0.001030397	0
AT3G27925	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.9649	-0.129423448	1		0.023484848	0.018223235
AT3G43670	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.9645	-0.132165248	1		0.008236434	0.011644833
AT3G28007	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.972	-0.141070285	1		0.001322751	0.003984064
AT3G29240	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.9849	-0.17589129	1		0.001048218	0
AT3G28210	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.9873	-0.186464893	1		0.005347594	0
AT3G28050	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.9888	-0.191006441	1		0.001811594	0.005449591
AT3G28340	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.9953	-0.246971556	1		0.001821494	0.005479452
AT3G44310	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.9955	-0.251326626	1		0.003663144	0
AT3G29180	proline.dry_3_50	proline.dry	3	50.173	MSAT3.32	dry	YES	0.9975	-0.283607233	1		0.001945525	0.001949318
AT4G01130	proline.dry_4_3	proline.dry	4	2.791	4.FRI	dry	YES	0	0.843718219	0		0.011314186	0.007853403
AT4G01850	proline.dry_4_3	proline.dry	4	2.791	4.FRI	dry	YES	0	0.555561223	0		0.003384095	0
AT4G01320	proline.dry_4_3	proline.dry	4	2.791	4.FRI	dry	YES	0	0.548573356	0		0.01254902	0.002358491
AT4G00270	proline.dry_4_3	proline.dry	4	2.791	4.FRI	dry	YES	7.00E-04	0.337360015	0.006801493		0.00550055	0.009933775
AT4G02540	proline.dry_4_3	proline.dry	4	2.791	4.FRI	dry	YES	0.0021	0.281131855	0.015535227		0.047792629	0.085158151
AT4G02600	proline.dry_4_3	proline.dry	4	2.791	4.FRI	dry	YES	0.012	0.184040893	0.058736842		0.001265022	0.003802281
AT4G00975	proline.dry_4_3	proline.dry	4	2.791	4.FRI	dry	YES	0.0412	0.11727225	0.138969948	NA	NA	
AT4G02720	proline.dry_4_3	proline.dry	4	2.791	4.FRI	dry	YES	0.2073	0.033884571	0.466475172		0.009456265	0.016587678
AT4G00250	proline.dry_4_3	proline.dry	4	2.791	4.FRI	dry	YES	0.7654	-0.028584868	1		0.007291667	0.015673981
AT4G02550	proline.dry_4_3	proline.dry	4	2.791	4.FRI	dry	YES	0.8411	-0.04784655	1		0.004755979	0.007675224
AT4G01090	proline.dry_4_3	proline.dry	4	2.791	4.FRI	dry	YES	0.8996	-0.071180709	1		0.021445221	0.033613445
AT4G03060	proline.dry_4_3	proline.dry	4	2.791	4.FRI	dry	YES	0.9782	-0.163971906	1	NA	NA	
AT4G02330	proline.dry_4_3	proline.dry	4	2.791	4.FRI	dry	YES	0.9991	-0.392509095	1		0.010452962	0.005235602
AT4G00900	proline.dry_4_3	proline.dry	4	2.791	4.FRI	dry	YES	0.9995	-0.409994693	1		0.012006319	0.000948767
AT4G03050	proline.dry_4_3	proline.dry	4	2.791	4.FRI	dry	YES	1	-0.539395022	1		0.003105353	0.009345436
AT3G44430	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0	0.550735076	0		0.003220612	0.009708738
AT3G29290	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	1.00E-04	0.51189765	0.001328571		0.006161429	0.012962963
AT3G43128	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	1.00E-04	0.503521962	0.001328571	NA	NA	
AT3G43430	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	5.00E-04	0.377470925	0.00525		0.029761905	0.041916168
AT3G43670	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	8.00E-04	0.377176299	0.007547826		0.008236434	0.011644833
AT3G45256	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	6.00E-04	0.369900684	0.006103125	NA	NA	
AT3G45300	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.0011	0.322502806	0.009548		0.008130081	0.007334963
AT3G45290	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.0014	0.295069047	0.011114634		0.001309758	0
AT3G32091	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.0028	0.271626765	0.019813043	NA	NA	
AT3G45555	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.0037	0.253675311	0.025354737		0.004672897	0.009389671
AT3G43800	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.0042	0.246792073	0.0279		0.001461988	0
AT3G44480	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.0091	0.214005759	0.0473928		0.010878661	0.019262982
AT3G28540	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.0265	0.146369291	0.100677907		0.001960792	0.002948896
AT3G42052	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.0269	0.144662812	0.101224855	NA	NA	
AT3G28220	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.0299	0.134002682	0.1085		0.000898473	0.002702703
AT3G44400	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.0421	0.117332175	0.140549231		0.011243386	0.018867925
AT3G44320	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.0554	0.104241473	0.174228986		0.002881844	0.002890173
AT3G28690	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.1855	0.038575315	0.426715548		0.000800287	0
AT3G44860	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.4101	0.005422476	0.747829412		0.021012416	0.017241379
AT3G28345	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.4668	0.001193556	0.8169		0.001611604	0.000806452
AT3G44740	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.7947	-0.034403726	1		0.020356234	0.045977011
AT3G28715	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.8284	-0.044282901	1		0.009469697	0.002849003
AT3G45010	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.8393	-0.048722337	1		0.008480104	0.009803922
AT3G28130	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.9292	-0.093416727	1		0.012428908	0.020111001
AT3G43230	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.9447	-0.110286487	1		0.000685871	0.002061856

AT3G44300	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.9469	-0.112053089	1	0.000980392	0
AT3G44310	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.964	-0.139753317	1	0.003663144	0
AT3G44880	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.9875	-0.209151848	1	0.022924411	0.016759777
AT3G43540	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.9927	-0.236132928	1	0.022390835	0.015008061
AT3G45253	RGR.wet_3_54	RGR.wet	3	53.591	C3_11427757	wet	YES	0.9957	-0.287108469	1	NA	NA
AT3G16520	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.0087	0.592120634	0.04642377	0.005140608	0.002207983
AT3G14360	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.0133	0.541163303	0.06319927	0	0
AT3G18535	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.0179	0.512114735	0.076162745	NA	NA
AT3G18530	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.0197	0.491396462	0.082100637	0.003683241	0.008310249
AT3G18270	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.0323	0.414688409	0.113661081	0.00162206	0.004878049
AT3G15180	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.0771	0.263169053	0.227113575	0	0
AT3G19710	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.0902	0.233680003	0.255305217	0	0
AT3G16640	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.0963	0.226962519	0.266771489	0	0
AT3G16420	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.1308	0.175392236	0.332874609	0	0
AT3G16770	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.1737	0.141028922	0.411195273	0.033467202	0.036290323
AT3G14595	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.1848	0.121458959	0.426612766	0.010025063	0.007575758
AT3G15200	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.2965	0.055158708	0.597589783	0	0
AT3G17200	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.481	0.001872356	0.830586207	NA	NA
AT3G16780	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.5125	-0.002905257	0.866590909	0	0
AT3G18080	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.6035	-0.022856169	0.962333985	0.007797271	0.005859375
AT3G15850	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.6474	-0.037686404	0.997381132	0.003584229	0.002695418
AT3G15120	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.7105	-0.068806812	1	0.00170503	0.004094166
AT3G19025	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.7504	-0.088288365	1	NA	NA
AT3G15690	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.7787	-0.115218394	1	0.002606712	0
AT3G18540	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.8532	-0.189275305	1	0.009913259	0.026119403
AT3G16750	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.8943	-0.251880252	1	0.003418803	0.010309278
AT3G15590	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.9012	-0.265741084	1	0	0
AT3G16400	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.9094	-0.283237038	1	0.006369427	0.006382979
AT3G18830	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.9155	-0.298785995	1	0.014197531	0.001855288
AT3G17350	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.959	-0.458816063	1	0.002389486	0.003597122
AT3G19850	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.9605	-0.477178731	1	0.001801802	0.001805054
AT3G18060	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.9689	-0.527975165	1	0.004371585	0.006568144
AT3G14310	RMR.dry_3_19	RMR.dry	3	18.982	C3_5364027	dry	NO	0.992	-0.844225429	1	0.006183249	0.005067568
AT4G01320	RMR.dry_4_1	RMR.dry	4	1.473	4_208623	dry	NO	0.0394	0.885012396	0.134971728	0.01254902	0.002358491
AT4G01850	RMR.dry_4_1	RMR.dry	4	1.473	4_208623	dry	NO	0.0442	0.854935096	0.146807143	0.003384095	0
AT4G01360	RMR.dry_4_1	RMR.dry	4	1.473	4_208623	dry	NO	0.1309	0.520698959	0.332874609	0.005730659	0.011494253
AT4G00250	RMR.dry_4_1	RMR.dry	4	1.473	4_208623	dry	NO	0.1412	0.507893729	0.353543077	0.007291667	0.015673981
AT4G00720	RMR.dry_4_1	RMR.dry	4	1.473	4_208623	dry	NO	0.1589	0.474090186	0.387430337	0.000704722	0
AT4G00900	RMR.dry_4_1	RMR.dry	4	1.473	4_208623	dry	NO	0.2597	0.233417775	0.548399029	0.012006319	0.000948767
AT4G00975	RMR.dry_4_1	RMR.dry	4	1.473	4_208623	dry	NO	0.5207	-0.010664716	0.875906202	NA	NA
AT4G00270	RMR.dry_4_1	RMR.dry	4	1.473	4_208623	dry	NO	0.542	-0.03062594	0.904723077	0.00550055	0.009933775
AT4G01130	RMR.dry_4_1	RMR.dry	4	1.473	4_208623	dry	NO	0.7075	-0.23877859	1	0.011314186	0.007853403
AT4G01090	RMR.dry_4_1	RMR.dry	4	1.473	4_208623	dry	NO	0.8233	-0.541341545	1	0.021445221	0.033613445
AT4G00340	RMR.dry_4_1	RMR.dry	4	1.473	4_208623	dry	NO	0.9583	-1.870289589	1	0.012617013	0.008557457
AT2G35690	Roll.dry_2_74	Roll.dry	2	73.572	2-15986145	dry	YES	1.00E-04	0.599495186	0.001328571	0.001002506	0
AT2G36460	Roll.dry_2_74	Roll.dry	2	73.572	2-15986145	dry	YES	0	0.593898427	0	0.001550396	0.003269307
AT2G35660	Roll.dry_2_74	Roll.dry	2	73.572	2-15986145	dry	YES	0	0.543401045	0	0.020073434	0.019481339
AT2G33470	Roll.dry_2_74	Roll.dry	2	73.572	2-15986145	dry	YES	0.0011	0.388115103	0.009548	0.006568144	0
AT2G36270	Roll.dry_2_74	Roll.dry	2	73.572	2-15986145	dry	YES	0.0677	0.121885406	0.204040278	0.003009782	0.002262443
AT2G36870	Roll.dry_2_74	Roll.dry	2	73.572	2-15986145	dry	YES	0.0777	0.111397295	0.22785	0	0
AT2G34760	Roll.dry_2_74	Roll.dry	2	73.572	2-15986145	dry	YES	0.0739	0.110787376	0.219675342	NA	NA
AT2G34850	Roll.dry_2_74	Roll.dry	2	73.572	2-15986145	dry	YES	0.0984	0.089864391	0.270288608	0	0
AT2G35075	Roll.dry_2_74	Roll.dry	2	73.572	2-15986145	dry	YES	0.1426	0.068088941	0.354322901	0.003144654	0.009456265
AT2G36750	Roll.dry_2_74	Roll.dry	2	73.572	2-15986145	dry	YES	0.1692	0.057079712	0.403476923	0.001355014	0
AT2G34900	Roll.dry_2_74	Roll.dry	2	73.572	2-15986145	dry	YES	0.3062	0.021779597	0.602224169	0.001463011	0.003106931
AT2G36305	Roll.dry_2_74	Roll.dry	2	73.572	2-15986145	dry	YES	0.3862	0.009424802	0.711318644	0.003205128	0.006430868
AT2G33370	Roll.dry_2_74	Roll.dry	2	73.572	2-15986145	dry	YES	0.6491	-0.012871388	0.997381132	0	0
AT2G36470	Roll.dry_2_74	Roll.dry	2	73.572	2-15986145	dry	YES	0.939	-0.129909977	1	0.00203252	0
AT2G37710	Roll.dry_2_74	Roll.dry	2	73.572	2-15986145	dry	YES	0.9645	-0.179960926	1	0.024654832	0.017777778
AT2G33150	Roll.dry_2_74	Roll.dry	2	73.572	2-15986145	dry	YES	0.9678	-0.180308149	1	0	0
AT2G38000	Roll.dry_2_74	Roll.dry	2	73.572	2-15986145	dry	YES	0.9874	-0.267109191	1	0.000793651	0.002386635
AT2G33340	Roll.dry_2_74	Roll.dry	2	73.572	2-15986145	dry	YES	0.9939	-0.343406518	1	0.001319585	0.003966618
AT3G16750	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.0143	0.975272433	0.065558451	0.003418803	0.010309278
AT3G25240	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.0158	0.965860901	0.069498649	0.024822695	0.03202847
AT3G19025	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.0419	0.841996809	0.140549231	NA	NA
AT3G21560	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.0537	0.804607514	0.170530244	0.007377599	0.008064516
AT3G16780	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.0543	0.793444237	0.171598544	0	0
AT3G20990	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.0572	0.784968789	0.178168421	NA	NA
AT3G15120	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.0894	0.651853611	0.254145852	0.00170503	0.004094166
AT3G15410	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.1095	0.576394962	0.294155556	0	0
AT3G24927	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.2492	0.24543661	0.53079902	NA	NA
AT3G22440	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.2632	0.238252433	0.548581529	0.000625391	0.001879699
AT3G25780	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.2735	0.224127441	0.559900943	0.009009009	0.007751938
AT3G16640	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.2598	0.214744093	0.548399029	0	0
AT3G22930	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.3072	0.169215083	0.602371084	0.001915709	0
AT3G20820	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.3523	0.11565103	0.66398237	0.010928962	0
AT3G21880	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.4754	0.011738549	0.82750107	0	0
AT3G21670	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.492	-8.52E-05	0.842873684	0.001128032	0.003389831
AT3G23560	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.5277	-0.012280866	0.885393557	0.012552301	0.01048218
AT3G14595	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.5371	-0.016478829	0.898848586	0.010025063	0.007575758
AT3G22120	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.6213	-0.097649855	0.97461759	0.008955224	0
AT3G15690	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.6349	-0.107361871	0.988803589	0.002606712	0
AT3G19850	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.6493	-0.112107212	0.997381132	0.001801802	0.001805054
AT3G20310	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.7325	-0.286263773	1	0.001360544	0
AT3G16420	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.7596	-0.306635952	1	0	0
AT3G21200	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.7764	-0.370069229	1	0.001048218	0.003154574
AT3G24503	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.7975	-0.416126416	1	0.014608234	0.001996008
AT3G14310	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.8178	-0.460122089	1	0.006183249	0.005067568
AT3G17200	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.8331	-0.56742316	1	NA	NA
AT3G22780	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.8472	-0.608112556	1	0.000478927	0.001438849
AT3G19710	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.8549	-0.645320326	1	0	0
AT3G18060	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.8583	-0.655741316	1	0.004371585	0.006568144
AT3G22760	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.8704	-0.73261582	1	0.00273224	0.003284072
AT3G18270	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.907	-0.973982797	1	0.00162206	0.004878049
AT3G20290	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.9191	-1.121703039	1	0.001221001	0
AT3G18530	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.9243	-1.16720858	1	0.003683241	0.008310249
AT3G18080	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.9381	-1.333713044	1	0.007797271	0.005859375
AT3G16520	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.9408	-1.391930185	1	0.005140608	0.002207983

AT3G23600	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.9586	-1.705797659	1	0.002795359	0
AT3G15180	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.9623	-1.91384703	1	0	0
AT3G18540	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.9659	-1.994829098	1	0.009913259	0.026119403
AT3G16400	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.9791	-2.477153748	1	0.006369427	0.006382979
AT3G18830	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.9787	-2.540293764	1	0.014197531	0.001855288
AT3G18535	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.9847	-2.975762663	1	NA	NA
AT3G16770	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.9908	-3.616791051	1	0.033467202	0.036290323
AT3G25470	RDM.dry_3_33	RDM.dry	3	32.992	C3_8206469	dry	YES	0.9996	-11.63941622	1	0.007726269	0.003322259
AT2G33340	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0	0.999560187	0	0.001319585	0.003966618
AT2G43530	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0	0.983653322	0	0.019379845	0.023529412
AT2G43210	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0	0.948187435	0	0.001253133	0.001883239
AT2G46220	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0	0.941620866	0	0.00137741	0.004149378
AT2G43680	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0	0.852994539	0	0.001493653	0.004487661
AT2G46100	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0	0.841243532	0	0	0
AT2G38800	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0	0.815860209	0	0.002175095	0.004901961
AT2G32150	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0	0.807382898	0	0.007575758	0.003802281
AT2G42490	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0	0.751402301	0	0.002145002	0.00128866
AT2G32160	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	1.00E-04	0.732812577	0.001328571	0.010034589	0.020389912
AT2G35690	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0	0.691399333	0	0.001002506	0
AT2G35660	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	2.00E-04	0.574318474	0.002367273	0.020073434	0.019481339
AT2G41440	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	3.00E-04	0.5650256	0.003367241	0	0
AT2G41620	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	3.00E-04	0.561852137	0.003367241	0.000773395	0
AT2G31560	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	4.00E-04	0.552065936	0.00434	0.001642036	0.004950495
AT2G46950	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	7.00E-04	0.544019642	0.006801493	0.000581734	0.001748252
AT2G39800	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	8.00E-04	0.535503993	0.007547826	0.001006258	0.001511682
AT2G30990	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0012	0.47657037	0.009888608	0.000576092	0
AT2G31440	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0011	0.464856607	0.009548	0	0
AT2G36870	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0012	0.434137125	0.009888608	0	0
AT2G40820	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0024	0.411686186	0.017555056	0.000676133	0.00203252
AT2G42170	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0021	0.394719689	0.015535227	0.017171717	0.03343465
AT2G39400	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0038	0.375403271	0.02576875	0.009615385	0.003215434
AT2G32880	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0053	0.360040633	0.033826471	0.00522466	0.006289308
AT2G32930	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0055	0.359533821	0.034427885	0	0
AT2G39110	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0055	0.357195407	0.034427885	0.003058104	0.002298851
AT2G37710	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0085	0.314288685	0.045731405	0.024654832	0.017777778
AT2G38000	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.009	0.301209057	0.04725	0.000793651	0.002386635
AT2G36470	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0119	0.299862952	0.058688636	0.00203252	0
AT2G31490	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0102	0.291896998	0.051474419	0.00462963	0
AT2G39890	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0095	0.287548833	0.049083333	0.005267118	0
AT2G32140	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0136	0.285731082	0.064156522	0.015065913	0.025495751
AT2G41830	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0146	0.270242274	0.066004167	0.001949318	0
AT2G36460	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0146	0.259707728	0.066004167	0.001550396	0.003269307
AT2G40960	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0167	0.248995812	0.07296443	0.002840909	0.005698006
AT2G33370	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0224	0.23311418	0.090014815	0	0
AT2G33470	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0221	0.227741208	0.08936087	0.006568144	0
AT2G32040	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0401	0.191078798	0.135964063	0.001188354	0
AT2G40750	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0941	0.11865877	0.261791026	0.00192123	0
AT2G45960	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.0931	0.114405312	0.260120601	0.002318209	0
AT2G31320	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.1161	0.099399413	0.307240244	0.00203252	0.002034588
AT2G41410	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.1181	0.09825996	0.3108	0.004608295	0.00462963
AT2G47210	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.2078	0.054990201	0.466475172	0	0
AT2G44180	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.2625	0.037201976	0.548581529	0.001508296	0.004535147
AT2G33150	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.2635	0.034669414	0.548581529	0	0
AT2G40060	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.3122	0.025355777	0.60844209	0.027027027	0.011627907
AT2G36305	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.3426	0.018646465	0.652138776	0.003205128	0.006430868
AT2G34760	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.3529	0.016655071	0.66398237	NA	NA
AT2G44290	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.4804	0.001337139	0.830586207	0.01618123	0.024390244
AT2G47140	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.6619	-0.019356551	1	0.00129199	0.003891051
AT2G45660	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.7266	-0.031973185	1	0	0
AT2G45340	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.8298	-0.07284471	1	0.001926782	0.001447178
AT2G38860	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.9363	-0.160214149	1	0.001920399	0
AT2G46450	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.9431	-0.172020219	1	0.002051282	0.003081664
AT2G43620	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.9951	-0.453053182	1	0.005868545	0
AT2G45510	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.9973	-0.471591324	1	0.001302083	0.001956947
AT2G43980	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.9994	-0.657539829	1	0.000681663	0
AT2G47400	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.9997	-0.836164862	1	0.013333333	0.016129032
AT2G38530	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	0.9998	-0.923894493	1	0	0
AT2G45910	WC.dry_2_87	WC.dry	2	86.92	2-18752604	dry	YES	1	-1.036397392	1	0.000798403	0.001199041

Supplemental Table 6. List of cytoplasmic SNPs between TSU and KAS

Postion	COL	TSU	KAS	Gene	Gene Start	Other names
4795	G	G	T	Intergenic		
7894	A	A	T	Intergenic		
16875	C	T	C	ATMG00050	16844	ORF131
18528	C	A	C	Intergenic		
24179	G	T	G	ATMG00070	23663	NAD9, NADH DEHYDROGENASE SUBUNIT 9
38291	C	C	T	Intergenic		
136960	C	G	C	ATMG00510	132071	NADH DEHYDROGENASE SUBUNIT 7
189636	A	A	T	Intergenic		
189637	A	A	T	Intergenic		
192055	T	T	C	Intergenic		
192056	C	C	A	Intergenic		
207568	T	G	T	ATMG00710	207553	ORF120
209160	G	G	T	Intergenic		
241974	C	C	T	Intergenic		
353877	C	A	C	Intergenic		
353878	C	A	C	Intergenic		

SUPPLEMENTAL MATERIALS

Description of RILs and growth conditions. The TSU-1 x KAS-1 mapping population was generated and distributed by John K. McKay. A seed library of this population is maintained at Colorado State University. These genotypes are made publically available through the Arabidopsis Stock Center. The association of RIL identifiers presented here, the R/qtl identification and the ARBC accession numbers can be found Supplementary Table 8.

SUPPLEMENTAL METHODS

Quantitative Genetic Model. We calculated RIL-specific breeding values as the least square mean from a mixed effect model with genotype as a fixed effect and growth chamber as the random term. We calculated the simplest form of phenotypic plasticity- the scale and center standardized difference in breeding values across experimental conditions. This was implemented in R by quantile normalizing the wet and dry breeding values, then taking the difference for each RIL. This was repeated for each phenotype.

QTL Model Selection. Breeding values for each RIL were generated as above- these served as the RIL means used in QTL mapping. QTL mapping as implemented here, due to the use of permutation test, is relatively robust to the distribution of the data. However, to be conservative, we mapped QTL for both raw breeding values and quantile-normalized values across the RIL population for each trait. The final models never differed in the number, interaction type, or chromosome of the QTLs for any trait. The QTL position moved slightly among models. Thus, the effect of normalization was very subtle and did not impact the final models. As such, we opted to conduct QTL mapping on the un-normalized phenotypes.

Prior to QTL mapping, we calculated genotype probabilities of any missing data at each marker. Furthermore, we conducted identical calculations for a set of pseduomarkers, placing these at intervals of 1cM within any gap >1cM. Pseudomarker and missing data genotype probabilities were calculated using the Kosambi map function, with an error probability of 0.01.

We generated QTL peak thresholds using permutations on the map with calculated genotype probabilities via the Haley-Knott regression (Haley and Knott, 1992; Broman 2003), assuming a normal phenotype distribution. The phenotype-covariate structure was maintained and permuted relative to a fixed genotype matrix 10,000 times for each phenotype. At each iteration, a two-way QTL scan was performed, and the peak LOD score for a set of six model comparisons was output. The distribution of these 10,000 tests provided the significance threshold and P-values for each QTL and epistatic interaction. Permutations were also performed without a covariate where the entire phenotype matrix was sampled without replacement. From these distributions we calculated three penalties, which were used to penalize the addition of a single QTL, additional QTLs and epistatic interactions in the model selection protocol (Manichaikul et al. 2009).

We ran stepwise QTL model selection using two separate models, one with cytoplasm as a covariate, and another without this term. Penalties were assigned based on the model type and phenotype. Stepwise model selection was implemented in R/qtl using a NULL starting model and screening for models with up to 12 QTL and an unlimited number of epistatic interactions. At each step in the selection procedure, both interactive and additive QTL were screened and the term that best improves the total penalized LOD score of the model was retained. Additionally, at each step the position of each QTL was refined to screen for improvements in model fit. The full, 12-QTL model was then trimmed, one term at a time, and the whole-model penalized LOD score was recalculated. The model with the highest penalized LOD score following this forwards-backwards stepwise model selection was chosen. Finally, the two models, one with and the other without a cytoplasm covariate were compared and the model with the highest penalized LOD score was retained and fixed as the QTL model for that trait for all future analyses.

We calculated several statistics from each QTL model. First, we calculated the 1.5LOD drop confidence interval (Broman and Sen 2009) for the LOD profiles, which resulted from the iterative scanning of positional effects used to refine QTL positions. Second, we fit an ANOVA to the model and calculated several statistics. The whole-model LOD, %variance, F-statistic and P-value were calculated from the full ANOVA fit to the model. QTL-specific effects were calculated by comparing nested model fits,

where the LOD, % variance, F-statistic and P-value were derived from a test of models with and without the focal QTL term. Finally, estimated effects were generated by fitting t-tests to the genotype probabilities at each QTL.

Candidate Gene Methodology. QTL models and formulae were generated through automated stepwise model selection (described above). To isolate the effects of a specific QTL in a multiple QTL model, we fit a one-way QTL scan with all model terms, but the focal QTL, as covariates.

Take the simplest case, where a 1-QTL model without any experimental covariates provides the best model fit. For a single trait QTL scan for trait *i*, we obtained a LOD score by comparing the NULL model (without a QTL term, *model 1*) to a 1-QTL model (*model 2*) (Broman and Sen 2009) with a single QTL, *g*.

model 1: NULL $y_i = \mu + \varepsilon_i$

model 2: 1-QTL $y_i = \mu + ß_g g_i + \varepsilon_i$

Following the framework of Li et al. (2006), who utilized structural equation modeling to define interactions among multiple phenotypic trait QTLs, we determined the significance of gene expression covariate as cases where using trait *x* as a covariate significantly reduces the LOD score of a QTL for trait *i*. In this case, *x* was associated with variance in trait *i* and may invoke causality. This test was accomplished by comparing the LOD score of a 1-QTL model (model 2) to a more complex model. In this case, we obtained the LOD score by comparing model 1 with the fit of a model with trait *x* as a covariate (Broman and Sen 2009)

model 3: 1 QTL, 1 Covariate $y_i = \mu + ß_x x_i + ß_g g_i + \varepsilon_i$.

LOD scores for the QTL term for each model were extracted and compared. The effect of the difference in QTL-specific LOD scores was taken as

covariate effect = $(LOD_{\text{model 2 vs. model 1}} - LOD_{\text{model 3 vs. model 1}}) / LOD_{\text{model 2 vs. model 1}}$.

Across all models, the position of QTL *g* was fixed as the QTL position best supported in our multiple QTL modeling procedure.

The effects of random covariates were normally distributed around the LOD score for a 1-QTL model without covariates (Fig. S1, black lines). Positive effects were the result of values that were un-correlated or orthogonal to the phenotypic trait values such that residual variance in the model was absorbed by the covariate term, improving the effect of the QTL term and thus the LOD score (Fig. S1, blue line). However, gene expression values that were correlated with genotypes at the QTL, absorbed variance otherwise attributed to the QTL, reducing the LOD score (Fig. S1, red line). As such, we expected genes with expression polymorphism that drove phenotypic trait variation attributable to the focal phenotype to be correlated, causing a decrease in LOD at the focal QTL.

Here, we implemented this approach for each candidate gene within the interval surrounding the QTL. To determine significance, we sampled without replacement (permuted) the gene expression vector 10,000 times. This generated a distribution around the original QTL model that permitted a test for the significance of the observed effect for each gene expression covariate. In the example presented in Figure S1, this would be performed by comparing the red, correlated line to the distribution of black dotted lines derived from permutations of the covariate data. Since we expected gene expression variation to be responsible for QTL-specific trait variation when correlated with the phenotypic trait values, and not the residuals, we defined candidate genes only as those which, when incorporated as a covariate, significantly reduced the LOD score at a focal QTL.

This approach is akin to partial correlation testing, in the framework of QTL modeling. Furthermore, the original model, here the grey “no.covar” line, can be as complex as the researcher chooses. To choose the least complex model that explains the most variation, we implemented a penalized stepwise model search as described above. Instead of rebuilding the model separately for each gene-expression covariate, we took this selected model and added, then removed the covariate and examined the LOD effect

of this term. This procedure, and 10,000 permutations, was repeated for the gene expression phenotypes of each candidate gene underneath each QTL.

It is important to note that our experimental design utilized gene expression on a 104 line subset of those RILs with phenotypic trait and genotype data. Since the accompanying reduction in power limits our ability to detect QTL, we utilized the original QTL models, but fit the covariates with the 104 line complete dataset. This permitted comparisons among models without the discrepancies caused by differential power among datasets.