

Table S5 Multi-locus mixed-model (MLMM) results from an analysis of αT , $\alpha T/\gamma T$, $\gamma T/(\gamma T+\alpha T)$, $\delta T/\alpha T$, $\delta T3/(\gamma T3+\alpha T3)$, and $\delta T3$.

Trait	SNP Added to Model	Chr	Position in RefGen_v2	P-value	extBIC	R-square_LR ^a	R-square_LR of All Three SNPs ^b
αT	ss196416269	5	200,367,532	7.12E-16	384.47	0.21	0.45
αT	S5_200369534	5	200,369,534	1.87E-14	353.57	0.19	
αT	S5_200369481	5	200,369,481	3.04E-10	338.67	0.14	
$\alpha T/\gamma T$	ss196416269	5	200,367,532	5.89E-15	-402.01	0.21	0.40
$\alpha T/\gamma T$	S5_200369534	5	200,369,534	4.08E-12	-424.67	0.17	
$\alpha T/\gamma T$	S5_200369481	5	200,369,481	1.92E-07	-427.22	0.09	
$\gamma T/(\gamma T+\alpha T)$	ss196416269	5	200,367,532	7.40E-14	-113.06	0.19	0.38
$\gamma T/(\gamma T+\alpha T)$	S5_200369481	5	200,369,481	3.25E-10	-126.83	0.14	
$\gamma T/(\gamma T+\alpha T)$	S5_200369534	5	200,369,534	2.09E-09	-138.31	0.12	
$\delta T/\alpha T$	ss196416269	5	200,367,532	2.29E-12	647.28	0.17	0.33
$\delta T/\alpha T$	S5_200369534	5	200,369,534	1.08E-08	630.30	0.11	
$\delta T/\alpha T$	S5_200369481	5	200,369,481	4.44E-07	619.70	0.09	
$\delta T3/(\gamma T3+\alpha T3)$	S5_133501858	5	133,501,858	7.16E-08	-485.87	0.10	
$\delta T3$	S5_133333561	5	133,333,561	2.04E-07	-170.44	0.09	

^aDefined as the likelihood-ratio based R^2 statistic that measures the increase in phenotypic variation explained by adding the indicated SNP into the model. Table 1

^bDefined as the likelihood-ratio based R^2 statistic that compares variation explained by the MLMM model with the three SNPs (indicated in Column A) to the intercept-only model.