

1 **Supp. Table 2: Significant Meta-GWAS SNPs**

Marker ID	IWGSC	IWGSC	POPSEQ	POPSEQ	Trait	Overall	Overall	Overall
	2.25 Chr.	2.25 bp	Chr.	cM		Effect	SE	-Log10 (pFDR)
Loci_S1_1246860	1A	1246860	1A	1.79	ALVW	-8.06	1.66	3.71
Loci_S1_245341120	1A	245341120	1A	165.46	ALVPL	-0.03	0.01	3.08
Loci_S2_2532201	1B	2532201			ALVW	-15.20	1.73	15.32
Loci_S2_247110912	1B	247110912			ALVW	-11.44	2.47	3.33
Loci_S2_258464672	1B	258464672	1B	93.52	LOFVOL	-5.84	1.23	3.51
Loci_S2_266250969	1B	266250969	1B	97.83	ALVW	9.99	1.26	12.08
Loci_S2_276759258	1B	276759258	1B	111.09	ALVPL	-0.05	0.01	5.36
Loci_S2_282749164	1B	282749164	1B	125.88	ALVPL	0.11	0.01	28.93
Loci_S2_282749164	1B	282749164	1B	125.88	LOFVOL	-6.90	1.06	7.36
Loci_S2_282801547	1B	282801547	1B	125.88	ALVPL	0.05	0.01	5.16
Loci_S3_108397610	1D	108397610	1D	73.3	ALVW	48.27	2.61	29.46
Loci_S3_108397610	1D	108397610	1D	73.3	ALVPL	0.07	0.01	4.68
Loci_S3_113356875	1D	113356875	1D	73.3	ALVW	46.16	2.57	29.46
Loci_S3_113356875	1D	113356875	1D	73.3	ALVPL	0.07	0.01	5.33
Loci_S3_134641057	1D	134641057	1D	154.66	ALVPL	-0.04	0.01	4.71
Loci_S4_253161415	2A	253161415	2A	120.3	LOFVOL	-7.04	1.49	3.50
Loci_S7_70434692	3A	70434692	3A	60.62	LOFVOL	-7.36	1.49	3.87
Loci_S8_511291591	3B	511291591			TKW	0.72	0.14	3.67

Loci_S8_652811064	3B	652811064	3B	79.46	GRNPRO	0.06	0.01	3.01
Loci_S9_50810552	3D	50810552	3D	71.95	ALVW	-7.55	1.44	4.42
Loci_S9_50810552	3D	50810552	3D	71.95	GRNPRO	-0.06	0.01	3.02
Loci_S10_201716835	4A	201716835	4A	105.75	ALVW	11.46	2.30	3.92
Loci_S10_202066152	4A	202066152	4A	107.52	ALVW	11.38	2.50	3.27
Loci_S10_203231427	4A	203231427	4A	107.52	ALVW	-11.26	2.45	3.33
Loci_S11_9212182	4B	9212182	4B	44.35	ALVPL	-0.04	0.01	4.23
Loci_S11_9212182	4B	9212182	4B	44.35	GRNPRO	-0.06	0.01	3.01
Loci_S11_9791147	4B	9791147	4B	44.35	ALVW	-14.31	2.30	6.88
Loci_S13_77029577	5A	77029577	5A	8.82	ALVW	7.99	1.63	3.76
Loci_S13_82914716	5A	82914716			ALVW	-7.06	1.57	3.20
Loci_S16_19072856	6A	19072856	6A	49.22	GRNPRO	-0.12	0.01	11.90
Loci_S16_19072856	6A	19072856	6A	49.22	LOFVOL	-7.86	1.28	6.62
Loci_S16_24998762	6A	24998762	6A	49.22	GRNPRO	-0.13	0.02	13.16
Loci_S16_24998762	6A	24998762	6A	49.22	LOFVOL	-7.70	1.40	5.15
Loci_S16_33226117	6A	33226117	6A	53.81	GRNPRO	-0.16	0.02	22.63
Loci_S16_33226117	6A	33226117	6A	53.81	LOFVOL	-9.80	1.37	8.96
Loci_S16_33226117	6A	33226117	6A	53.81	ALVW	-8.72	1.97	3.11
Loci_S16_143466155	6A	143466155	6A	60.96	GRNPRO	0.07	0.02	3.01
Loci_S16_150663555	6A	150663555	6A	63.1	LOFVOL	10.73	2.31	3.36
Loci_S16_150663555	6A	150663555	6A	63.1	GRNPRO	0.12	0.03	3.21
Loci_S17_5974923	6B	5974923	6B	22.38	ALVPL	-0.08	0.01	9.55

Loci_S17_6513799	6B	6513799	6B	22.38	ALVPL	-0.07	0.01	8.45
Loci_S17_164481606	6B	164481606	6B	78.42	GRNPRO	0.08	0.02	3.01
Loci_S18_20387611	6D	20387611	6D	77.64	TKW	0.59	0.08	10.63
Loci_S18_111388404	6D	111388404	6D	81.58	TKW	0.51	0.08	7.20
Loci_S18_111388404	6D	111388404	6D	81.58	ALVW	6.79	1.47	3.33
Loci_S19_78415889	7A	78415889			LOFVOL	-7.59	1.25	6.55
Loci_S19_101352522	7A	101352522	7A	93.26	LOFVOL	-7.64	1.25	6.62
Loci_S19_112027332	7A	112027332	7A	93.26	LOFVOL	-8.15	1.30	6.74
Loci_S20_173057509	7B	173057509	7B	79.65	ALVPL	-0.04	0.01	3.08
Loci_S20_251235369	7B	251235369	7B	172.71	ALVW	7.36	1.60	3.33
Loci_S20_251235369	7B	251235369	7B	172.71	GRNPRO	-0.06	0.01	3.01
Loci_S21_55673430	7D	55673430	7D	111.08	TKW	-0.48	0.10	3.38

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3 Marker ID is the GBS SNP name in this study. Chromosome and position are listed as identified by Bowtie 2³⁶ aligned to IWGSC
4 2.25. POPSEQ chromosome and position are from markers which aligned to the Chapman, et al.³⁷ population. Trait is the phenotypic
5 trait of interest. Significant effect and standard error of the effect are listed along with the negative log10 probability of the significant
6 marker-trait association corrected with False Discovery Rate.

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