

**S2 Table. TKW and GFD for BW parents, BP, BC and TC populations in IRRI.Y11.12.**

Populations	Cross <sup>1</sup>	BW <sup>2</sup> parents	SYN <sup>3</sup> parents	Mean GFD <sup>4</sup> (days)	Range GFD (days)	BWP GFD (days)	Increase/decrease GFD (%)	Mean TKW <sup>5</sup> (gr)	Range TKW (gr)	BWP TKW (gr)	Increase/decrease TKW (%)
68	BP	CACUKE	SYNP16	56	54-59	57	-1.8	52	41-61	54	-3.70
60	BP	CACUKE	SYNP5	58.5	57-60	57	2.6	57.8	51-63	54	7.04
78	BP	KIRITATI	SYNP24	55	55-55	52	5.8	49	49-49	50	-2.00
71	BP	KRL19	SYNP18	54.5	54-55	56	-2.7	44	44-44	41	7.32
86	BP	KRL19	SYNP36	58	58-58	56	3.6	51	51-51	41	24.39
70	BP	MILAN/S87230//BAV92	SYNP17	53.5	53-54	52	2.9	46.5	46-47	43	8.14
75	BP	MILAN/S87230//BAV92	SYNP20	52.9	49-56	52	1.7	52	44-59	43	20.93
77	BP	MILAN/S87230//BAV92	SYNP21	54.8	52-57	52	5.4	51.5	46-57	43	19.77
83	BP	MILAN/S87230//BAV92	SYNP27	51	49-54	52	-1.9	48	44-51	43	11.63
88	BP	MILAN/S87230//BAV92	SYNP39	53.3	50-57	52	2.5	50.8	43-60	43	18.14
58	BP	MILAN/S87230//BAV92	SYNP4	56	54-57	52	7.7	51	49-54	43	18.60
84	BP	MUU	SYNP34	55.5	50-60	51	8.8	53	42-62	47	12.77
67	BP	PANDORA	SYNP14	56.2	55-60	55	2.2	50.6	45-60	45	12.44
72	BP	PANDORA	SYNP18	55.8	52-59	55	1.5	46.6	46-48	45	3.56
73	BP	PANDORA	SYNP19	55.6	53-58	55	1.1	50.8	48-55	45	12.89
53	BP	PANDORA	SYNP1	53.3	50-56	55	-3.1	45.3	44-46	45	0.67
76	BP	PANDORA	SYNP21	57.3	56-61	55	4.2	55.5	50-64	45	23.33
54	BP	PANDORA	SYNP2	57	54-60	55	3.6	43.5	43-44	45	-3.33
89	BP	PANDORA	SYNP39	54.1	50-56	55	-1.6	48	45-51	45	6.67
56	BP	PANDORA	SYNP3	58	58-58	55	5.5	51	51-51	45	13.33
80	BP	PBW502	SYNP25	61	61-61	52	17.3	58	58-58	51	13.73
90	BP	PBW502	SYNP43	58	58-58	52	11.5	52	52-52	51	1.96
61	BP	PBW502	SYNP5	58	56-60	52	11.5	49	49-49	51	-3.92
82	BP	SUNCO/2*PASTOR	SYNP27	53.4	51-56	53	0.8	46	42-50	41	12.20
62	BP	SUNCO/2*PASTOR	SYNP5	56.7	56-57	53	7.0	47	43-49	41	14.63
63	BP	SW89.5181/KAUZ	SYNP6	50.3	49-52	49	2.7	46	43-48	43	6.98

<sup>1</sup>: Cross; BP: Bi-parental, BC: Back-cross, TC: Three-way cross, <sup>2</sup>: BW: Bread wheat, <sup>3</sup>: SYN; Synthetic, <sup>4</sup>: GFD; Grain filling duration, <sup>5</sup>: TKW; Thousand kernel weight.

**S2 Table. (Continue) TKW and GFD for BW parents, BP, BC and TC populations in IRRI.Y11.12.**

Populations	Cross	BW parents	SYN parents	Mean GFD (days)	Range GFD (days)	BWP GFD (days)	Increase/decrease GFD (%)	Mean TKW (gr)	Range TKW (gr)	BWP TKW (gr)	Increase/decrease TKW (%)
22	BC	CACUKE	SYNP16	57	55-59	57	0.0	55.8	50-61	54	3.33
35	BC	CACUKE	SYNP25	56.9	55-58	57	-0.2	56.6	51-62	54	4.81
48	BC	CACUKE	SYNP43	57.7	55-60	57	1.2	56.9	51-64	54	5.37
9	BC	CACUKE	SYNP5	57.5	56-59	57	0.9	57	51-65	54	5.56
16	BC	KIRITATI	SYNP11	51.7	49-53	52	-0.6	47.3	44-49	50	-5.40
34	BC	KIRITATI	SYNP24	53.5	51-55	52	2.9	52.2	47-57	50	4.40
37	BC	KIRITATI	SYNP26	52.7	50-55	52	1.3	48.5	45-53	50	-3.00
10	BC	KIRITATI	SYNP5	55.2	53-58	52	6.2	47.3	41-56	50	-5.40
94	TC	KIRITATI//PRL/2*PASTOR	SYNP44	52.1	51-54	52	0.2	44.5	40-53	54	-17.59
92	TC	KRL19	SYNP15	55	51-59	56	-1.8	43.8	42-46	41	6.83
25	BC	KRL19	SYNP18	57.1	55-59	56	2.0	45.6	42-51	41	11.22
45	BC	KRL19	SYNP36	56.9	53-60	56	1.6	45.9	43-54	41	11.95
91	TC	MILAN/AMSEL	SYNP7	53.9	49-57	52	3.7	48.6	43-55	44	10.45
24	BC	MILAN/S87230//BAV92	SYNP17	51.5	48-54	52	-1.0	46.7	42-56	43	8.60
29	BC	MILAN/S87230//BAV92	SYNP20	52.6	50-56	52	1.2	47.2	41-57	43	9.77
31	BC	MILAN/S87230//BAV92	SYNP21	53.4	50-56	52	2.7	48.8	41-57	43	13.49
33	BC	MILAN/S87230//BAV92	SYNP23	53.3	50-56	52	2.5	46.7	42-53	43	8.60
40	BC	MILAN/S87230//BAV92	SYNP27	53	49-57	52	1.9	47.2	43-55	43	9.77
47	BC	MILAN/S87230//BAV92	SYNP39	52.9	48-56	52	1.7	46.3	40-52	43	7.67
7	BC	MILAN/S87230//BAV92	SYNP4	53.8	51-57	52	3.5	47.5	42-57	43	10.47
96	TC	MINO	SYNP36	55.8	54-59	54	3.3	46.2	41-57	41	12.68
43	BC	MUU	SYNP34	52.4	51-54	51	2.7	46	41-49	47	-2.13
17	BC	PANDORA	SYNP11	55.2	54-57	55	0.4	44.8	41-51	45	-0.44
21	BC	PANDORA	SYNP14	56.1	52-60	55	2.0	49.1	42-53	45	9.11
26	BC	PANDORA	SYNP18	54.3	53-56	55	-1.3	46.6	42-51	45	3.56
27	BC	PANDORA	SYNP19	56.2	55-57	55	2.2	48.2	42-54	45	7.11
2	BC	PANDORA	SYNP1	54.3	51-57	55	-1.3	46.9	42-52	45	4.22
30	BC	PANDORA	SYNP21	55.6	54-58	55	1.1	51.7	47-59	45	14.89

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Populations	Cross	BW parents	SYN parents	Mean GFD (days)	Range GFD (days)	BWP GFD (days)	Increase/decrease GFD (%)	Mean TKW (gr)	Range TKW (gr)	BWP TKW (gr)	Increase/decrease TKW (%)
32	BC	PANDORA	SYNP23	55	53-57	55	0.0	47.7	42-51	45	6.00
38	BC	PANDORA	SYNP26	55.9	52-58	55	1.6	48	41-53	45	6.67
3	BC	PANDORA	SYNP2	56	56-56	55	1.8	44.7	42-49	45	-0.67
42	BC	PANDORA	SYNP31	55	53-56	55	0.0	50.3	44-57	45	11.78
46	BC	PANDORA	SYNP39	55.2	53-58	55	0.4	45.8	40-53	45	1.78
5	BC	PANDORA	SYNP3	56.2	54-58	55	2.2	51.4	47-59	45	14.22
36	BC	PBW502	SYNP25	59.3	58-61	52	14.0	54.5	49-60	51	6.86
49	BC	PBW502	SYNP43	59.5	57-62	52	14.4	55.8	51-61	51	9.41
11	BC	PBW502	SYNP5	58.9	57-61	52	13.3	51.7	45-65	51	1.37
39	BC	SUNCO/2*PASTOR	SYNP27	53.7	51-58	53	1.3	47.2	43-54	41	15.12
50	BC	SUNCO/2*PASTOR	SYNP43	55.3	52-59	53	4.3	47.6	43-57	41	16.10
12	BC	SUNCO/2*PASTOR	SYNP5	56.2	52-61	53	6.0	45.9	41-50	41	11.95
44	BC	SW89.5181/KAUZ	SYNP35	52.3	49-57	49	6.7	46.5	40-56	43	8.14
14	BC	SW89.5181/KAUZ	SYNP6	51.4	48-57	49	4.9	44.6	41-52	43	3.72