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Supplementary Table 1 Pairwise Duncan's Multiple Range Test (DMRT) for variety DWBR 101 to the traits

ENV	GP		FC		SL		SDW		VGI		VGII		MC	
	G ₁	G ₂	G ₁	G ₂	G ₁	G ₂	G ₁	G ₂	G ₁	G ₂	G ₁	G ₂	G ₁	G ₂
E ₁	96.68 a	85.23 ^e	94.93 ^a	82.285 ^d e	30.22 ^{abcd} e	24.43 ^d ef	0.19 ^{abc}	0.14 ^d	2922.0 ^{bc}	2081.2 ^e	17.92 ^a	11.84 ^c	11.39 ^a	14.00 ^a
E ₂	97.1 ^a	90.72 ^{bc}	93.825 ^b	90.02 ^{ab}	31.23 ^{abcd}	27.01 ^a bc	0.19 ^{abc}	0.17 ^a	3031.0 ^b	2450.3 ^b c	18.15 ^a	15.46 ^b	11.17 ^a	13.24 ^b
E ₃	97.01 a	94.83 ^a	95.22 ^a	93.27 ^a	32.76 ^a	29.59 ^a	0.19 ^a	0.18 ^a	3177.7 ^a	2806.1 ^a	18.78 ^a	16.76 ^a	11.10 ^{ab}	13.11 ^{bc}
E ₄	90.6 ^b	89.66 ^{cd}	90.0 ^{abc}	89.19 ^{abc}	31.71 ^{abc}	28.04 ^a b	0.19 ^a	0.17 ^{abc}	2875.0 ^c	2512.9 ^b	17.54 ^{ab}	15.41 ^b	10.80 ^{bc}	12.83 ^{cd}
E ₅	87.70 b	87.72 ^{cde}	86.25 ^c	85.77 ^{bcd}	30.05 ^{bcde}	28.53 ^a b	0.18 ^{abc} d	0.17 ^{ab}	2636.4 ^d	2502.5 ^b	16.00 ^{cd}	14.60 ^b	10.33 ^{de}	12.62 ^{de}
E ₆	76.51 cd	85.83 ^{de}	74.725 ^d e	83.79 ^{cde}	29.28 ^{cde}	27.17 ^a bc	0.18 ^{abc}	0.15 ^{cd}	2239.6 ^{ef}	2331.8 ^c d	14.05 ^{ef}	12.77 ^c	10.12 ^e	11.11 ^h
E ₇	95.09 a	93.83 ^{ab}	93.28 ^{ab}	91.74 ^a	32.03 ^{ab}	28.49 ^a b	0.19 ^{ab}	0.16 ^{abc}	3045.2 ^{ab}	2672.8 ^a	17.94 ^a	15.43 ^b	11.33 ^a	13.04 ^{bc}
E ₈	89.64 b	88.65 ^{cde}	88.4 ^{bc}	84.84 ^{bcd}	31.55 ^{abc}	27.67 ^a b	0.18 ^{abc} d	0.16 ^{abc}	2828.0 ^c	2453.2 ^b c	16.42 ^{ab}	14.19 ^b	11.15 ^{bc}	12.82 ^{cd}

E ₉	79.05 _c	84.735 ^e	77.45 ^d	82.85 ^{de}	30.12 ^{bcde}	26.16 ^b _{cd}	0.19 ^a	0.15 ^{bcd}	2381.0 ^e	2216.2 ^d _e	15.01 ^{de}	12.93 ^c	11.04 ^{ab}	12.40 ^e
E ₁₀	73.28 _d	77.73 ^f	71.83 ^{ef}	75.37 ^{fg}	28.66 ^{def}	24.72 ^c _{de}	0.18 ^{abc} _d	0.12 ^c	2100.8 ^f	1921.6 ^f	13.19 ^{fg}	9.49 ^d	10.65 ^{cd}	12.00 ^f
E ₁₁	68.44 _e	72.17 ^g	66.99 ^{fg}	70.90 ^{gh}	27.98 ^{efg}	23.45 ^{ef} _d	0.18 ^{abc} _d	0.11 ^f	1914.7 ^g	1691.8 ^g _h	12.10 ^{gh}	7.64 ^c	9.74 ^{fg}	10.38 ⁱ
E ₁₂	73.85 _d	79.1 ^f	71.73 ^{ef}	78.26 ^{ef}	29.58 ^{bcde}	26.44 ^b _{cd}	0.18 ^{abc} _d	0.10 ^f	2183.2 ^f	2091.4 ^e	13.35 ^f	7.59 ^c	10.34 ^{de}	12.37 ^c
E ₁₃	68.55 _e	72.78 ^g	66.38 ^{fg}	71.12 ^{gh}	27.87 ^{efg}	24.05 ^d _{ef}	0.17 ^{bcd}	0.09 ^f	1910.4 ^g	1750.3 ^g	11.74 ^h	6.70 ^c	10.24 ^c	11.99 ^f
E ₁₄	66.05 _e	70.23 ^g	63.27 ^{gh}	68.37 ^h	26.65 ^{fgh}	22.16 ^f _g	0.17 ^{cd}	0.09 ^f	1759.9 ^h	1555.9 ^h	11.22 ^{hi}	6.52 ^c	9.98 ^{ef}	11.45 ^g
E ₁₅	61.05 ^f	64.44 ^h	59.83 ^h	62.79 ⁱ	25.70 ^{gh}	20.51 ^g	0.17 ^d	0.06 ^g	1569.5 ⁱ	1321.1 ⁱ	10.12 ⁱ	4.18 ^f	9.37 ^{hi}	11.49 ^g
E ₁₆	56.45 _g	63.71 ^h	51.95 ⁱ	62.21 ⁱ	24.66 ^{hi}	20.16 ^g	0.15 ^e	0.05 ^h	1392.0 ^j	1282.4 ⁱ	8.41 ^j	3.13 ^f	9.06 ⁱ	9.84 ^{jk}
E ₁₇	55.27 _{gh}	22.5 ⁱ	52.46 ⁱ	20.5 ^j	22.54 ^{ij}	15.55 ^h	0.14 ^{ef}	0.04 ^{hi}	1245.9 ^k	350.1 ^j	7.95 ^{jk}	0.79 ^g	9.47 ^{gh}	10.46 ⁱ
E ₁₈	52.05 _h	15.5 ^j	47.38 ⁱ	15.85 ^{jk}	20.88 ^{jk}	14.58 ^h	0.13 ^f	0.03 ⁱ	1086.8 ^l	235.2 ^{jk}	6.91 ^k	0.51 ^g	9.06 ⁱ	10.13 ^{ij}
E ₁₉	35.49 ⁱ	14 ^j	17.18 ^j	13.70 ^k	19.91 ^k	11.94 ⁱ	0.10 ^g	0.02 ⁱ	706.8 ^m	169.6 ^{kl}	3.58 ^l	0.32 ^g	8.69 ^j	9.74 ^k
E ₂₀	20.21 ^j	9 ^k	18.33 ^j	6.83 ^l	9.77 ^l	6.95 ^j	0.09 ^g	0.02 ⁱ	199.6 ⁿ	62.7 ^{lm}	1.84 ^m	0.18 ^g	8.27 ^k	9.68 ^k

E ₂₁	7.67 ^k	0 ^l	4.23 ^k	0 ^m	5.72 ^m	0.00 ^k	0.04 ^h	0.00 ^j	44.2 ^o	0.0 ^m	0.30 ⁿ	0.00 ^g	8.14 ^k	8.97 ^l
E ₁ , Control; E ₂ , 30°C-6 h; E ₃ , 30°C-12 h; E ₄ , 30°C-24 h; E ₅ , 30°C-36 h; E ₆ , 30°C-48 h; E ₇ , 35°C-6 h; E ₈ , 35°C-12 h; E ₉ , 35°C-24 h; E ₁₀ , 35°C-36 h; E ₁₁ , 35°C-48 h; E ₁₂ , 40°C-6 h; E ₁₃ , 40°C-12 h; E ₁₄ , 40°C-24 h; E ₁₅ , 40°C-36 h; E ₁₆ , 40°C-48 h; E ₁₇ , 45°C-6 h; E ₁₈ , 45°C-12 h; E ₁₉ , 45°C-24 h; E ₂₀ , 45°C-36 h; E ₂₁ , 45°C-48 h; G ₁ , Fresh seed lot of DWBR 101; G ₂ , Aged seed lot of DWBR 101; GP, Germination percentage; FC, First seed count; SL, Seedling length; SDW, Seedling dry weight; VGI, Seedling vigour index I; VGII, Seedling vigour index II; and MC, Moisture content. (Means with the same letter are not significantly different).														

Supplementary Table 2 Pairwise Duncan's Multiple Range Test (DMRT) for variety DWBR 123 to the traits

[illegible]

E ₄	91.05 ^b c	90.84 ^{abc} d	90.67 ^{ab}	87.44 ^{abc}	32.69 ^{ab}	26.65 ^{ab} c	0.20 ^{bc}	0.18 ^a	2975.9 ^c	2421.2 ^{bc}	18.40 ^{bc}	16.18 ^{ab}	10.98 ^{cd} cd	13.105
E ₅	87.82 ^c	89.74 ^{bcd}	88.55 ^b	83.28 ^{bcd}	31.19 ^{bc}	26.55 ^{ab} c	0.19 ^{cde}	0.17 ^{ab}	2738.6 ^d	2382.4 ^c	17.01 ^d	15.27 ^b	10.50 ^c	12.95 ^{de}
E ₆	77.00 ^d e	86.82 ^d	76.64 ^c	81.71 ^{cd}	30.65 ^{bcd}	25.50 ^{bc} d	0.18 ^{def}	0.16 ^{bc}	2360.3 ^{ef}	2214.1 ^d	14.14 ^{ef}	13.47 ^c	10.18 ^{ef} i	11.195
E ₇	94.81 ^a b	92.89 ^{ab}	90.96 ^{ab}	90.37 ^a	33.05 ^{ab}	28.55 ^a	0.20 ^{bc}	0.17 ^{ab}	3133.6 ^b	2652.4 ^a	19.10 ^b	15.68 ^b	11.45 ^{ab}	13.06 ^d
E ₈	89.38 ^c	90.4 ^{bcd}	88.44 ^b	82.24 ^{cd}	32.43 ^{ab}	28.16 ^a	0.20 ^{bcd}	0.16 ^{ab}	2898.8 ^c	2545.2 ^{abc}	17.76 ^{bc}	14.90 ^{ab}	11.15 ^{ab} cd	12.955 cd
E ₉	79.85 ^d	87.45 ^{cd}	78.22 ^c	81.11 ^d	31.21 ^{bc}	27.77 ^{ab}	0.19 ^{cde} f	0.15 ^{cd}	2491.7 ^e	2427.9 ^{bc}	15.16 ^e	12.91 ^c	11.12 ^{bc} d	12.67 ^{ef}
E ₁₀	74.32 ^{ef}	80.52 ^e	70.84 ^d	72.81 ^e	29.66 ^{cd}	23.80 ^{de} f	0.19 ^{cde} f	0.13 ^d	2204.8 ^g	1916.6 ^e	13.74 ^f	10.60 ^d	10.84 ^d	12.10 ^g
E ₁₁	71.07 ^{fg}	71.34 ^f	68.77 ^{de}	69.48 ^{ef}	28.61 ^{de}	22.93 ^{ef}	0.18 ^{def} g	0.11 ^e	2032.8 ^h	1634.3 ^f	12.89 ^{fg}	7.97 ^{ef}	9.80 ^{gh}	10.57 ^j
E ₁₂	72.77 ^{fg}	76.84 ^e	71.34 ^d	74.34 ^e	30.65 ^{bcd}	24.83 ^{cd} e	0.19 ^{cde} f	0.11 ^e	2229.9 ^{fg}	1906.6 ^e	13.61 ^{fg}	8.49 ^e	10.42 ^c	12.43 ^f
E ₁₃	69.03 ^g h	70.72 ^f	68.44 ^{de}	69.74 ^{ef}	28.39 ^{de}	23.15 ^{de} f	0.18 ^{efg}	0.10 ^{ef}	1959.9 ^{hi}	1636.3 ^f	12.43 ^{gh}	7.02 ^{fg}	10.37 ^{ef}	12.10 ^g
E ₁₄	65.32 ^h	69.89 ^f	64.39 ^{ef}	65.39 ^{fg}	28.21 ^{de}	21.55 ^f	0.17 ^{fg}	0.09 ^{fg}	1842.7 ⁱ	1505.1 ^f	11.40 ^{hi}	6.23 ^{gh}	10.05 ^{fg}	11.53 ^h

E ₁₅	61.4 ⁱ	62.67 ^g	59.77 ^f	60.40 ^g	26.60 ^{ef}	19.06 ^g	0.17 ^{fg}	0.08 ^{gh}	1634.5 ^j	1194.0 ^g	10.72 ⁱ	5.22 ^{hi}	9.50 ^{hi}	11.59 ^h
E ₁₆	56.29 ^j	62.65 ^g	50.85 ^g	60.47 ^g	25.54 ^f	18.72 ^g	0.17 ^{gh}	0.07 ^{hi}	1437.8 ^k	1171.9 ^g	9.32 ^j	4.49 ⁱ	9.22 ^{ij}	9.965 ^{kl}
E ₁₇	53.82 ^j	35.58 ^h	50.23 ^g	17.66 ^h	23.00 ^g	16.22 ^h	0.15 ^{hi}	0.07 ^{ij}	1236.4 ^l	576.9 ^h	8.31 ^{jk}	2.33 ^j	9.56 ^{hi}	10.57 ^j
E ₁₈	49.02 ^k	21.20 ⁱ	45.33 ^g	14.58 ^h	22.11 ^g	16.32 ^h	0.15 ⁱ	0.06 ^{jk}	1083.6 ^m	345.2 ⁱ	7.18 ^k	1.18 ^k	9.16 ^j	10.28 ^{jk}
E ₁₉	31.51 ^l	14.71 ^j	31.23 ^h	15.32 ^h	19.62 ^h	9.55 ⁱ	0.13 ^j	0.05 ^k	620.3 ⁿ	141.6 ^j	4.09 ^l	0.73 ^k	8.92 ^j	9.93 ^l
E ₂₀	25.25 ^m	11.85 ^j	16.17 ⁱ	5.44 ⁱ	15.09 ⁱ	6.05 ^j	0.10 ^k	0.03 ^l	393.3 ^o	71.3 ^j	2.48 ^m	0.38 ^k	8.35 ^k	9.67 ^l
E ₂₁	15.49 ⁿ	7.39 ^k	2.83 ^j	0 ^j	5.43 ^j	3.50 ^k	0.07 ^l	0.02 ^l	78.4 ^p	26.6 ^j	1.06 ⁿ	0.16 ^k	8.31 ^k	8.85 ^m

E₁, Control; E₂, 30°C-6 h; E₃, 30°C-12 h; E₄, 30°C-24 h; E₅, 30°C-36 h; E₆, 30°C-48 h; E₇, 35°C-6 h; E₈, 35°C-12 h; E₉, 35°C-24 h; E₁₀, 35°C-36 h; E₁₁, 35°C-48 h; E₁₂, 40°C-6 h; E₁₃, 40°C-12 h; E₁₄, 40°C-24 h; E₁₅, 40°C-36 h; E₁₆, 40°C-48 h; E₁₇, 45°C-6 h; E₁₈, 45°C-12 h; E₁₉, 45°C-24 h; E₂₀, 45°C-36 h; E₂₁, 45°C-48 h; G₃, Fresh seed lot of DWBR 123; G₄, Aged seed lot of DWBR 123; GP, Germination percentage; FC, First seed count; SL, Seedling length; SDW, Seedling dry weight, VGI, Seedling vigour index I; VGII, Seedling vigour index II and MC, Moisture content. (Means with the same letter are not significantly different).

Supplementary Table 3 Pairwise Duncan's Multiple Range Test (DMRT) for the field emergence potential of the two varieties, DWRB 101 and DWRB 123

ENV	F ₁	F ₂
E ₁	80.50 ^a	79.67 ^{ab}
E ₂	74.71 ^b	75.92 ^b
E ₃	82.99 ^a	82.00 ^a
E ₄	67.17 ^c	75.22 ^b

E ₅	55.27 ^d	67.18 ^c
E ₆	49.79 ^c	56.66 ^d
E ₇	59.68 ^d	61.73 ^d
E ₈	55.11 ^d	68.67 ^c

E₁, Control; E₂, 30°C-6 h; E₃, 30°C-12 h; E₄, 30°C-24 h; E₅, 30°C-36 h; E₆, 35°C-6 h; E₇, 35°C-12 h; E₈, 35°C-24 h; F₁, Field emergence potential of DWRB 101; F₂, Field emergence potential of DWRB 123 (Means with the same letter are not significantly different).