

Supplementary data:

Table S1. Selected parameters of chlorophyll *a* fluorescence characterizing PSII efficiency in plants of Bowman and its NILs (BW084, BW312) growing under control conditions (Control), inoculated by wheat powdery mildew (*Bgt*), exposed to heat (Heat) and heat pre-treated + inoculated by wheat powdery mildew (Heat+*Bgt*). Mean values marked with the same letters did not differ significantly at $p \leq 0.05$ according to Duncan's test; DPI – days post inoculation. Heat pre-treated plants were immersed into 49 °C water for 30 s 24 h before inoculation. Measurements were carried out on 11 (3DPI) and 18 (10 DPI) days old plants.

Parameters	Treatment	3 DPI			10 DPI		
		Bowman	BW084	BW312	Bowman	BW084	BW312
Fv/F ₀	Control	4.683 ^A	4.730 ^A	4.675 ^A	3.845 ^{CD}	3.308 ^F	3.770 ^{DE}
	<i>Bgt</i>	4.703 ^A	4.702 ^A	4.730 ^A	3.612 ^E	3.332 ^F	3.022 ^G
	Heat	4.452 ^B	4.549 ^{AB}	4.569 ^{AB}	4.001 ^C	3.914 ^{CD}	3.920 ^{CD}
	Heat+ <i>Bgt</i>	4.642 ^A	4.670 ^A	4.400 ^B	2.970 ^G	3.266 ^F	3.026 ^G
ABS/RC	Control	1.950 ^K	1.975 ^K	1.993 ^K	2.308 ^{EFG}	2.479 ^{CD}	2.366 ^{EF}
	<i>Bgt</i>	1.948 ^K	1.962 ^K	2.020 ^{JK}	2.376 ^{EF}	2.400 ^{DF}	2.541 ^{BC}
	Heat	2.042 ^{JK}	2.094 ^{IJ}	2.103 ^{IJ}	2.239 ^{GH}	2.275 ^{FG}	2.326 ^{EFG}
	Heat+ <i>Bgt</i>	1.951 ^K	1.984 ^K	2.173 ^{HI}	2.554 ^{BC}	2.597 ^B	2.773 ^A
DIO/RC	Control	0.346 ^H	0.345 ^H	0.342 ^H	0.477 ^{EF}	0.568 ^C	0.486 ^E
	<i>Bgt</i>	0.342 ^H	0.343 ^H	0.353 ^H	0.526 ^D	0.547 ^{CD}	0.618 ^B
	Heat	0.378 ^{GH}	0.378 ^{GH}	0.375 ^{GH}	0.448 ^F	0.463 ^{EF}	0.477 ^{EF}
	Heat+ <i>Bgt</i>	0.347 ^H	0.352 ^H	0.405 ^G	0.615 ^B	0.617 ^B	0.703 ^A
TRo/RC	Control	1.606 ^I	1.631 ^I	1.635 ^I	1.831 ^{EF}	1.924 ^C	1.858 ^{CDE}
	<i>Bgt</i>	1.605 ^I	1.607 ^I	1.668 ^{HI}	1.862 ^{CDE}	1.846 ^{DE}	1.909 ^{CD}
	Heat	1.659 ^{HI}	1.712 ^{GH}	1.736 ^G	1.815 ^{EF}	1.811 ^{EF}	1.854 ^{DE}
	Heat+ <i>Bgt</i>	1.611 ^I	1.636 ^I	1.768 ^{FG}	2.006 ^B	1.986 ^B	2.079 ^A
ETo/RC	Control	0.928 ^{FGHI}	0.949 ^{CDEFG}	0.968 ^{BCDE}	0.924 ^{GHIJ}	1.034 ^A	0.970 ^{BCDE}
	<i>Bgt</i>	0.960 ^{BCDEF}	0.943 ^{EFGH}	0.975 ^{BC}	0.942 ^{DEFG}	0.979 ^B	1.011 ^A
	Heat	0.942 ^{EFG}	0.973 ^{BCD}	0.978 ^B	0.886 ^{KL}	0.888 ^{KL}	0.913 ^{HIJK}
	Heat+ <i>Bgt</i>	0.896 ^{JKL}	0.918 ^{GHIJ}	0.982 ^B	0.889 ^{KL}	0.877 ^L	0.915 ^{IJK}
φ _(Eo)	Control	0.579 ^{BCDE}	0.582 ^{ABCD}	0.588 ^{ABC}	0.505 ^{JK}	0.539 ^H	0.522 ^I
	<i>Bgt</i>	0.596 ^A	0.590 ^{AB}	0.585 ^{ABC}	0.507 ^J	0.531 ^{HI}	0.538 ^H
	Heat	0.569 ^{DEFG}	0.568 ^{EFG}	0.575 ^{CDEF}	0.494 ^{JKL}	0.491 ^{KL}	0.487 ^L
	Heat+ <i>Bgt</i>	0.562 ^{FG}	0.561 ^G	0.556 ^G	0.445 ^M	0.442 ^M	0.441 ^M
DIO/CSm	Control	318 ^{KL}	331 ^{IJKL}	338 ^{HIJK}	360 ^{DEFF}	376 ^{CD}	358 ^{EFG}
	<i>Bgt</i>	326 ^{JKL}	315 ^L	317 ^L	374 ^C	368 ^{CDE}	378 ^C
	Heat	341 ^{GHIJ}	328 ^{JKL}	336 ^{HIJK}	359 ^{EFG}	353 ^{EFGH}	356 ^{EFG}
	Heat+ <i>Bgt</i>	348 ^{FGHI}	328 ^{JKL}	351 ^{EFGH}	425 ^{AB}	423 ^B	440 ^A
TRo/CSm	Control	1493 ^B	1532 ^B	1480 ^B	1387 ^{CDE}	1244 ^G	1324 ^F
	<i>Bgt</i>	1538 ^B	1476 ^B	1498 ^B	1376 ^{CDEF}	1241 ^G	1207 ^G
	Heat	1504 ^B	1503 ^B	1526 ^B	1428 ^C	1402 ^{CD}	1366 ^{DEF}
	Heat+ <i>Bgt</i>	1612 ^A	1533 ^B	1536 ^B	1361 ^{DEF}	1338 ^{EF}	1352 ^{DEF}

Table S2. Selected parameters of chlorophyll *a* fluorescence characterizing PSII efficiency in plants of Delisa and its mutant 527DK growing under control conditions (Control), inoculated by barley powdery mildew (*Bh*), exposed to heat (Heat) and heat pre-treated + inoculated by barley powdery mildew (Heat+*Bh*). Mean values marked with the same letters did not differ significantly at $p \leq 0.05$ according to Duncan's test; DPI – days post inoculation. Heat pre-treated plants were immersed into 49 °C water for 30 s 24 h before inoculation. Measurements were carried out on 11 (3DPI) and 18 (10 DPI) days old plants.

Parameters	Treatment	3 DPI		10 DPI	
		Delisa	527DK	Delisa	527DK
Fv/F ₀	Control	4.444 ^{BC}	4.681 ^A	3.066 ^F	3.303 ^F
	<i>Bh</i>	4.412 ^{BCD}	4.513 ^{ABC}	3.692 ^E	3.822 ^E
	Heat	4.490 ^{ABC}	4.571 ^{AB}	3.699 ^E	3.676 ^E
	Heat+ <i>Bh</i>	4.275 ^{CD}	4.174 ^D	3.690 ^E	3.689 ^E
ABS/RC	Control	2.030 ^{EF}	2.000 ^H	2.393 ^A	2.369 ^A
	<i>Bh</i>	2.094 ^{DE}	2.059 ^{FGH}	2.194 ^{BCD}	2.172 ^{BCD}
	Heat	2.133 ^{DE}	2.020 ^{GH}	2.312 ^{AB}	2.311 ^{AB}
	Heat+ <i>Bh</i>	2.208 ^{CDE}	2.200 ^{BCDE}	2.255 ^{ABC}	2.242 ^{ABC}
DIO/RC	Control	0.380 ^{DE}	0.359 ^E	0.566 ^A	0.569 ^A
	<i>Bh</i>	0.388 ^{CDE}	0.374 ^{DE}	0.463 ^B	0.452 ^B
	Heat	0.388 ^{CDE}	0.363 ^E	0.488 ^B	0.488 ^B
	Heat+ <i>Bh</i>	0.422 ^{CD}	0.427 ^C	0.482 ^B	0.480 ^B
TRo/RC	Control	1.657 ^{EF}	1.645 ^F	1.801 ^{AB}	1.855 ^A
	<i>Bh</i>	1.706 ^{CDEF}	1.685 ^{DEF}	1.725 ^{BCDE}	1.720 ^{BCDE}
	Heat	1.733 ^{BCDEF}	1.657 ^{EF}	1.824 ^{AB}	1.823 ^{AB}
	Heat+ <i>Bh</i>	1.786 ^{BCD}	1.774 ^{ABCD}	1.773 ^{ABC}	1.762 ^{ABC}
ETo/RC	Control	1.006 ^{ABC}	0.972 ^{CDEF}	1.025 ^A	1.009 ^{ABC}
	<i>Bh</i>	0.969 ^{BCDE}	0.936 ^{FG}	0.934 ^{FG}	0.942 ^{EF}
	Heat	0.974 ^{BCDEF}	0.951 ^{DEFG}	0.928 ^G	0.857 ^H
	Heat+ <i>Bh</i>	0.994 ^{BCD}	1.021 ^{AB}	0.978 ^{BCDE}	0.944 ^{EF}
$\varphi(E_o)$	Control	0.599 ^A	0.589 ^A	0.565 ^{BC}	0.545 ^{DEF}
	<i>Bh</i>	0.569 ^B	0.560 ^{BCD}	0.538 ^{EF}	0.539 ^{DEF}
	Heat	0.574 ^B	0.562 ^{BC}	0.509 ^G	0.477 ^H
	Heat+ <i>Bh</i>	0.558 ^{BCD}	0.572 ^B	0.553 ^{CDE}	0.530 ^F
DIO/CSm	Control	318 ^{EF}	304 ^G	355 ^{ABC}	340 ^{ABCDE}
	<i>Bh</i>	309 ^{FG}	314 ^{FG}	353 ^{ABC}	336 ^{BCDEF}
	Heat	344 ^{ABCD}	322 ^{DEFG}	363 ^A	328 ^{CDEFG}
	Heat+ <i>Bh</i>	336 ^{BCDEF}	326 ^{CDEFG}	357 ^{AB}	312 ^{EF}
TRo/CSm	Control	1416 ^{BCD}	1444 ^{BC}	1094 ^{HI}	1085 ^I
	<i>Bh</i>	1377 ^{BCDE}	1419 ^{BCD}	1299 ^{FG}	1279 ^G
	Heat	1531 ^A	1461 ^{AB}	1360 ^{DEF}	1245 ^G