

Supplementary Table S1. Somatic hybrids and backcross progenies selected for the assay of drought tolerance and their resistance to late blight in detached leaf assay (DLA), in a field (Δ rAUDPC) and results of resistance genes presence by using specific molecular markers (Rakosy-Tican et al. 2020); ND – not determined yet; SH – somatic hybrid; BC – back-cross; minus values of (Δ rAUDPC) indicate resistance; DLA on a scale from 1 to 9 where 1 is the most resistant.

Name	DLA	Field resistance (Δ rAUDPC)	Resistant genes
<i>S. bulbocastanum</i>	1.0; 1.0; 1.0; 1.0	-0.124; -0.405	<i>Rpi blb1</i> and <i>blb3</i> ; <i>R3a</i> , <i>R3b</i>
<i>S. tuberosum</i> cv. Delikat	5.0; 5.4; 5.8; 4.2	0.112	None
SH 82/4	1.5; 1.1; 1.6; 1.0	-0.352	<i>Rpi blb1</i> and <i>blb3</i> ; <i>R3a</i> , <i>R3b</i>
SH 84/4	ND		
SH 84/5	ND		
SH 83/9	1.4; 1.0; 1.0; 1.8	-0.324; +0.131	<i>Rpi blb1</i> and <i>blb3</i> ; <i>R3a</i> , <i>R3b</i>
SH 94/5	1.8; 1.8; 2.0	+0.098; +0.235	<i>Rpi blb1</i>
SH 95/1	1.2; 1.8; 2.8	+0.084	<i>Rpi blb1</i> and <i>blb3</i> ; <i>R3a</i> , <i>R3b</i>
SH 99/2	1.1; 1.0; 1.0; 1.4	-0.293; -0.087; +0.023	<i>Rpi blb1</i> and <i>blb3</i> ;
BC₁ 82/4/4	2.2; 1.0	ND	<i>Rpi blb1</i>
BC₁ 82/4/68	1.8; 1.4; 3.2; 5.4	-0.145	<i>Rpi blb1</i> and <i>blb3</i> ; <i>R3a</i>
BC₁ 83/9/3	1.6; 1.6; 1.0	+0.223	<i>Rpi-blb1</i> , <i>R3a</i> , <i>R3b</i>
BC₁ 83/9/27	ND	ND	<i>Rpi-blb1</i>
BC₁ 83/9/63	2.4; 1.6; 1.6	-0.103	<i>Rpi-blb1</i> and <i>blb3</i> ; <i>R3a</i> , <i>R3b</i>
BC₁ 83/9/64	ND	ND	<i>Rpi-blb3</i>
BC₁ 94/5/5	3.6; 2.2; 3.6; 4.6	ND	ND
BC₁ 95/1/7	1.4	+0.045	<i>Rpi blb1</i> and <i>blb3</i> ; <i>R3a</i> , <i>R3b</i>
BC₂ 82/4/68/22	1.2; 1.6; 2.6; 3.0	ND	<i>Rpi blb1</i>
BC₂ 95/1/4/11	1.4; 1.0; 2.2; 1.0	-0.138	<i>R3a</i> , <i>R3b</i>
BC₂ 95/1/4/59	1.8; 1.4; 1.0; 2.6	+0.147	<i>Rpi blb1</i> , <i>R3a</i> , <i>R3b</i>