N. Peymani, A.R. Golparvar, M. Nasr-Esfahani, E. Mahmmodi, M. Shams (2022). Candidate marker genes and enzymes for selection of potato with resistance to early blight, caused by *Alternaria alternata*. *Phytopathologia Mediterranea* 61(1): 11-26. doi: 10.36253/phyto-12852

Supplementary Table 1. Sequences of gene-specific primers used in qPCR experiment, including; gene, Sequence primer, GC% annealing temperature, PCR product length, accession number, reference.

Gene[a]		Sequence primer (5'……3')	GC%	Annealing temperature (°C)	PCR product length (bp)	Accession number	Reference
PR-2	F	GTGAAGCTGGTTTGGGAAATG	47.62	57	64	U01902.1	Arseneault *et al*., 2014
	R	TTGCCAATCAACGTCATGTCTAC	43.48				
ChtA	F	TTCTGGATGACAGCACAGGATAA	43.48	57	65	U49970.1	Arseneault *et al*., 2014
	R	GGCGTCCATTGCCCAAT	58.82				
PR-5	F	GGAGGCAGACGACTCGACTT	60	58	64	AY737317.1	Arseneault *et al*., 2014
	R	CCATGGTTGTTCCTGGATTCA	47.62				
PR-1b	F	GGCATCCCGAGCACAAAAT	52.63	57	68	AY050221	Arseneault *et al*., 2014
	R	CTGCACCGGAATGAATCAAGT	47.62				
PIN2	F	ATGAGCCCAAGGCAAATATGTAC	59.11	57	64	X04118.1	Arseneault *et al*., 2014
	R	GCCAATCCAGAAGATGGACAA	58.27				
ERF3	F	GTGTTGACGTGAAACCAACCAT	45.45	57	60	EF091875.1	Arseneault *et al*., 2014
	R	CCGGTGGAGGAAAGTTAAGGT	52.38				
PAL	F	GGTCACTGCCTCGGGTGAT	63.16	60	61	X63104	Arseneault *et al*., 2014
	R	CCTGCCAGTGAGCAAACCA	60.53				
LOX	F	CAGATCAGGCCCCGTTAATG	58.40	58	66	Y18548.1	Arseneault *et al*., 2014
	R	CCTGTAAGTCCACCTTCACTTGTTG	61.71				
ef1-α	F	ACTGGTGGTTTTGAAGCTGG	50	57	405	JX576282	Gangadhar *et al*., 2016
	R	ACGACCAACAGGGACAGTT	52.63				

[a] F: forward, R: reverse, *PR-2* (pathogenesis-related protein 2), *ChtA* (acidic endochitinase), *PR-5* (pathogenesis-related protein 5), PR-*1b* (pathogenesis-related protein 1b), *PIN2* (proteinase inhibitor II), *ERF3* (ethylene-responsive transcription factor 3), *PAL* (phenylalanine ammonia-lyase) and *LOX* (lipoxygenase) and *ef1-α* (the elongation factor 1-alpha, a housekeeping gene).

Supplementary Table 2. Analysis of variance of biomass parameter and comparison of the mean individual effect of inoculation treatment and genotype on biomass parameter in inoculated resistant and susceptible potato genotypes as compared to controls, non-inoculated ones to leaf spot disease, *Alternaria alternata*.

Sources of variation	df	RFW[a]	RDW	SFW	SDW	SD	RD	SL	RL	RV	LL
Inoculation treatment (I)	1	121.5**	5.24**	25406.8**	853.2**	53.66**	40.94*	295.3**	213.7**	521.0**	1.54*
Genotype (G)	5	22.4**	0.78**	3939.4**	147.2**	17.89**	11.83**	471.0**	92.3**	82.0**	2.23**
Interaction I×G	5	3.4^{ns}	0.13^{ns}	496.4**	3.5^{ns}	0.13^{ns}	0.35^{ns}	11.3^{ns}	4.3^{ns}	19.9^{ns}	0.13^{ns}
Error	60	1.6	0.06	24.5	5.9	2.95	2.49	39.3	19.2	9.2	0.25
Coefficient of Variation %		17	14.6	6.5	19.1	17.8	15.9	17.2	20.6	17.6	11.9
Inoculation treatment		RFW	RDW	SFW	SDW	SD	RD	SL	RL	RV	LL
Non-infected		8.987[a]	1.961[a]	96.37[a]	16.49[a]	10.58[a]	10.74[a]	38.76[a]	23.18[a]	20.16[a]	4.35[a]
Infected		6.132[b]	1.370[b]	55.21[b]	8.95[b]	8.69[b]	9.09[b]	34.32[b]	19.40[b]	14.27[b]	4.03[b]
Statistical level		1%	1%	1%	1%	1%	1%	1%	1%	1%	5%
Genotype		RFW	RDW	SFW	SDW	SD	RD	SL	RL	RV	LL
Resistant		8.454[a]	1.849[a]	90.24[a]	15.31[a]	10.42[a]	10.85[a]	36.98[a]	23.31[a]	19.07[a]	4.32[a]
Susceptible		6.656[b]	1.483[b]	61.34[b]	10.13[b]	8.85[b]	8.97[b]	36.10[a]	19.28[b]	15.36[b]	4.06[a]
Statistical level		1%	1%	1%	1%	1%	1%	5%	1%	1%	5%

ns, *, ** not significant or significant at 5 or 1% probability level. [a] RFW = Root fresh weight, Root Dry Weight (RDW), Stem Fresh Weight (SFW), Stem Dry Weight (SDW), Stem Diameter (SD), Root Diameter (RD), Stem Length (SL), Root Length (RL), Root Volume (RV) and Leaf length (LL). Means in each column having same letter are not significantly different according to Fisher's LSD test ($P \leq 0.05$).