

Table S1. Origin of the different accessions evaluated in the experiments under controlled conditions for their response to infection by powdery mildew. IFAPA: Instituto Andaluz de Investigación y Formación Agraria, Pesquera, Alimentaria y de la Producción Ecológica (Spain). ICARDA: International Center for Agricultural Research in the Dry Areas (Lebanon).

Accession	Origin
095-1	IFAPA
132-1	ICARDA
135-1	ICARDA
158-1	ICARDA
Alameda	Commercial cv.
Arrechana	Commercial cv.
Borjana	Commercial cv.
BPL 261	ICARDA
BPL 710	ICARDA
Brocal	Commercial cv.
Claro de Luna	Commercial cv.
CORE 1067	IFAPA
ILB 365	ICARDA
ILB-4708	ICARDA
ILB-5284	ICARDA
Joya	Commercial cv.
Messire	Commercial cv.
Protabón	Commercial cv.
Prothabat	Commercial cv.
Quijote	Commercial cv.
V-1250	IFAPA
V-274	IFAPA
V-377	IFAPA
V-404	IFAPA
V-441	IFAPA
V-513	IFAPA
V-977	IFAPA

Table S2. Original dataset of corrected severity for the first experiment under controlled conditions for the evaluation of 19 accessions of faba bean and 1 of pea to infection by powdery mildew.

Accession	Replication	Corrected severity
095-1	1	14.00
095-1	2	5.33
095-1	3	8.33
132-1	1	7.00
132-1	2	9.67
132-1	3	8.67
135-1	1	13.00
135-1	2	5.67
135-1	3	6.67
BPL-261	1	11.00
BPL-261	2	3.33
BPL-261	3	10.00
BPL-710	1	0.67
BPL-710	2	2.33
BPL-710	3	2.67
BROCAL	1	29.00
BROCAL	2	17.33
BROCAL	3	36.67
CORE 1067	1	35.00
CORE 1067	2	38.67
CORE 1067	3	26.67
158-1	1	6.33
158-1	2	7.67
158-1	3	3.00
ILB-365	1	23.33
ILB-365	2	27.33
ILB-365	3	31.67
ILB-4708	1	13.33
ILB-4708	2	5.33
ILB-4708	3	17.33
ILB-5284	1	4.33
ILB-5284	2	2.67
ILB-5284	3	2.33
Messire	2	66.33
Messire	3	65.00
Messire	1	63.33
V-1250	1	59.33
V-1250	2	35.33
V-1250	3	7.67
V-274	1	23.67
V-274	1	26.33
V-274	2	23.67
V-377	1	38.33
V-377	2	32.00
V-377	3	32.67
V-404	1	31.67
V-404	2	66.67
V-439	1	16.33
V-439	2	17.67
V-439	3	28.67
V-441	1	30.67
V-441	2	26.33
V-441	3	18.00
V-513	1	35.33
V-513	2	32.67
V-977	1	30.00
V-977	2	50.33
V-977	3	23,33

Table S3. Original dataset of corrected severity for the second experiment under controlled conditions for the evaluation of 18 accessions of faba bean to infection by powdery mildew.

Accession	Replication	Corrected severity
132-1	1	27.25
132-1	2	34.40
135-1	1	24.21
135-1	2	38.82
135-1	3	8.75
158-1	1	27.25
158-1	2	18.13
158-1	3	22.93
Alameda	1	45.50
Alameda	2	50.19
Alameda	3	29.69
Arrechana	1	9.75
Arrechana	2	9.00
Arrechana	3	21.05
Borjana	1	16.14
Borjana	2	20.94
Borjana	3	19.66
BPL-710	1	7.29
BPL-710	2	8.83
BPL-710	3	8.75
Brocal	1	56.29
Brocal	2	29.13
Brocal	3	45.58
Claro de Luna	1	18.75
Claro de Luna	2	29.17
Claro de Luna	3	35.64
ILB-4708	1	8.67
ILB-4708	3	9.00
Joya	1	31.14
Joya	2	39.25
Joya	3	27.67
Protabón	1	22.75
Protabón	2	13.19
Protabón	3	22.57
Prothabat	1	24.71
Prothabat	2	50.86
Prothabat	3	20.19
Quijote	1	47.71
Quijote	2	66.17
Quijote	3	54.18
V-1250	1	30.83
V-1250	2	33.64
V-404	1	61.50
V-404	2	55.69
V-404	3	32.57
V-977	1	32.64
V-977	2	23.57
V-977	3	20.19