

Supplementary Materials

Table S1. Response to Ascochyta bligh (Disease Severity, %) of the studied faba bean lines in the various environments.

Accessions	Cord11	Cord12	Cord13	Esc11	Esc12	Esc13	Mean	SE
Faraon	30.0	0.0	0.0	10.0	0.0	0.0	6.7	3.0
FaraonSCFB	36.7	0.0	0.0	0.0	0.0	0.0	6.1	3.3
FaraonSC	30.0	0.0	0.0	0.0	0.0	0.0	5.0	2.7
151-4	3.3	0.0	0.0	16.7	0.0	0.0	3.3	1.6
Baraca	10.0	0.0	0.0	1.7	0.0	0.0	1.9	1.2
Brocal	8.3	0.0	0.0	1.7	0.0	0.0	1.7	0.8
Navio3	6.7	0.0	0.0	0.0	0.0	0.0	1.1	1.1
Navio2	1.7	0.0	0.0	0.0	0.0	0.0	0.3	0.3
Navio	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Navio4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Navio6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Navio7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prothabon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Quijote	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Zoco	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean	8.4	0.0	0.0	2.0	0.0	0.0	1.7	0.4
SE	1.9	0.0	0.0	0.9	0.0	0.0		

Table S2. Response to chocolate spot (Disease Severity, %) of the studied faba bean lines in the various environments.

Accessions	Cord11	Cord12	Cord13	Esc11	Esc12	Esc13	Mean	SE
FaraonSCFB	0.0	0.0	0.0	30.0	0.0	70.0	16.7	6.4
Faraon	0.0	0.0	0.0	26.7	0.0	63.3	15.0	6.1
FaraonSC	0.0	0.0	0.0	26.7	0.0	60.0	14.4	5.5
Quijote	13.7	0.0	0.0	18.3	0.0	53.3	14.2	4.7
Navio3	13.3	0.0	0.0	10.0	0.0	50.0	12.2	4.5
Navio2	3.3	0.0	0.0	11.7	0.0	56.7	11.9	5.0
Navio7	8.3	0.0	0.0	6.7	0.0	46.7	10.3	4.1
Navio	11.7	0.0	0.0	5.0	0.0	43.3	10.0	4.0
Navio6	2.3	0.0	0.0	6.7	0.0	50.0	9.8	4.5
Zoco	0.0	0.0	0.0	0.0	0.0	56.7	9.4	5.3
Brocal	0.0	0.0	0.0	3.3	0.0	53.3	9.4	4.9
Baraca	0.0	0.0	0.0	10.0	0.0	45.3	9.2	4.2
Navio4	5.3	0.0	0.0	8.7	0.0	40.0	9.0	3.7
Prothabon	0.0	0.0	0.0	0.0	0.0	53.3	8.9	5.0
151-4	0.0	0.0	0.0	1.7	0.0	46.7	8.1	4.3
Mean	3.9	0.0	0.0	11.0	0.0	52.6	11.2	1.2
SE	0.9	0.0	0.0	1.7	0.0	1.8		

Table S3. Multitrait stability index.

Genotype	MTSI
Quijote	0.4749
Navio6	0.4805
Baraca	0.4944
FaraonSC	0.5824
Navio	0.7214
FaraonSCFB	0.8609
Navio3	0.9099
Navio7	0.9134
Navio4	0.9715
Faraon	1.103
151-4	1.194
Navio2	1.282
Prothabon	2.675
Brocal	2.982
Zoco	3.704

Cut point in red for genotypes selected, considering a selection intensity of 25%.

Table S4. Scores factor analysis for genotypes-ideotypes.

Genotype	FA1
151-4	2.672
Baraca	3.371
Brocal	0.884
FaraonSC	3.283
FaraonSCFB	3.005
Faraon	2.762
Navio	3.144
Navio2	2.584
Navio3	2.956
Navio4	2.894
Navio6	3.385
Navio7	2.952
Prothabon	1.190
Quijote	3.391
Zoco	0.161
<i>Ideotipe</i>	3.866

Table S5. Selection differentials for the WAASBY scores of the traits. Estimates of the original mean (XO), mean of the selected genotypes (XS), selection differential (SD) and percent of selection differential (SD%) based on 15 faba bean genotypes in six environments.

Trait	XO	XS	SD	SD(%)
Grain yield	64.73	86.71	21.98	33.95
Broomrape infection	37.62	23.50	-14.12	-37.52

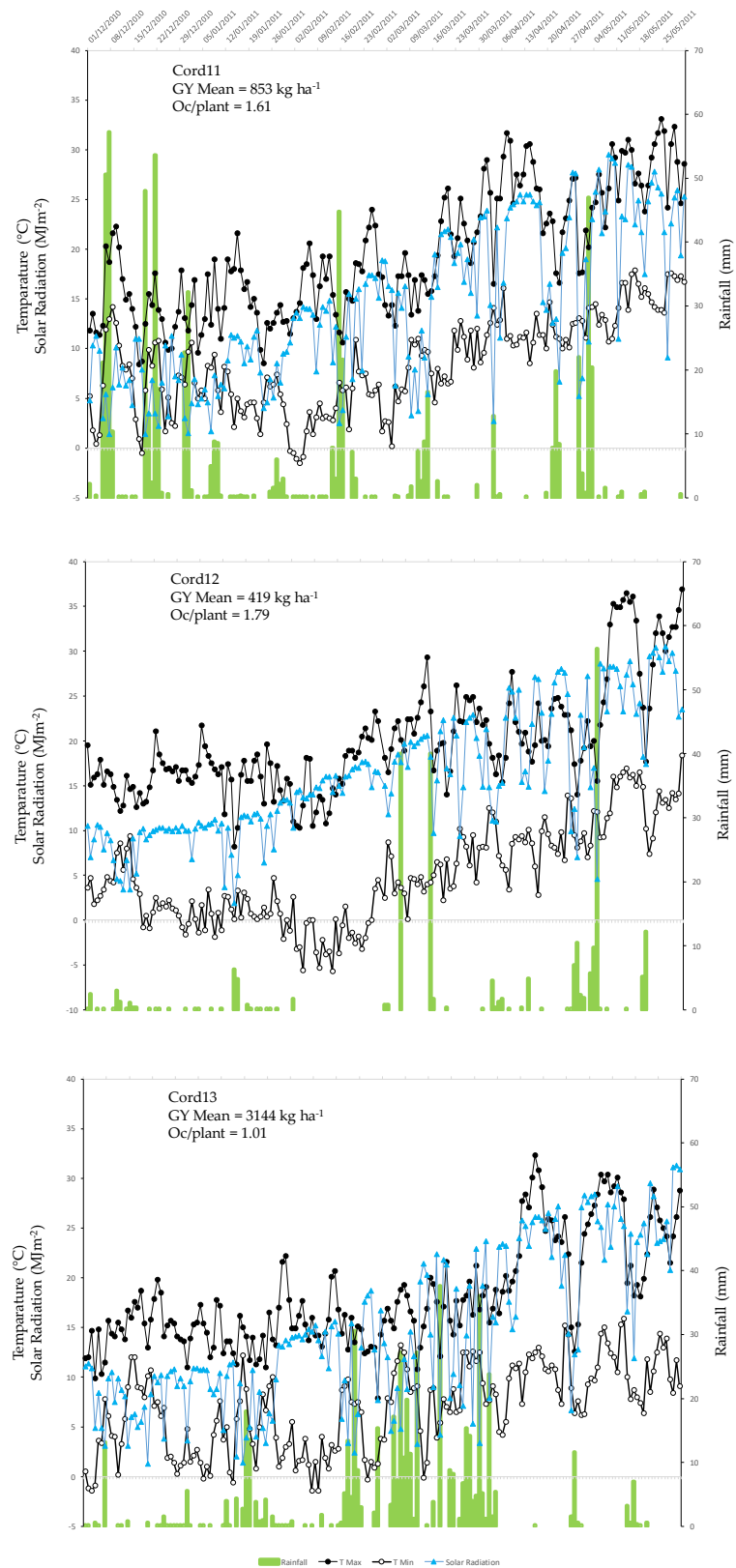


Figure S1. Rainfall, air temperature (Tmin and Tmax), and solar radiation distribution during the three experimental years at Córdoba.

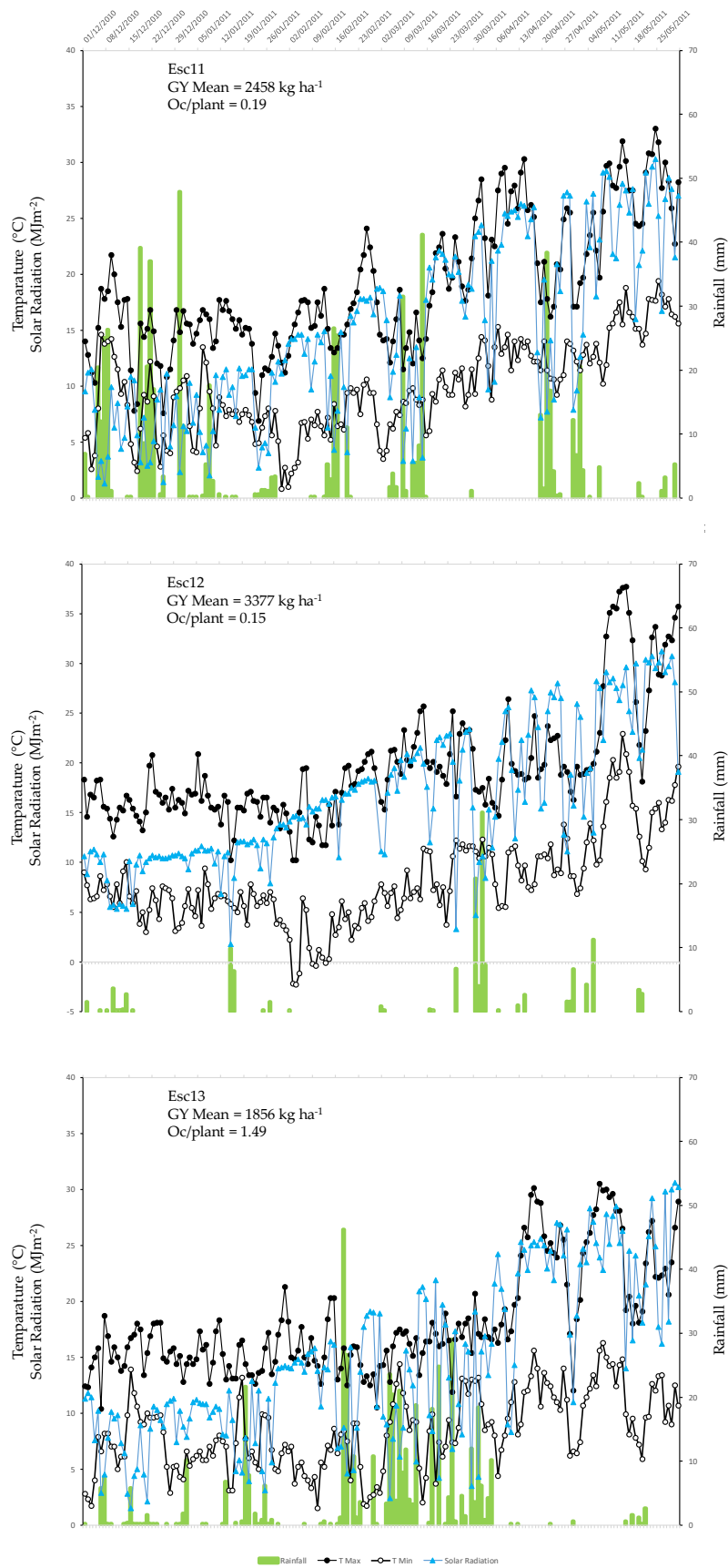


Figure S2. Rainfall, air temperature (Tmin and Tmax), and solar radiation distribution during the three experimental years at Escacena.