

Supplementary Figures

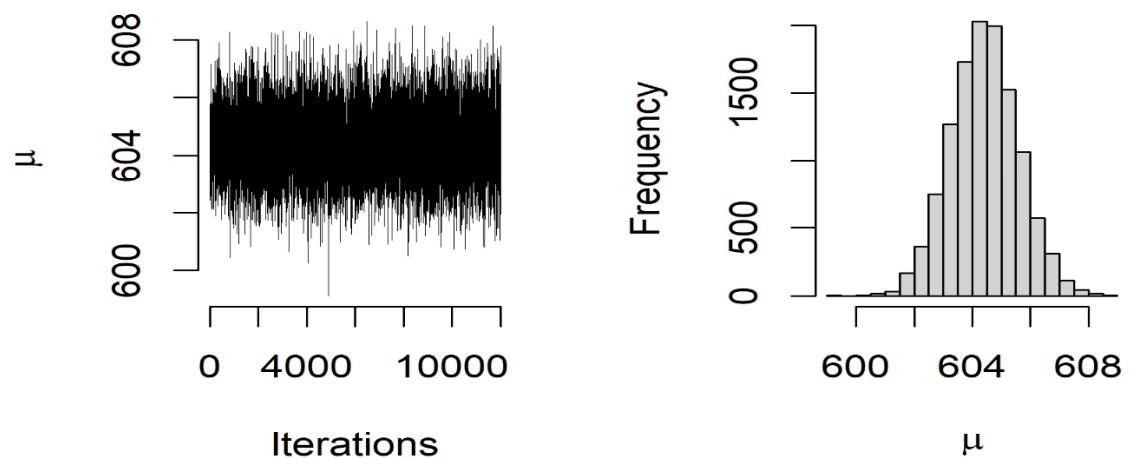


Figure S1. Trace and histogram of the overall mean (μ) obtained from the Bayesian-AMMI model for a chickpea yield dataset comprised of 36 genotypes evaluated in 12 environments in Pakistan.

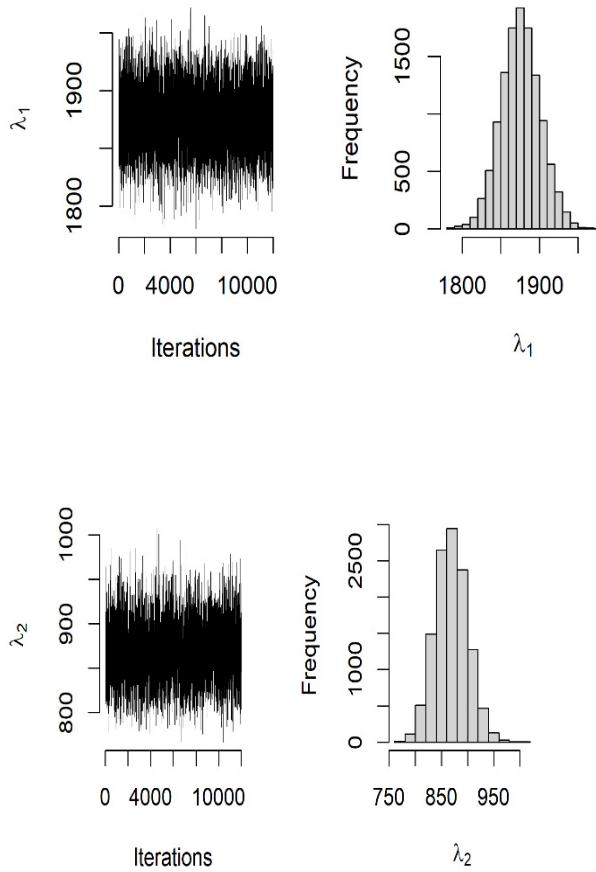


Figure S2. Traces and histograms of values of the first and second singular values (λ_1 and λ_2) obtained from the Bayesian-AMMI model for a chickpea yield data set comprised of 36 genotypes evaluated in 12 environments in Pakistan.

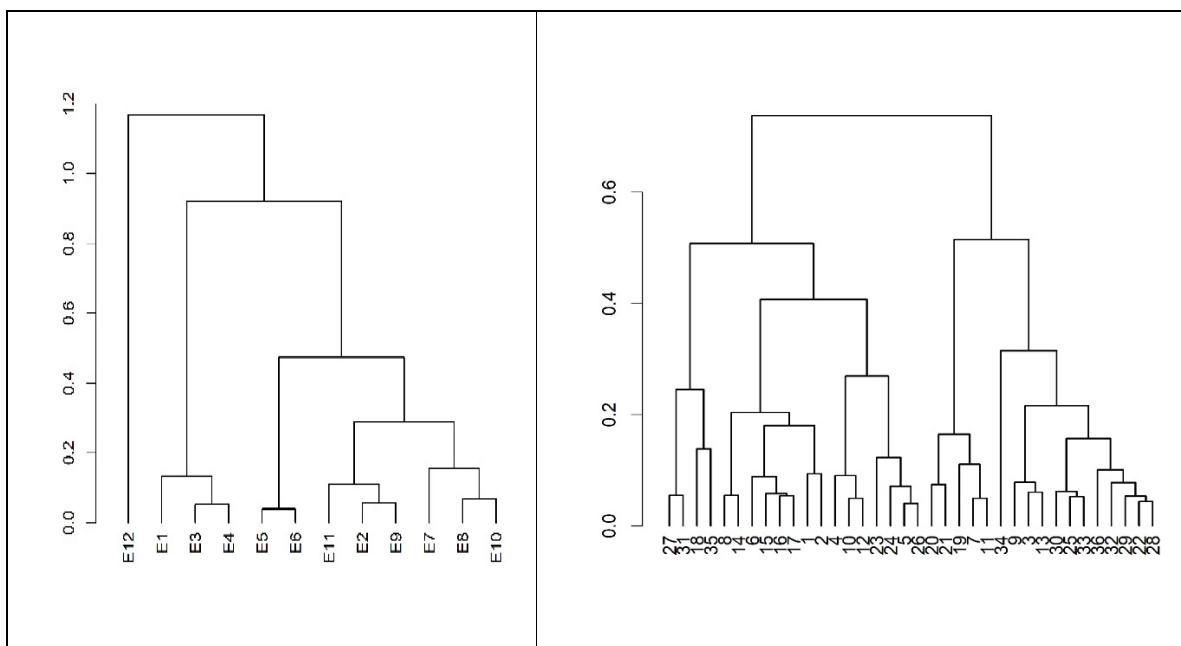


Figure S3. Clustering of genotypes and environments based on the interaction parameters derived from the Bayesian-AMMI model for a chickpea

yield dataset comprised of 36 genotypes observed in 12 environments in Pakistan.

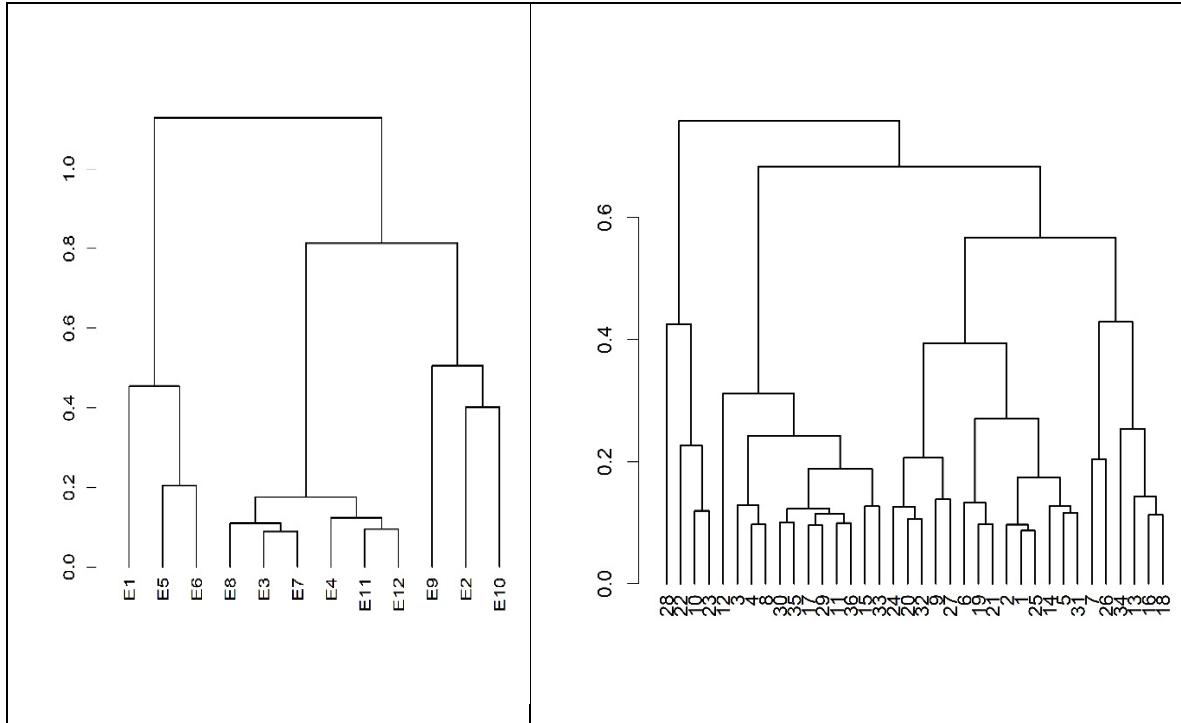


Figure S4. Clustering of genotypes and environments based on the interaction parameters derived from the Bayesian-AMMI model for a chickpea DTE dataset comprised of 36 genotypes observed in 12 environments in Pakistan.

Supplementary Tables

Table S1. Mean of the marginal posterior effects, and their corresponding standard deviations (SDs), and 95% highest posterior density HPD regions for the overall mean (μ), dispersion parameter (σ^2_e), genotypic effects (τ_i), environmental effects (δ_j) derived of the Bayesian-AMMI model for DTE of a chickpea dataset comprised of 36 genotypes observed in 12 environments.

Parameter	Mean	SD	Lower HPD	Upper HPD	Parameter	Mean	SD	Lower HPD	Upper HPD
μ	15.36	0.02	15.33	15.39	τ_{24}	-0.31	0.31	-0.90	0.31
σ^2_e	0.37	0.03	0.32	0.42	τ_{25}	-0.22	0.32	-0.82	0.41
τ_1	-0.89	0.31	-1.51	-0.29	τ_{26}	-0.36	0.32	-0.99	0.25
τ_2	-1.20	0.32	-1.84	-0.60	τ_{27}	1.05	0.32	0.45	1.67
τ_3	-0.11	0.31	-0.74	0.47	τ_{28}	-0.28	0.32	-0.91	0.31
τ_4	0.50	0.31	-0.13	1.07	τ_{29}	0.03	0.32	-0.57	0.64
τ_5	-0.45	0.32	-1.08	0.16	τ_{30}	1.27	0.32	0.62	1.86
τ_6	-0.11	0.31	-0.75	0.48	τ_{31}	0.72	0.32	0.11	1.35
τ_7	-0.25	0.32	-0.87	0.38	τ_{32}	1.18	0.32	0.53	1.79
τ_8	0.22	0.31	-0.37	0.85	τ_{33}	-0.01	0.31	-0.61	0.59
τ_9	-0.28	0.32	-0.90	0.33	τ_{34}	-0.28	0.32	-0.88	0.35
τ_{10}	0.30	0.32	-0.29	0.95	τ_{35}	-0.25	0.31	-0.84	0.36
τ_{11}	0.03	0.32	-0.58	0.66	τ_{36}	-0.11	0.32	-0.71	0.53
τ_{12}	-0.84	0.32	-1.42	-0.19	δ_1	-2.86	0.31	-3.49	-2.27

τ_{13}	-0.56	0.31	-1.18	0.03	δ_2	11.93	0.30	11.34	12.52
τ_{14}	-0.03	0.31	-0.64	0.57	δ_3	-5.22	0.30	-5.80	-4.59
τ_{15}	-0.42	0.31	-1.04	0.18	δ_4	4.40	0.31	3.79	5.01
τ_{16}	-0.48	0.32	-1.08	0.12	δ_5	-5.19	0.31	-5.81	-4.61
τ_{17}	-0.14	0.32	-0.77	0.46	δ_6	5.01	0.30	4.41	5.62
τ_{18}	-0.31	0.32	-0.93	0.29	δ_7	-4.24	0.31	-4.80	-3.62
τ_{19}	0.19	0.32	-0.46	0.77	δ_8	5.65	0.31	5.06	6.25
τ_{20}	0.50	0.31	-0.11	1.11	δ_9	-6.72	0.31	-7.31	-6.10
τ_{21}	0.72	0.31	0.12	1.34	δ_{10}	-2.65	0.31	-3.25	-2.07
τ_{22}	0.53	0.31	-0.07	1.14	δ_{11}	-4.81	0.30	-5.42	-4.23
τ_{23}	0.67	0.31	0.06	1.28	δ_{12}	4.68	0.30	4.08	5.28