Supplementary Material

The impact of drought on the productivity of two rainfed crops in Spain

Marina Peña-Gallardo[1], Sergio Martín Vicente-Serrano[1], Fernando Domínguez-Castro[1], Santiago Beguería[2]

[1] Instituto Pirenaico de Ecología, Consejo Superior de Investigaciones Científicas (IPE-CSIC), Zaragoza, Spain.

[2] Estación Experimental de Aula Dei, Consejo Superior de Investigaciones Científicas (EEAD-CSIC), Zaragoza, Spain.

Supplementary Table 1. Relationship between provincial and agricultural district data, aggregated at the provincial scale, for wheat cultivation for the common period 1993–2014.

Codes	Provinces	r	Codes	Provinces	r
1	**Álava**	0.16	**23**	**Jaén**	0.38*
2	**Albacete**	0.41*	**24**	**León**	0.69*
3	**Alicante**	0.1	**25**	**Lleida**	0.52*
4	**Almería**	0.47*	**26**	**La Rioja**	0.35*
5	**Ávila**	0.77*	**28**	**Madrid**	0.81*
6	**Badajoz**	0.49*	**29**	**Málaga**	0.11
7	**Islas Baleares**	-0.22	**30**	**Murcia**	0.13
8	**Barcelona**	0.69*	**31**	**Navarra**	-0.25
9	**Burgos**	0.82*	**32**	**Ourense**	0.37*
10	**Cáceres**	0.34*	**33**	**Asturias**	-0.16
11	**Cádiz**	0.32*	**34**	**Palencia**	0.73*
12	**Castellón**	-0.19	**37**	**Salamanca**	0.87*
13	**Ciudad Real**	0.43*	**40**	**Segovia**	0.94*
14	**Córdoba**	0.46*	**41**	**Sevilla**	0.25
15	**A Coruña**	0.1	**42**	**Soria**	0.89*
16	**Cuenca**	0.86*	**43**	**Tarragona**	0.54*
17	**Girona**	0.1	**44**	**Teruel**	0.83*

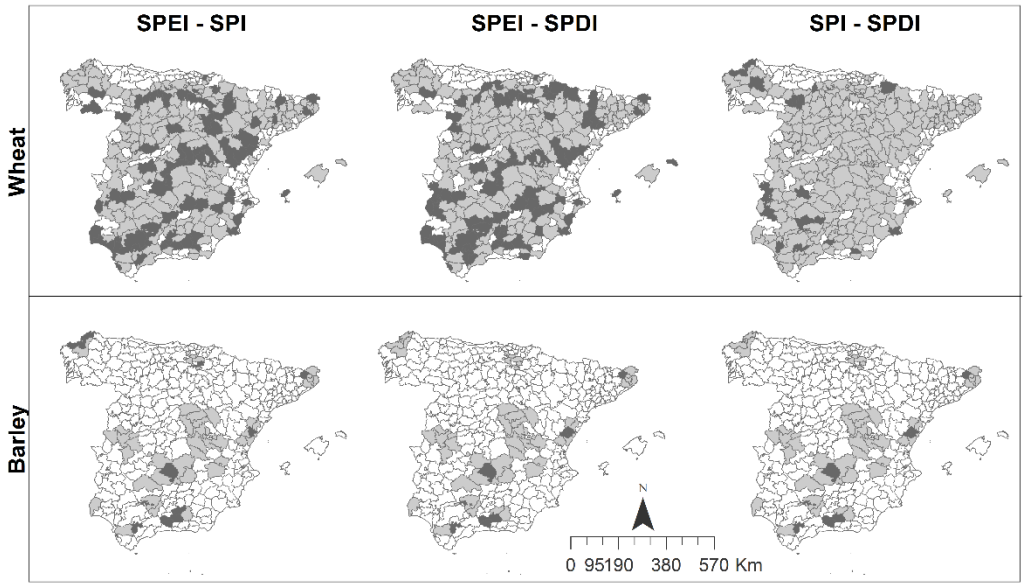
18	**Granada**	0.3	**45**	**Toledo**	0.48*****
19	**Guadalajara**	0.87*	**46**	**Valencia**	0.2
21	**Huelva**	0.29	**47**	**Valladolid**	0.92*****
22	**Huesca**	0.4*****	**49**	**Zamora**	0.75*****
			50	**Zaragoza**	0.51*****

(*****) correlations are significant at $p < 0.05$

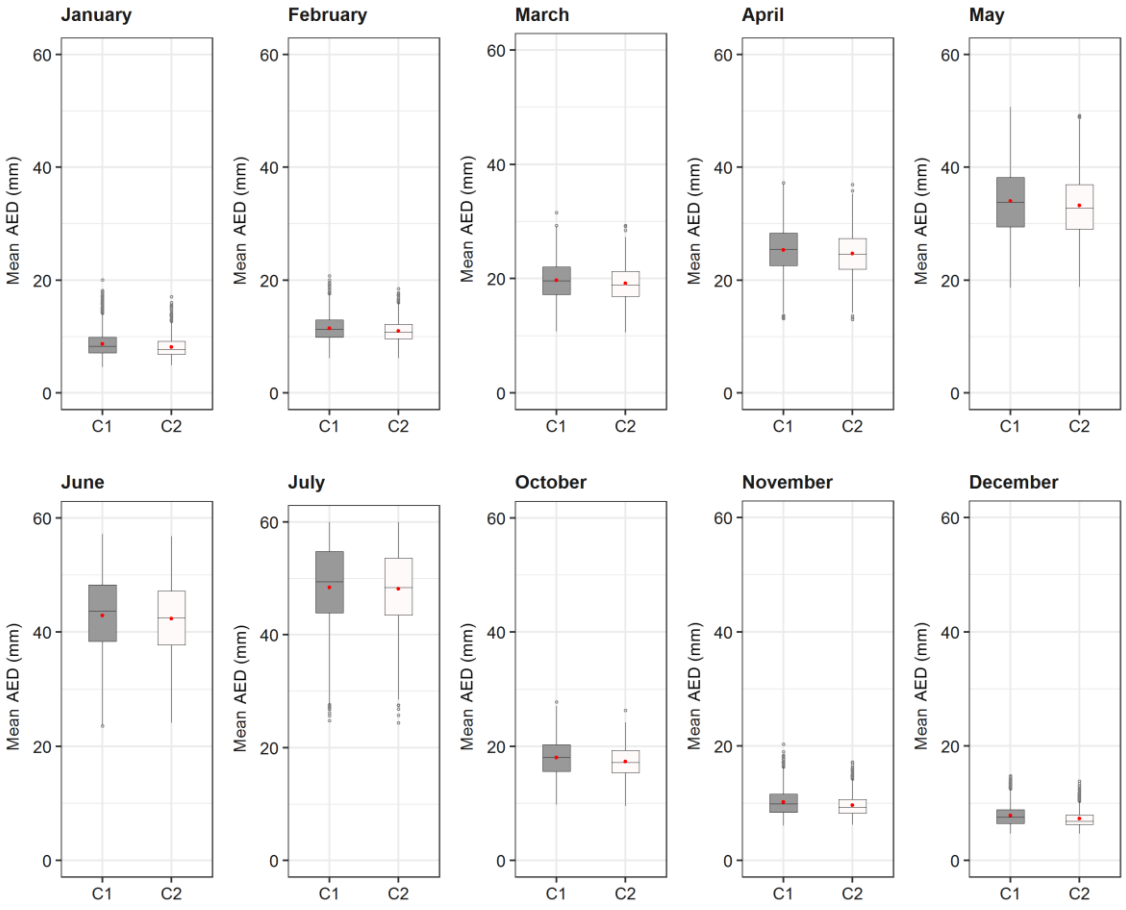
Supplementary Table 2. Relationship between provincial and agricultural district data, aggregated at provincial scale, for barley cultivation for the common period 1993–2014.

Codes	Provinces	r
1	**Álava**	0.11
2	**Albacete**	0.2
10	**Cáceres**	0.48*****
11	**Cádiz**	0.32*****
12	**Castellón**	-0.14
13	**Ciudad Real**	0.28
14	**Córdoba**	0.54*****
15	**A Coruña**	-0.09
16	**Cuenca**	0.88*****
17	**Girona**	0.08
18	**Granada**	0.51*****
19	**Guadalajara**	0.86*****
22	**Huelva**	0.57*****
26	**La Rioja**	0.76*****
31	**Navarra**	0.01
41	**Sevilla**	-0.35*****
43	**Tarragona**	0.88*****

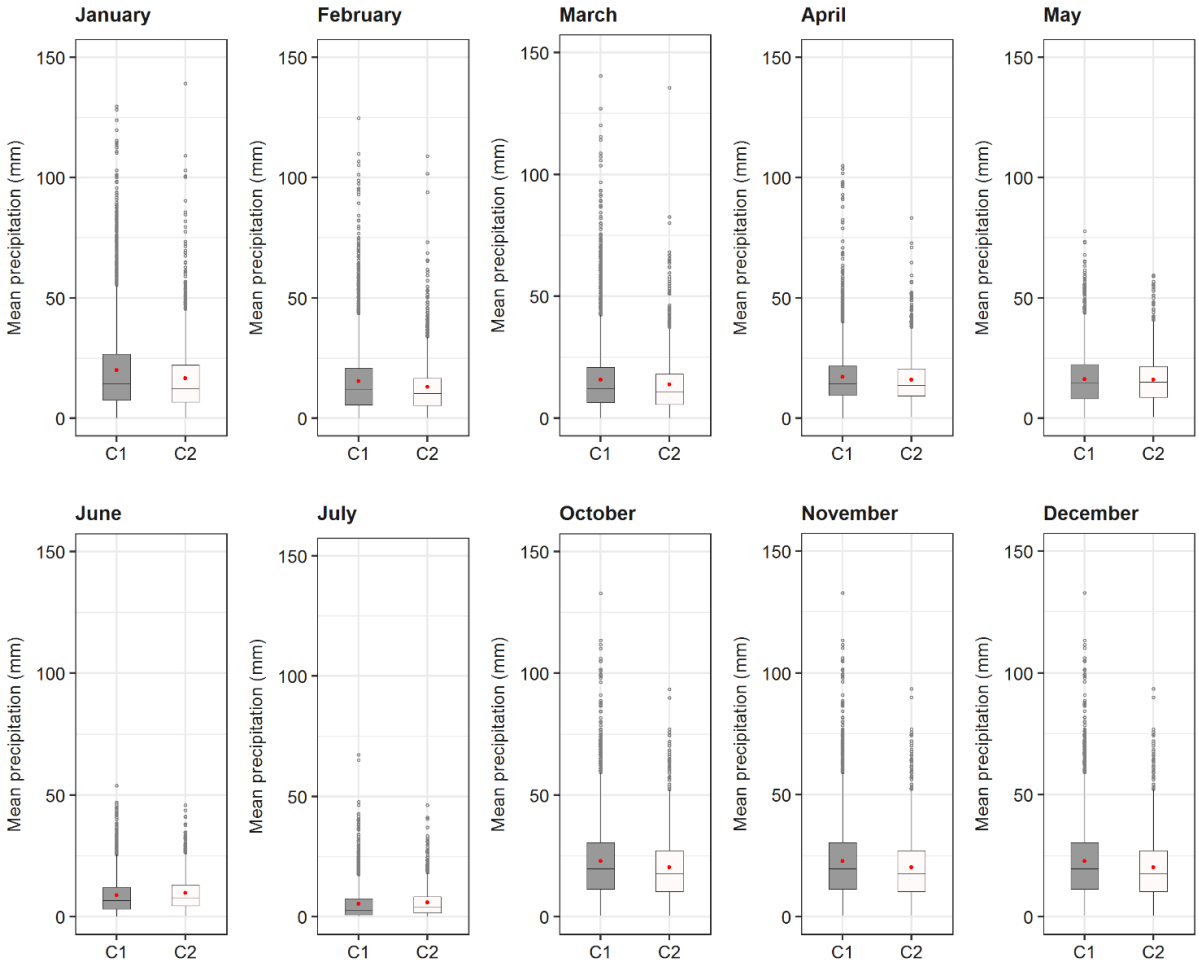
(*) correlations are significant at $p < 0.05$



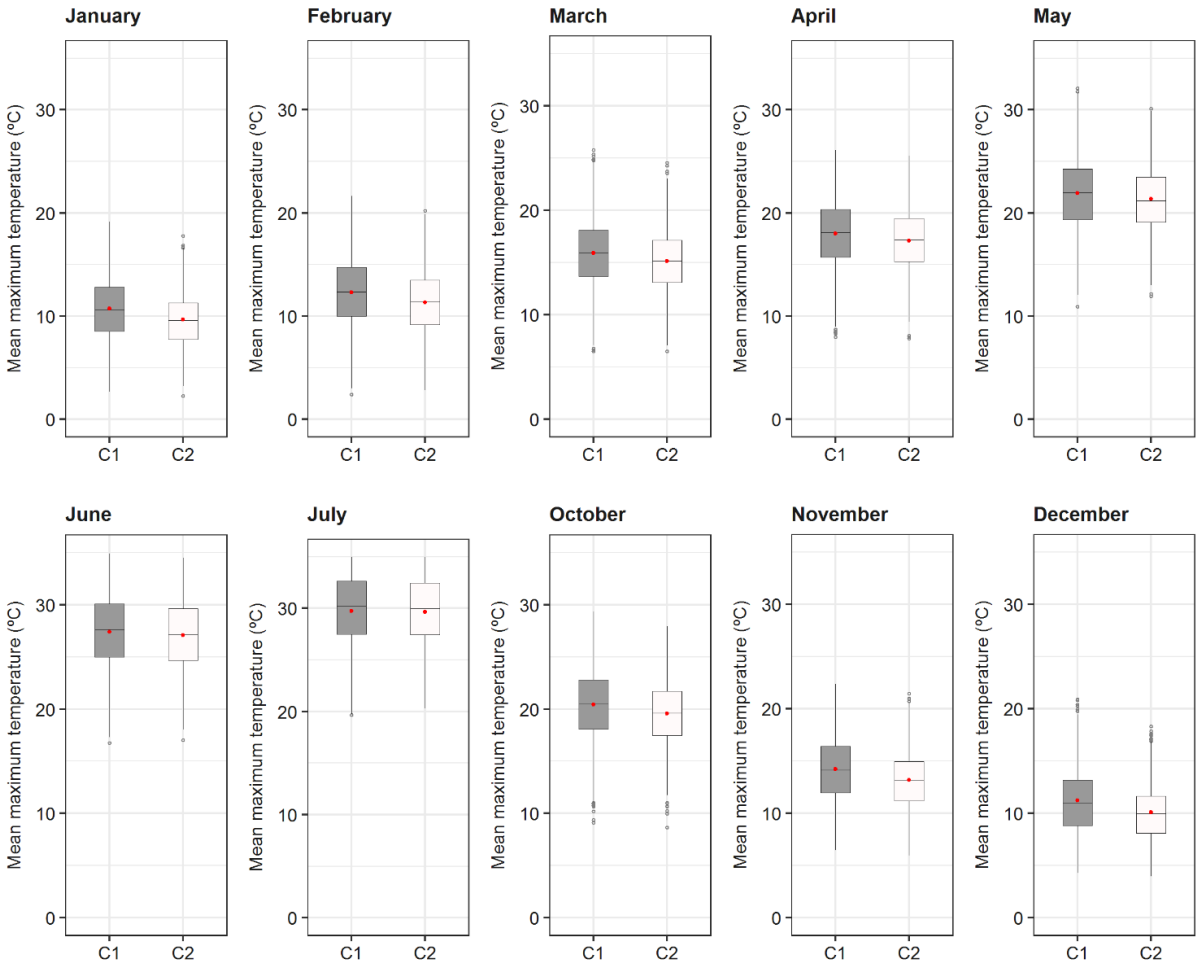
Supplementary Fig. 1. Spatial distribution of regions where significant differences (dark grey) and non significant differences (light grey) were found in the t-tests.



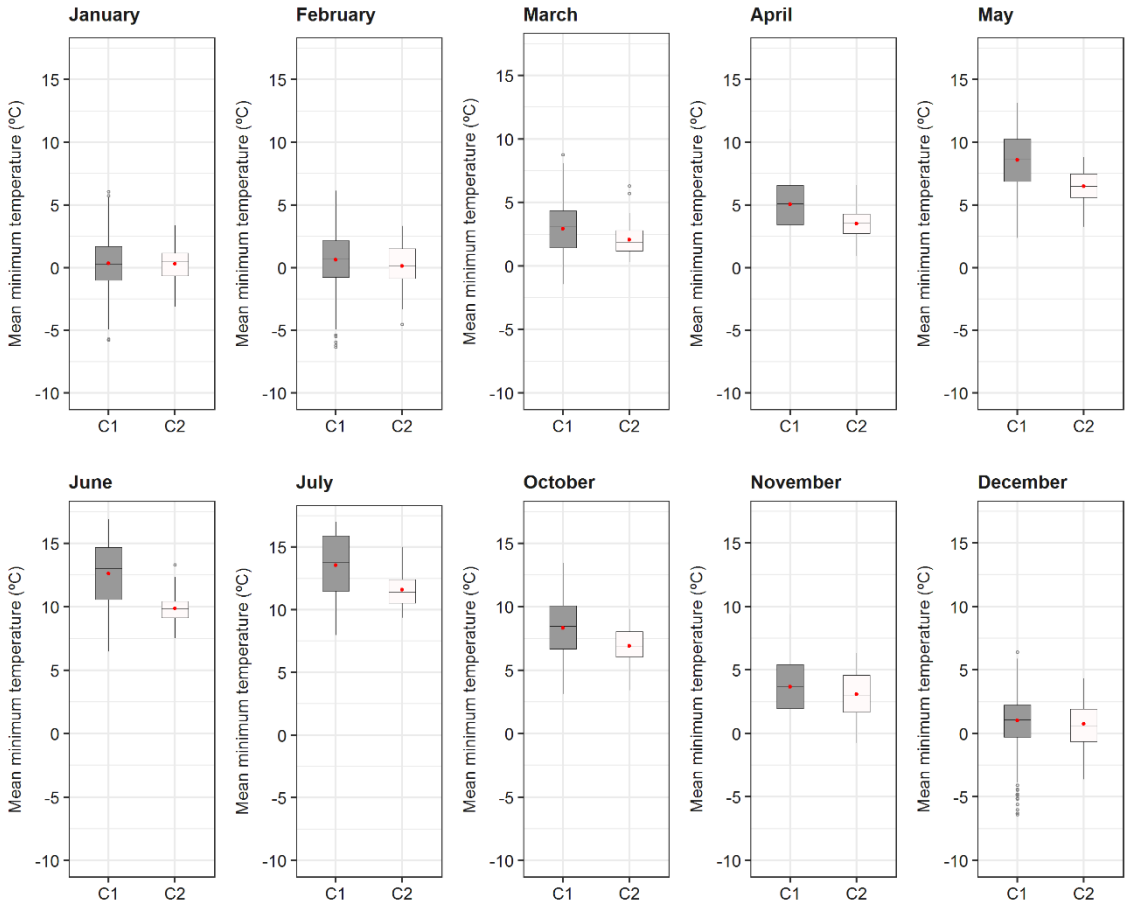
Supplementary Fig. 2. Monthly mean AED conditions in the agricultural districts where wheat was cultivated, classified into principal components (C1 and C2) for the period 1993–2015. The red dot shows the mean, and the black line shows the median.



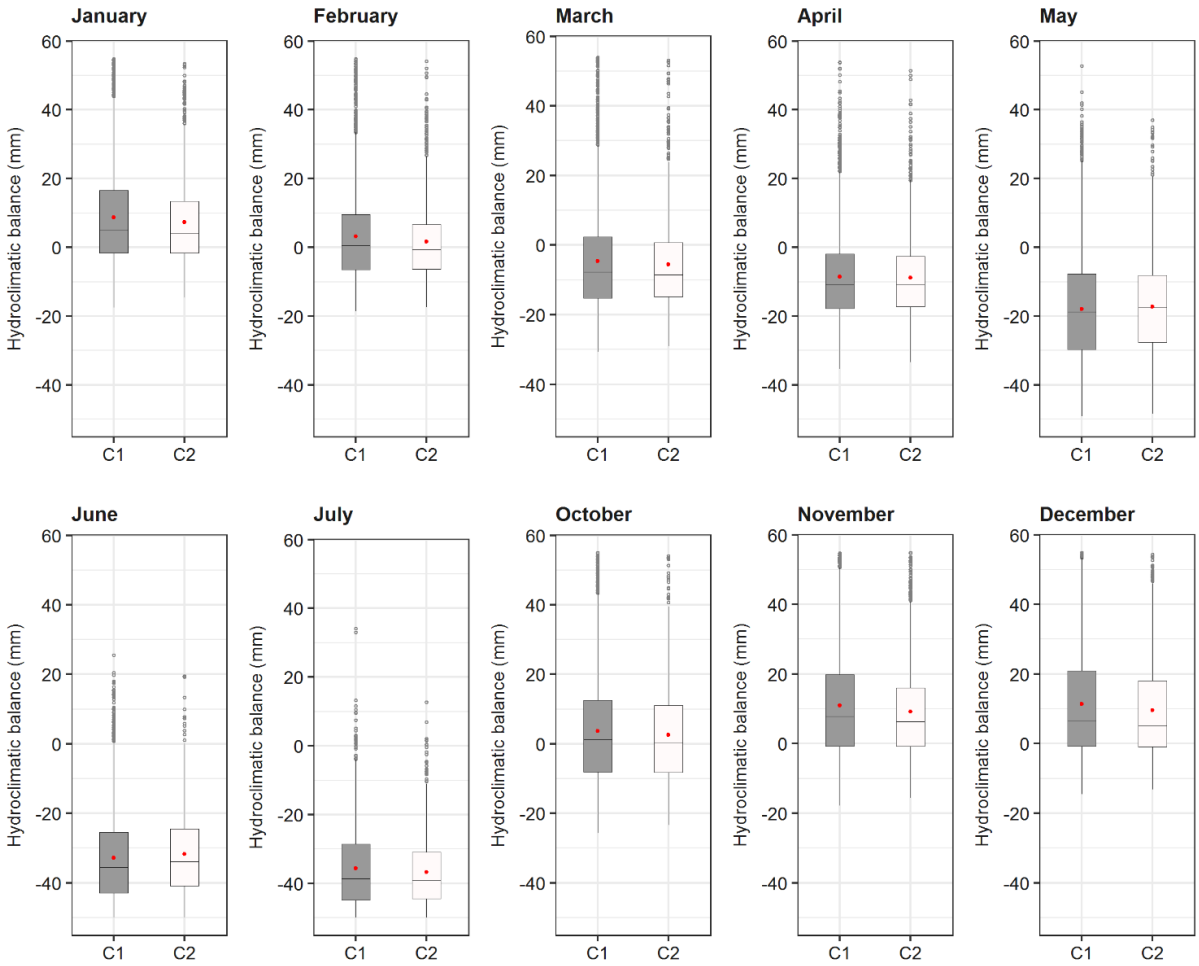
Supplementary Fig. 3. As for Supplementary Fig. 2, but for the monthly mean precipitation.



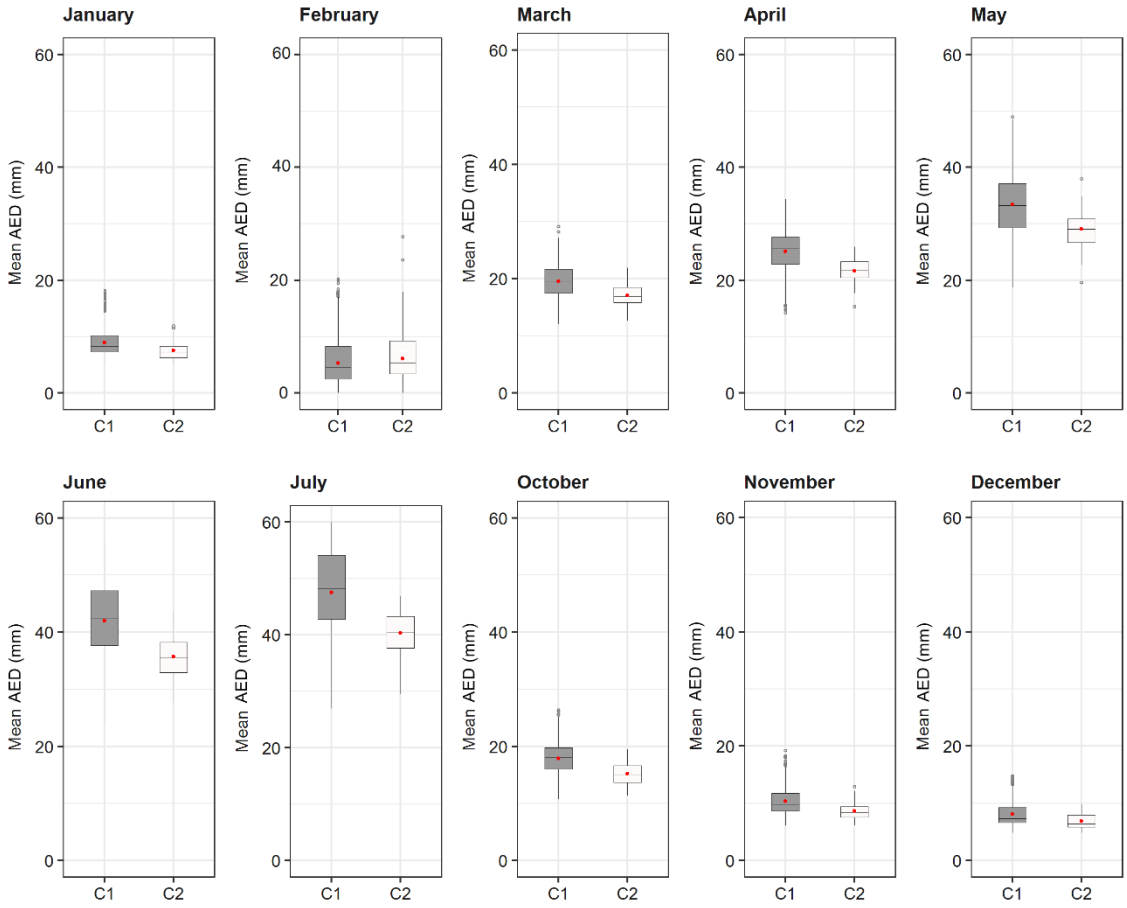
Supplementary Fig. 4. As for Supplementary Fig. 2, but for the monthly mean maximum temperature.



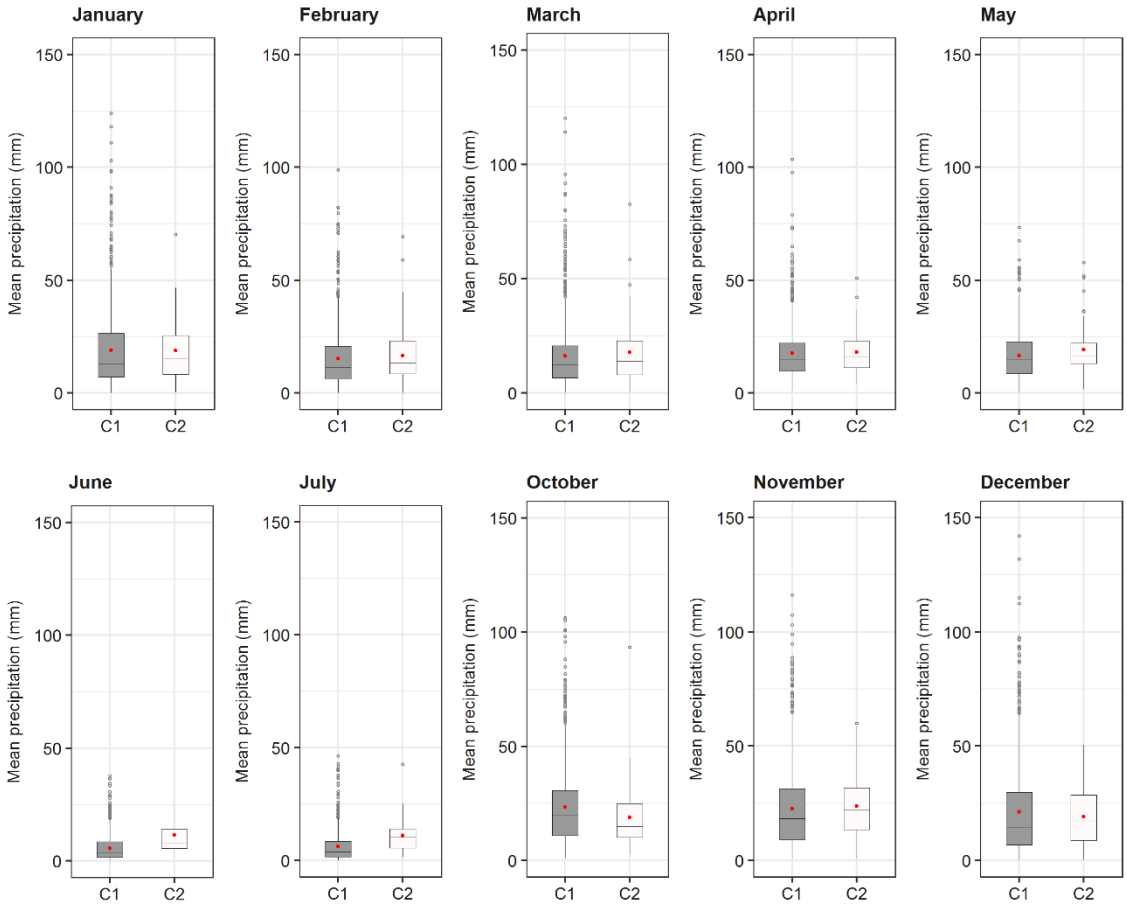
Supplementary Fig. 5. As for Supplementary Fig. 2, but for the monthly mean minimum temperature.



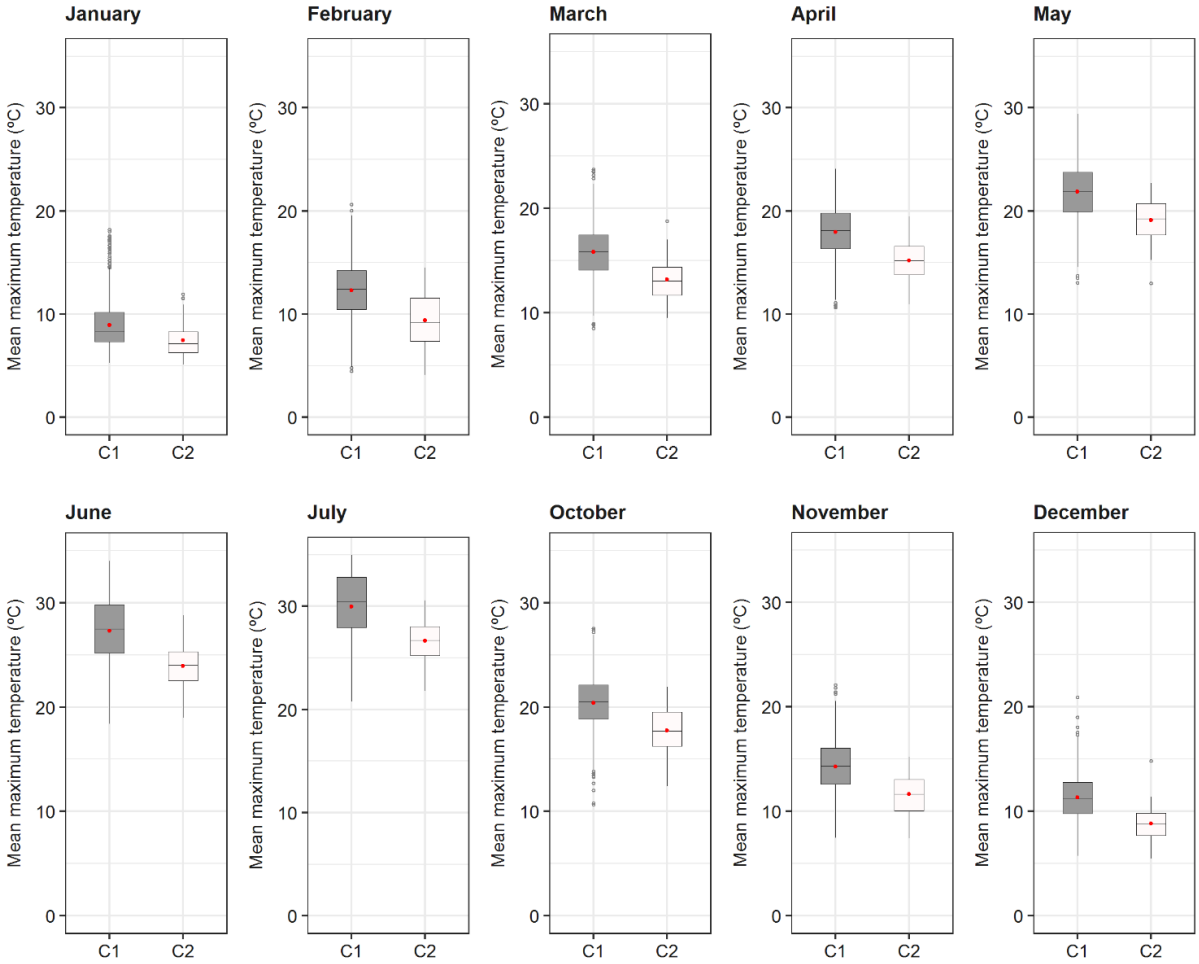
Supplementary Fig. 6. As for Supplementary Fig. 2, but for the monthly mean hydroclimate balance.



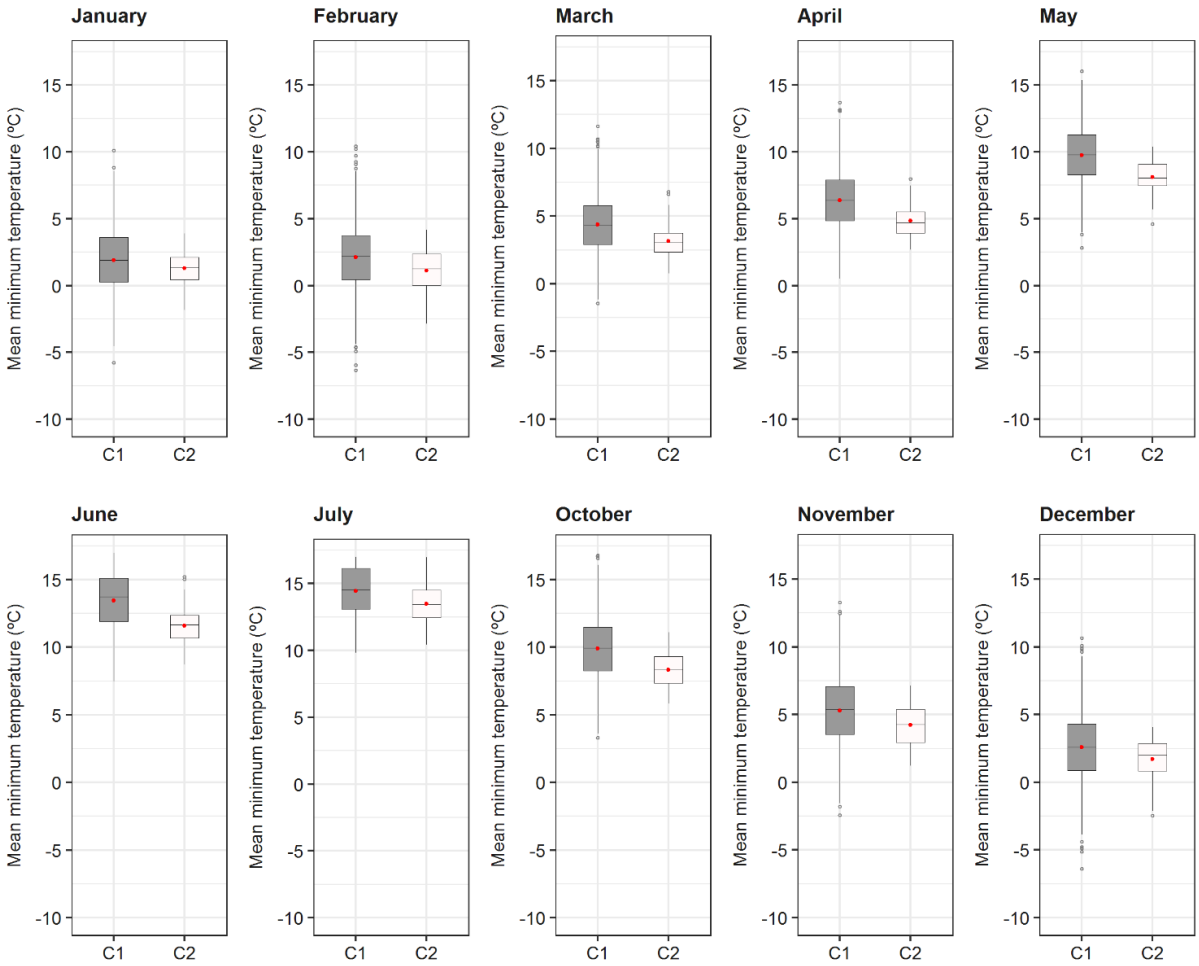
Supplementary Fig. 7. Monthly mean AED conditions in the agricultural districts where barley was cultivated, classified into principal components (C1 and C2) for the period 1993–2015. The red dot show the mean, and black line shows the median.



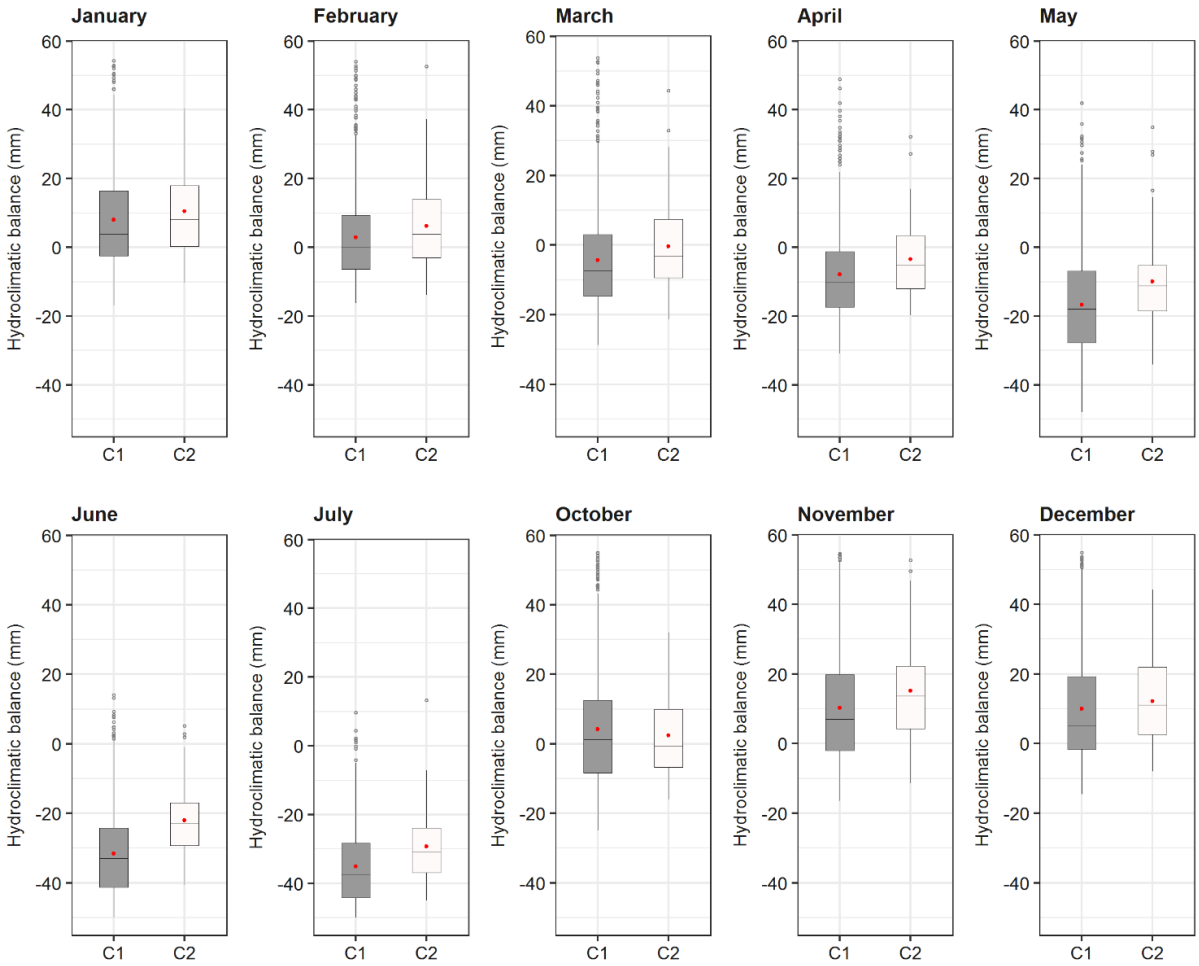
Supplementary Fig. 8. As for Supplementary Fig. 7, but for the monthly mean precipitation.



Supplementary Fig. 9. As for Supplementary Fig. 7, but for the monthly mean maximum temperature.



Supplementary Fig. 10. As for Supplementary Fig. 7, but for the monthly mean minimum temperature.



Supplementary Fig. 11. As for Supplementary Fig. 7, but for the monthly mean hydroclimate balance.