Article

Supplementary material : Management practices and breeding history of varieties strongly determine the fine genetic structure of crop populations: A case study based on European wheat populations

**Abdul Rehman Khan[1,2], Isabelle Goldringer[1]* and Mathieu Thomas[3,4] ID ***

[1] GQE - Le Moulon, INRA, Univ. Paris-Sud, CNRS, AgroParisTech, Université Paris-Saclay, Gif-sur-Yvette, 91190, France; isabelle.goldringer@inra.fr (I.G.)

[2] Department of Biotechnology, COMSATS University Islamabad, Abbottabad Campus, Pakistan; arehman@cuiatd.edu.pk

[3] CIRAD, UMR AGAP, F-34398 Montpellier, France; mathieu.thomas@cirad.fr

[4] AGAP, Univ Montpellier, CIRAD, INRA, Montpellier SupAgro, Montpellier, France
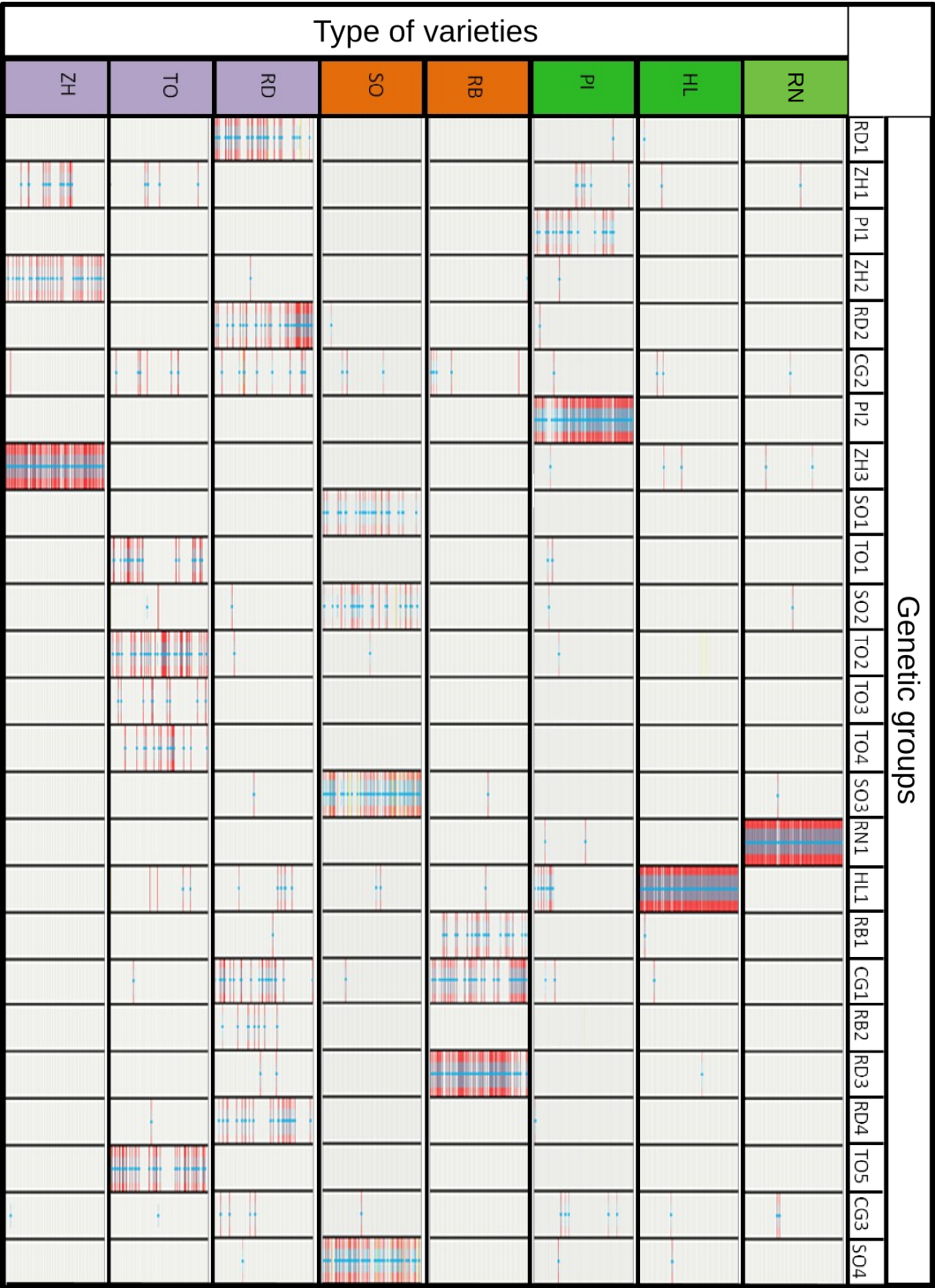
Supplemental Material, Figure S1. Distribution of the 1489 genotypes among their samples in line and among their genetic groups in column. Assignation of genotypes to genetic groups was done using the DAPC method with an optimal number of cluster equal to 25. The horizontal lines (red/yellow colored line with a blue cross in the middle) represents an individual and the color of the line represents the probability of having this individual in the designated genetic group.
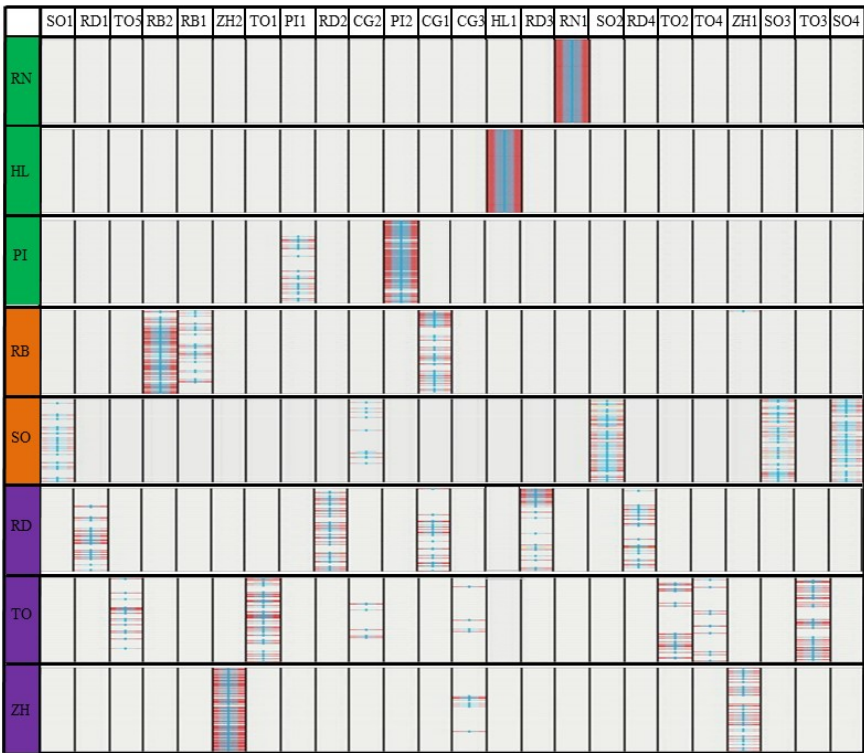
Supplemental Material, Figure S2. Distribution of the 1325 genotypes among their samples in line and among their genetic groups in column. Assignation of genotypes to genetic groups was done using the DAPC method with an optimal number of cluster equal to 24.

Table S1. Pairwise F_{ST} computed between the 8 sample populations. 95% confidence interval (CI) was estimated based on 1000 bootstraps.

Pairwise	F_{ST}	95%CI
HL-RN	0.99	(0.98-1)
PI-RN	0.92	(0.88-0.95)
HL-PI	0.91	(0.87-0.94)
HL-ZH	0.85	(0.79-0.9)
RN-ZH	0.83	(0.75-0.88)
RN-SO	0.80	(0.71-0.87)
HL-SO	0.74	(0.63-0.82)
RD-RN	0.74	(0.65-0.81)
PI-SO	0.73	(0.64-0.8)
SO-ZH	0.72	(0.63-0.8)
PI-ZH	0.70	(0.6-0.79)
RN-TO	0.70	(0.62-0.75)
RB-RN	0.68	(0.61-0.76)
HL-RD	0.64	(0.54-0.71)
PI-TO	0.61	(0.51-0.68)
HL-RB	0.60	(0.52-0.68)
RD-ZH	0.59	(0.49-0.68)
RB-ZH	0.56	(0.48-0.66)
PI-RB	0.55	(0.46-0.63)
PI-RD	0.54	(0.45-0.63)
TO-ZH	0.54	(0.43-0.63)
HL-TO	0.46	(0.35-0.56)
SO-TO	0.44	(0.32-0.54)
RD-SO	0.43	(0.3-0.53)
RB-SO	0.37	(0.24-0.48)
RD-TO	0.31	(0.2-0.4)
RB-TO	0.28	(0.2-0.36)
RB-RD	0.25	(0.17-0.33)