Table S1: Percentage of explanation (obtained through R-square from simple linear regression) of, genetics (G), nitrogen applications (N1-N4), temperature (T1, T2, grain maturation period (GMP) and G x GMP x E on percentage of unextracted polymeric proteins in total polymeric proteins (%UPP) in films.

Factors	%UPP
G (5+10, 2+12)	5.6
N (N1, N2, N3, N4)	6.1
Temperature (T1, T2)	4.9
GMP	10.3
G x GMP x E (N, temperature)	43.7

Table S2: Percentage of explanation (obtained through R-square from simple linear regression) of, nitrogen applications (N1-N4), temperature (T1, T2) and E (N x temperature) on percentage of unextracted polymeric proteins in total polymeric proteins (%UPP) in films.

Factors	WG-5+10 films	WG-2+12 films
N (N1, N2, N3, N4)	16.9	28.1
Temperature (T1, T2)	34.0	41.4
E (N, temperature)	40.2	42.5

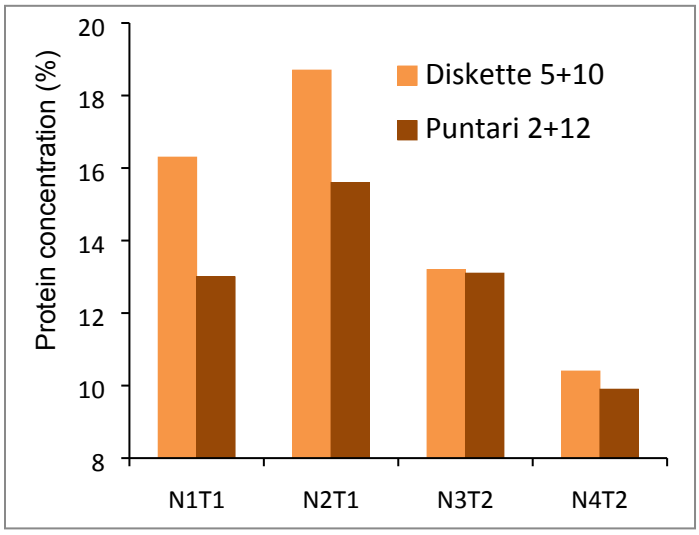

Fig. S1: Protein concentration in wheat seeds obtained from various genetics and environmental interactions.

Protein Concentration

Protein concentration in wheat seeds from the samples of various G and E treatments was measured by near infrared reflectance spectroscopy (Infratec model 1241) using national calibration models based on ISO standard methodology (12099:2010).

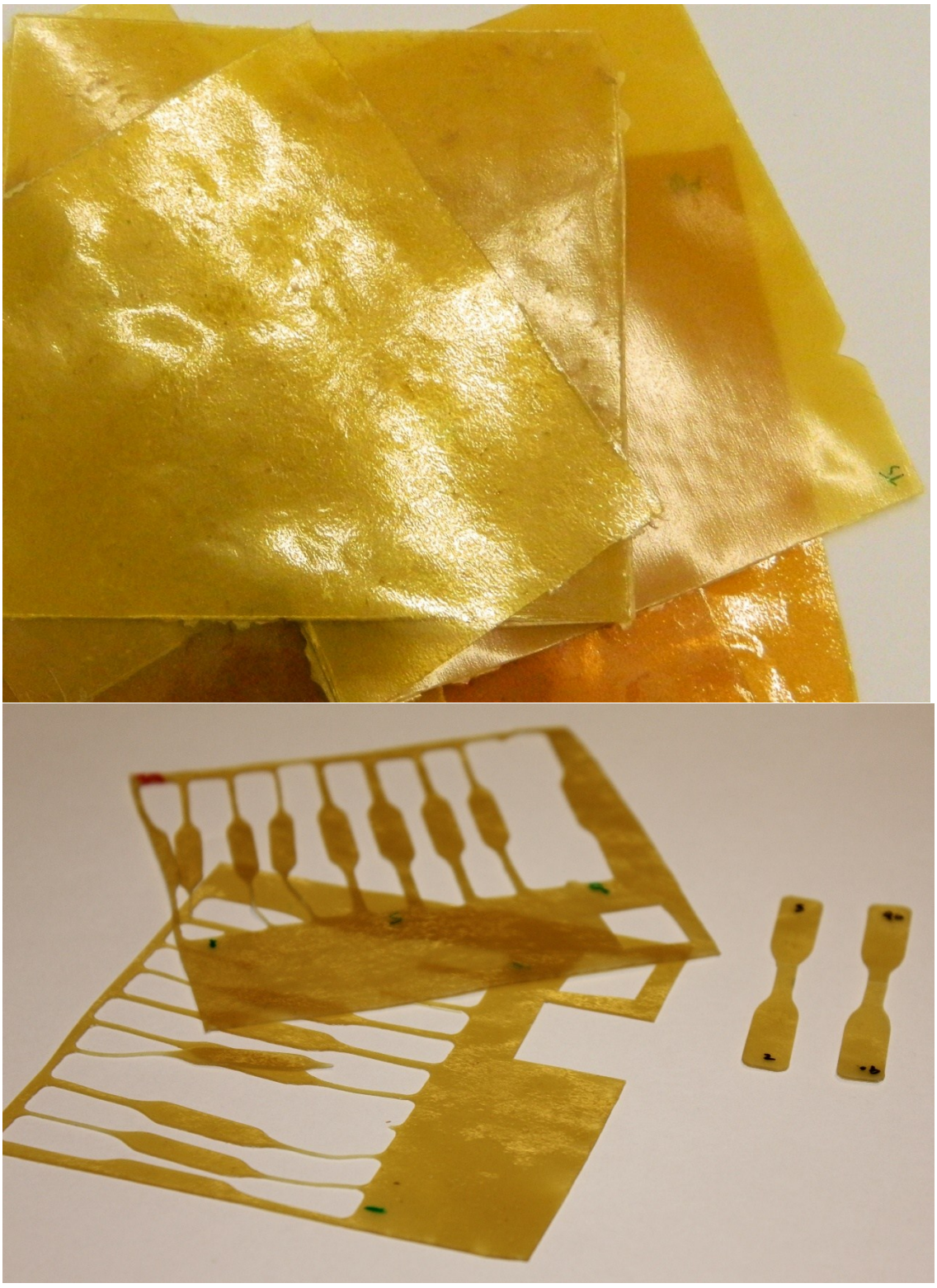

Fig.S2: Gluten films, with punched dumbbell shaped tensile bars.