

SUPPLEMENTARY MATERIALS

Figure S1. Statistical determination of the optimum number of clusters by discriminant analysis of principal components (DAPC). The elbow in the curve matches the smallest BIC and clearly indicates that seven cluster should be retained.

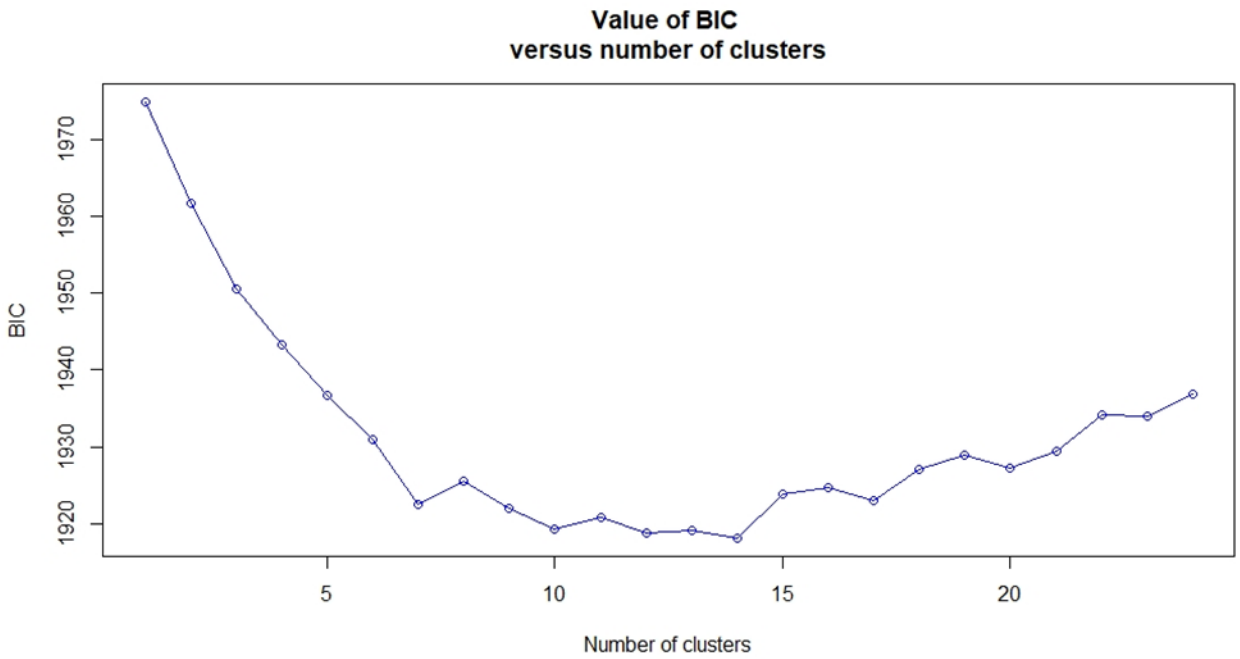


Table S1. List of wheat accessions used in the experiment.

Accession	PI	Subspecies	Origin	Pedegree
4	470944	<i>T.dicoccoides</i>	Syria	N.D.
18	pi381966	<i>T.durum</i>	Iran	N.D.
22	70738	<i>T.carthlicum</i>	Iraq	N.D.
80	clrt10125	<i>T.durum</i>	Russian	N.D.
108	57756	<i>T.durum</i>	Ethiopia	N.D.
145	225331	<i>T.turanicum</i>	Iran	N.D.
340	Cltr7779	<i>T.dicoccon</i>	Ethiopia	N.D.
362	68287	<i>T.turanicum</i>	Azerbaijan	N.D.
469	60619	<i>T.durum</i>	Ethiopia	N.D.
493	Cltr7962	<i>T.dicoccon</i>	Ethiopia	N.D.
1881	119341	<i>T.durum</i>	Turkey	N.D.
3823	190951	<i>T.polonicum</i>	Portugal	N.D.
8291	210852	<i>T.durum</i>	Iran	N.D.
263_a_13	254206	<i>T.turanicum</i>	Iran	N.D.
263_a_5	254198	<i>T.turanicum</i>	Iran	N.D.
263_a_8	254201	<i>T.turanicum</i>	Iran	N.D.
2N4	113393	<i>T.turanicum</i>	Iraq	N.D.
69Z99 7	355459	<i>T.dicoccoides</i>	Armenia	N.D.
Abyssinicum	352445	<i>T.durum</i>	Ethiopia	N.D.
Achille		<i>T.durum</i>	Italy	L.37/05 x AG – 4073
Aethiopicum 400	352446	<i>T.durum</i>	Ethiopia	N.D.
Agini	clrt3844	<i>T.durum</i>	Algeria	N.D.
Agnone		<i>T.dicoccon</i>	Italy	N.D.
AK Bugda	572893	<i>T.durum</i>	Azerbaijan	Apulicum 82-1/
Alaska	Cltr5988	<i>T.turgidum</i>	United States	N.D.
Alex 283	clrt15095	<i>T.durum</i>	Italy	LD 390/2XS.Cappelli
Alzada		<i>T.durum</i>	USA	N.D.
Amarai Tzada Cheru	pi191372	<i>T.durum</i>	Ethiopia	N.D.
Ancomarzio		<i>T.durum</i>	Italy	Stot//Altar84/ALD

Antalis		<i>T.durum</i>	France	N.D.
Arcangelo		<i>T.durum</i>	Italy	Creso x Appulo
Argelia		<i>T.durum</i>	Italy	N.D.
Arrancada	191823	<i>T.polonicum</i>	Portugal	N.D.
Arrancada_f3	184543	<i>T.turanicum</i>	Portugal	N.D.
Atratum	221398	<i>T.dicoccon</i>	Serbia	N.D.
Attila-7		<i>T.durum</i>	Mex/Syr	ND/VG9144//Kal/BB/3/Yaco/4/VEE5
Aureo		<i>T.durum</i>	Italy	Kofa/Svevo
AW 6629 85		<i>T.carthlicum</i>	Georgia	N.D.
Aziziah	271894	<i>T.durum</i>	Italy	N.D.
Babaga-3		<i>T.durum</i>	Syria	Tracha'S'//CMH76-252/PVN'S'
Baxter	608017	<i>T.polonicum</i>	United States	N.D.
BD1588	324937	<i>T.durum</i>	Ethiopia	N.D.
Beloturka	Cltr5014	<i>T.durum</i>	Russian	N.D.
Biancu Bonorvesu		<i>T.durum</i>	Italy	N.D.
Biancuccia	278347	<i>T.durum</i>	Italy	N.D.
Bidi		<i>T.durum</i>	Italy	N.D.
Bishoftu	257218	<i>T.durum</i>	Ethiopia	N.D.
Black Don	5645	<i>T.durum</i>	Russian	N.D.
Bologna (outgroup)		<i>T.aestivum</i>	Italy	H89092/H89136//
Bufala Nera Corta	157985	<i>T.durum</i>	Italy	N.D.
Bufala Rossa Lunga		<i>T.durum</i>	Italy	N.D.
Calibasan	166308	<i>T.turanicum</i>	Turkey	N.D.
Camadi Alagi	192130	<i>T.durum</i>	Ethiopia	N.D.
Camel tooth	321743	<i>T.turanicum</i>	Afghanistan	N.D.
Capeiti	271895	<i>T.durum</i>	Italy	N.D.
Cappelli 38	clrt12452	<i>T.durum</i>	Italy	N.D.
Casale de litappi		<i>T.dicoccon</i>	Italy	N.D.
Casale macirillo		<i>T.dicoccon</i>	Italy	N.D.
Cascia 14		<i>T.dicoccon</i>	Italy	N.D.
Cascia primaveraile		<i>T.dicoccon</i>	Italy	N.D.

Castel fusano	347730	<i>T.durum</i>	Italy	selection from mutagenized
Castelporziano	347731	<i>T.durum</i>	Italy	selection from mutagenized
Castiglione Glabro	157974	<i>T.durum</i>	Italy	N.D.
Castiglione Pubescente	157981	<i>T.durum</i>	Italy	N.D.
Chamran/4/cmh82a.1294/		<i>T.durum</i>	Syria	
Chiattulidda	157962	<i>T.durum</i>	Italy	N.D.
Ciciredda		<i>T.durum</i>	Italy	N.D.
Civitella	231363	<i>T.durum</i>	Italy	N.D.
Claudio		<i>T.durum</i>	Italy	Sel. Cimmyt/Durango//IS1938/Grazia
clrt 7656		<i>T.carthlicum</i>		N.D.
Core		<i>T.durum</i>	Italy	N.D.
Cotrone	294571	<i>T.durum</i>	Italy	N.D.
Creso		<i>T.durum</i>	Italy	Cpb 144 x [(Yt54-N10-B) Cp2 63 Tc1]
Dabat	192115	<i>T.durum</i>	Ethiopia	N.D.
Dauno	174619	<i>T.durum</i>	Italy	N.D.
Dauno Strampelli	191504	<i>T.durum</i>	Italy	N.D.
Daurur		<i>T.durum</i>	France	N.D.
Dendan_fil	337643	<i>T.turanicum</i>	Afghanistan	N.D.
Dur de Varna	174628	<i>T.durum</i>	Italy	N.D.
Duro de Naples	192525	<i>T.durum</i>	Italy	N.D.
Duro di Puglia		<i>T.durum</i>	Italy	N.D.
E_707	283795	<i>T.turanicum</i>	Afghanistan	N.D.
ELS 6304-1	Cltr14750	<i>T.dicoccon</i>	Ethiopia	N.D
etrusco_1		<i>T.turanicum</i>	Italy	N.D.
Ettore		<i>T.durum</i>	Italy	Selection.Cimmyt/Durango// IS1938/Rusticano
Evoldur selection1		<i>T.durum</i>	Italy	N.D.
Evoldur selection2		<i>T.durum</i>	Italy	N.D.
Evoldur selection3		<i>T.durum</i>	Italy	N.D.
Evoldur selection4		<i>T.durum</i>	Italy	N.D.
Evoldur selection5		<i>T.durum</i>	Italy	N.D.
Evoldur selection6		<i>T.durum</i>	Italy	N.D.

Evoldur selection8		<i>T.durum</i>	Italy	N.D.
Farro lungo	278350	<i>T.dicoccon</i>	Italy	N.D.
Farro lungo la fiandra		<i>T.turanicum</i>	Italy	N.D.
Felasit Rosso	192035	<i>T.durum</i>	Ethiopia	N.D.
Ferroug-3/qafzah-33		<i>T.durum</i>	Syria	N.D.
Fiorentino		<i>T.dicoccon</i>	Italy	N.D.
Francesa	157954	<i>T.durum</i>	Italy	N.D.
Francesone	157955	<i>T.durum</i>	Italy	N.D.
Fuego		<i>T.durum</i>	Italy	N.D.
G 51/48	209271	<i>T.durum</i>	Australia	Aleppo/Kubanca
Gaggi	192421	<i>T.durum</i>	Ethiopia	N.D.
Gandum	142521	<i>T.durum</i>	Iran	N.D.
Garfagnana a		<i>T.dicoccon</i>	Italy	N.D.
Garfagnana b		<i>T.dicoccon</i>	Italy	N.D.
Garfagnana c		<i>T.dicoccon</i>	Italy	N.D.
Garigliano	352417	<i>T.durum</i>	Italy	N.D.
Gemme		<i>T.durum</i>	Italy	Duilio x Grazia
Gigante	157956	<i>T.durum</i>	Italy	N.D.
Gigante inglese	184526	<i>T.turanicum</i>	Portugal	N.D.
Girgentana	157963	<i>T.durum</i>	Italy	N.D.
Giustalisa	157970	<i>T.durum</i>	Italy	N.D.
Giza- 168/Shuha's'/dobuc's'		<i>T.durum</i>	Syria	N.D.
Gondum_ishtur	317492	<i>T.turanicum</i>	Afghanistan	N.D.
Grazia		<i>T.durum</i>	Italy	M 6800 127 x VALSEVA
graziella_ra	623656	<i>T.turanicum</i>	Italy	N.D.
Grifoni	271898	<i>T.durum</i>	Italy	VU/S.Cappelli
Hamam-4		<i>T.durum</i>	Syria	T.aest/SPRW'S'//CA8055/3/Bacanora86
Heraklion		<i>T.durum</i>	Italy	N.D.
Husco	286547	<i>T.polonicum</i>	Ecuador	N.D.
I_1_3490	272570	<i>T.polonicum</i>	Hungary	N.D.
I_1_3496	272564	<i>T.polonicum</i>	Hungary	N.D.

I-1-3448	272590	<i>T.polonicum</i>	Hungary	N.D.
Iar/w/51-1	387391	<i>T.durum</i>	Ethiopia	N.D.
Iar/W/67-3	387434	<i>T.durum</i>	Ethiopia	N.D.
Inglesa		<i>T.durum</i>	Italy	N.D.
Iride		<i>T.durum</i>	Italy	Altar84/Ionio
IWA8606551	623656	<i>T.turanicum</i>	Azerbaijan	N.D.
IWA8607904	624217	<i>T.turanicum</i>	Iran	N.D.
IWA8608332	624429	<i>T.turanicum</i>	Iran	N.D.
IWA860984	625155	<i>T.turanicum</i>	Iran	N.D.
IWA8609932	625164	<i>T.turanicum</i>	Iran	N.D.
Izaz-11		<i>T.durum</i>	Syria	Shuha-7/4/NIF/3/Soty//NAD63/Chiris
Izaz-2/asfoor- 1/4/opata/bow//	<i>T.durum</i>	<i>T.durum</i>	Syria	N.D.
Jawahir-20		<i>T.durum</i>	Syria	Shuha-4//NS732/Her
Kahla	7794	<i>T.durum</i>	Algeria	N.D.
Kamut		<i>T.turanicum</i>	North Africa	N.D.
Kamut porfiri		<i>T.turanicum</i>	Italy	N.D.
Kanakis		<i>T.durum</i>	France	N.D.
Levante		<i>T.durum</i>	Italy	G80/Piceno//Ionio
Leventis	306665	<i>T.turanicum</i>	France	N.D.
Mahmoudi	Cltr3809	<i>T.durum</i>	Tunisia	N.D.
Maliani 1D	322735	<i>T.durum</i>	Italy	N.D.
Maliani 6	324936	<i>T.durum</i>	Italy	Russello/Forlani
Manto di Maria		<i>T.durum</i>	Italy	N.D.
Marche Simona		<i>T.dicoccon</i>	Italy	N.D.
Marco Aurelio		<i>T.durum</i>	Italy	Orobel//Arcobaleno/Svevo
Margherito		<i>T.durum</i>	Italy	N.D.
Marrocos	191599	<i>T.turanicum</i>	Morocco	N.D.
Martinari	134945	<i>T.polonicum</i>	Portugal	N.D.
Martinella	157971	<i>T.durum</i>	Italy	N.D.
Martinur		<i>T.durum</i>	France	N.D.

Meknes	192658	<i>T.turanicum</i>	Morocco	N.D.
MG 4479	470769	<i>T.durum</i>	Italy	N.D.
MG 4483	470773	<i>T.durum</i>	Italy	N.D.
MG 4486	470776	<i>T.durum</i>	Italy	N.D.
MG 7852	470785	<i>T.durum</i>	Ethiopia	N.D.
Mimmo		<i>T.durum</i>	Italy	SimetoXMedora
Mirabella	352488	<i>T.polonicum</i>	Italy	N.D.
Miradoux		<i>T.durum</i>	France	N.D.
Molise		<i>T.dicoccon</i>	Italy	N.D.
Molise colli		<i>T.dicoccon</i>	Italy	N.D.
Monastir		<i>T.durum</i>	France	N.D.
Monteleone		<i>T.dicoccon</i>	Italy	N.D.
Nonette de lausanne	352544	<i>T.turgidum</i>	Switzerland	N.D.
Norcia		<i>T.dicoccon</i>	Italy	N.D.
Novo	221423	<i>T.turgidum</i>	Portugal	N.D.
Obelix		<i>T.durum</i>	Italy	N.D.
Odisseo		<i>T.durum</i>	Italy	N.D.
Oeltta	192064	<i>T.durum</i>	Ethiopia	N.D.
Orobel		<i>T.durum</i>	France	Composite INRA
Padre pio		<i>T.dicoccon</i>	Italy	N.D.
Paola		<i>T.durum</i>	Italy	N.D.
Paprika		<i>T.durum</i>	France	N.D.
Pavone	157977	<i>T.durum</i>	Italy	N.D.
Pelissier	7785	<i>T.durum</i>	Algeria	N.D.
Perciasacchi		<i>T.turanicum</i>	Italy	selection from
Pererodka	2954	<i>T.durum</i>	Russian	N.D.
Persian	283888	<i>T.carthlicum</i>	Iran	N.D.
Pharaons	352543	<i>T.turgidum</i>	France	N.D.
PI_369816	369816	<i>T.paleocolchicum</i>	Russian	N.D.
Pigreco		<i>T.durum</i>	Italy	N.D.
Polsk_Hvede	361757	<i>T.polonicum</i>	Denmark	N.D.
Preziusa		<i>T.durum</i>	Italy	N.D.

Prospero		<i>T.durum</i>	France	N.D.
Puro		<i>T.durum</i>	Italy	N.D.
Qafzah-31		<i>T.durum</i>	Mex/syr	Sha5//Carc/Auk/3/Vee5//Doubc'S'
Radicondoli		<i>T.dicoccon</i>	Italy	N.D.
Ramirez		<i>T.durum</i>	France	N.D.
Reale		<i>T.durum</i>	Italy	N.D.
Realforte	41038	<i>T.durum</i>	Tunisia	N.D.
Reehab-2		<i>T.durum</i>	Syr	Vee/Koel//Attila-5
Regina	264956	<i>T.durum</i>	Italy	N.D.
RIGA 952/20135	Cgn08251	<i>T.durum</i>	Italy	N.D.
Rivet	278221	<i>T.turgidum</i>	United Kingdom	N.D.
Roseta	192399	<i>T.durum</i>	Italy	N.D.
Rosso rubino		<i>T.dicoccon</i>	Italy	N.D.
Rubiel_de_liebana	191203	<i>T.turgidum</i>	Spain	N.D.
Ruscia	264957	<i>T.durum</i>	Italy	N.D.
Russello	157973	<i>T.durum</i>	Italy	N.D.
Russello S.G. 7	231357	<i>T.durum</i>	Italy	N.D.
Sabaudia	352418	<i>T.durum</i>	Italy	N.D.
Sammartinara	157958	<i>T.durum</i>	Italy	N.D.
San Carlo		<i>T.durum</i>	Italy	GraziaXDegamit
Saragolla		<i>T.durum</i>	Italy	Iride/Linea PSB 0114
Saragolla	231380	<i>T.durum</i>	Italy	N.D.
Sari_tuya_tish	290530	<i>T.turanicum</i>	Hungary	N.D.
Scavuzza	157966	<i>T.durum</i>	Italy	N.D.
Sciaggari Busasore	192031	<i>T.durum</i>	Ethiopia	N.D.
Scorsonera	264955	<i>T.durum</i>	Italy	N.D.
Secolo		<i>T.durum</i>	Italy	N.D.
Semenzella	157972	<i>T.durum</i>	Italy	N.D.
Senatore Cappelli	352414	<i>T.durum</i>	Italy	N.D.
Sert	167481	<i>T.turanicum</i>	Turkey	N.D.
Sin_el_pheel	208911	<i>T.polonicum</i>	Iraq	N.D.

Solex		<i>T.durum</i>	Italy	CresoXValgerardo
Somama- 9//seri82/shuha's'	T.durum	<i>T.durum</i>	Syria	
Suhulu Villosa	192743	<i>T.durum</i>	Ethiopia	N.D.
Sunray	Cltr11390	<i>T.turanicum</i>	United States	United States
Svevo		<i>T.durum</i>	Italy	Cimmyt landreces/Zenit
Svevo x Senatore Cappelli		<i>T.durum</i>	Italy	SvevoXS.Capelli
SY 20198	487264	<i>T.dicoccoides</i>	Syria	N.D.
Sy Atlante		<i>T.durum</i>	Italy	N.D.
SY Esperto		<i>T.durum</i>	Italy	N.D.
SY Leonardo		<i>T.durum</i>	Italy	N.D.
SY Nilo		<i>T.durum</i>	Italy	N.D.
T_742	352487	<i>T.polonicum</i>	Germany	N.D.
Tafeelih riti	223171	<i>T.polonicum</i>	Jordan	N.D.
Taganrog	Cltr3979	<i>T.durum</i>	Russian	N.D.
Tanis	352542	<i>T.turgidum</i>	France	N.D.
Tedone 10		<i>T.turanicum</i>	Italy	N.D.
Tedone 8		<i>T.turanicum</i>	Italy	N.D.
Timilia	278356	<i>T.durum</i>	Italy	N.D.
Tirex		<i>T.durum</i>	Italy	SvevoXNefer
Tiruni	151919	<i>T.durum</i>	Iran	N.D.
Toscadou		<i>T.durum</i>	France	N.D.
Trentino	157965	<i>T.durum</i>	Italy	selection from landrace from Caltanissetta
Trigu Biancu		<i>T.durum</i>	Italy	N.D.
Trigu Moro		<i>T.durum</i>	Italy	N.D.
Trigu Murru		<i>T.durum</i>	Italy	N.D.
Trionfo		<i>T.durum</i>	Italy	N.D.
Tripolino	157959	<i>T.durum</i>	Italy	N.D.
Tunisina	157967	<i>T.durum</i>	Italy	N.D.
Turnadili	166959	<i>T.turanicum</i>	Turkey	N.D.

Tuscania		<i>T.dicoccon</i>	Italy	N.D.
Urria	157968	<i>T.durum</i>	Italy	Turkey
Usher-18		<i>T.durum</i>	Syria	CROW'S/BOW'S-1994/
Vakilagha	210382	<i>T.durum</i>	Iran	N.D.
Valaniene	Clrt15147	<i>T.durum</i>	Italy	Cappelli/V.Z. 156
Valerio		<i>T.durum</i>	Italy	Canadian landreces/
Valgiorgio	Cltr15217	<i>T.durum</i>	Italy	Cappelli/V.Z. 156
Vallega Zitelli	Cltr15096	<i>T.durum</i>	Italy	Cappelli/Yuma
Vallelunga Glabra		<i>T.durum</i>	Italy	N.D.
Vallelunga Pubescente	157980	<i>T.durum</i>	Italy	N.D.
Valsacco	367229	<i>T.durum</i>	Italy	Cappelli/VZ 156
Valselva	367212	<i>T.durum</i>	Italy	Giorgio 324//
Valtarquinio	367225	<i>T.durum</i>	Italy	Cappelli/VZ 156
Vernal emmer	Clrt3686	<i>T.dicoccon</i>	United States	N.D.
WIR 6388	349043	<i>T.dicoccon</i>	Georgia	N.D.
WIR28162	349050	<i>T.paleocolchicum</i>	Georgia	N.D.
WIR28162XPI_369816		<i>T.paleocolchicum</i>		N.D.
WIR32510	341800	<i>T.carthlicum</i>	Russian	N.D.
Yaqub		<i>T.dicoccon</i>	Italy	N.D.
Zefiro		<i>T.dicoccon</i>	Italy	N.D.
Zetae		<i>T.dicoccon</i>	Italy	N.D.

Table S2. Clusters Membership for each accession defined with DAPC and Structure analyses. For Structure, cluster membership probability was reported for each accession.

Accession	DAPC	Inferred cluster by Structure (membership probability)						
	cluster	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6	Cluster 7
4	5	0.128	0.063	0.071	0.001	0.002	0.503	0.232
18	2	0.218	0.000	0.001	0.160	0.093	0.500	0.028
22	3	0.436	0.000	0.000	0.028	0.013	0.499	0.024
80	2	0.044	0.000	0.000	0.246	0.208	0.503	0.000
108	2	0.055	0.000	0.000	0.198	0.246	0.500	0.000
145	3	0.503	0.000	0.000	0.000	0.000	0.496	0.000
340	6	0.000	0.206	0.000	0.000	0.000	0.496	0.298
362	3	0.001	0.000	0.001	0.115	0.090	0.494	0.300
469	5	0.028	0.155	0.014	0.027	0.030	0.497	0.250
493	6	0.003	0.001	0.000	0.434	0.044	0.500	0.017
1881	7	0.214	0.000	0.000	0.225	0.058	0.492	0.010
3823	4	0.091	0.000	0.000	0.178	0.216	0.499	0.015
8291	2	0.984	0.000	0.000	0.012	0.004	0.000	0.000
263_a_13	3	0.386	0.004	0.000	0.057	0.052	0.499	0.002
263_a_5	3	0.502	0.000	0.000	0.000	0.000	0.497	0.000
263_a_8	3	0.502	0.000	0.000	0.000	0.000	0.498	0.000
2N4	3	0.501	0.000	0.000	0.000	0.000	0.498	0.000
69Z99 7	5	0.503	0.000	0.000	0.000	0.000	0.497	0.000
Abyssinicum	2	0.751	0.000	0.000	0.047	0.201	0.000	0.000
Achille	7	0.135	0.156	0.015	0.001	0.002	0.495	0.196
Aethiopicum 400	2	0.045	0.000	0.000	0.249	0.204	0.502	0.000
Agini	2	0.004	0.000	0.000	0.462	0.026	0.503	0.005
Agnone	6	0.105	0.000	0.000	0.186	0.201	0.501	0.007
AK Bugda	2	0.047	0.000	0.000	0.170	0.285	0.498	0.000
Alaska	4	0.001	0.400	0.000	0.001	0.012	0.505	0.081
Alex 283	7	0.117	0.004	0.000	0.151	0.208	0.501	0.018
Alzada	7	0.260	0.041	0.070	0.002	0.067	0.479	0.081
Amarai Tzada Cheru	5	0.000	0.000	0.000	0.500	0.000	0.500	0.000

Ancomarzio	7	0.000	0.001	0.000	0.446	0.032	0.504	0.017
Antalis	7	0.000	0.000	0.009	0.121	0.092	0.492	0.286
Arcangelo	7	0.001	0.000	0.000	0.479	0.001	0.500	0.019
Argelia	2	0.001	0.003	0.014	0.462	0.006	0.500	0.014
Arrancada	5	0.000	0.000	0.000	0.495	0.000	0.505	0.000
Arrancada_f3	4	0.055	0.000	0.000	0.182	0.256	0.499	0.008
Atratum	6	0.175	0.009	0.005	0.081	0.199	0.502	0.029
Attila-7	7	0.489	0.000	0.000	0.011	0.000	0.500	0.000
Aureo	7	0.000	0.352	0.014	0.004	0.018	0.498	0.114
AW 6629 85	5	0.013	0.001	0.087	0.407	0.017	0.469	0.007
Aziziah	2	0.001	0.000	0.000	0.449	0.034	0.503	0.013
Babaga-3	1	0.131	0.002	0.060	0.001	0.000	0.494	0.312
Baxter	5	0.136	0.000	0.000	0.195	0.152	0.502	0.014
BD1588	2	0.000	0.000	0.481	0.001	0.010	0.489	0.018
Beloturka	2	0.217	0.000	0.000	0.060	0.179	0.499	0.044
Biancu Bonorvesu	2	0.002	0.000	0.000	0.229	0.085	0.495	0.188
Biancuccia	2	0.025	0.001	0.021	0.193	0.263	0.494	0.002
Bidì	7	0.044	0.000	0.000	0.192	0.263	0.500	0.000
Bishoftu	5	0.042	0.000	0.000	0.103	0.352	0.502	0.000
Black Don	2	0.000	0.000	0.000	0.501	0.000	0.499	0.000
Bologna (outgroup)	1	0.015	0.032	0.125	0.067	0.031	0.479	0.250
Bufala Nera Corta	2	0.035	0.000	0.001	0.204	0.257	0.500	0.003
Bufala Rossa Lunga	2	0.000	0.014	0.418	0.026	0.007	0.495	0.039
Calibasan	4	0.000	0.088	0.000	0.033	0.290	0.498	0.091
Camadi Alagi	2	0.000	0.086	0.000	0.045	0.288	0.496	0.084
Camel tooth	4	0.485	0.000	0.000	0.015	0.000	0.499	0.000
Capeiti	7	0.021	0.000	0.000	0.245	0.108	0.499	0.127
Cappelli 38	7	0.399	0.001	0.024	0.059	0.036	0.481	0.000
Casale de litappi	6	0.069	0.000	0.000	0.370	0.058	0.502	0.000
Casale macirillo	6	0.000	0.000	0.000	0.501	0.000	0.499	0.000
Cascia 14	6	0.000	0.223	0.000	0.000	0.000	0.498	0.279
Cascia primaverile	6	0.000	0.222	0.000	0.000	0.000	0.497	0.281

Castel fusano	7	0.000	0.494	0.000	0.000	0.000	0.506	0.000
Castelporziano	7	0.000	0.496	0.000	0.000	0.000	0.504	0.000
Castiglione Glabro	2	0.010	0.001	0.001	0.488	0.003	0.496	0.000
Castiglione Pubescente	2	0.000	0.000	0.000	0.501	0.000	0.499	0.000
Chamran/4/cmh82a.1294/	1	0.000	0.000	0.000	0.041	0.459	0.500	0.000
Chiattulidda	2	0.000	0.000	0.000	0.088	0.412	0.500	0.000
Ciciredda	2	0.000	0.015	0.457	0.001	0.002	0.491	0.034
Civitella	5	0.054	0.002	0.000	0.121	0.322	0.501	0.000
Claudio	7	0.000	0.092	0.000	0.048	0.270	0.494	0.096
clrt 7656	2	0.004	0.100	0.000	0.049	0.242	0.496	0.108
Core	7	0.021	0.002	0.000	0.434	0.036	0.501	0.005
Cotrone	2	0.240	0.000	0.000	0.087	0.151	0.502	0.019
Creso	7	0.024	0.000	0.002	0.463	0.004	0.503	0.005
Dabat	5	0.117	0.002	0.000	0.151	0.247	0.483	0.000
Dauno	2	0.000	0.000	0.002	0.446	0.033	0.500	0.019
Dauno Strampelli	2	0.110	0.129	0.000	0.001	0.000	0.494	0.267
Daurur	7	0.108	0.131	0.000	0.001	0.000	0.494	0.265
Dendan_fil	4	0.193	0.103	0.000	0.027	0.003	0.464	0.210
Dur de Varna	2	0.000	0.000	0.000	0.125	0.087	0.492	0.295
Duro de Naples	7	0.028	0.001	0.002	0.136	0.333	0.499	0.000
Duro di Puglia	7	0.020	0.000	0.000	0.208	0.272	0.501	0.000
E_707	4	0.025	0.003	0.000	0.424	0.028	0.502	0.018
ELS 6304-1	4	0.465	0.000	0.000	0.035	0.000	0.499	0.000
etrusco_1	4	0.004	0.167	0.217	0.000	0.038	0.484	0.090
Ettore	7	0.106	0.000	0.000	0.187	0.197	0.500	0.009
Evoldur selection1	4	0.000	0.000	0.000	0.501	0.000	0.499	0.000
Evoldur selection2	4	0.000	0.000	0.000	0.489	0.009	0.501	0.000
Evoldur selection3	2	0.463	0.000	0.000	0.036	0.001	0.499	0.000
Evoldur selection4	2	0.000	0.000	0.000	0.501	0.000	0.499	0.000
Evoldur selection5	2	0.193	0.000	0.000	0.241	0.057	0.500	0.008
Evoldur selection6	7	0.311	0.000	0.002	0.057	0.135	0.494	0.000
Evoldur selection8	6	0.018	0.002	0.000	0.434	0.040	0.501	0.005

Farro lungo	4	0.286	0.000	0.000	0.178	0.042	0.493	0.000
Farro lungo la fiandra	4	0.272	0.000	0.000	0.226	0.000	0.502	0.000
Felasit Rosso	2	0.040	0.016	0.000	0.154	0.283	0.498	0.009
Ferroug-3/qafzah-33	1	0.000	0.000	0.446	0.028	0.000	0.494	0.031
Fiorentino	6	0.013	0.301	0.001	0.001	0.008	0.497	0.179
Francesa	2	0.006	0.000	0.000	0.105	0.381	0.498	0.009
Francesone	2	0.016	0.000	0.000	0.115	0.365	0.502	0.000
Fuego	7	0.001	0.000	0.001	0.470	0.000	0.502	0.025
G 51/48	2	0.313	0.001	0.000	0.131	0.070	0.485	0.000
Gaggi	2	0.019	0.002	0.000	0.231	0.193	0.498	0.058
Gandum	2	0.101	0.007	0.001	0.159	0.137	0.498	0.096
Garfagnana a	6	0.000	0.470	0.014	0.000	0.008	0.502	0.005
Garfagnana b	6	0.000	0.473	0.000	0.001	0.014	0.509	0.002
Garfagnana c	6	0.000	0.483	0.000	0.002	0.002	0.507	0.006
Garigliano	7	0.050	0.002	0.000	0.414	0.030	0.502	0.001
Gemme	7	0.001	0.000	0.000	0.494	0.000	0.503	0.002
Gigante	2	0.031	0.000	0.000	0.087	0.381	0.499	0.001
Gigante inglese	5	0.172	0.014	0.030	0.084	0.169	0.494	0.038
Girgentana	2	0.001	0.000	0.000	0.113	0.384	0.501	0.000
Giustalisa	2	0.000	0.000	0.000	0.060	0.438	0.501	0.000
Giza-168/Shuha's'/dobuc's'	1	0.000	0.004	0.495	0.000	0.000	0.494	0.006
Gondum_ishtur	3	0.502	0.000	0.000	0.000	0.000	0.498	0.000
Grazia	7	0.007	0.000	0.002	0.485	0.002	0.502	0.002
graziella_ra	4	0.474	0.000	0.000	0.028	0.000	0.498	0.000
Grifoni	2	0.138	0.000	0.000	0.198	0.147	0.501	0.015
Hamam-4	1	0.000	0.001	0.483	0.000	0.000	0.496	0.020
Heraklion	7	0.029	0.000	0.011	0.426	0.023	0.500	0.011
Husco	2	0.200	0.018	0.000	0.073	0.189	0.499	0.021
I_1_3490	5	0.197	0.000	0.000	0.127	0.165	0.504	0.006
I_1_3496	5	0.176	0.037	0.000	0.000	0.158	0.495	0.134
I-1-3448	4	0.219	0.023	0.000	0.062	0.129	0.467	0.100
Iar/w/51-1	5	0.001	0.000	0.000	0.155	0.073	0.494	0.277

Iar/W/67-3	2	0.062	0.000	0.000	0.153	0.146	0.470	0.169
Inglesa	2	0.035	0.000	0.000	0.258	0.208	0.500	0.000
Iride	7	0.000	0.000	0.010	0.487	0.000	0.500	0.003
IWA8606551	3	0.503	0.000	0.000	0.000	0.000	0.497	0.000
IWA8607904	3	0.502	0.000	0.000	0.000	0.000	0.498	0.000
IWA8608332	3	0.502	0.000	0.000	0.000	0.000	0.498	0.000
IWA860984	3	0.502	0.000	0.000	0.000	0.000	0.498	0.000
IWA8609932	3	0.502	0.000	0.000	0.000	0.000	0.498	0.000
Izaz-11	1	0.000	0.000	0.508	0.000	0.000	0.492	0.000
Izaz-2/asfoor-1/4/opata/bow//	1	0.000	0.000	0.497	0.000	0.000	0.491	0.012
Jawahir-20	1	0.000	0.000	0.501	0.000	0.000	0.494	0.004
Kahla	2	0.053	0.000	0.000	0.198	0.250	0.499	0.000
Kamut	4	0.470	0.000	0.000	0.032	0.000	0.497	0.000
Kamut porfiri	4	0.496	0.000	0.000	0.005	0.000	0.499	0.000
Kanakis	7	0.493	0.000	0.000	0.007	0.000	0.500	0.000
Levante	7	0.000	0.000	0.006	0.471	0.000	0.499	0.023
Leventis	4	0.020	0.170	0.019	0.043	0.008	0.500	0.240
Mahmoudi	2	0.001	0.000	0.000	0.448	0.028	0.504	0.020
Maliani 1D	2	1.000	0.000	0.000	0.000	0.000	0.000	0.000
Maliani 6	2	0.050	0.003	0.000	0.197	0.254	0.497	0.000
Manto di Maria	2	0.004	0.043	0.028	0.164	0.206	0.497	0.058
Marche Simona	6	0.034	0.008	0.013	0.204	0.229	0.500	0.012
Marco Aurelio	7	0.011	0.000	0.000	0.124	0.363	0.501	0.000
Margherito	7	0.000	0.495	0.000	0.000	0.000	0.505	0.000
Marrocos	4	0.003	0.000	0.000	0.455	0.036	0.504	0.002
Martinari	4	0.002	0.000	0.001	0.498	0.001	0.496	0.001
Martinella	2	0.286	0.000	0.000	0.124	0.088	0.502	0.000
Martinur	7	0.000	0.000	0.000	0.107	0.392	0.501	0.000
Meknes	4	0.001	0.000	0.000	0.471	0.019	0.491	0.017
MG 4479	2	0.343	0.001	0.006	0.100	0.052	0.497	0.001
MG 4483	7	0.005	0.000	0.000	0.191	0.304	0.500	0.000
MG 4486	2	0.000	0.000	0.000	1.000	0.000	0.000	0.000

MG 7852	2	0.000	0.000	0.000	0.050	0.449	0.500	0.000
Mimmo	7	0.002	0.000	0.000	0.227	0.152	0.493	0.126
Mirabella	5	0.000	0.000	0.001	0.489	0.000	0.503	0.006
Miradoux	7	0.211	0.003	0.000	0.076	0.172	0.497	0.041
Molise	6	0.000	0.000	0.000	0.460	0.027	0.504	0.008
Molise colli	6	0.000	0.378	0.000	0.003	0.031	0.505	0.082
Monastir	7	0.000	0.495	0.000	0.000	0.000	0.505	0.000
Monteleone	6	0.003	0.000	0.000	0.380	0.077	0.502	0.037
Nonette de lausanne	5	0.000	0.226	0.000	0.000	0.000	0.499	0.275
Norcia	6	0.123	0.169	0.000	0.000	0.054	0.493	0.161
Novo	5	0.000	0.227	0.000	0.000	0.000	0.498	0.275
Obelix	7	0.134	0.104	0.000	0.000	0.146	0.481	0.135
Odisseo	7	0.142	0.076	0.000	0.000	0.176	0.497	0.107
Oeltha	2	0.022	0.000	0.000	0.414	0.045	0.503	0.015
Orobel	7	0.009	0.000	0.000	0.485	0.004	0.501	0.000
Padre pio	6	0.006	0.000	0.000	0.143	0.213	0.497	0.141
Paola	2	0.005	0.004	0.000	0.421	0.052	0.501	0.018
Paprika	7	0.000	0.476	0.000	0.000	0.016	0.508	0.000
Pavone	2	0.000	0.096	0.000	0.033	0.291	0.495	0.084
Pelissier	2	0.000	0.000	0.000	0.466	0.008	0.503	0.023
Perciasacchi	4	0.000	0.002	0.000	0.128	0.369	0.501	0.000
Pererodka	2	0.050	0.000	0.000	0.211	0.242	0.497	0.000
Persian	5	0.201	0.005	0.000	0.106	0.201	0.486	0.001
Pharaons	5	0.075	0.000	0.013	0.215	0.190	0.496	0.011
PI_369816	5	0.116	0.002	0.067	0.001	0.000	0.490	0.324
Pigreco	7	0.105	0.094	0.000	0.000	0.186	0.498	0.117
Polsk_Hvede	5	0.005	0.003	0.005	0.459	0.014	0.500	0.014
Preziusa	7	0.173	0.038	0.000	0.000	0.160	0.494	0.134
Prospero	7	0.000	0.000	0.000	0.501	0.000	0.499	0.000
Puro	7	0.024	0.000	0.003	0.447	0.006	0.500	0.020
Qafzah-31	1	0.000	0.000	0.001	0.474	0.000	0.501	0.025
Radicondoli	6	0.000	0.000	0.419	0.048	0.000	0.490	0.042

Ramirez	7	0.000	0.494	0.000	0.000	0.000	0.506	0.000
Reale	7	0.000	0.000	0.000	0.453	0.002	0.503	0.042
Realforte	2	0.008	0.002	0.001	0.484	0.000	0.504	0.001
Reehab-2	1	0.079	0.006	0.000	0.153	0.260	0.499	0.004
Regina	2	0.000	0.002	0.496	0.002	0.001	0.499	0.001
RIGA 952/20135	2	0.000	0.000	0.000	0.070	0.428	0.502	0.000
Rivet	5	0.063	0.000	0.000	0.261	0.177	0.497	0.002
Roseta	2	0.128	0.101	0.000	0.000	0.140	0.497	0.133
Rosso rubino	6	0.002	0.028	0.000	0.051	0.401	0.500	0.018
Rubiel_de_liebana	5	0.000	0.229	0.000	0.000	0.000	0.498	0.273
Ruscia	2	0.127	0.097	0.000	0.000	0.137	0.495	0.144
Russello	2	0.018	0.000	0.000	0.238	0.744	0.000	0.000
Russello S.G. 7	2	0.000	0.000	0.000	0.000	0.000	1.000	0.000
Sabaudia	2	0.000	0.000	0.000	0.056	0.445	0.498	0.000
Sammartinara	2	0.080	0.000	0.000	0.183	0.228	0.504	0.005
San Carlo	7	0.000	0.000	0.000	0.050	0.449	0.501	0.000
Saragolla	7	0.000	0.000	0.000	0.495	0.000	0.504	0.000
Saragolla	7	0.076	0.001	0.002	0.483	0.435	0.000	0.003
Sari_tuya_tish	3	0.000	0.000	0.000	0.490	0.000	0.501	0.009
Scavuzza	2	0.000	0.000	0.000	0.000	0.000	1.000	0.000
Sciaggari Busasore	5	0.503	0.000	0.000	0.000	0.000	0.497	0.000
Scorsonera	2	0.044	0.000	0.000	0.119	0.340	0.497	0.000
Secolo	7	0.006	0.000	0.001	0.111	0.139	0.494	0.249
Semenzella	2	0.012	0.000	0.000	0.151	0.338	0.499	0.000
Senatore Cappelli	7	0.006	0.000	0.004	0.478	0.002	0.498	0.011
Sert	2	0.029	0.016	0.000	0.054	0.387	0.498	0.016
Sin_el_pheel	4	0.000	0.000	0.000	1.000	0.000	0.000	0.000
Solex	7	0.000	0.000	0.000	0.000	0.000	1.000	0.000
Somama-9//seri82/shuha's'	1	0.241	0.006	0.000	0.075	0.154	0.501	0.024
Suhulu Villosa	2	0.217	0.000	0.000	0.193	0.089	0.501	0.000
Sunray	4	0.000	0.000	0.000	0.439	0.030	0.503	0.026
Svevo	7	0.001	0.000	0.487	0.013	0.000	0.490	0.009

Svevo x Senatore Cappelli	7	0.063	0.000	0.000	0.136	0.181	0.498	0.123
SY 20198	5	0.462	0.000	0.000	0.039	0.002	0.497	0.000
Sy Atlante	7	0.000	0.000	0.000	0.484	0.000	0.502	0.014
SY Esperto	7	0.102	0.073	0.052	0.002	0.000	0.513	0.258
SY Leonardo	7	0.001	0.000	0.000	0.454	0.023	0.503	0.018
SY Nilo	7	0.000	0.000	0.000	0.433	0.037	0.504	0.027
T_742	4	0.008	0.001	0.000	0.484	0.000	0.501	0.006
Tafeelih riti	4	0.000	0.000	0.000	0.489	0.000	0.502	0.009
Taganrog	7	0.195	0.000	0.000	0.128	0.172	0.502	0.003
Tanis	5	0.216	0.000	0.000	0.193	0.089	0.501	0.000
Tedone 10	7	0.000	0.000	0.000	0.495	0.002	0.502	0.000
Tedone 8	7	0.106	0.095	0.000	0.000	0.186	0.498	0.115
Timilia	2	0.120	0.000	0.000	0.375	0.000	0.505	0.000
Tirex	7	0.120	0.000	0.000	0.375	0.000	0.505	0.000
Tiruni	2	0.082	0.000	0.000	0.177	0.234	0.499	0.008
Toscadou	7	0.002	0.001	0.000	0.463	0.002	0.503	0.029
Trentino	2	0.133	0.044	0.019	0.082	0.126	0.494	0.102
Trigu Biancu	7	0.001	0.000	0.001	0.489	0.000	0.504	0.005
Trigu Moro	2	0.010	0.000	0.000	0.137	0.355	0.498	0.000
Trigu Murru	7	0.000	0.000	0.000	0.496	0.001	0.502	0.000
Trionfo	7	0.040	0.001	0.000	0.321	0.138	0.498	0.001
Tripolino	2	0.000	0.002	0.001	0.420	0.051	0.500	0.026
Tunisina	2	0.032	0.002	0.000	0.431	0.023	0.503	0.008
Turnadili	3	0.130	0.000	0.000	0.188	0.164	0.502	0.016
Tuscania	6	0.033	0.005	0.001	0.162	0.287	0.500	0.012
Urria	2	0.930	0.000	0.000	0.000	0.070	0.000	0.000
Usher-18	1	0.000	0.495	0.000	0.000	0.000	0.505	0.000
Vakilagha	2	0.001	0.002	0.000	0.121	0.370	0.502	0.003
Valaniene	7	0.000	0.000	0.505	0.000	0.000	0.494	0.000
Valerio	7	0.160	0.001	0.002	0.179	0.128	0.498	0.033
Valgiorgio	7	0.021	0.000	0.000	0.406	0.048	0.505	0.020
Vallega Zitelli	7	0.000	0.000	0.002	0.486	0.000	0.503	0.009

Vallelunga Glabra	2	0.003	0.000	0.000	0.482	0.013	0.501	0.001
Vallelunga Pubescente	2	0.014	0.004	0.000	0.471	0.002	0.501	0.009
Valsacco	7	0.017	0.000	0.008	0.098	0.374	0.502	0.000
Valselva	7	0.000	0.000	0.000	0.042	0.460	0.497	0.000
Valtarquinio	7	0.002	0.000	0.000	0.450	0.041	0.502	0.005
Vernal emmer	5	0.001	0.001	0.000	0.476	0.013	0.502	0.007
WIR 6388	6	0.010	0.000	0.000	0.397	0.057	0.503	0.032
WIR28162	5	0.045	0.129	0.000	0.000	0.000	0.492	0.334
WIR28162XPI_369816	5	0.059	0.013	0.325	0.000	0.000	0.489	0.113
WIR32510	1	0.000	0.204	0.000	0.000	0.000	0.495	0.300
Yaqub	6	0.000	0.489	0.000	0.000	0.000	0.511	0.000
Zefiro	6	0.000	0.489	0.000	0.000	0.000	0.510	0.000
Zetae	7	0.000	0.000	0.000	0.481	0.009	0.503	0.007