

Table S1. Descriptive statistics of nutritional quality traits of second-generation sister lines originating from “Elassona”, “Lefkada” and “Evros”.

	Protein content	Ash	Crude fiber	Lipids	Starch
	%	%	%	%	%
“Elassona” second generation sister lines					
Mean	27.29	3.01	4.39	0.73	53.26
Min	25.50	2.63	2.83	0.40	50.4
Max	28.84	3.35	7.37	1.09	56.72
Range	3.34	0.72	4.54	0.69	6.32
Std	0.80	0.21	1.16	0.19	1.30
CV%	2.93	7.10	26.53	25.90	2.44
Parental landrace “Elassona”					
Mean	28.09	2.65	3.26	1.06	53.58
Min	27.16	2.49	2.97	0.90	52.36
Max	29.86	2.89	3.75	1.20	54.84
Range	2.70	0.40	0.78	0.30	2.48
Std	1.53	0.21	0.42	0.15	1.24
CV%	5.46	7.99	13.01	14.24	2.32
“Lefkada” second generation sister lines					
Mean	27.72	2.98	5.84	0.72	51.15
Min	26.08	2.03	3.60	0.47	47.31
Max	30.15	3.97	8.02	1.09	54.62
Range	4.07	1.94	4.42	0.62	7.31
Std	1.07	0.45	1.12	0.16	1.90
CV%	3.86	15.24	19.27	21.62	3.71
Parental landrace “Lefkada”					
Mean	28.33	2.72	4.65	0.92	51.67
Min	27.08	2.52	4.17	0.64	49.92
Max	30.07	3.07	5.26	1.2	52.86
Range	2.99	0.55	1.09	0.56	2.94
Std	1.55	0.31	0.56	0.28	1.55
CV%	5.48	11.29	11.97	30.55	2.99
“Evros” second generation sister lines					
Mean	28.00	2.61	4.71	0.93	52.29
Min	24.84	2.35	3.59	0.64	49.08
Max	31.26	3.25	6.16	1.23	56.27
Range	6.42	0.90	2.57	0.59	7.19
Std	1.70	0.24	0.71	0.19	1.99
CV%	6.09	9.11	15.02	19.90	3.81
Parental landrace “Evros”					
Mean	28.19	2.62	3.12	0.86	53.57
Min	27.3	2.52	2.83	0.65	52.03
Max	29.62	2.78	3.52	1.08	54.79
Range	2.32	0.26	0.69	0.43	2.76
Std	1.25	0.14	0.36	0.22	1.41
CV%	4.44	5.44	11.47	24.91	2.63

Table S2. Descriptive statistics of agronomical, morphological and seed coat characteristics, of second-generation sister lines originating from “Elassona”, “Lefkada” and “Evros”.

	1000-seed weight (g)	Diameter (mm)	Thickness (mm)	Parameters of seed coat color					Seed coat percentage (%)
				L*	a*	b*	C*	H	
“Elassona” second generation sister lines									
Mean	35.35	4.70	2.56	40.65	2.66	5.51	6.16	63.42	7.81
Min	25.30	4.07	2.41	38.72	1.76	3.56	4.61	50.46	5.70
Max	47.90	5.61	2.70	42.29	3.14	7.15	7.36	76.18	9.05
Range	22.60	1.54	0.29	3.57	1.38	3.59	2.75	25.72	3.35
Std	6.29	0.44	0.07	0.99	0.29	1.05	0.89	6.15	0.56
CV%	17.80	9.41	2.80	2.43	11.05	19.05	14.49	9.69	7.19
Parental landrace “Elassona”									
Mean	32.90	4.57	2.51	40.68	2.68	6.22	6.79	66.57	8.01
Min	25.50	4.12	2.37	39.97	2.25	5.98	6.41	63.54	7.61
Max	37.10	4.89	2.63	41.74	3.19	6.45	7.20	68.85	8.73
Range	11.60	0.77	0.26	1.77	0.94	0.47	0.79	5.31	1.12
Std	6.43	0.40	0.13	0.93	0.48	0.24	0.40	2.73	0.62
CV%	19.54	8.75	5.21	2.29	17.78	3.78	5.84	4.11	7.80
“Lefkada” second generation sister lines									
Mean	35.36	4.65	2.55	40.70	2.67	5.36	6.04	62.31	7.98
Min	26.30	3.99	2.40	38.79	2.01	2.89	4.08	44.98	6.43
Max	47.30	5.62	2.66	42.20	3.47	7.08	7.89	71.83	8.72
Range	21.00	1.63	0.26	3.41	1.46	4.19	3.81	26.85	2.29
Std	6.26	0.48	0.07	0.99	0.31	1.32	1.15	7.62	0.47
CV%	17.71	10.30	2.81	2.44	11.58	24.69	19.08	12.23	5.86
Parental landrace “Lefkada”									
Mean	30.27	4.34	2.56	39.25	2.59	4.38	5.20	57.12	8.55
Min	28.30	4.14	2.51	38.32	1.95	3.34	4.56	47.01	7.83
Max	33.70	4.65	2.60	40.46	3.11	6.15	6.47	72.15	9.24
Range	5.40	0.51	0.09	2.14	1.16	2.81	1.91	25.14	1.41
Std	2.98	0.27	0.05	1.10	0.59	1.54	1.10	13.27	0.71
CV%	9.86	6.22	1.79	2.79	22.76	35.18	21.08	23.24	8.25
“Evros” second generation sister lines									
Mean	35.88	4.71	2.57	40.69	2.65	5.76	6.39	64.27	7.87
Min	27.50	3.95	2.47	38.57	1.93	3.71	4.87	49.64	7.21
Max	45.80	5.80	2.64	42.30	3.24	7.20	7.78	73.10	8.49
Range	18.30	1.85	0.17	3.73	1.31	3.49	2.91	23.46	1.28
Std	5.20	0.48	0.05	1.14	.34	1.20	0.97	7.52	0.34
CV%	14.50	10.29	1.97	2.81	12.70	20.78	15.11	11.70	13.81
Parental landrace “Evros”									
Mean	35.40	4.62	2.54	40.67	2.50	5.78	6.36	64.86	7.94
Min	28.10	4.03	2.53	38.56	2.22	3.70	4.63	53.01	7.80
Max	44.80	5.21	2.56	42.26	2.77	6.90	7.34	71.61	8.04
Range	16.70	1.18	0.03	3.70	0.55	3.20	2.71	18.60	0.24
Std	8.55	0.59	0.02	1.91	0.28	1.81	1.51	10.29	0.12
CV%	24.14	12.78	0.60	4.68	11.02	31.22	23.65	15.87	1.56

Table S3. Descriptive statistics of hydration increases, coefficients, capacities and indices and cooking times of each parental landrace and second-generation sister lines originating from the respective parental landrace.

	Hydrat. increase (12 h)	Hydrat. coeffic. (12 h)	Hydrat. capacity (12 h)	Hydrat. index (12 h)	Hydrat. increase (24 h)	Hydrat. coeffic. (24 h)	Hydrat. capacity (24 h)	Hydrat. index (24 h)	Cooking time (min)
“Elassona” second generation sister lines									
Mean	83.33	1.83	0.0296	0.83	93.27	1.93	0.0330	0.93	36.83
Min	69.17	1.69	0.0190	0.69	87.49	1.87	0.0240	0.87	25.00
Max	91.01	1.91	0.0400	0.91	97.41	1.97	0.0450	0.97	45.00
Range	21.84	0.22	0.0210	0.22	9.92	0.10	0.0210	0.10	20.00
Std	4.09	0.04	0.0055	0.04	2.41	0.02	0.0058	0.02	4.45
CV%	4.91	2.26	18.54	4.98	2.58	1.24	17.53	2.56	12.08
Parental landrace “Elassona”									
Mean	83.01	1.83	0.0273	0.83	90.61	1.90	0.0297	0.90	41.67
Min	80.40	1.80	0.0220	0.80	85.37	1.85	0.0240	0.85	35.00
Max	84.55	1.85	0.0300	0.85	95.31	1.95	0.0330	0.95	45.00
Range	4.15	0.05	0.0080	0.05	9.94	0.100	0.0090	0.10	10.00
Std	2.27	0.03	0.0046	0.03	4.99	0.05	0.0049	0.05	5.77
CV%	2.74	1.45	16.90	3.19	5.51	2.64	16.63	5.57	13.86
“Lefkada” second generation sister lines									
Mean	82.94	1.83	0.0290	0.83	93.21	1.93	0.0327	0.93	30.17
Min	74.68	1.75	0.0200	0.75	86.30	1.86	0.0240	0.86	20.00
Max	90.82	1.91	0.0390	0.91	102.40	2.02	0.0450	1.02	45.00
Range	16.14	0.16	0.0190	0.16	16.10	0.16	0.0210	0.16	25.00
Std	3.64	0.04	0.0050	0.04	3.59	0.04	0.0057	0.04	5.65
CV%	4.39	2.02	17.20	4.46	3.86	1.84	17.28	3.82	18.71
Parental landrace “Lefkada”									
Mean	83.03	1.83	0.0253	0.83	91.73	1.92	0.0277	0.92	33.33
Min	82.04	1.82	0.0240	0.82	90.62	1.91	0.0260	0.91	25.00
Max	84.23	1.84	0.0280	0.84	92.42	1.92	0.0310	0.92	40.00
Range	2.19	0.02	0.0040	0.02	1.80	0.01	0.0050	0.01	15.00
Std	1.11	0.01	0.0023	0.01	0.97	0.01	0.0029	0.01	7.64
CV%	1.34	0.55	9.12	1.20	1.06	0.30	10.43	0.63	22.91
“Evros” second generation sister lines									
Mean	83.83	1.84	0.0302	0.84	93.32	1.93	0.0335	0.93	35.24
Min	74.55	1.75	0.0200	0.75	90.40	1.90	0.0250	0.90	30.00
Max	88.61	1.89	0.0410	0.89	96.80	1.97	0.0440	0.97	45.00
Range	14.06	0.14	0.0210	0.14	6.40	0.07	0.0190	0.07	15.00
Std	3.43	0.03	0.0051	0.03	1.92	0.02	0.0051	0.02	4.87
CV%	4.09	1.89	16.99	4.14	2.05	1.05	15.22	2.17	4.33
Parental landrace “Evros”									
Mean	84.70	1.85	0.0300	0.85	94.83	1.95	0.0333	0.95	41.67
Min	84.14	1.84	0.0240	0.84	92.61	1.93	0.0270	0.93	35.00
Max	85.63	1.86	0.0380	0.86	97.28	1.97	0.0410	0.97	45.00
Range	1.49	0.02	0.0140	0.02	4.67	0.04	0.0140	0.04	10.00
Std	.81	0.01	0.0072	0.01	2.34	0.02	0.0071	0.02	5.77
CV%	.96	0.63	24.04	1.36	2.47	1.03	21.28	2.11	13.86