

**Table S5.** Means of 11 agronomic traits for grass pea collection produced 2021 growing season, Isparta (highland), Turkey

Genotype	USDA GenBank ID	First flowering (day)	50% flowering (day)	Plant height (cm)	Number of pods	Number of branches	Pod height (cm)	Pod width (cm)	Stem diameter (mm)	Hundred seed weight (g)	Biological yield (g)	Seed yield (g)
GP2	PI 117250	183.6	187.3	45.6	12.2	2.2	2.9	0.9	3.3	7.4	4.8	2.4
GP6	PI 117243	185.6	189.3	41.6	17.0	2.6	2.3	0.9	4.3	8.8	8.6	3.2
GP7	PI 117283	182.6	185.3	50.6	24.4	3.4	2.3	0.8	4.5	7.6	8.5	3.9
GP10	PI 117209	179.6	184.3	47.6	12.6	3.1	2.7	0.8	3.9	6.8	6.8	3.1
GP11	PI 117424	189.6	192.3	40.6	21.6	3.6	3.0	0.8	5.4	17.9	33.9	4.4
GP17	PI 117454	188.6	192.3	41.6	31.4	4.8	2.8	1.0	5.1	20.8	50.5	10.8
GP18	PI 117594	199.6	203.3	46.2	37.7	3.3	2.5	0.8	5.4	19.4	63.7	19.5
GP19	PI 117229	191.6	195.3	55.1	36.8	5.4	2.9	0.9	5.1	23.1	44.6	17.5
GP23	PI 117401	198.6	201.3	51.8	19.4	3.4	2.7	1.0	4.3	21.1	27.9	4.8
GP34	PI 667278	182.6	186.3	24.6	31.2	3.2	3.3	1.0	3.6	10.2	11.1	3.3
GP40	PI 422539	192.6	196.3	40.6	52.8	7.6	3.7	1.2	4.5	21.5	75.7	33.0
GP41	PI 358891	190.6	193.3	61.2	25.8	5.2	3.4	1.2	4.5	20.3	28.7	8.3
GP42	PI 283599	190.3	195.3	49.6	45.0	9.0	2.4	1.0	4.4	23.2	48.3	16.5
GP43	PI 283589	190.3	194.3	50.0	23.4	4.2	3.6	1.3	4.8	23.4	32.3	5.7
GP44	PI 283580	197.3	203.3	36.6	22.8	4.6	3.0	1.2	4.7	21.2	8.9	9.6
GP45	PI 283569	199.3	205.3	42.4	14.9	4.0	3.4	1.4	4.4	19.0	20.9	5.7
GP47	PI 221467	199.3	201.3	45.8	8.4	1.0	3.3	1.0	4.4	14.2	7.0	2.7
GP49	PI 667277	194.3	198.3	29.8	19.4	4.0	2.3	1.0	4.5	15.9	20.9	4.5
GP53	PI 667271	197.3	195.3	32.2	28.1	3.4	2.9	1.0	2.8	15.4	23.6	8.6
GP58	PI 667276	191.3	196.3	34.6	34.4	4.4	3.3	1.3	3.9	15.7	37.6	7.4
GP59	PI 667275	197.3	203.3	43.8	34.4	3.8	3.3	1.2	3.9	11.2	29.8	6.9
GP60	PI 667265	199.3	207.3	33.0	19.4	3.0	3.4	1.2	4.5	15.9	24.9	6.2
GP61	PI 667264	194.3	197.3	44.3	35.9	3.0	2.8	1.0	3.8	18.8	13.0	9.2
GP74	PI 513243	184.3	188.3	45.8	5.4	2.5	2.1	0.8	3.4	18.8	5.0	1.8
GP103	PI 667251	184.3	189.3	24.8	20.6	3.2	3.2	1.3	3.3	9.6	5.3	2.5
GP104	PI 667250	190.3	194.3	60.8	22.4	4.2	3.7	1.1	3.3	9.3	4.9	1.5
GP105	PI 667248	181.3	186.3	71.8	21.9	4.3	3.0	1.3	2.7	9.1	5.0	1.5

**Table S5.** continued

<b>Genotype</b>	<b>USDA GenBank ID</b>	<b>First flowering (day)</b>	<b>50% flowering (day)</b>	<b>Plant height (cm)</b>	<b>Number of pods</b>	<b>Number of branches</b>	<b>Pod height (cm)</b>	<b>Pod width (cm)</b>	<b>Stem diameter (mm)</b>	<b>Hundred seed weight (g)</b>	<b>Biological yield (g)</b>	<b>Seed yield (g)</b>
GP107	PI 511770	206.3	213.3	76.8	3.4	4.2	3.0	1.1	3.4	10.2	8.4	3.9
GP108	PI 507931	206.3	212.3	19.8	10.6	3.0	3.8	1.2	2.7	17.9	12.7	2.8
GP110	PI 422538	189.3	193.3	30.0	13.9	5.2	3.2	1.1	2.4	9.1	5.9	2.6
GP114	PI 422529	181.3	187.3	51.8	6.0	2.4	3.7	1.1	3.5	12.5	7.0	1.5
GP116	PI 422521	181.6	183.3	22.1	7.2	3.8	4.0	1.3	4.2	7.9	9.7	1.9
GP117	PI 337007	182.3	187.3	28.2	10.0	2.2	3.6	1.2	3.6	11.3	8.6	1.4
GP119	PI 283592	190.3	194.3	29.8	11.2	2.6	3.8	1.2	4.4	18.2	13.2	3.1
GP120	PI 283587	185.3	190.3	30.4	13.9	3.4	4.0	1.1	4.5	12.7	12.2	4.7
GP124	PI 283579	180.6	183.3	21.6	11.6	2.7	2.7	1.0	3.6	8.2	11.0	2.6
GP133	PI 232923	181.3	187.3	34.3	18.6	4.4	3.8	1.1	4.6	17.9	48.4	8.6
GP135	PI 195995	180.3	186.3	53.0	36.4	6.4	3.3	1.0	5.6	19.4	41.6	15.2
GP145	PI 283562	179.3	184.3	35.2	62.0	7.6	3.5	0.9	5.6	18.0	82.4	17.5
GP147	PI 283576	188.3	193.3	39.6	29.2	5.6	3.3	1.1	5.6	22.1	48.0	16.9
GP149	PI 283595	178.6	182.3	22.0	11.2	3.8	3.4	1.0	4.1	9.6	8.4	2.1
GP150	PI 283594	194.3	197.3	29.6	20.7	5.6	3.9	1.0	4.3	17.3	29.9	10.0
GP152	PI 283588	194.3	196.3	44.0	47.1	3.2	3.0	1.1	4.1	9.1	27.4	7.1
GP156	PI 283559	187.3	192.3	58.8	62.0	8.0	2.1	1.1	4.2	12.2	42.9	16.4
GP157	PI 193544	184.1	193.3	62.8	20.4	4.1	2.6	1.0	3.6	8.4	15.1	5.0
GP161	PI 429368	180.1	189.3	65.6	58.7	3.7	2.5	1.0	3.9	19.8	47.8	20.3
GP163	PI 422541	185.1	185.3	48.6	34.1	4.5	3.1	1.0	4.7	13.4	28.6	17.0
GP164	PI 422531	178.1	187.3	38.3	19.6	5.3	3.3	1.1	4.3	16.1	21.7	6.5
GP165	PI 422527	189.1	197.3	31.6	29.8	5.5	2.1	0.9	4.3	22.1	33.1	13.7
GP166	PI 422526	186.1	196.3	43.4	25.7	3.7	3.1	1.2	3.9	17.8	26.7	3.5
GP177	PI 283584	180.1	189.3	45.6	58.1	4.9	3.0	0.9	4.0	21.2	19.5	8.2
GP178	PI 283577	188.1	196.3	45.7	24.9	2.1	3.2	1.2	3.9	12.4	6.4	2.1

**Table S5.** continued

<b>Genotype</b>	<b>USDA GenBank ID</b>	<b>First flowering (day)</b>	<b>50% flowering (day)</b>	<b>Plant height (cm)</b>	<b>Number of pods</b>	<b>Number of branches</b>	<b>Pod height (cm)</b>	<b>Pod width (cm)</b>	<b>Stem diameter (mm)</b>	<b>Hundred seed weight (g)</b>	<b>Biological yield (g)</b>	<b>Seed yield (g)</b>
GP179	PI 283573	185.1	193.3	17.6	12.8	3.7	3.0	0.8	3.6	12.3	6.9	1.9
GP180	PI 283572	184.1	193.3	40.9	15.4	3.5	3.9	1.2	4.5	15.2	12.8	1.6
GP181	PI 283565	189.1	197.3	26.6	9.4	2.1	3.8	1.2	3.0	12.1	8.3	1.7
GP182	PI 283560	180.1	189.3	26.6	17.1	3.5	4.1	1.2	3.9	13.9	9.1	3.2
GP184	PI 283561	185.1	194.3	29.3	18.8	2.5	3.9	1.3	3.3	5.6	9.5	4.0
GP196	PI 337087	179.6	185.3	22.0	10.6	5.6	3.9	1.1	4.3	12.9	9.0	6.0
GP197	PI 317441	182.1	192.3	49.8	8.4	2.5	3.3	0.9	3.6	14.8	8.7	2.4
GP198	PI 317440	185.1	193.3	38.6	12.4	3.7	3.7	1.0	3.9	9.4	8.0	2.6
GP199	PI 317439	181.1	192.3	44.6	28.4	2.5	3.5	1.0	4.4	12.6	23.5	4.1
GP206	PI 283571	184.1	194.3	46.6	21.1	3.1	4.1	1.2	4.3	11.8	19.4	4.4
GP207	PI 283567	186.1	196.3	40.6	10.4	3.1	3.4	0.9	3.7	16.2	12.4	2.5
GP209	PI 422540	187.1	196.3	34.2	35.1	3.5	3.5	1.2	5.1	11.4	26.4	7.8
GP213	PI 577139	187.1	195.3	49.6	26.1	3.7	4.0	1.4	4.0	12.0	30.5	6.3
GP214	PI 577138	184.1	193.3	38.1	17.6	2.7	3.8	1.1	3.7	11.9	17.1	3.3
GP215	PI 442801	182.1	192.3	43.2	24.1	3.3	3.7	1.1	3.8	12.3	21.2	4.8
GP222	PI 283557	181.1	192.3	41.6	16.9	4.3	2.6	1.0	4.8	13.4	16.8	2.9
GP224	PI 283555	190.1	202.3	37.1	17.9	3.5	2.8	1.0	3.8	8.6	11.2	2.8
GP225	PI 283554	183.1	193.3	38.1	15.4	2.7	3.3	1.1	3.8	7.6	9.2	3.2
GP227	PI 283551	175.1	185.3	46.6	26.4	4.1	2.7	1.0	3.6	13.6	25.0	8.5
GP228	PI 283549	178.1	189.3	20.6	15.4	1.7	2.9	1.0	3.9	12.6	13.2	4.2
GP229	PI 283548	177.1	187.3	39.6	16.4	2.5	2.3	0.9	3.1	10.2	9.9	1.9
GP230	PI 268478	174.1	169.3	49.6	44.4	4.7	3.0	1.1	4.1	11.1	46.2	13.1
GP232	PI 251413	172.1	181.3	27.6	26.1	3.5	2.7	0.9	3.7	16.9	33.7	6.9
GP233	PI 244756	178.6	183.3	25.6	15.9	3.8	3.3	1.0	3.8	15.5	16.6	5.5
GP234	PI 239867	188.6	192.3	21.1	21.2	6.4	3.6	0.9	5.7	21.4	34.0	7.9

**Table S5.** continued

Genotype	USDA GenBank ID	First flowering (day)	50% flowering (day)	Plant height (cm)	Number of pods	Number of branches	Pod height (cm)	Pod width (cm)	Stem diameter (mm)	Hundred seed weight (g)	Biological yield (g)	Seed yield (g)
GP235	PI 239866	195.6	198.3	37.0	6.0	3.7	2.6	0.9	4.7	17.2	7.2	4.3
GP237	PI 231456	190.6	196.3	27.1	17.7	5.6	3.5	0.9	3.7	10.2	5.2	2.8
GP242	PI 222203	181.6	184.3	60.6	26.2	6.0	3.5	1.0	5.3	23.8	50.5	9.3
GP243	PI 221466	182.6	183.3	30.6	8.0	3.0	3.7	0.9	4.3	14.8	9.2	2.4
GP244	PI 221465	191.6	195.3	21.9	2.9	1.2	3.6	1.0	4.2	16.9	6.3	0.9
GP246	PI 220176	196.6	202.3	15.6	18.2	4.8	3.3	1.0	4.2	10.1	5.9	2.7
GP247	PI 219923	194.6	177.3	42.6	13.2	5.2	2.8	0.8	3.3	8.1	6.3	2.3
GP248	PI 210342	195.6	200.3	31.6	15.4	5.3	2.5	0.9	3.5	8.1	4.1	3.6
GP249	PI 206375	188.6	194.3	51.8	8.7	3.0	3.2	1.1	3.6	16.3	14.0	2.0
GP251	PI 196863	195.6	199.3	27.1	14.7	3.0	2.7	0.8	4.4	19.6	17.8	2.6
GP256	PI 195997	200.6	203.3	35.6	20.2	3.7	2.6	0.8	4.4	14.1	27.2	2.3
GP262	PI 195605	194.6	196.3	41.6	26.7	3.6	3.6	1.1	4.0	14.7	27.3	5.2
GP270	PI 193815	198.6	204.3	34.1	9.2	3.3	3.5	1.0	3.8	10.4	9.9	1.2
Gürbüz	Control	188.0	191.7	60.3	16.4	4.7	3.3	0.8	2.8	16.1	14.5	4.6
Karadağ	Control	186.0	193.3	52.7	33.0	2.8	3.5	1.1	4.1	14.7	9.8	2.9
İptaş	Control	191.3	200.3	41.0	15.4	4.9	3.3	0.9	4.3	13.7	12.7	3.1
Corea	Control	203.0	178.0	20.3	4.2	4.3	3.7	0.8	2.2	12.6	16.6	2.8
Means ± SD		187.75±7.32	192.94±7.32	39.66±12.61	21.97±13.01	3.89± 1.41	3.19± 0.51	1.03± 0.14	4.06± 0.7	14.33±4.61	20.76±16.27	6.03±5.45
LSD		ns	**	**	**	**	**	**	**	**	**	**

\*\* : Statistically significant at  $p = 0.001$  significance level. ns is non-significant

LSD is least significant differences