

Table 6: Effect of interaction between bio- and/or mineral N fertilization on yield and its components of three pea cultivars during 2010/2011 and 2011/2012 seasons

Characters		Yield and its components													
		No. of pods/plant		Average pod weight (g)		No. of seeds /pod		Weight of 1000 seeds (g)		Yield/plant (g)		Green yield /fed. (ton)		Dry seed yield/fed. (ton)	
		1 st	2 nd	1 st	2 nd	1 st	2 nd	1 st	2 nd	1 st	2 nd	1 st	2 nd	1 st	2 nd
Treatments		season	season	season	season	season	season	season	season	season	season	season	season	season	season
Master B	100% mineral N	12.83	13.05	5.10	5.31	8.49	9.00	170.7	190.6	65.5	66.1	4.37	4.63	0.803	0.863
	Isolate 1+0% N	9.27	11.05	4.40	4.51	6.73	7.15	145.1	163.9	40.9	49.1	2.73	3.32	0.453	0.513
	Isolate 1+25%N	10.44	11.27	6.18	6.39	9.48	9.88	184.7	203.7	64.6	72.1	4.31	4.81	0.763	0.813
	Isolate 1+50%N	11.25	11.93	6.51	6.69	10.2	10.7	188.9	208.0	73.4	79.8	4.89	5.32	0.913	0.973
	Isolate 2+0% N	9.79	10.89	4.66	5.00	6.96	7.39	153.7	174.9	45.7	54.6	3.05	3.64	0.503	0.563
	Isolate 2+25%N	10.49	11.28	6.39	6.57	9.67	10.2	188.7	207.0	67.1	74.2	4.48	4.95	0.823	0.883
	Isolate 2+50%N	11.37	11.67	6.89	7.12	10.5	10.8	201.9	222.6	78.4	83.2	5.23	5.55	0.983	1.053
	Isolate 3+0% N	8.90	9.61	3.91	4.09	6.53	6.93	130.9	148.7	34.9	39.4	2.33	2.63	0.423	0.463
	Isolate 3+25%N	11.82	12.27	5.19	5.43	9.18	9.59	179.7	199.8	61.4	66.7	4.07	4.45	0.713	0.773
Isolate 3+50%N	12.87	13.21	5.41	5.60	9.78	10.2	187.1	205.6	69.7	74.1	4.65	4.94	0.863	0.923	
Palmoral	100% mineral N	15.57	15.77	6.11	6.29	7.68	8.17	184.8	205.1	95.2	99.3	6.35	6.62	1.243	1.293
	Isolate 1+0% N	10.62	11.77	5.71	5.89	6.51	6.89	167.8	188.9	57.3	69.4	4.05	4.63	1.013	1.093
	Isolate 1+25%N	14.99	15.22	6.59	6.90	8.06	8.45	215.9	237.9	98.9	105.1	6.59	7.01	1.283	1.353
	Isolate 1+50%N	15.65	15.92	7.01	7.39	9.32	9.72	232.7	253.7	109.7	117.7	7.32	7.85	1.493	1.543
	Isolate 2+0% N	10.73	11.37	5.19	5.38	6.18	6.57	154.7	173.9	55.7	61.6	3.72	4.11	0.953	1.003
	Isolate 2+25%N	14.81	15.47	6.29	6.47	8.20	8.60	204.9	224.0	93.2	100.1	6.22	6.68	1.223	1.263
	Isolate 2+50%N	15.50	15.73	6.72	6.88	8.92	9.60	223.7	240.9	104.2	108.2	6.95	7.22	1.423	1.473
	Isolate 3+0% N	10.93	11.07	4.78	4.99	5.89	6.32	144.9	163.7	52.3	55.3	3.49	3.69	0.833	0.893
	Isolate 3+25%N	15.56	15.33	5.70	6.01	7.79	8.29	197.8	215.6	88.7	92.2	5.92	6.15	1.083	1.143
Isolate 3+50%N	15.70	16.51	6.29	6.38	8.28	9.22	215.9	232.1	98.8	105.4	6.93	7.03	1.343	1.383	
Jaguar	100% mineral N	14.49	14.46	5.50	5.78	7.49	7.90	179.7	199.1	79.7	83.6	5.32	5.58	1.073	1.133
	Isolate 1+0% N	9.88	10.68	4.89	5.08	6.02	6.49	165.7	185.5	48.4	54.2	3.23	3.62	0.863	0.913
	Isolate 1+25%N	12.57	13.18	6.09	6.34	7.86	8.48	201.7	225.2	76.6	83.6	5.11	5.58	1.163	1.213
	Isolate 1+50%N	14.63	14.85	6.40	6.68	8.57	9.37	225.9	248.7	93.7	99.2	6.25	6.62	1.333	1.393
	Isolate 2+0% N	9.52	10.41	4.76	4.93	5.79	7.52	150.7	169.8	45.4	51.4	3.03	3.43	0.723	0.773
	Isolate 2+25%N	12.64	13.67	5.77	6.04	7.75	8.41	195.1	214.7	73.0	76.6	4.87	5.11	0.933	1.053
	Isolate 2+50%N	13.64	14.14	6.18	6.41	8.28	9.06	214.0	233.0	80.4	90.7	6.03	6.04	1.243	1.293
	Isolate 3+0% N	9.11	9.57	4.48	4.61	5.37	5.76	135.7	154.9	40.9	44.2	2.73	2.95	0.613	0.653
	Isolate 3+25%N	13.51	13.75	5.19	5.36	7.48	8.23	188.9	207.6	70.1	73.7	4.68	4.92	0.933	0.983
Isolate 3+50%N	14.18	14.54	5.61	5.79	7.70	8.37	201.8	219.2	79.6	84.2	5.31	5.62	1.173	1.223	
L.S.D at 5%		0.58	0.60	0.04	0.05	0.52	0.51	5.0	5.2	5.73	3.62	0.16	0.51	0.054	0.051

Table 8: Effect of interaction between bio- and/or mineral N fertilization on chemical constituents of 2010/2011 and 2011/2012 seasons cultivars during three pea .

Characters Treatments		Chemical constituents of seeds											
		N %		P %		K %		Protein %		Nitrate (mg/kg)		Nitrite (mg/kg)	
		1 st season	2 nd season	1 st season	2 nd season	1 st season	2 nd season	1 st season	2 nd season	1 st season	2 nd season	1 st season	2 nd season
Master B	100% mineral N	3.64	4.14	0.332	0.402	2.22	2.30	22.77	25.87	158	164	6.68	6.98
	Isolate 1+ 0% N	2.76	3.24	0.288	0.369	1.52	1.65	17.27	22.25	110	112	4.24	4.54
	Isolate 1+ 25% N	3.55	4.06	0.314	0.383	1.77	1.84	22.21	25.37	132	136	5.41	5.73
	Isolate 1+ 50% N	3.74	4.26	0.332	0.404	2.10	2.22	23.40	26.62	158	165	6.45	6.63
	Isolate 2+ 0% N	2.96	3.45	0.303	0.372	1.75	1.90	18.52	21.56	121	124	4.54	4.91
	Isolate 2+ 25% N	3.69	4.20	0.328	0.389	1.96	2.03	23.08	26.25	140	145	5.64	6.02
	Isolate 2+ 50% N	3.84	4.37	0.332	0.421	2.25	2.37	24.02	27.31	168	180	6.56	6.91
	Isolate 3+ 0% N	2.55	3.06	0.293	0.345	1.40	1.53	15.98	19.13	98	101	3.65	3.93
	Isolate 3+ 25% N	3.44	3.88	0.318	0.375	1.64	1.76	21.52	24.25	119	124	5.16	5.47
Isolate 3+ 50% N	3.55	4.03	0.327	0.392	1.95	2.08	22.19	25.18	151	159	6.42	6.64	
Palmoral	100% mineral N	3.85	4.37	0.282	0.365	2.47	2.55	24.08	27.31	179	187	7.26	7.56
	Isolate 1+ 0% N	2.92	3.44	0.231	0.323	2.02	2.11	18.27	21.50	114	116	5.11	5.31
	Isolate 1+ 25% N	3.78	4.34	0.363	0.342	2.43	2.52	23.65	27.12	152	156	5.62	5.85
	Isolate 1+ 50% N	4.15	4.55	0.275	0.369	2.58	2.65	25.92	28.42	169	177	6.14	6.39
	Isolate 2+ 0% N	3.14	3.63	0.247	0.336	1.91	2.00	19.65	22.68	125	127	5.36	6.56
	Isolate 2+ 25% N	3.91	4.43	0.280	0.359	2.35	2.44	24.46	26.77	160	164	5.80	6.03
	Isolate 2+ 50% N	4.22	4.71	0.288	0.385	2.48	2.57	26.40	28.67	184	188	6.82	7.07
	Isolate 3+ 0% N	3.36	3.85	0.256	0.350	1.73	1.81	21.02	24.06	141	144	5.54	5.74
	Isolate 3+ 25% N	4.18	4.66	0.286	0.370	2.23	2.32	26.15	28.27	167	178	5.94	6.17
Isolate 3+ 50% N	4.33	4.85	0.306	0.428	2.42	2.52	27.08	29.24	189	192	7.04	7.29	
Jaguar	100% mineral N	3.71	4.25	0.251	0.302	2.33	2.41	23.18	26.54	169	175	7.07	7.37
	Isolate 1+ 0% N	2.75	3.26	0.200	0.275	1.95	2.03	17.21	20.39	111	113	5.01	5.21
	Isolate 1+ 25% N	3.73	4.24	0.235	0.309	2.18	2.26	23.33	26.48	144	147	5.54	5.77
	Isolate 1+ 50% N	3.99	4.51	0.250	0.348	2.41	2.41	24.96	28.19	157	161	6.11	6.36
	Isolate 2+ 0% N	2.96	3.44	0.220	0.293	1.72	1.83	18.52	21.50	119	121	5.24	5.44
	Isolate 2+ 25% N	3.81	4.31	0.246	0.310	1.97	2.07	23.83	26.93	155	158	5.66	5.89
	Isolate 2+ 50% N	4.14	4.63	0.265	0.320	2.36	2.44	25.90	28.93	173	177	6.67	6.92
	Isolate 3+ 0% N	3.22	3.73	0.239	0.306	1.57	1.66	20.15	23.30	134	136	5.46	5.66
	Isolate 3+ 25% N	3.89	4.41	0.255	0.322	1.85	1.93	24.33	27.36	162	165	5.84	6.07
Isolate 3+ 50% N	4.28	4.70	0.272	0.335	2.27	2.34	26.77	29.36	182	186	6.93	7.18	
L.S.D at 5%	0.054	0.054	0.051	0.054	0.27	0.27	0.53	0.72	5.1	5.2	0.29	0.36	