

Table 2. Means of plant height (cm), total chlorophyll (mg/m²), pod length (cm), and number of pods/plant of three faba bean cultivars as influenced by Roundup, foliar spray times of micronutrients and their interactions during the two seasons (2012/2013 and 2013/2014).

Treatments	Plant height (cm)		Total Chlorophyll (mg/m ²)		Pod length (cm)		Number of pods/plant		100- seed weight (g)		
	Season										
	2012/2013	2013/2014	2012/2013	2013/2014	012/013	013/014	2012/013	2013/014	2012/013	2013/014	
Roundup											
No spray	123.74	126.45	205.17	200.88	8.22	8.44	12.99	12.39	84.84	82.42	
Once	145.94	138.55	210.95	201.88	9.17	9.05	18.12	18.93	101.28	87.26	
Twice	144.36	140.52	226.48	223.42	9.28	9.44	20.08	15.80	94.00	86.15	
L.S.D.at 0.05	8.02	2.22	12.41	12.56	0.577	0.612	2.92	2.23	3.43	1.79	
Micronutrients											
Once	135.41	132.85	210.63	200.68	8.96	8.85	15.35	15.016	91.57	84.29	
Twice	140.62	137.49	217.77	216.78	8.81	9.11	18.78	16.40	95.24	86.26	
L.S.D.at 0.05	4.08	4.17	6.62	10.82	0.594	0.479	1.42	2.15	1.71	1.15	
Bean Cultivars											
Nubaria 1	134.34	128.59	180.99	176.82	8.33	8.33	14.40	12.29	91.89	83.26	
Nubaria 2	141.82	143.17	258.01	255.16	9.89	9.89	21.51	20.96	97.08	90.52	
Nubaria 3	137.89	133.75	203.60	194.21	8.44	8.44	15.28	13.88	91.25	82.04	
L.S.D.at 0.05	4.97	4.03	17.97	15.21	0.525	0.525	2.49	2.067	1.35	2.11	
Interaction											
Roundup Micronutrients	x	*	*	ns	ns	ns	ns	*	*	*	*
Roundup x cultivars		*	*	ns	ns	ns	ns	*	*	*	*
Micronutrients cultivars	x	*	**	ns	ns	ns	ns	*	*	**	**
Roundup Micronutrients cultivars	x x	*	*	ns	ns	ns	ns	**	**	*	*

*, **: significant at 0.05 level of probability.

ns: not significant at 0.05 level of probability.

Table 3. Means of seed yield (tons/ha.), straw yield (tons/ha.), biological yield (tons/ha.), and seed protein % of three faba bean cultivars as influenced by Roundup, foliar spray times of micronutrients and their interactions during the two seasons 2012/2013 and 2013/2014

Treatments	Seed yield (tons/ha.)		Straw yield (tons/ha.)		Biological yield (tons/ha.)		Harvest index (H.I. %)		Seed Protein %		
	Season										
	2012/2013	2013/2014	2012/2013	2013/2014	2012/2013	2013/2014	2012/2013	2013/2014	2012/2013	2013/2014	
Roundup											
No spray	1.30	1.49	2.19	2.42	3.49	3.96	37.72	39.37	24.51	25.01	
Once	1.71	1.54	2.82	2.92	4.53	4.41	37.52	34.48	22.88	21.89	
Twice	1.82	1.85	3.62	2.88	5.44	4.73	33.42	38.86	25.90	22.92	
L.S.D.at 0.05	0.113	0.098	0.112	0.175	0.204	0.201	1.77	1.79	1.67	1.67	
Micronutrients											
Once	1.48	1.55	2.68	2.62	4.16	4.18	35.92	37.68	23.79	22.63	
Twice	1.74	1.67	3.08	2.86	4.82	4.56	36.51	37.47	25.08	23.91	
L.S.D.at 0.05	0.074	0.159	0.122	0.361	0.181	0.283	0.828	5.18	1.76	1.76	
Bean Cultivars											
Nubaria 1	1.47	1.48	2.56	2.29	4.03	3.77	37.42	39.43	24.57	23.40	
Nubaria 2	1.83	1.86	3.21	3.32	5.04	5.19	36.05	36.10	24.66	23.50	
Nubaria 3	1.52	1.53	2.87	2.61	4.39	4.14	35.18	37.21	24.07	22.91	
L.S.D.at 0.05	0.107	0.128	0.191	0.224	0.227	0.189	2.211	3.30	1.35	1.35	
Interaction											
Roundup Micronutrients	x	**	*	ns	ns	ns	*	**	ns	ns	ns
Roundup cultivars	x	**	**	*	ns	ns	*	**	ns	ns	ns
Micronutrients cultivars	x	*	*	*	ns	**	*	ns	ns	ns	ns
Roundup Micronutrients cultivars	x x	**	*	*	*	ns	*	**	*	ns	ns

*: significant at 0.05 level of probability.

ns: not significant at 0.05 level of probability.

Table 4. Means of number of broomrape/m², weight of Broomrape (g)/m², seed Fe, Mn, and Zn content (mg/g) of three faba bean cultivars as influenced by roundup, foliar spray times of micronutrients and their interactions during the two seasons 2012/2013 and 2013/2014.

Treatments	Number of Broomrape/m ²		Weight of Broomrape (g) /m ²		Fe (mg/g)		Mn (mg/g)		Zn (mg/g)		
	Season										
	2012/2013	2013/2014	2012/2013	2013/2014	2012/2013	2013/2014	2012/2013	2013/2014	2012/2013	2013/2014	
Roundup											
No spray	3.28	7.33	0.959	1.23	0.810	0.963	0.121	0.117	0.274	0.269	
Once	1.17	2.06	0.681	0.681	1.26	1.21	0.126	0.114	0.352	0.283	
Twice	0.61	0.83	0.256	0.256	1.44	1.43	0.149	0.142	0.379	0.291	
L.S.D.at 0.05	0.934	1.02	0.335	0.382	0.1109	0.131	0.0096	0.025	0.0151	0.0272	
Micronutrients											
Once	2.78	5.89	0.933	1.09	1.23	1.16	0.120	0.104	0.331	0.268	
Twice	0.59	0.93	0.330	0.356	1.11	1.24	0.143	0.144	0.339	0.295	
L.S.D.at 0.05	0.836	0.897	0.299	0.209	0.104	0.137	0.0193	0.0185	0.0219	0.0443	
Bean Cultivars											
Nubaria 1	2.61	5.06	0.997	1.05	0.942	0.988	0.119	0.100	0.304	0.259	
Nubaria 2	1.56	1.94	0.350	0.389	1.04	1.52	0.144	0.152	0.391	0.299	
Nubaria 3	0.89	3.22	0.548	1.05	1.52	1.10	0.133	0.119	0.310	0.286	
L.S.D.at 0.05	0.669	1.16	0.341	0.359	0.161	0.198	0.0158	0.024	0.0297	0.0248	
Interaction											
Roundup Micronutrients	x	**	**	*	*	*	*	*	*	**	*
Roundup cultivars	x	**	**	*	*	*	*	*	*	*	*
Micronutrients cultivars	x	*	*	*	*	*	*	*	*	*	*
Roundup Micronutrients cultivars	x	*	*	*	*	*	*	*	*	*	*

*,**: significant at 0.05 level of probability.