

Table(3): Percentage of perfect flowers relative to the total male and perfect flowers produced by the tree (at the end of flowering season) as affected by various treatment of Manfalouty pomegranate during 2003 and 2004 seasons.

Dates	N 400*						N 800						Mean
	P 150			P300			P 150			P300			
	K250	K500	K750	K250	K500	K 750	K250	K500	K750	K250	K500	K 750	
2003													
18-April	11.87	12.16	12.75	10.89	12.61	12.94	11.67	12.35	12.98	12.10	12.69	13.52	12.38
25-April	12.73	12.41	12.38	12.13	12.73	12.94	12.29	12.11	12.62	11.86	12.81	13.28	12.52
02-May	12.12	12.16	12.74	11.01	12.36	12.47	11.42	11.76	12.73	11.61	12.56	12.91	12.15
09-May	7.55	7.74	7.84	6.75	7.92	8.19	7.32	7.60	7.87	7.43	7.66	8.69	7.71
16-May	5.57	5.77	6.25	4.25	5.57	6.17	5.83	5.81	6.07	5.81	5.86	5.92	5.74
23-May	4.58	4.67	5.27	3.88	4.45	4.63	5.44	5.70	5.59	5.90	5.96	5.19	5.10
01-June	2.60	2.83	2.70	3.13	2.22	2.97	3.10	2.61	3.10	2.49	2.75	3.02	2.79
Mean	8.14	8.25	8.56	7.43	8.27	8.62	8.15	8.28	8.71	8.17	8.61	8.93	
2004													
18-April	11.82	12.38	12.96	11.04	12.87	13.58	12.07	12.82	14.07	12.46	13.21	14.05	12.78
25-April	12.98	12.63	12.82	12.34	12.75	13.34	12.72	12.36	13.44	12.22	13.09	13.80	12.87
02-May	12.34	12.39	12.94	11.17	12.64	13.10	11.82	12.24	13.27	11.70	12.84	13.44	12.49
09-May	7.58	7.88	8.14	6.75	8.41	8.77	7.66	8.07	8.38	7.76	7.91	9.22	8.04
16-May	5.53	5.87	6.58	4.42	5.81	6.73	6.15	6.26	6.55	5.86	6.11	6.41	6.02
23-May	4.50	4.75	5.63	3.25	4.68	5.16	5.74	6.19	6.35	6.20	6.22	5.70	5.36
01-June	2.44	2.87	2.88	3.25	2.46	3.49	3.38	3.07	3.57	2.51	3.24	3.27	3.03
Mean	8.17	8.40	8.85	7.46	8.52	9.16	8.50	8.72	9.37	8.39	8.94	9.41	
Average													
18-April	11.84	12.27	12.85	10.96	12.74	13.26	11.87	12.59	13.52	12.28	12.95	13.78	12.58
25-April	12.85	12.52	12.60	12.24	12.74	13.14	12.50	12.24	13.03	12.04	12.95	13.54	12.70
02-May	12.23	12.27	12.84	11.09	12.50	12.78	11.62	12.00	13.00	11.65	12.70	13.18	12.32
09-May	7.56	7.81	7.99	6.75	8.16	8.48	7.49	7.84	8.12	7.59	7.78	8.95	7.88
16-May	5.55	5.82	6.42	4.33	5.69	6.45	5.99	6.03	6.31	5.83	5.98	6.16	5.88
23-May	4.54	4.71	5.45	3.56	4.57	4.90	5.59	5.94	5.97	6.05	6.09	5.45	5.23
01-June	2.52	2.85	2.79	3.19	2.34	3.23	3.24	2.84	3.34	2.50	3.00	3.14	2.91
Mean	8.16	8.32	8.70	7.45	8.39	8.89	8.33	8.50	9.04	8.28	8.78	9.17	

		2003	2004	Avg.	
L.S.D %5	treatment (A)	0.236	0.34	0.254	* g/tree/year
	Date (B)	0.175	0.253	0.189	
	(A x B)	0.608	0.877	0.656	

Table(4): Percentage of initial fruit set relative to the total perfect flowers produced by the tree (at the end of flowering season) as affected by various treatment of Manfalouty pomegranate during 2003 and 2004 seasons.

Dates	N 400 ⁺						N 800						Mean
	P 150			P300			P 150			P300			
	K250	K500	K750	K250	K500	K 750	K250	K500	K750	K250	K500	K 750	
2003													
25-April	18.22	18.51	18.80	18.04	19.23	19.09	17.86	18.88	18.96	18.57	18.68	19.15	18.67
02-May	19.74	18.93	18.20	20.45	19.44	19.07	18.94	18.45	18.36	18.15	18.88	18.77	18.95
09-May	18.66	18.52	18.82	18.27	18.81	18.32	17.41	17.83	18.53	17.72	18.47	18.19	18.30
16-May	10.63	10.85	10.63	10.08	11.12	11.22	10.21	10.66	10.56	10.38	10.31	11.49	10.68
23-May	7.15	7.44	7.97	5.28	7.05	7.85	7.60	7.54	7.59	7.56	7.33	7.09	7.29
01-June	5.42	5.53	6.33	4.55	5.12	5.30	6.89	7.32	6.81	7.71	7.47	5.94	6.20
08-June	1.95	2.33	2.04	3.12	1.28	2.58	2.81	2.05	2.74	1.75	2.17	2.49	2.27
Mean	11.68	11.73	11.83	11.40	11.72	11.92	11.67	11.82	11.94	11.69	11.90	11.88	11.76
2004													
25-April	19.78	20.21	20.16	20.16	20.75	20.41	19.47	20.28	20.68	20.39	20.32	20.60	20.27
02-May	21.80	20.64	20.84	21.62	20.19	20.72	20.05	19.14	20.37	19.55	19.90	20.23	20.42
09-May	20.68	20.22	21.57	19.11	19.68	20.73	18.48	18.63	20.66	18.31	19.33	19.67	19.76
16-May	12.36	12.55	13.88	10.79	12.67	14.03	11.45	11.86	13.19	11.48	11.54	13.22	12.42
23-May	8.76	9.14	11.47	6.50	8.41	10.82	8.90	8.99	10.34	8.45	8.59	9.00	9.11
01-June	6.96	7.23	10.14	4.41	6.52	8.22	8.14	8.77	10.12	8.92	8.75	7.90	8.01
08-June	3.36	4.04	4.97	4.31	3.01	5.20	4.41	4.01	5.38	3.10	3.48	4.22	4.13
Mean	13.39	13.43	14.72	12.42	13.03	14.30	12.99	13.10	14.39	12.88	13.13	13.55	
Average													
25-April	19.00	19.36	19.48	19.10	19.99	19.75	18.66	19.58	19.82	19.48	19.50	19.87	19.47
02-May	20.77	19.79	19.52	21.04	19.81	19.90	19.50	18.80	19.37	18.85	19.39	19.50	19.69
09-May	19.67	19.37	20.20	18.69	19.24	19.53	17.94	18.23	19.60	18.01	18.90	18.93	19.03
16-May	11.49	11.70	12.26	10.43	11.89	12.62	10.83	11.26	11.87	10.93	10.92	12.36	11.55
23-May	7.96	8.29	9.72	5.89	7.73	9.34	8.25	8.27	8.97	8.00	7.96	8.05	8.20
01-June	6.19	6.38	8.23	4.48	5.82	6.76	7.51	8.05	8.46	8.32	8.11	6.92	7.10
08-June	2.65	3.18	3.51	3.72	2.15	3.89	3.61	3.03	4.06	2.42	2.82	3.36	3.20
Mean	12.53	12.58	13.27	11.91	12.38	13.11	12.33	12.46	13.16	12.29	12.51	12.71	

		2003	2004	Avg.	
L.S.D %5	treatment (A)	2.156	0.098	0.097	* g/tree/year
	Date (B)	1.794	0.382	0.325	
	(A x B)	N.S	1.325	1.125	

Table(5): Effect of different levels of nitrogen, phosphorus and potassium on the total number of fruit/tree, yield (kg/tree) and fruit weight (g) of Manfalouty pomegranate during 2003, 2004 and average of both seasons.

No.	Treatment	Fruit number			Yield (kg/tree)			Fruit weight (g)		
		2003	2004	Avg.	2003	2004	Avg.	2003	2004	Avg.
1	N ₁ P ₁ K ₁	171.50	156.25	168.88	44.21	42.31	43.26	257.75	270.75	264.25
2	N ₁ P ₁ K ₂	178.75	186.25	182.50	47.38	51.64	49.49	264.75	277.25	271.00
3	N ₁ P ₁ K ₃	182.50	196.25	189.38	48.57	54.56	51.56	266.00	278.00	272.00
4	N ₁ P ₂ K ₁	177.50	173.75	175.63	46.07	47.39	46.73	259.50	272.75	266.13
5	N ₁ P ₂ K ₂	183.75	200.00	191.88	47.01	53.55	50.28	255.75	267.75	261.75
6	N ₁ P ₂ K ₃	187.50	204.50	196.00	48.53	55.57	52.05	258.75	271.75	265.25
7	N ₂ P ₁ K ₁	250.00	287.50	268.75	62.01	74.97	68.49	248.00	260.75	254.38
8	N ₂ P ₁ K ₂	257.50	290.00	273.75	63.67	75.34	69.51	247.25	259.75	253.50
9	N ₂ P ₁ K ₃	267.50	302.50	285.00	67.69	79.94	73.81	252.75	264.25	258.50
10	N ₂ P ₂ K ₁	218.75	223.75	221.25	51.20	55.20	53.20	234.00	246.75	240.38
11	N ₂ P ₂ K ₂	205.00	213.75	209.38	55.86	60.55	58.21	272.50	283.25	277.88
12	N ₂ P ₂ K ₃	207.50	216.25	211.88	55.83	60.93	58.38	269.00	281.75	275.38
L.S.D. 5%		15.39	19.68	16.09	4.36	5.26	4.39	3.34	0.81	1.97

Table(6): Effect of different levels of nitrogen, phosphorus and potassium on the percentage of commercial fruit yield (kg/tree) commercial fruit number, non-commercial fruit number and fruit splitting% of Manfalouty pomegranate during 2003, 2004 and average of both seasons.

No	Treat.	Commercial fruit yield (kg/tree) %			Commercial fruit number/tree %			Non-commercial fruit number/trees %			No. fruit splitting %		
		2003	2004	Avg.	2003	2004	Avg.	2003	2004	Avg.	2003	2004	Avg.
1	N ₁ P ₁ K ₁	54.92	54.93	54.93	51.25	53.25	52.25	31.23	30.95	31.09	17.53	15.80	16.66
2	N ₁ P ₁ K ₂	60.01	59.33	59.67	57.25	59.25	58.25	26.73	26.00	26.36	16.03	14.76	15.39
3	N ₁ P ₁ K ₃	62.76	61.23	62.00	60.00	61.25	60.63	24.00	24.60	24.30	16.00	14.15	15.08
4	N ₁ P ₂ K ₁	61.62	59.78	60.70	57.25	58.75	58.00	23.23	23.45	23.34	19.53	17.80	18.66
5	N ₁ P ₂ K ₂	64.53	63.13	63.83	59.25	60.75	60.00	22.25	22.40	22.33	18.50	16.85	17.68
6	N ₁ P ₂ K ₃	66.14	64.99	65.57	61.25	63.25	62.25	20.70	20.55	20.63	18.05	16.20	17.13
7	N ₂ P ₁ K ₁	51.47	50.52	51.00	46.00	47.25	46.63	40.53	41.00	40.76	13.48	11.75	12.61
8	N ₂ P ₁ K ₂	53.04	52.85	52.94	47.25	49.25	48.25	38.25	37.90	38.08	14.50	12.86	13.68
9	N ₂ P ₁ K ₃	58.53	58.10	58.32	53.25	55.25	54.25	32.70	32.45	32.58	14.05	12.30	13.18
10	N ₂ P ₂ K ₁	59.23	58.30	58.76	50.00	51.25	50.63	37.48	38.05	37.76	12.53	10.70	11.61
11	N ₂ P ₂ K ₂	52.33	51.59	51.96	51.25	52.25	51.75	33.28	34.05	33.66	15.48	13.70	14.59
12	N ₂ P ₂ K ₃	56.94	56.71	56.82	55.25	57.25	56.25	29.70	29.50	29.60	15.05	13.25	14.15
L.S.D. 5%		N.S.	8.65	N.S.	10.55	8.54	9.50	10.12	9.79	9.86	0.64	1.36	0.46

Table(7): Effect of different levels of nitrogen, phosphorus and potassium on the percentage of total soluble solids, total acidity and TSS/acid ratio of Manfalouty pomegranate during 2003, 2004 and average of both seasons.

No.	Treatment	T.S.S. (%)			Acidity(%)			T.S.S./Acid ratio		
		2003	2004	Avg.	2003	2004	Avg.	2003	2004	Avg.
1	N ₁ P ₁ K ₁	16.72	16.38	16.55	1.082	1.182	1.132	15.443	13.703	14.753
2	N ₁ P ₁ K ₂	16.39	15.87	16.13	1.102	1.203	1.152	14.860	13.200	14.030
3	N ₁ P ₁ K ₃	16.27	15.76	16.01	1.032	1.132	1.082	15.758	13.915	14.836
4	N ₁ P ₂ K ₁	16.56	16.05	16.30	1.052	1.152	1.102	15.733	13.933	14.833
5	N ₁ P ₂ K ₂	16.32	15.81	16.06	1.042	1.142	1.092	15.653	13.843	14.748
6	N ₁ P ₂ K ₃	16.23	15.72	15.97	1.012	1.116	1.064	16.028	14.085	15.056
7	N ₂ P ₁ K ₁	16.88	16.83	16.85	1.022	1.087	1.054	16.520	15.505	16.013
8	N ₂ P ₁ K ₂	16.71	16.50	16.60	1.101	1.181	1.141	16.165	13.728	14.446
9	N ₂ P ₁ K ₃	16.31	15.82	16.06	1.039	1.139	1.089	15.698	13.898	14.798
10	N ₂ P ₂ K ₁	16.60	16.21	16.40	1.092	1.192	1.142	15.195	13.593	14.394
11	N ₂ P ₂ K ₂	16.38	15.88	16.13	1.082	1.183	1.133	15.130	13.423	14.276
12	N ₂ P ₂ K ₃	16.27	15.77	16.02	1.099	1.199	1.149	15.918	13.148	14.533
L.S.D. 5%		0.09	0.19	0.12	0.0012	0.027	0.014	0.098	0.347	0.199

Table(8): Effect of different levels of nitrogen, phosphorus and potassium on the percentage of reducing, non-reducing and total sugars in fruit juice of Manfalouty pomegranate during 2003, 2004 and average of both seasons.

No.	Treatment	Reducing sugars (%)			Non-reducing sugars (%)			Total sugars (%)		
		2003	2004	Avg.	2003	2004	Avg.	2003	2004	Avg.
1	N ₁ P ₁ K ₁	13.895	13.565	13.730	0.598	0.508	0.553	14.093	14.073	14.083
2	N ₁ P ₁ K ₂	13.315	12.985	13.150	0.490	0.413	0.452	13.803	13.398	13.600
3	N ₁ P ₁ K ₃	13.165	12.833	12.999	0.508	0.425	0.466	13.673	13.258	13.465
4	N ₁ P ₂ K ₁	13.275	12.935	13.105	0.508	0.423	0.465	13.783	13.358	13.570
5	N ₁ P ₂ K ₂	13.255	12.925	13.090	0.548	0.458	0.503	13.803	13.383	13.593
6	N ₁ P ₂ K ₃	12.265	11.985	12.125	0.468	0.373	0.420	12.733	12.357	12.545
7	N ₂ P ₁ K ₁	14.115	13.778	13.946	0.578	0.528	0.553	14.693	14.305	14.499
8	N ₂ P ₁ K ₂	13.905	13.573	13.739	0.488	0.423	0.455	14.393	13.995	14.194
9	N ₂ P ₁ K ₃	13.815	13.468	13.641	0.488	0.408	0.448	14.303	13.875	14.089
10	N ₂ P ₂ K ₁	13.165	12.813	12.989	0.518	0.445	0.481	13.683	13.258	13.470
11	N ₂ P ₂ K ₂	13.045	12.663	12.854	0.438	0.375	0.406	13.483	13.038	13.260
12	N ₂ P ₂ K ₃	13.055	12.668	12.861	0.478	0.418	0.448	13.533	13.085	13.309
L.S.D. 5%		0.149	0.225	0.067	0.014	0.040	0.026	0.137	0.259	0.081