Table (2): Effect of different nutrients applied via spring nano technology on some vegetative growth aspects and leaf pigments of Flame seedless during 2015& 2016 seasons

Treatment groups	Main shoot length (cm)		Leaf area $(cm)^2$		Chlorophyll a (mg/ 1.0g F.W.)		Chlorophyll b (mg/ 1.0g F.W.)		Total chlorophylls (mg/ 1.0g F.W.)	
	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016
Control	111.2	111.7	118.0	117.4	5.1	4.1	1.6	1.6	6.7	5.7
Orgland at 0.1%	133.0	133.0	138.0	136.1	6.0	5.8	2.1	2.2	8.1	8.0
Orgland at 0.2%	133.0	133.3	138.5	137.0	6.0	5.8	2.1	2.2	8.1	8.0
Active Iron at 0.1%	127.0	127.1	133.0	132.4	5.9	5.6	1.9	1.9	7.8	7.5
Active Iron at 0.2%	127.0	128.0	135.0	133.0	5.9	5.6	2.0	2.0	7.9	7.6
Amino- Zn at 0.1%	118.5	120.0	126.0	125.5	5.6	5.3	1.8	1.6	7.4	6.9
Amino- Zn at 0.2%	119.5	120.4	126.9	126.0	5.6	5.3	1.8	1.8	7.4	7.1
Boron-10 at 0.1%	122.0	123.0	130.0	129.0	5.1	5.4	1.9	1.8	7.0	7.2
Boron-10 at 0.2%	122.0	123.0	131.0	129.2	5.2	5.4	1.9	1.8	7.1	7.2
Amino-minerals at 0.1%	137.0	138.0	141.0	139.0	6.5	6.1	2.2	2.2	8.7	8.3
Amino-minerals at 0.2%	137.0	138.0	141.0	139.7	6.5	6.2	2.2	2.3	8.7	8.5
Super iron at 0.1%	113.0	114.0	123.0	118.1	5.3	5.2	1.7	1.6	7.0	6.8
Super iron at 0.2%	113.0	114.0	123.5	119.1	5.5	5.2	1.7	1.7	7.2	6.9
New L.S.D. at 5%	**1.4**	**1.8**	**2.1**	**1.8**	**0.2**	**0.2**	**0.2**	**0.2**	**0.3**	**0.4**

Table (3): Effect of different nutrients applied via spring nano technology on total carotenoids and percentages of N, P, K, and Mg in the leaves of Flame seedless during 2015& 2016 seasons

Treatment groups	Total caotenoids (mg/ 1.0 g F.W.)		Leaf N %		Leaf P %		Leaf K %		Leaf Mg %	
	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016
Control	1.6	1.4	1.61	1.69	0.16	0.13	1.11	1.17	0.64	0.59
Orgland at 0.1%	3.1	2.7	2.19	2.16	0.33	0.32	1.39	1.50	0.91	0.86
Orgland at 0.2%	3.2	2.8	2.20	2.17	0.34	0.33	1.40	1.51	0.91	0.87
Active Iron at 0.1%	2.8	2.5	1.99	2.00	0.28	0.27	1.33	1.44	0.86	0.81
Active Iron at 0.2%	2.9	2.5	2.01	2.09	0.29	0.29	1.34	1.45	0.87	0.81
Amino- Zn at 0.1%	2.2	1.8	1.82	1.84	0.21	0.21	1.20	1.33	0.75	0.70
Amino- Zn at 0.2%	2.2	1.8	1.83	1.86	0.22	0.22	1.21	1.34	0.76	0.71
Boron-10 at 0.1%	2.5	2.1	1.90	1.92	0.24	0.26	1.27	1.38	0.80	0.75
Boron-10 at 0.2%	2.5	2.2	1.91	1.93	0.25	0.27	1.28	1.38	0.81	0.76
Amino-minerals at 0.1%	3.5	3.1	2.29	2.27	0.36	0.39	1.46	1.56	0.95	0.94
Amino-minerals at 0.2%	3.5	3.2	2.30	2.28	0.38	0.40	1.47	1.57	0.96	0.95
Super iron at 0.1%	1.9	1.6	1.74	1.75	0.18	0.18	1.15	1.22	0.68	0.66
Super iron at 0.2%	1.9	1.7	1.75	1.76	0.18	0.19	1.15	1.23	0.68	0.66
New L.S.D. at 5%	**0.2**	**0.2**	**0.05**	**0.04**	**0.02**	**0.02**	**0.03**	**0.03**	**0.03**	**0.03**

Table (4): Effect of different nutrients applied via spring nano technology on the leaf content of Mn, Zn, Fe and Cu of Flame seedless during 2015& 2016 seasons

Treatment groups	Leaf Mn (ppm)		Leaf Zn (ppm)		Leaf Fe (ppm)		Leaf Cu (ppm)	
	2015	2016	2015	2016	2015	2016	2015	2016
Control	41.0	39.0	50.1	49.0	55.0	54.0	3.11	3.04
Orgland at 0.1%	60.0	59.0	62.5	61.4	66.0	66.3	3.40	3.33
Orgland at 0.2%	60.0	59.8	62.1	61.5	66.5	67.7	3.41	3.33
Active Iron at 0.1%	58.2	57.0	59.6	59.0	90.0	90.0	3.33	3.28
Active Iron at 0.2%	58.5	57.0	60.0	59.0	91.0	91.0	3.34	3.27
Amino- Zn at 0.1%	50.0	48.0	89.1	91.5	59.0	60.0	3.20	3.13
Amino- Zn at 0.2%	50.0	49.2	90.0	92.0	60.0	60.0	3.20	3.14
Boron-10 at 0.1%	54.1	53.0	56.4	55.0	71.0	71.0	3.30	3.22
Boron-10 at 0.2%	55.0	53.9	56.9	56.0	71.7	71.1	3.33	3.24
Amino-minerals at 0.1%	64.0	63.0	68.8	69.0	71.0	70.0	3.46	3.40
Amino-minerals at 0.2%	64.5	63.8	69.0	69.0	71.5	72.0	3.47	3.41
Super iron at 0.1%	44.5	43.9	53.1	52.0	80.0	80.0	3.15	3.08
Super iron at 0.2%	45.0	44.0	53.9	52.3	81.5	81.0	3.15	3.08
New L.S.D. at 5%	**2.6**	**2.2**	**1.9**	**2.0**	**1.4**	**1.7**	**N.S.**	**N.S.**

Table (5): Effect of different nutrients applied via spring nano technology on the percentage of berry setting, yield and some cluster aspects of Flame seedless during 2015& 2016 seasons

Treatment groups	Berry setting %		No. of clusters / vine		Yield/ vine (kg.)		Cluster weight (g.)		Cluster length (cm)		Cluster shoulder (cm)	
	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016
Control	9.1	10.0	22.0	23.0	6.1	6.5	279.0	282.0	15.1	15.5	10.9	11.0
Orgland at 0.1%	14.0	15.4	24.0	32.0	7.9	10.9	331.0	341.0	21.3	21.7	14.5	15.0
Orgland at 0.2%	14.1	15.5	24.0	32.0	8.0	10.9	332.0	342.0	21.4	21.9	14.6	15.0
Active Iron at 0.1%	12.9	14.0	24.0	30.0	7.7	10.0	321.5	334.0	20.0	20.0	13.9	14.0
Active Iron at 0.2%	13.2	14.1	24.0	30.0	7.7	10.1	322.0	335.0	20.3	20.3	14.0	14.0
Amino- Zn at 0.1%	10.9	12.0	23.0	26.0	6.9	7.9	299.5	305.0	18.0	18.0	12.0	12.0
Amino- Zn at 0.2%	11.0	12.1	23.0	26.0	6.9	8.0	300.0	306.0	18.1	18.0	12.3	12.2
Boron-10 at 0.1%	11.9	13.0	23.0	28.0	7.1	9.0	310.5	322.0	19.0	19.6	13.0	13.0
Boron-10 at 0.2%	12.0	13.0	24.0	28.0	7.5	9.0	311.0	323.0	19.3	19.7	13.0	13.3
Amino-minerals at 0.1%	15.0	15.9	24.0	34.0	8.8	12.6	365.5	371.0	23.9	24.5	15.0	15.5
Amino-minerals at 0.2%	15.1	16.0	24.0	34.0	8.8	12.6	368.0	371.5	24.0	25.0	15.4	15.6
Super iron at 0.1%	9.9	10.9	23.0	24.0	6.7	7.0	289.5	292.0	16.9	17.0	11.5	12.1
Super iron at 0.2%	10.0	11.0	23.0	24.0	6.7	7.0	290.0	292.0	17.0	17.0	11.6	12.3
New L.S.D. at 5%	**0.7**	**0.8**	**N.S.**	**1.0**	**0.5**	**0.4**	**8.8**	**7.9**	**1.0**	**4.1**	**0.5**	**0.7**

Table (6): Effect of different nutrients applied via spring nano technology on the percentage pf berries coloration and some physical characteristics of the berries of Flame seedless during 2015& 2016 seasons

Treatment groups	Berries coloration %		Berry weight (g.)		Berry longitudinal (cm)		Berry equatorial (cm.)	
	2015	2016	2015	2016	2015	2016	2015	2016
Control	60.0	60.9	3.05	3.07	1.67	1.70	1.55	1.57
Orgland at 0.1%	74.0	75.0	3.38	3.44	1.98	1.99	1.86	1.89
Orgland at 0.2%	74.4	75.0	3.39	3.45	1.99	1.99	1.87	1.90
Active Iron at 0.1%	72.9	73.0	3.33	3.40	1.92	1.95	1.80	1.83
Active Iron at 0.2%	73.0	73.0	3.34	3.41	1.92	1.95	1.81	1.84
Amino- Zn at 0.1%	66.0	66.9	3.20	3.26	1.79	1.82	1.67	1.69
Amino- Zn at 0.2%	66.0	66.9	3.21	3.27	1.80	1.84	1.68	1.69
Boron-10 at 0.1%	69.9	70.0	3.27	3.33	1.84	1.86	1.72	1.76
Boron-10 at 0.2%	70.0	70.0	3.28	3.34	1.85	1.88	1.73	1.76
Amino-minerals at 0.1%	77.9	79.0	3.49	3.55	2.04	2.06	1.92	1.95
Amino-minerals at 0.2%	78.0	79.0	3.50	3.56	2.05	2.06	1.92	1.95
Super iron at 0.1%	61.9	62.0	3.11	3.17	1.72	1.75	1.60	1.62
Super iron at 0.2%	62.0	62.9	3.12	3.17	1.73	1.75	1.60	1.63
New L.S.D. at 5%	**1.1**	**0.9**	**0.04**	**0.06**	**0.04**	**0.04**	**0.04**	**0.05**

Table (7): Effect of different nutrients applied via spring nano technology on some chemical characteristics of the berries of Flame seedless during 2015& 2016 seasons

Treatment groups	T.S.S. %		Total acidity %		T.S.S./ acid		Reducing sugars %		Total anthocyanins (mg/ 100 g F.W.)	
	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016
Control	17.0	16.9	0.682	0.681	24.9	24.8	14.9	15.1	17.1	17.2
Orgland at 0.1%	20.3	20.5	0.570	0.574	35.6	35.7	17.4	17.6	31.0	31.2
Orgland at 0.2%	20.4	20.5	0.569	0.571	35.9	35.9	17.4	17.7	31.3	31.5
Active Iron at 0.1%	19.5	19.7	0.591	0.589	33.0	33.5	17.0	17.2	28.0	28.2
Active Iron at 0.2%	19.6	19.7	0.590	0.588	33.2	33.5	17.0	17.3	28.2	28.3
Amino- Zn at 0.1%	18.4	18.6	0.640	0.637	28.8	29.2	15.8	16.1	22.0	22.3
Amino- Zn at 0.2%	18.5	18.6	0.639	0.636	29.0	29.2	15.9	16.1	22.2	22.5
Boron-10 at 0.1%	18.9	19.2	0.619	0.617	30.5	31.1	16.4	16.6	25.1	25.5
Boron-10 at 0.2%	19.0	19.2	0.617	0.614	30.8	31.3	16.5	16.6	25.3	25.8
Amino-minerals at 0.1%	21.0	21.0	0.547	0.550	38.4	38.2	17.9	18.5	34.9	35.3
Amino-minerals at 0.2%	21.1	21.2	0.544	0.548	38.8	38.7	18.0	18.6	35.3	35.6
Super iron at 0.1%	17.6	17.8	0.662	0.659	26.6	27.0	15.3	15.5	19.1	19.5
Super iron at 0.2%	17.7	17.9	0.660	0.658	26.8	27.2	15.4	15.5	19.2	19.7
New L.S.D. at 5%	**0.4**	**0.5**	**0.015**	**0.018**	**1.1**	**1.3**	**0.3**	**0.3**	**1.7**	**1.6**