

Table (2): Effect of spraying plant extracts at 5% on plant height, stem thickness, number of leaves/plant, and number of lateral shoots/plant of Flame seedless grapevine transplants during 2014 and 2015 seasons.

Plant extract treatments	Plant height (cm)		Stem thickness (mm)		No. of leaves/plant		No. of lateral shoots/plant	
	2014	2015	2014	2015	2014	2015	2014	2015
Control	71.9	73.0	1.09	1.10	37.0	36.0	8.0	7.0
Garlic oil	101.0	102.9	1.99	1.96	65.0	69.0	14.1	12.9
Turmeric extract	98.0	99.9	1.88	1.84	62.0	66.0	13.6	12.0
Onion oil	95.9	97.0	1.80	1.81	60.0	63.0	13.1	11.5
Green tea extract	91.9	92.9	1.74	1.77	57.0	61.0	12.6	10.9
Moringa leaf extract	89.0	90.3	1.55	1.57	55.0	58.0	12.0	10.2
Red chillies extract	86.3	87.6	1.48	1.47	52.0	56.0	11.5	9.7
Peppermint oil	81.9	83.0	1.41	1.41	50.0	53.0	11.0	9.2
Clove oil	80.0	81.4	1.35	1.34	47.0	50.0	10.3	8.8
Olive oil	77.4	78.5	1.27	1.28	45.0	46.0	9.8	8.1
Flax seed oil	75.6	77.0	1.20	1.22	42.0	42.0	9.1	7.7
Anise oil	74.0	75.5	1.15	1.16	40.0	39.0	8.6	7.3
New L.S.D at 5%	1.4	1.1	0.04	0.03	2.0	3.0	0.5	0.3

Table (3): Effect of spraying plant extracts at 5% on main shoot length, number of leaves/shoot, leaf area and dry weight of whole plant of Flame seedless grapevine transplants during 2014 and 2015 seasons.

Plant extract treatments	Main shoot length (cm)		No. of leaves/shoot		Leaf area (cm) ²		Dry weight of whole plant (g.)	
	2014	2015	2014	2015	2014	2015	2014	2015
Control	84.5	87.9	10.0	8.0	71.9	72.3	20.0	19.1
Garlic oil	100.1	104.0	20.0	20.0	90.0	94.3	33.0	32.3
Turmeric extract	98.0	101.7	19.0	18.0	88.0	92.2	31.5	31.0
Onion oil	95.9	100.1	19.0	17.0	86.4	90.1	30.1	29.4
Green tea extract	93.3	99.0	19.0	16.0	85.0	87.9	29.0	28.3
Moringa leaf extract	91.9	98.0	18.0	15.0	83.5	85.9	28.0	27.1
Red chillies extract	90.0	96.4	17.0	14.0	82.0	83.7	27.0	26.0
Peppermint oil	88.5	95.0	16.0	13.0	80.3	82.0	25.5	25.0
Clove oil	87.0	93.6	15.0	12.0	79.0	79.7	24.1	23.9
Olive oil	85.6	92.5	14.0	11.0	77.3	78.0	23.0	22.0
Flax seed oil	87.4	91.4	12.0	10.0	75.0	75.8	21.9	20.9
Anise oil	86.0	90.0	11.0	9.0	73.3	74.0	21.0	20.0
New L.S.D at 5%	1.2	1.0	1.0	1.0	1.5	1.6	0.8	0.9

Table (4): Effect of spraying plant extracts at 5% on some root characteristics of Flame seedless grapevine transplants during 2014 and 2015 seasons.

Plant extract treatments	Root distribution area (cm) ²		No. of secondary roots/main root		main root length (cm)		Dry weight of roots/plant	
	2014	2015	2014	2015	2014	2015	2014	2015
Control	130.0	127.3	37.0	40.0	37.0	36.0	3.11	3.14
Garlic oil	155.5	151.9	61.4	63.3	59.0	58.0	3.97	4.02
Turmeric extract	152.3	150.0	59.0	61.1	56.9	56.0	3.90	3.96
Onion oil	150.0	147.8	55.9	59.0	55.0	54.0	3.81	3.90
Green tea extract	147.8	145.0	54.1	57.0	53.0	51.9	3.71	3.86
Moringa leaf extract	145.0	143.0	52.0	55.0	50.9	50.0	3.64	3.77
Red chillies extract	143.0	141.0	50.0	53.1	48.9	48.0	3.55	3.60
Peppermint oil	140.9	138.0	47.8	51.0	47.0	45.8	3.45	3.52
Clove oil	138.0	136.0	45.6	49.0	44.9	44.0	3.34	3.44
Olive oil	135.9	134.0	43.3	47.0	43.0	41.7	3.27	3.37
Flax seed oil	134.0	131.9	41.1	44.1	41.0	40.0	3.21	3.30
Anise oil	132.0	130.0	39.0	42.0	39.0	38.0	3.16	3.24
New L.S.D at 5%	1.9	1.8	1.9	2.0	1.8	1.7	0.04	0.06

Table (5): Effect of spraying plant extracts at 5% on some leaf pigments of Flame seedless grapevine transplants during 2014 and 2015 seasons.

Plant extract treatments	Chlorophyll a (mg/100g F.W)		Chlorophyll b (mg/100g F.W)		Total Chlorophylls (mg/100g F.W)		Total carotenoids (mg/100g F.W)	
	2014	2015	2014	2015	2014	2015	2014	2015
Control	2.94	3.11	1.62	1.59	4.56	4.70	1.66	1.60
Garlic oil	4.30	4.66	2.70	2.59	7.00	7.25	2.75	2.60
Turmeric extract	4.18	4.53	2.61	2.41	6.79	6.94	2.65	2.39
Onion oil	4.05	4.41	2.50	2.30	6.55	6.71	2.50	2.31
Green tea extract	3.90	4.30	2.39	2.22	6.29	6.52	2.40	2.23
Moringa leaf extract	3.79	4.11	2.30	2.15	6.09	6.26	2.31	2.16
Red chillies extract	3.64	3.92	2.16	2.05	5.80	5.97	2.16	2.06
Peppermint oil	3.52	3.80	2.08	1.99	5.60	5.79	2.09	2.00
Clove oil	3.41	3.66	1.97	1.90	5.38	5.56	1.98	1.91
Olive oil	3.30	3.54	1.88	1.83	5.18	5.37	1.89	1.84
Flax seed oil	3.17	3.41	1.79	1.75	4.96	5.16	1.80	1.75
Anise oil	3.05	3.30	1.70	1.69	4.75	4.99	1.71	1.70
New L.S.D at 5%	0.09	0.11	0.07	0.06	0.09	0.10	0.05	0.06

Table (6): Effect of spraying plant extracts at 5% on some chemical constituents of Flame seedless grapevine transplants during 2014 and 2015 seasons.

Plant extract treatments	Total carbohydrates %		Soluble sugars %		N uptake (mg/plant)		P uptake (mg/plant)		K uptake (mg/plant)	
	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015
Control	14.9	15.2	0.75	0.76	322.0	296.5	32.2	29.7	214.7	199.0
Garlic oil	21.0	21.4	1.26	1.27	825.0	813.9	82.5	81.4	549.5	543.0
Turmeric extract	20.3	21.0	1.22	1.24	765.0	753.3	76.5	75.3	509.9	502.0
Onion oil	19.8	20.4	1.18	1.19	692.0	693.8	69.2	69.4	461.3	461.9
Green tea extract	19.4	20.3	1.14	1.15	667.0	650.0	66.7	65.0	441.9	433.3
Moringa leaf extract	18.9	19.8	1.09	1.09	616.0	596.2	61.6	59.6	410.6	397.9
Red chillies extract	18.3	19.4	1.03	1.04	569.0	551.2	56.9	55.1	380.0	367.0
Peppermint oil	18.1	19.0	0.98	0.99	485.0	500.0	48.5	50.0	324.0	333.3
Clove oil	18.0	18.8	0.94	0.94	458.0	456.9	45.8	45.7	306.3	304.0
Olive oil	17.8	17.5	0.90	0.89	423.0	407.9	42.3	40.8	282.0	272.0
Flax seed oil	16.8	16.2	0.85	0.84	392.0	376.0	39.2	37.6	261.0	249.6
Anise oil	15.9	15.8	0.80	0.80	355.0	340.0	35.5	34.0	237.0	227.7
New L.S.D at 5%	0.4	0.4	0.4	0.03	19.8	20.2	2.9	2.8	16.1	14.9