

Table 3 : Evaluate the effect of 11 fungicides on disease severity% of powdery mildew on three varieties of grapes using the recommended rate at different intervals (5,10, and 21 days post-application) in Frist season (2019) , at the Al-Nubaria location

Treatments	Disease severity%											
	Time	Flame	Superior	Thomson	Time	Flame	Superior	Thomson	Time	Flame	Superior	Thomson
Eco pro 25%EC	5 Days	45.00	50.00	50.00	10 Days	50	50	60	21 Days	70	70	80
Eurozol 25% EC		20.00	40.00	25.00		40	50	55		70	70	80
Delata-Dom 25% EC		40.00	30.00	50.00		45	30	55		60	60	70
Topas 10% EC		40.00	40.00	50.00		50.00	50.00	60.00		60.00	60.00	70.00
Prodizole 30% EC		35.00	30.00	40.00		30.00	30.00	50.00		50.00	60.00	50.00
Myclobutanil 25% EC		40.00	10.00	50.00		45.00	40.00	50.00		60.00	60.00	60.00
Amistar top 32.5%SC		15.00	15.00	30.00		40.00	40.00	55.00		70.00	50.00	60.00
Curve 25% EC		20.00	10.00	30.00		35.00	40.00	55.00		45.00	50.00	65.00
Flusilazole 40% EC		30.00	20.00	40.00		30.00	45.00	50.00		60.00	60.00	50.00
Akoby 50%SC		30.00	40.00	45.00		30.00	55.00	50.00		60.00	50.00	70.00
Topsin 70% WP		40.00	20.00	50.00		40.00	30.00	60.00		70.00	60.00	60.00
Control		50.00	50.00	60.00		65.00	65.00	70.00		100.00	100.00	100.00
LSD 0.05		6.23	6.40	7.72		2.40	3.70	2.40		3.60	8.40	6.10

Table 4: Effect of seventeen fungicides on disease severity% of powdery mildew in three varieties of grapes at the Al-Nubaria in second (2020) season.

Treatment	Original fungicides treatment	Time	Disease severity%		
		Every	Flame	Superior	Thompson
Zero Time		10 Days	15.3	7.6	7.00
Eco pro 25% EC	Powdery mildew of mango		47.3	54.3	70.00
Eurozol 25% EC	(Farm treatment)		44.3	58.6	51.6
Delata-Dom 25%EC	Powdery mildew of grape		53.3	42.00	54.6
Topas 10% EC	Powdery mildew of apple (Farm treatment)		45.6	52.3	70.00
Prodizole 30% EC	Leaf spot of crops		48.6	49.3	50.6
Mycobutanil, 25% EC	Rust of peach		68.6	43.3	68.6
Amistar top 32.5%SC	Leaf spot of guava + Blight of Mango (Farm treatment)		53.00	43.3	64.6
Curve 25% EC	Leave spots of crop, vegetables and powdery mildew of stone fruits and pome		54.00	53.6	67.3
Flusilazole40% EC	Powdery mildew of mango		51.00	49.00	59.00
Akoby 50% SC	Scab of apple		53.6	44.00	54.3
Topsin M 70% WP	Powdery mildew of grape (Farm treatment)		50.00	46.00	66.6
Eminent 12.5% EW	Powdery mildew of apricot		60.00	73.6	77.6
Bellis 38% WG	Fruit rot and powdery mildew of grape (Farm treatment)		58.6	62.00	65.6
Nimrod 25%EC	powdery mildew in apples, stone fruit, and mangoes		53.3	45.00	58.00
Switch 62.5% WG	Fruit rot of grape		52.6	60.00	70.3
Carbendazim 80%WP	(Farm treatment)		52.00	50.00	65.00
Leptra 12.5%EW	Powdery mildew of apricot		41.00	42.00	65.00
Control			100.00	100.00	100.00
LSD0.05			4.28	3.64	9.64

Table 5: Effect of seventeen fungicides after sprayed every 10 days on yield characteristics of three varieties of grapes at Al-Nubaria in season (2020).

Treatment	Yield characteristics											
	Flame				Superior				Thompson			
	N.C.	N.Sh	L.C.	W.C	N.C	N.Sh.	L.C.	W.C	N.C.	N.Sh.	L.C.	W.C
Eco pro 25% EC	3.00	1.00	12.3	25.00	0.00	0.00	0.00	0.00	2.00	1.00	14.00	43.3
Eurozol 25% EC	11.00	6.00	13.00	175.0	1.00	1.00	9.00	10.00	1.00	1.00	11.00	35.00
Delata-Dom25%EC	2.00	4.00	7.00	31.6	1.00	3.00	14.00	135.00	1.5	1.5	12.6	63.3
Topas10% EC	2.00	1.00	5.00	40.00	0.00	0.00	0.00	0.00	2.00	1.00	13.3	35.00
Prodizole30% EC	2.00	5.00	13.00	90.00	1.00	2.00	12.00	78.3	1.00	1.00	9.00	50.00
Mycobutanil, 25% EC	2.00	3.00	5.6	48.3	6.00	2.00	13.00	113.00	1.00	1.00	5.00	46.6
Amistar top32.5%SC	12.00	2.00	12.00	185.0	5.00	2.00	13.00	85.00	1.00	1.00	5.00	35.00
Curve 25% EC	2.00	1.00	10.00	40.00	1.00	1.00	4.00	15.00	2.00	1.00	10.00	36.6
Flusilazole40% EC	6.00	5.00	13.00	122.0	2.00	1.00	12.00	40.00	1.00	1.00	9.6	30.00
Akoby 50% SC	10.00	4.00	11.00	133.0	5.00	2.00	13.3	93.3	0.00	0.00	0.00	0.00
Topsin M 70% WP	4.00	2.00	13.00	76.6	3.00	1.00	14.00	53.3	1.00	1.5	6.00	63.3
Eminent 12.5% EW	8.00	1.3	9.3	148.0	6.00	1.00	8.00	45.00	2.00	2.00	11.00	53.3
Bellis 38% WG	4.6	3.00	13.00	140.0	1.00	1.00	4.00	10.00	1.00	1.00	4.00	35.00
Nimrod 25%EC	7.00	4.00	15.00	121.0	4.00	2.00	14.00	93.3	1.00	2.00	13.00	68.3
Switch 62.5% WG	1.00	1.00	8.00	38.3	1.00	1.00	3.6	9.00	3.00	1.00	15.6	103
Carbendazim 80%WP	0.00	0.00	0.00	0.00	1.00	1.00	8.3	25.00	1.00	1.00	6.00	45.00
Lepra 12.5%EW	1.00	2.00	9.00	50.00	6.00	3.00	13.00	135.00	2.00	1.00	15.00	50.00
Control	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LSD0.05	2.82	2.72	N.S	57.8	2.8	1.16	5.87	44.2	1.8	N.S	N.S	N.S

N.C: Number of clusters, N.Sh: Number of shoulders, L.C: length of cluster, W.C: Weight of cluster

Table 6 : Effect of alternative fungicides on disease severity % of powdery mildew on three varieties of grapes at the Al-Nubaria locations in second season (2020).

Treatments	Sprays	Time	Disease severity%		
			Flame	Superior	Thompson
Micronics sulfur	Two	1 st January to15	0	0	0
Shampion (Copper hydroxide)	Two	15-30 January	0	0	0
Zero time	Every week	1 st –February-28/ 3 5 APRIL	0	0	0
Potassium phosphate(Mono)			55.3	54.3	58
Chitosan			52	42.6	50
Calcium nitrate			59	55.6	64
Potassium sulfate			53.6	49	51
Magnesium sulphate			67.6	64.6	62
Manganese sulphate			74	61.6	74
Ferrous sulphate			75.3	70.3	74.3
Zinc			70.3	62.3	61
Small elements			58.6	54	54
Control			86	78.3	79
LSD. 0.05			7.4	3.7	4.3

Table 7: Effect of alternative fungicides on yield characteristics of three varieties of grape at the Al-Nubaria location in second season (2020).

Treatments	Yield characteristics											
	Flame				Superior				Thompson			
	N.C	N.Sh	L.C	W.C	N.C	N.Sh	L.C	W.C	N.C	N.Sh	L.C	W.C
Micronics sulfur	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Champion (Copper hydroxide)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Zero time	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Potassium phosphate(Mono)	7.00	5.00	15.6	185.00	3.00	5.00	15.00	186.6	3.00	1.00	12.00	48.3
Chitosan	7.00	6.00	17.00	250.00	8.00	6.00	22.00	201.6	3.00	2.00	13.00	51.6
Calcium nitrate	4.00	4.00	14.6	191.6	3.00	2.00	20.00	103.3	3.00	1.00	12.00	33.3
Potassium sulphate	5.00	5.00	15.00	205.00	7.00	5.00	18.3	166.6	3.00	2.00	13.00	33.3
Magnesium sulphate	4.00	3.00	12.00	103.3	5.00	4.00	18.3	155.00	3.00	1.00	13.00	41.6
Manganese sulphate	1.00	2.00	12.00	73.3	2.00	2.00	12.00	60.00	1.00	1.00	7.00	15.00
Ferrous sulphate	1.00	1.00	4.00	25.00	1.00	1.00	7.00	25.00	1.00	1.00	6.00	16.00
Zinc	1.00	1.00	10.00	40.00	3.00	3.00	13.6	100.00	3.00	1.00	10.00	33.3
Micro elements	4.00	4.00	13.00	163.3	4.00	4.00	13.00	153.3	3.00	1.00	12.00	35.00
Control	2.00	1.00	6.00	26.6	2.00	1.00	4.00	15.00	1.00	0.00	4.00	9.00
LSD 0.05	2.008	1.64	5.13	52.7	2.99	2.14	5.38	46.85	2.48	1.04	5.25	22.8

N.C: Number of clusters, N.Sh: Number of shoulders, L.C: length of cluster, W.C: Weight of cluster

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Table 9: Effect of applying integrated control program on disease severity % of powdery mildew on three varieties of grapes at the Al- Noubaria location in fourth season (2021/2022).

Program	Treatment	Time between Intervals sprayer and followed	Time of application	Disease severity		
				Flame	Superior	Thompson
Farm	Moronic sulfur	1-20/Nov.	10 Days	0	0	0
Tested	Copper sulphate	1-20/ Nov		0	0	0
Control	None			0	0	0
Tested	Chitosan	21/ Nov - 1/Dec.		0	0	0
Farm	Moronic sulfur	21/ Nov - 1/Dec.		0	0	0
Control	None			0	0	0
Tested	Shampion (Copper hydroxide)	2-12/Dec.		0	0	0
Farm	Copper oxychloride	2-12/Dec.		0	0	0
Control	None			0	0	0
Tested	Potassium sulphate	13-23/2-12/Dec.		0	0	0
Farm	Chitosan	13-23/2-12/Dec.		0	0	0
Control	None			0	0	0
Tested	Eminent 12.5% EW	24/Dec.-3/Jan.		0	0	0
Farm	Topas 10 % EC	24/Dec.-3/Jan.		0	0	0
Control	None			0	0	0
Tested	potassium phosphate	4-14/Jan.		0	0	0
Farm	Topas 10 % EC	4-14/ Jan		0	0	0
Control	None			0	0	0
Tested	Topsin M 70% WP	15-25/ Jan		0	0	0
Farm	Chitosan	15-25/ Jan		0	0	0
Control	None			0	0	0
Tested	Micro elements	26/ Jan -5/Feb.		0	0	0
Farm	potassium phosphate	26/ Jan -5/Feb.		0	0	0
Control	None			0	0	0
Tested	Nimrod 25%EC	6-16/Feb.		0	0	0
Farm	potassium phosphate	6-16/Feb.		0	0	0

Continue Table 9: Effect of applying integrated control program on disease severity % of powdery mildew on three varieties of grapes at the Al- Noubaria location in fourth season (2021/2022).

Program	Treatment	Time between Intervals sprayer and followed	Time of application	Disease severity		
				Flame	Superior	Thompson
Control	None		10 Days	0	0	0
Tested	Calcium nitrate	17-27/Feb		0	0	0
Farm	Chitosan	17-27/ Feb		0	0	0
Control	None			23	17.6	22.3
Tested	Lepra12.5%EW	28/ Feb - 9/Mar		0	0	6
Farm	Bellis 38% WG	28/ Feb -9/ Mar		21	18.5	17.5
Control	None			35.6	33.6	33.6
Tested	Chitosan	10-20/ Mar 3		0	0	0
Farm	Bellis 38% WG	10-20/ Mar		27.3	24.3	23.6
Control	None			53.3	32.3	42.6
Tested	Bellis 38% WG	21/ Mar - 1/Apr.		9.6	9	8
Farm	potassium phosphate	21/ Mar -1/ Apr.		20.3	24.6	22
Control	None			61.3	58	54
Tested	potassium sulphate	2-12/ Apr.		9	7	7
Farm	Amistar top 32.5%SC	2-12/ Apr.		26.3	26.3	23.6
Control	None			75.3	67.6	65
Tested	Amistar top 32.5%SC	12-22/ Apr.		7	5	4
Farm	Amistar top 32.5%SC	12-22/ Apr.		26	26.6	25
Control	None			85	81.6	75
Tested	Switch 62.5% WG	23/ Apr.- 3/May		5	3	1.5
Farm	Topsin M 70% WP	23/ Apr.-3/ May	31.6	30.3	30.6	
Control			100	100	96.6	
Stop until harvest time						

Table 10: Effect of applying tested program on yield characteristics of three varieties of grapes at the Al- Noubaria location in fourth season (2022) yield cha.

Program	Yield characteristics											
	Flame				Superior				Thompson			
	N.C	N.Sh	L.C	W.C	N.C	N.Sh	L.C	W.C	N.C	N.Sh	L.C	W.C
Tested	30	9	20	358	30	9	23	517	25	9	18	300
Farm	25	9	20	500	25	9	25	500	20	9	16	220
General control sprayed with water only	0	0	0	0	0	0	0	0	0	0	0	0

N.C: Number of clusters, N.Sh: Number of shoulders, L.C: length of cluster, W.C: Weight of cluster