

(Vitis vinifera L.)

*

2007	2006	/	
20,15,10		()
	40	% 25,20,15	%
	10		

%20

(Perez and Morales, 2004)

(3 - 2)
(50 - 40)

.(1989)
(1996)
%10

(2007) Zakharov

(1997)

(1986)

%7.83
(2000)

.2008/10/7

2008/5/18

*

		IAA – Oxidaes	
.(2000) %0.05	.1	
	:	.2	
		15-10	
		.3	
		Naringerin	Isosalipuriside
)	15 - 10	%50	.
		.(2003	
		.4	
24		%10	.(2003)
		2005/1/1	
	1)	()
		.(%100	
.%15		.5	
.%20		.6	
%15		.7	
	2005 /5/15	2007	2006
	.2007		4x3
.%20		.8	40
.%25		.9	12
		4	
		5	4 10
	.(2000)		
	:	.10	
:(/ 2)		.1	10
50		LSD	

(100 /)

100 /)

(Ranganna, 1977) (.8

(Dvornic, 1965) ×)

(Joslyn, 1970) 2007 2006 /12/15 (×

/ .1 100 /) .2

(/) (

/

2 5740 / (Mahdavean and Sridhar, 1986)

(1)

(/2 2400) (2002 Nuray)

%20 () .3

.%25 () .4

(/) .5

)

(2000) .6

(ranges)

(Sharma and Uppal, 1977)

(2 -1)

IAA - (3 - 2)

Oxidaes

(2000) (4 - 3)

.2

(5 - 4)

) .7

16.64
%20

.%25

/ 157.73)

.4 (100

(1) (/ 82.65 51.91)

195.73) %20

.(13.39) (100 /

%20 (15.30) (/ 19.41 8.70)

(1)

.%25

.(Mesanov, 2005) .(Azhakiana, 2005)

.5 (2000)

524.70) (30.81 .3

%20

(42.63 743.12) .(1)

.(1)

.(Ferrini and Chohan, 2006)

.8

%0.628
%20

.6

(%0.583)

.(1)

1.88

.9

(1)

%.15

3.75
%20

100 / 7.87 % 15.70)

(1989)

.(1) %25

.(

100 / 8.85 % 16.62)

(

%20

.7

(1997)

(1)

104.97

100 /

%20

100 / 107.39

.10

(1)

.(Ferrini and Chohan, 2006)

.(Mesanov, 2005)

(%17.88)

%20

(%12.91)

/

.%20

:(1)

. (2007 2006)

/) 100 (/) 1000 (/) () () () () () () () () () () () ()				/) 100 (/ 2) (
12.91	7.87	15 .70	0.628	104.97	1.88	30.81	524.70	13.39	22.03	82.65	51.91	157.73	5740	control	.1
13.93	8.07	15.80	0.619	105.08	3.21	37.70	597.16	14.44	21.63	82.20	51.09	167.75	5020		.2
14.15	8.12	15.91	0.616	105.11	3.23	39.42	616.81	13.91	21.72	82.47	51.74	168.91	4580		.3
14.64	8.46	15.99	0.606	105.34	3.17	38.95	620.54	14.00	20.62	80.20	50.50	173.26	3000		.4
															.5
15.86	8.51	16.13	0.593	105.75	3.32	39.86	647.67	14.69	19.23	33.42	22.37	177.53	3210		.6
														%10	.7
17.01	8.74	16.38	0.588	106.49	3.41	41.19	681.72	15.02	17.70	25.02	14.75	181.62	2800		.8
														%15	.9
17.88	8.85	16.62	0.583	107.39	3.75	42.63	743.12	15.30	16.64	19.41	8.75	195.73	2400		.10
														%20	.11
14.92	8.28	15.92	0.602	105.58	3.18	38.62	623.96	13.88	19.57	47.02	38.62	75.42	3510		.12
														%15	.13
15.65	8.53	16.09	0.596	105.93	3.36	39.42	669.09	14.28	18.24	30.42	31.47	178.51	3220		.14
														%20	.15
16.83	8.69	16.27	0.586	106.85	3.60	41.33	719.54	14.99	17.32	22.97	18.68	193.50	2630		.16
														%25	.17
0.97	0.11	0.09	n.s.	0.39	0.33	3.23	44.48	0.41	1.37	5.16	5.95	7.08	370	L.S.D .	0.05

1986 . . .

.293

.348

1996

2000 . . .

.372

.14-8 :(3)28

1989

2000

.572

.784

2003

1997

.46

2000

Azhakiama, M.L. 2005. Grape yield and quality as influenced by growth inhibitor. *South India.Hort.*, 30(4): 178 – 183.

Dvornic, V. 1965. Lacrali pratic de ampelo grafie, Ed Didacticta Sipedagogica Ducureseti. R.S. Romania.128.

Ferrini,F.G.and Chohan,G.S.2006. The effect of removing leaves,flowers and quality of grape crop.*Am.J.Enol.Vitic.*,43(2): 265 -271.

Joslyn, M.A. 1970. Methods in food analysis. Physical, chemical and instrumental methods of analysis, 2nd Edn. Academic Press, New York and London, 265.

Mahdavean, A. and Sridhar, R. 1986. Methods in Physiological plant pathology. Sivakanmi publication. Madras, India, 119.

Mesanov,F.F.2005. The effect of summer pruning on the productivity and quality of some table grape vine cultivars.*Acta.Hort.*, 10 (6): 138-145.

Nuray, E., Ergon, N. Fatih and Y. Atilla. 2002. Auxin (indole

-3 – actic acid), gibberellic acid (GA3), abscisic acid (ABA) and cytokinin (ziatin) production by some spices of mosses and lichens. *Turk. J. Bot.*, 26: 13 – 18.

Perez, F. and V. Morales. 2004. Effect of training methods and leaf on the yield and quality of grape vine cv. Kyoho. *Research Bulletin of the Aichi-ken Agricultural*, 20: 151 – 162.

Ranganna, S. 1977. Manual of analysis of fruit and vegetable products. Tata. McGraw – Hill Publishing Co., New Delhi, 523.

Sharma, K.K. and D.K. Uppal. 1977. Performance of seedless hybrids in intervarietal crosses of grapes. *The Punjab Hort. J.*, 17 (1-2): 41 – 46.

Zakharov, B.W. 2007. Effect of lateral and steril shoot removal on fruit set, berry quality and yield of Roomy red grape vine (*Vitis vinifera* L.). *India J. Hort.*, 22(5):19-28.

...

Effect of Summer Pruning Treatments and Spraying with Bud and Bark Extracts of Salix on Quantity and Yield of Grape (*Vitis vinifera* L.) cv. Kamaly

*A. M. S. Al – Hmadawi **

ABSTRACT

This study was conducted in a private farm in Al – Abbaseia, Najaf Governorate during the growing seasons of 2006 and 2007 on grape cv. Kamaly. The aim was to restrict the vegetative growth, increasing productivity and improve berry quality, using some summer pruning (e. g. pinching, lateral shoot removal, sterile shoot removal) and spraying with the extract of bud of salix with concentrations of 10, 15 and 20% and with the extract of bark of salix with concentrations of 15, 20 and 25% one week before full bloom. 40 similar grape trees were chosen. The experiment was adopted as Randomized Complete Block Design (RCBD) with four blocks, each block contained 10 treatments with four replicates as one tree for a replicate. Results show that summer pruning and spraying with bud and bark extracts of salix were superior compared to the control treatment in an increase in total chlorophyll percentage on leaves, cluster diameter and its weight, tree yield, berry compact cluster degree and its contents of anthocyanine, total soluble solids, vitamin C, total carbohydrates percentage in cane, decreasing the leaf area and its contents of materials similar to auxins and gibberellins, cluster length, total acidity percentage in fruit juice. There were significant differences between the treatments in the benefit of the treatment of salix bud extract with a concentration of 20%, which gave the best results.

KEYWORDS: Grape, Summer pruning, Bud and bark extracts of salix .

* College of Agriculture, Al-Kufa University, Al-Kufa, Iraq.
Received on 18/5/2008 and Accepted for Publication on 7/10/2008.