

**Estimated Production Costs, Gross Revenues, and Returns per Acre for
Muscadines Grapes Grown for the Wine and Juice Markets
Single Wire Trellis System with No Irrigation**

Revised: November 2006

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This budget presents the estimated costs of producing and harvesting muscadine grapes for the wine and juice markets in North Carolina, an investment analysis of muscadine grape production, and the effects of varying wholesale prices and yields on returns to land and management. The budget was developed for a representative 10 acre grape vineyard assuming a single wire trellis (SWT) without irrigation. It was also assumed that the management of the vineyard would be near optimal and that all recommended practices would be followed. This information can be useful for farmers considering starting a new muscadine grape vineyard or expanding an existing operation. Mention of a product or vendor does not constitute a guarantee or warranty of the product, nor does it imply recommendation of one product over another. Other products may also be suitable depending on soils, weather conditions, farm history, and pest pressures

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**Estimated Production Costs per Acre for Muscadine Grapes Grown for the Wine and
Juice Markets, Single Wire Trellis System with Drip Irrigation
Site Preparation**

Month	Type of Operation	Equipment Costs	Materials Costs	Labor Costs	Total Costs	Your Costs
August						
	Attend Grower Meetings		5.00	8.45	13.45	_____
	Apply Herbicide	3.43		5.28	8.71	_____
	glyphosate		17.50		17.50	_____
	Total August	\$3.43	\$22.50	\$13.73	\$39.65	_____
November						
	Plow Field	12.31		13.94	26.25	_____
	Disc Field	5.31		6.97	12.28	_____
	Order & Plant cover crop	2.93	50.00	4.44	57.36	_____
	Apply Nutrients	2.93		4.44	7.36	_____
	Lime		77.00		77.00	_____
	Triple Superphosphate		20.40		20.40	_____
	Order plants		599.50	2.64	602.14	_____
	Total November	\$23.48	\$746.90	\$32.42	\$802.80	_____
December						
	Order trellis supplies*		1,817.60	10.56	1,828.16	_____
	Total December	\$0.00	\$1,817.60	\$10.56	\$1,828.16	_____
Annual Administrative Costs						
	Real Estate Taxes		0.00		0.00	_____
	Management Fee		0.00		0.00	_____
	Net Land Rent		0.00		0.00	_____
	Miscellaneous		20.00		20.00	_____
	Overhead (Utilities, legal fees, etc.)		15.00		15.00	_____
	Total Annual Administrative Costs	\$0.00	\$35.00	\$0.00	\$35.00	_____
Seasonal Costs						
	1/2 Ton Pick-up	16.48		25.34	41.82	_____
	Operating Capital		0.00		0.00	_____
	Total Seasonal Costs	\$16.48	\$0.00	\$25.34	\$41.82	_____
	TOTAL SITE PREPARATION	\$43.38	\$2,622.00	\$82.05	\$2,747.43	_____

Estimated Materials Costs for a Single Wire Trellis for a 10-Acre Vineyard

Trellis Materials	Rate/ Acre	Unit	Cost per Unit	Total Cost	Your Cost
Treated 4" x 8' Posts	2180	ea	5.00	10,900.00	_____
Treated 6" x 8' Posts	528	ea	7.00	3,696.00	_____
Treated 4" x 4"x 6' Timbers	264	ea	5.00	1,320.00	_____
Wire, 100-pound rolls of # 9 galvanized	30	rolls	74.00	2,220.00	_____
Staples	50	lbs	0.80	40.00	_____
Total Trellis Materials Cost				\$18,176.00	_____

Estimated Construction Costs for a Single Wire Trellis for a 10-Acre Vineyard

Operation	Equipment Costs	Materials Costs	Labor		Total Costs	Your Cost
			Hours	Costs		
Materials Cost		18,176.00			18,176.00	_____
Mark rows and post locations			40	330.00	330.00	_____
Distribute posts	340.38		40	330.00	670.38	_____
Drive line posts (2 workers @ 3min/post)	1,091.04		218	1,798.50	2,889.54	_____
Auger and set end posts (2 workers @ 5 min/post)	363.93		88	726.00	1,089.93	_____
Build Trellis			150	1,237.50	1,237.50	_____
TOTAL COSTS	\$1,795.35	\$18,176.00	536	\$4,422.00	\$24,393.35	_____

**Estimated Production Costs per Acre for Muscadine Grapes Grown for the Wine and Juice Markets, Single Wre Trellis System without Irrigation
First Year: Planting and Trellis Construction**

Month	Type of Operation	Equipment Costs	Materials Costs	Labor Costs	Total Costs	Your Costs
January						
Total January		\$0.00	\$0.00	\$0.00	\$0.00	
February						
Total February		\$0.00	\$0.00	\$0.00	\$0.00	
March						
	Build Trellis	179.53		442.20	621.73	
	Auger vine holes ¹	5.03		230.21	235.24	
Total March		\$184.56	\$0.00	\$672.41	\$856.97	
April						
	Order Pruning Equipment			10.56	10.56	
	Plant vines (2 min/vine)			77.09	77.09	
Total April		\$0.00	\$0.00	\$87.65	\$87.65	
May						
	Order & Replant ²		30.25	10.56	40.81	
	Growth tube installation		139.52	42.24	181.76	
	Fertilize	4.12		6.34	10.46	
	10-10-10		6.54		6.54	
	Apply Herbicide	3.42		5.28	8.70	
	flumioxazin (Chateau)		37.50		37.50	
	Train/Prune (8 min/vine)	0.00		304.13	304.13	
	Mow alleys	5.59		6.34	11.93	
Total May		\$13.14	\$213.81	\$374.88	\$601.83	
June						
	Apply Herbicide	3.42		5.28	8.70	
	flumioxazin + paraquat		50.70		50.70	
	Fertilize	4.12		6.34	10.46	
	10-10-10		6.54		6.54	
	Train/Prune (4 min/vine)	0.00		152.06	152.06	
	Mow alleys (2X)	11.19		12.67	23.86	
Total June		\$18.73	\$57.24	\$176.35	\$252.33	
July						
	Fertilize	4.12		6.34	10.46	
	10-10-10		6.54		6.54	
	Apply Insecticide	3.42		5.28	8.70	
	chlorpyrifos (Lorsban 4E)		9.00		9.00	
	Train/Prune (4 min/vine)	0.00		152.06	152.06	
	Mow alleys (2X)	11.19		12.67	23.86	
Total July		\$18.73	\$15.54	\$176.35	\$210.63	
August						
	Attend Grower Meetings		5.00	8.45	13.45	
	Apply Herbicide	3.42		5.28	8.70	
	sethoxydim (Poast 1.5 EC)		17.06		17.06	
	Mow alleys	5.59		6.34	11.93	
Total August		\$9.02	\$22.06	\$20.06	\$51.15	
September						
	Growth tube removal			21.12	21.12	
Total September		\$0.00	\$0.00	\$21.12	\$21.12	
October - December						
	Apply Herbicide (spot spray)	3.35		5.28	8.63	
	glyphosate		17.50		17.50	
Total October - December		\$3.35	\$17.50	\$5.28	\$26.13	
Annual Administrative Costs						
	Real Estate Taxes		0.00		0.00	
	Management Fee		0.00		0.00	
	Net Land Rent		0.00		0.00	
	Miscellaneous		40.00		40.00	
	Overhead (Utilities, legal fees, etc)		30.00		30.00	
	Interest on Accumulating Investment		0.00		0.00	
Total Annual Administrative Costs			\$70.00		\$70.00	
Seasonal Costs						
	1/2 Ton Pick-up	32.96		50.69	83.64	
	Operating Capital		0.00		0.00	
Total Seasonal Costs		\$32.96	\$0.00	\$50.69	\$83.64	
TOTAL FIRST YEAR COSTS		\$280.49	\$396.15	\$1,584.79	\$2,261.44	

Notes:

¹Auger vine holes: 2 workers @ 3 min/vine

²Order & Replant 5% of the initial plants

**Estimated Production Costs per Acre for Muscadine Grapes Grown for the Wine and Juice Markets, Single Wire Trellis System without Irrigation
Second Year: First Harvest (yield = 0.8 tons per acre)**

Month	Type of Operation	Equipment Costs	Materials Costs	Labor Costs	Total Costs	Your Costs
January						
	Dormant Pruning (10min/vine)	0.00		380.16	380.16	
Total January		\$0.00	\$0.00	\$380.16	\$380.16	
February						
Total February		\$0.00	\$0.00	\$0.00	\$0.00	
March						
	Fertilize	4.12		6.34	10.46	
	10-10-10		13.08		13.08	
	Apply Herbicide	3.42		5.28	8.70	
	flumioxazin (Chateau)+glyphosate		55.88		55.88	
Total March		\$7.54	\$68.96	\$11.62	\$88.11	
April						
	Mow alleys	5.59		6.34	11.93	
Total April		\$5.59	\$0.00	\$6.34	\$11.93	
May						
	Fertilize	4.12		6.34	10.46	
	10-10-10		13.08		13.08	
	Train/Prune (8 min/vine)	0.00		304.13	304.13	
	Mow alleys	5.59		6.34	11.93	
Total May		\$9.71	\$13.08	\$316.80	\$339.59	
June						
	Leaf Analysis		4.00	2.64	6.64	
	Apply Herbicide	3.42		5.28	8.70	
	flumioxazin + glufosinate (Rely)		111.50		111.50	
	Mow alleys (2X)	11.19		12.67	23.86	
Total June		\$14.61	\$115.50	\$20.59	\$150.71	
July						
	Fertilize	4.12		6.34	10.46	
	10-10-10		13.08		13.08	
	Apply Insecticide	3.42		5.28	8.70	
	chlorpyrifos (Lorsban 4E)		7.75		7.75	
	Mow alleys (2X)	11.19		12.67	23.86	
Total July		\$18.73	\$20.82	\$24.29	\$63.84	
August						
	Attend Grower Meetings		5.00	8.45	13.45	
	Apply Herbicide	5.48		8.45	13.93	
	sethoxydim (Poast 1.5 EC)		17.06		17.06	
	Mow alleys (1) (30' min/acre)	5.59		6.34	11.93	
Total August		\$11.07	\$22.06	\$23.23	\$56.37	
September						
	Custom harvesting ¹	87.81		2.64	90.45	
Total September		\$87.81	\$0.00	\$2.64	\$90.45	
October						
	Apply Herbicide (spot spray)	3.35		5.28	8.63	
	glyphosate		17.50		17.50	
Total October		\$3.35	\$17.50	\$5.28	\$26.13	
November						
	Repair Trellis			21.12	21.12	
Total November		\$0.00	\$0.00	\$21.12	\$21.12	
December						
Total December		\$0.00	\$0.00	\$0.00	\$0.00	
Annual Administrative Costs						
	Real Estate Taxes		0.00		0.00	
	Management Fee		0.00		0.00	
	Net Land Rent		0.00		0.00	
	Miscellaneous		40.00		40.00	
	Overhead (Utilities, legal fees, etc)		30.00		30.00	
	Interest on Accumulating Investment		0.00		0.00	
Total Annual Administrative Costs		\$0.00	\$70.00		\$70.00	
Seasonal Costs						
	1/2 Ton Pick-up	32.96		50.69	83.64	
	Operating Capital		0.00		0.00	
Total Seasonal Costs		\$32.96	\$0.00	\$50.69	\$83.64	
TOTAL SECOND YEAR COSTS		\$191.39	\$327.92	\$862.75	\$1,382.06	

Notes:

¹Custom harvesting: Grower provides a 60 HP tractor

**Estimated Production Costs per Acre for Muscadine Grapes Grown for the Wine and Juice Markets, Single Wire Trellis System without Irrigation
Third Year: Second Harvest (yield = 2.4 tons per acre)**

Month	Type of Operation	Equipment Costs	Materials Costs	Labor Costs	Total Costs	Your Costs
January						
	Dormant mechanical pruning	255.00			255.00	
	Dormant pruning (10min/vine)	0.00		380.16	380.16	
Total January		\$255.00	\$0.00	\$380.16	\$635.16	
February						
Total February		\$0.00	\$0.00	\$0.00	\$0.00	
March						
	Fertilize	2.09		3.17	5.26	
	10-10-10		19.62		19.62	
	Apply Herbicide	3.42		5.28	8.70	
	flumioxazin (Chateau) +glyphosate		55.88		55.88	
Total March		\$5.52	\$75.50	\$8.45	\$89.46	
April						
	Mow alleys	5.59		6.34	11.93	
Total April		\$5.59	\$0.00	\$6.34	\$11.93	
May						
	Fertilize	2.09		3.17	5.26	
	10-10-10		19.62		19.62	
	Apply Insecticide (Prebloom)	5.72		5.28	11.00	
	carbaryl (Sevin 80 WP)		6.30		6.30	
	Apply Fungicide	5.72		5.28	11.00	
	myclobutanil (Nova 40 W)		12.00		12.00	
	Mow alleys	5.59		6.34	11.93	
Total May		\$19.12	\$37.92	\$20.07	\$77.11	
June						
	Leaf Analysis		4.00	2.64	6.64	
	Apply Herbicide	3.42		5.28	8.70	
	flumioxazin + glufosinate (Rely)		111.50		111.50	
	Apply Insecticide	5.72		5.28	11.00	
	carbaryl (Sevin 80 WP)		7.87		7.87	
	Apply Fungicide	5.72		5.28	11.00	
	captan (Captan 50 WP)		13.60		13.60	
	Mow alleys (2X)	11.19		12.67	23.86	
Total June		\$26.04	\$136.98	\$31.16	\$194.18	
July						
	Fertilize	2.09		3.17	5.26	
	10-10-10		19.62		19.62	
	Apply Insecticide	3.42		5.28	8.70	
	chlorpyrifos (Lorsban 4E)		9.00		9.00	
	Apply Fungicide	5.72		5.28	11.00	
	captan (Captan 50 WP)		13.60		13.60	
	Mow alleys (2X)	11.19		12.67	23.86	
Total July		\$22.42	\$42.22	\$26.40	\$91.05	
August						
	Attend Grower Meetings		5.00	8.45	13.45	
	Apply Herbicide	3.42		5.28	8.70	
	sethoxydim (Poast 1.5 EC)		17.06		17.06	
	Mechanical pruning (summer)	127.50			127.50	
	Mow alleys	5.59		6.34	11.93	
Total August		\$136.52	\$22.06	\$20.06	\$178.65	
September						
	Custom harvesting ¹	247.81		2.64	250.45	
Total September		\$247.81	\$0.00	\$2.64	\$250.45	
October						
	Apply Herbicide (spot spray)	3.35		5.28	8.63	
	glyphosate		17.50		17.50	
Total October		\$3.35	\$17.50	\$5.28	\$26.13	
November						
	Repair Trellis			21.12	21.12	
Total November		\$0.00	\$0.00	\$21.12	\$21.12	
December						
Total December		\$0.00	\$0.00	\$0.00	\$0.00	
Annual Administrative Costs						
	Real Estate Taxes		0.00		0.00	
	Management Fee		0.00		0.00	
	Net Land Rent		0.00		0.00	
	Miscellaneous		40.00		40.00	
	Overhead (Utilities, legal fees, etc)		30.00		30.00	
	Interest on Accumulating Investment		0.00		0.00	
Total Annual Administrative Costs			\$70.00		\$70.00	
Seasonal Costs						
	1/2 Ton Pick-up	32.96		50.69	83.64	
	Operating Capital		0.00		0.00	
Total Seasonal Costs		\$32.96	\$0.00	\$50.69	\$83.64	
TOTAL THIRD YEAR COSTS		\$754.32	\$402.17	\$572.37	\$1,728.87	

Notes:

¹Custom harvesting: Grower provides a 60 HP tractor

**Estimated Production Costs per Acre for Muscadine Grapes Grown for the Wine and Juice Market, Single Wire Trellis System without Irrigation
Fourth through Twentieth Years (yield = 6.4 tons per acre)**

Month	Type of Operation	Equipment Costs	Materials Costs	Labor Costs	Total Costs	Your Costs
January						
	Dormant mechanical pruning	255.00			255.00	
	Dormant pruning (10min/vine)	0.00		380.16	380.16	
Total January		\$255.00	\$0.00	\$380.16	\$635.16	
February						
Total February		\$0.00	\$0.00	\$0.00	\$0.00	
March						
	Fertilize	2.09		3.17	5.26	
	10-10-10		39.24		39.24	
	Apply Herbicide	3.42		5.28	8.70	
	flumioxazin (Chateau) +glyphosate		55.88		55.88	
Total March		\$5.52	\$95.12	\$8.45	\$109.08	
April						
	Mow alleys (1) (30' min/acre)	5.59		6.34	11.93	
Total April		\$5.59	\$0.00	\$6.34	\$11.93	
May						
	Fertilize	2.09		3.17	5.26	
	10-10-10		26.16		26.16	
	Apply Insecticide (Prebloom)	5.72		5.28	11.00	
	carbaryl (Sevin 80 WP)		6.30		6.30	
	Apply Fungicide	11.43		10.57	22.00	
	myclobutanil (Nova 40 W) 2X		32.00		32.00	
	Spray boron (Solubor 20% B)	5.72	0.70	5.28	11.70	
	Mow alleys	5.59		6.34	11.93	
Total May		\$30.55	\$65.16	\$30.64	\$126.35	
June						
	Leaf Analysis		4.00	2.64	6.64	
	Apply Herbicide	3.42		5.28	8.70	
	flumioxazin + glufosinate (Rely)		111.50		111.50	
	Apply Insecticide	5.72		5.28	11.00	
	carbaryl (Sevin 80 WP)		7.88		7.88	
	Apply Fungicide	5.72		5.28	11.00	
	azoxystrobin (Abound 2.08 SC)		19.79		19.79	
	Apply Fungicide	5.72		5.28	11.00	
	captan+thiophanatemethyl (Topsin)		42.10		42.10	
	Mow alleys (2X)	11.19		12.67	23.86	
Total June		\$31.76	\$185.26	\$36.44	\$253.47	
July						
	Apply Fungicide	5.72		5.28	11.00	
	captan (Captan 50 WP)		13.60		13.60	
	Apply Fungicide	5.72		5.28	11.00	
	azoxystrobin (Abound 2.08 SC)		19.79		19.79	
	Apply Insecticide	3.42		5.28	8.70	
	chlorpyrifos (Lorsban 4E)		9.00		9.00	
	Mow alleys (2X)	11.19		12.67	23.86	
Total July		\$26.04	\$42.39	\$28.52	\$96.95	
August						
	Attend Grower Meetings		5.00	8.45	13.45	
	Apply Herbicide	3.42		5.28	8.70	
	sethoxydim (Poast 1.5 EC)		17.06		17.06	
	Mechanical pruning (summer)	127.50			127.50	
	Mow alleys (1) (30' min/acre)	5.59		6.34	11.93	
Total August		\$136.52	\$22.06	\$20.06	\$178.65	
September						
	Custom harvesting ¹	647.81		2.64	650.45	
Total September		\$647.81	\$0.00	\$2.64	\$650.45	
October						
	Apply Herbicide (spot spray)	3.35		5.28	8.63	
	glyphosate		17.50		17.50	
Total October		\$3.35	\$17.50	\$5.28	\$26.13	
November						
	Repair Trellis			21.12	21.12	
Total November		\$0.00	\$0.00	\$21.12	\$21.12	
December						
Total December		\$0.00	\$0.00	\$0.00	\$0.00	
Annual Administrative Costs						
	Real Estate Taxes		0.00		0.00	
	Management Fee		0.00		0.00	
	Net Land Rent		0.00		0.00	
	Miscellaneous		40.00		40.00	
	Overhead (Utilities, legal fees, etc)		30.00		30.00	
	Interest on Accumulating Investment		0.00		0.00	
Total Annual Administrative Costs			\$70.00		\$70.00	
Seasonal Costs						
	1/2 Ton Pick-up	32.96		50.69	83.64	
	Operating Capital		0.00		0.00	
Total Seasonal Costs		\$32.96	\$0.00	\$50.69	\$83.64	
TOTAL ANNUAL COSTS		\$1,175.09	\$497.49	\$590.34	\$2,262.93	

Notes:

¹Custom harvesting: Grower provides a 60 HP tractor

**Estimated Monthly and Annual Production Costs per Acre for Muscadine Grapes
Grown for the Wine and Juice Markets
Single Wire Trellis System without Irrigation**

Year & Month	Equipment Costs	Material Costs	Labor Costs	Total Costs	Your Costs
Site Preparation					
January	0.00	0.00	0.00	0.00	
February	0.00	0.00	0.00	0.00	
March	0.00	0.00	0.00	0.00	
April	0.00	0.00	0.00	0.00	
May	0.00	0.00	0.00	0.00	
June	0.00	0.00	0.00	0.00	
July	0.00	0.00	0.00	0.00	
August	3.43	22.50	13.73	39.65	
September	0.00	0.00	0.00	0.00	
October	0.00	0.00	0.00	0.00	
November	23.48	746.90	32.42	802.80	
December	0.00	1,817.60	10.56	1,828.16	
Annual Charges	0.00	35.00	0.00	35.00	
Seasonal Charges	16.48	0.00	25.34	41.82	
Total Site Preparation	\$43.38	\$2,622.00	\$82.05	\$2,747.43	
First Year					
January	0.00	0.00	0.00	0.00	
February	0.00	0.00	0.00	0.00	
March	184.56	0.00	672.41	856.97	
April	0.00	0.00	87.65	87.65	
May	13.14	213.81	374.88	601.83	
June	18.73	57.24	176.35	252.33	
July	18.73	15.54	176.35	210.63	
August	9.02	22.06	20.06	51.15	
September	0.00	0.00	21.12	21.12	
October	3.35	17.50	5.28	26.13	
November	0.00	0.00	0.00	0.00	
December	0.00	0.00	0.00	0.00	
Annual Charges	0.00	70.00	0.00	70.00	
Seasonal Charges	32.96	0.00	50.69	83.64	
Total First Year	\$280.49	\$396.15	\$1,584.79	\$2,261.44	
Second Year (Yield = 0.8 tons/A)					
January	0.00	0.00	380.16	380.16	
February	0.00	0.00	0.00	0.00	
March	7.54	68.96	11.62	88.11	
April	5.59	0.00	6.34	11.93	
May	9.71	13.08	316.80	339.59	
June	14.61	115.50	20.59	150.71	
July	18.73	20.82	24.29	63.84	
August	11.07	22.06	23.23	56.37	
September	87.81	0.00	2.64	90.45	
October	3.35	17.50	5.28	26.13	
November	0.00	0.00	21.12	21.12	
December	0.00	0.00	0.00	0.00	
Annual Charges	0.00	70.00	0.00	70.00	
Seasonal Charges	32.96	0.00	50.69	83.64	
Total Second Year	\$191.39	\$327.92	\$862.75	\$1,382.06	
Third Year (Yield = 2.4 tons/A)					
January	255.00	0.00	380.16	635.16	
February	0.00	0.00	0.00	0.00	
March	5.52	75.50	8.45	89.46	
April	5.59	0.00	6.34	11.93	
May	19.12	37.92	20.07	77.11	
June	26.04	136.98	31.16	194.18	
July	22.42	42.22	26.40	91.05	
August	136.52	22.06	20.06	178.65	
September	247.81	0.00	2.64	250.45	
October	3.35	17.50	5.28	26.13	
November	0.00	0.00	21.12	21.12	
December	0.00	0.00	0.00	0.00	
Annual Charges	0.00	70.00	0.00	70.00	
Seasonal Charges	32.96	0.00	50.69	83.64	
Total Third Year	\$754.32	\$402.17	\$572.37	\$1,728.87	
Fourth Year through Twentieth Year (Yield = 6.4 tons /A)					
January	255.00	0.00	380.16	635.16	
February	0.00	0.00	0.00	0.00	
March	5.52	95.12	8.45	109.08	
April	5.59	0.00	6.34	11.93	
May	30.55	65.16	30.64	126.35	
June	31.76	185.26	36.44	253.47	
July	26.04	42.39	28.52	96.95	
August	136.52	22.06	20.06	178.65	
September	647.81	0.00	2.64	650.45	
October	3.35	17.50	5.28	26.13	
November	0.00	0.00	21.12	21.12	
December	0.00	0.00	0.00	0.00	
Annual Charges	0.00	70.00	0.00	70.00	
Seasonal Charges	32.96	0.00	50.69	83.64	
Total Annual Costs	\$1,175.09	\$497.49	\$590.34	\$2,262.93	

**Monthly Labor Estimates per Acre for Muscadine Grapes
Grown for the Wine and Juice Markets
Single Wire Trellis System without Irrigation**

Year & Month	Labor (Person Hours)	Your Estimate
Site Preparation		
January	0.000	_____
February	0.000	_____
March	0.000	_____
April	0.000	_____
May	0.000	_____
June	0.000	_____
July	0.000	_____
August	1.300	_____
September	0.000	_____
October	0.000	_____
November	3.070	_____
December	1.000	_____
Seasonal Charges	2.400	_____
Total Site Preparation	7.770	_____
First Year		
January	0.000	_____
February	0.000	_____
March	75.400	_____
April	8.300	_____
May	35.500	_____
June	16.700	_____
July	16.700	_____
August	1.900	_____
September	2.000	_____
October	0.500	_____
November	0.500	_____
December	0.500	_____
Seasonal Charges	4.800	_____
Total First Year	162.800	_____
Second Year		
January	36.000	_____
February	0.000	_____
March	1.100	_____
April	0.600	_____
May	30.000	_____
June	1.950	_____
July	2.300	_____
August	2.200	_____
September	0.250	_____
October	0.500	_____
November	2.000	_____
December	0.000	_____
Seasonal Charges	4.800	_____
Total Second Year	81.700	_____
Third Year		
January	36.000	_____
February	0.000	_____
March	0.800	_____
April	0.600	_____
May	1.901	_____
June	2.951	_____
July	2.500	_____
August	1.900	_____
September	0.250	_____
October	0.500	_____
November	2.000	_____
December	0.000	_____
Seasonal Charges	4.800	_____
Total Third Year	54.202	_____
Fourth Year through Twentieth Year		
January	36.000	_____
February	0.000	_____
March	0.800	_____
April	0.600	_____
May	2.902	_____
June	3.451	_____
July	2.701	_____
August	1.900	_____
September	0.250	_____
October	0.500	_____
November	4.000	_____
December	0.000	_____
Annual Charges	0.000	_____
Seasonal Charges	4.800	_____
Total Annual Labor	57.904	_____

**Breakeven and Net Present Value Analysis for Muscadine Grapes Grown for the Wine
and Juice Markets, Single WireTrellis System without Irrigation**

Year	Yield per Acre	Total Costs per Acre	Total Revenue per Acre	Net Cash Flow per Acre	Accumulated Cash Flow	Discount Factor 6%	Present Value of Net Cash Flow
0	0	3,839.13	0.00	(3,839.13)	(3,839.13)	1.00	(3,839.13)
1	0	2,832.88	0.00	(2,832.88)	(6,672.01)	0.94	(2,672.52)
2	0.8	1,382.06	400.00	(982.06)	(7,654.07)	0.89	(874.03)
3	2.4	1,728.87	1,200.00	(528.87)	(8,182.94)	0.84	(444.05)
4	6.4	2,262.93	3,200.00	937.07	(7,245.87)	0.79	742.25
5	6.4	2,262.93	3,200.00	937.07	(6,308.79)	0.75	700.24
6	6.4	2,262.93	3,200.00	937.07	(5,371.72)	0.70	660.60
7	6.4	2,262.93	3,200.00	937.07	(4,434.64)	0.67	623.21
8	6.4	2,262.93	3,200.00	937.07	(3,497.57)	0.63	587.93
9	6.4	2,262.93	3,200.00	937.07	(2,560.49)	0.59	554.65
10	6.4	2,667.93	3,200.00	532.07	(2,028.42)	0.56	297.11
11	6.4	2,262.93	3,200.00	937.07	(1,091.34)	0.53	493.64
12	6.4	2,617.89	3,200.00	582.11	(509.23)	0.50	289.29
13	6.4	2,262.93	3,200.00	937.07	427.84	0.47	439.34
14	6.4	2,262.93	3,200.00	937.07	1,364.92	0.44	414.47
15	6.4	2,336.01	3,200.00	863.99	2,228.91	0.42	360.51
16	6.4	2,262.93	3,200.00	937.07	3,165.99	0.39	368.88
17	6.4	2,262.93	3,200.00	937.07	4,103.06	0.37	348.00
18	6.4	2,262.93	3,200.00	937.07	5,040.14	0.35	328.30
19	6.4	2,262.93	3,200.00	937.07	5,977.21	0.33	309.72
20	6.4	1,767.37	3,200.00	1,432.63	7,409.84	0.31	446.70
Total							\$135.09

Breakeven Year	<u>13th Year</u>
Total Accumulated Cah Flow	<u>\$7,409.84</u>
Net Present Value	<u>\$135.09</u>
Internal Rate of Return	<u>6.20%</u>

**Estimated Returns to Land & Management per Acre for varying Prices and Yields for Muscadine Grapes Grown for the Wine and Juice Markets
Single Wire Trellis System without Irrigation**

Wholesale Price	Marketable Yield per Acre					Breakeven Yield
	(Tons)					
(\$/Ton)	5.76	6.08	6.4	6.72	7.04	
400	(785.18)	(689.18)	(593.18)	(497.18)	(401.18)	8.38
450	(497.18)	(385.18)	(273.18)	(161.18)	(49.18)	7.09
500	(209.18)	(81.18)	46.82	174.82	302.82	6.28
550	78.82	222.82	366.82	510.82	654.82	5.58
600	366.82	526.82	686.82	846.82	1,006.82	5.03