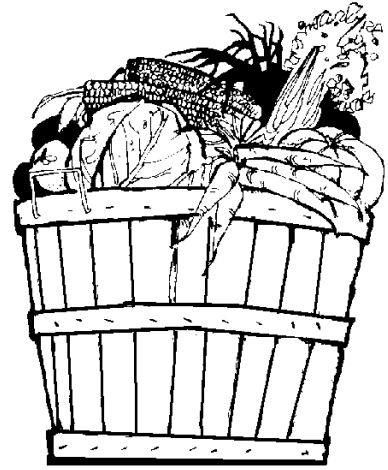


2003 Kentucky Commercial Vegetable Production Budget Updates



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Kentucky's commercial vegetable budgets were updated for 2002 production scenarios. Average yields and prices, as well as irrigation, machinery, and other input costs were changed to reflect cost changes since 2001. In addition, pesticide programs were modified to reflect typical product use and UK recommendations. These budgets typically reflect "conservative" estimates, tending toward maximum normal production and conservative market prices.

These budget drafts are being made available to Extension personnel in print and electronic copies during the spring of 2003. Interactive electronic budgets are also available from 2002 at the following Web link:

<http://www.uky.edu/Ag/AgEcon/data/baledhortbudgetinstr495.html>

Commercial vegetable returns can vary, sometimes considerably, by production region and marketing situation. These estimates are best used as a "side-by-side" comparison tool to analyze financial costs and benefits for producing different crops.

Special thanks to Dave Spalding, Brent Rowell, and Terry Jones of the UK Department of Horticulture who contributed to the first drafts of these budgets.

This budget packet includes fresh market budgets for the following commodities:

Cabbage, Green
Cantaloupe/Muskmelon
Cucumber (Summer & Fall)
Sweet Corn
Eggplant
Bell Peppers

Jalapeno Peppers
Pumpkins
Yellow Crookneck Squash
Staked Tomatoes
Seeded Watermelons
Seedless Watermelons

Estimated Returns for Vegetables in Kentucky

Note: These are cautious estimates developed during the spring of 2003 in the UK Ag Economics Department as part of the activities of the New Crop Opportunities Center. The probabilities assigned are similar to those used in University of Georgia budgets; however, limited production and economic data for many crops in KY make the unpredictability of these crops extremely high.

It should be noted that the budgets used assign a \$159.94 fixed cost to the trickle irrigation system. However, a new producer will obviously have to incur the entire cost of this system per year. UK Horticulture estimates this initial cost at a minimum of \$1,244.

Prices are extremely variable across crops and harvest time. These budgets reflect a deduction of **10%** of gross income toward marketing.

Enough cannot be said of environmental and temperate effects toward vegetable yields and returns. These "bottom line" suggestions should only be a part of any production decision made.

In general, higher returning vegetables also reflect higher labor requirements. As a rule of thumb, the probability of a pessimistic return is probably around 10%, while an optimistic might be 5%.

Pessimistic: Reflect up to a 30% decrease in price (depending on crop and seasonal schedules), up to a 20% decrease in yields, and up to a 20% increase in total variable costs.

Optimistic: Reflect up to a 10% production increase combined with up to a 20% price increase and up to a 10% decrease in costs.

CABBAGE (Fresh Green)

<i>Operator Labor Assumption:</i>	50 hours			
Return Above Variable Costs		Pessimistic	Conservative	Optimistic
		\$ 20.75	\$ 974.10	\$ 1,565.48
Return to Operator Labor, Land, Capital and Management		\$ (250.83)	\$ 691.77	\$ 1,276.93
Return to Land, Capital and Management		\$ (650.83)	\$ 291.77	\$ 876.93

Judging from the terminal market data from St. Louis, Detroit and Atlanta, red cabbage and savoy cabbage should yield higher returns than the fresh green cabbage. While production costs are slightly higher for red and savoy, the terminal market prices tend to be 5%-20% higher than fresh green cabbage (red) and 10%-30% higher for savoy. This will not, of course, result in the same increase in return but conservative returns to land, capital, and management should be in the \$550 range.

		Pessimistic	Conservative	Optimistic
CANTALOUPE				
<i>Operator Labor Assumption:</i>	50 hours			
Return Above Variable Costs		\$ 197.53	\$ 1,141.21	\$ 2,422.34
Return to Operator Labor, Land, Capital and Management		\$ 61.22	\$ 889.08	\$ 2,163.73
Return to Land, Capital and Management		\$ (461.22)	\$ 489.08	\$ 1,763.73

NOTE: Some producers may incur part/all of the cost of bins and pallets used in handling the cantaloupes in a co-op. This can reduce listed returns by \$500-\$750.

CUCUMBER

<i>Operator Labor Assumption:</i>	20 hours			
Return Above Variable Costs		\$ (342.93)	\$ 516.41	\$ 1,187.35
Return to Operator Labor, Land, Capital and Management		\$ (607.39)	\$ 249.88	\$ 912.89
Return to Land, Capital and Management		\$ (767.39)	\$ 89.88	752.89

CUCUMBER, Fall Trellis Production

<i>Operator Labor Assumption:</i>	20 hours			
Return Above Variable Costs		\$ (859.38)	\$ 763.58	\$ 1,855.36
Return to Operator Labor, Land, Capital and Management		\$ (1,131.04)	\$ 472.92	\$ 1,554.59
Return to Land, Capital and Management		\$ (1,291.04)	\$ 312.92	\$ 1,394.59

Estimated Returns for Vegetables in Kentucky

	Pessimistic	Conservative	Optimistic
EGGPLANT			
<i>Operator Labor Assumption:</i>			
	52 hours		
Return Above Variable Costs	\$ (575.19)	\$ 1,250.30	\$ 2,602.30
Return to Operator Labor, Land, Capital and Management	\$ (839.12)	\$ 967.65	\$ 2,308.62
Return to Land, Capital and Management	\$ (1,239.12)	\$ 567.65	\$ 1,908.62
BELL PEPPERS			
<i>Operator Labor Assumption:</i>			
	40 hours		
Return Above Variable Costs	\$ 452.13	\$ 3,983.10	\$ 6,396.98
Return to Operator Labor, Land, Capital and Management	\$ 140.92	\$ 3,632.90	\$ 6,025.03
Return to Land, Capital and Management	\$ (179.08)	\$ 3,312.90	\$ 5,705.03
JALEPENO PEPPERS			
<i>Operator Labor Assumption:</i>			
	40 hours		
Return Above Variable Costs	\$ 682.12	\$ 2,747.33	\$ 4,958.50
Return to Operator Labor, Land, Capital and Management	\$ 384.42	\$ 2,428.13	\$ 4,620.05
Return to Land, Capital and Management	\$ 64.42	\$ 2,108.13	\$ 4,300.05
PUMPKINS			
<i>Operator Labor Assumption:</i>			
	20 hours		
Return Above Variable Costs	\$ (7.59)	\$ 437.53	\$ 861.89
Return to Operator Labor, Land, Capital and Management	\$ (82.81)	\$ 355.87	\$ 774.22
Return to Land, Capital and Management	\$ (242.81)	\$ 195.87	\$ 614.22
SQUASH			
<i>Operator Labor Assumption:</i>			
	20 hours		
Return Above Variable Costs	\$ (449.25)	\$ 894.00	\$ 2,370.31
Return to Operator Labor, Land, Capital and Management	\$ (723.56)	\$ 598.93	\$ 2,061.87
Return to Land, Capital and Management	\$ (883.56)	\$ 438.93	\$ 1,961.87
SWEET CORN			
<i>Operator Labor Assumption:</i>			
	20 hours		
Return Above Variable Costs	\$ (117.95)	\$ 269.52	\$ 530.83
Return to Operator Labor, Land, Capital and Management	\$ (388.22)	\$ (13.12)	\$ 239.88
Return to Land, Capital and Management	\$ (548.22)	\$ (173.12)	\$ 79.88
TOMATOES, STAKED			
<i>Operator Labor Assumption:</i>			
	220 hours		
Return Above Variable Costs	\$ 23.69	\$ 4,258.48	\$ 7,704.12
Return to Operator Labor, Land, Capital and Management	\$ (306.84)	\$ 3,883.78	\$ 7,301.82
Return to Land, Capital and Management	\$ (2,066.84)	\$ 2,123.78	\$ 5,541.82

Estimated Returns for Vegetables in Kentucky

	Pessimistic	Conservative	Optimistic
WATERMELONS, SEEDED			
<i>Operator Labor Assumption:</i>			30 hours
Return Above Variable Costs	\$ (157.05)	\$ 442.93	\$ 1,130.99
Return to Operator Labor, Land, Capital and Management	\$ (445.21)	\$ 149.77	\$ 834.33
Return to Land, Capital and Management	\$ (685.21)	\$ (90.23)	\$ 594.33
WATERMELONS, SEEDLESS			
<i>Operator Labor Assumption:</i>			30 hours
Return Above Variable Costs	\$ (147.32)	\$ 820.59	\$ 1,518.11
Return to Operator Labor, Land, Capital and Management	\$ (424.24)	\$ 538.98	\$ 1,234.16
Return to Land, Capital and Management	\$ (664.24)	\$ 298.98	\$ 994.16

GREEN CABBAGE, FRESH MARKET
Kentucky Estimated per Acre Costs and Returns for 2002

	Quantity	Unit	\$/Unit	Total	
GROSS RETURNS					
Cabbage (50 lb box)	600	box	\$ 5.25	\$ 3,150.00	a,b
Cabbage (50 lb bag)	50		\$ 3.25	\$ 162.50	
Total Returns				\$ 3,312.50	
VARIABLE COSTS					
Production					
Plants (bare root)	14.5	1000 plants	\$ 19.00	\$ 275.50	
Lime	0.5	ton	\$ 12.12	\$ 6.06	
Fertilizer: 19-19-19 Spread	800	lb	\$ 0.11	\$ 91.30	
Fertilizer: Starter	30	lb	\$ 1.40	\$ 42.00	
Fertilizer: Ammonium Nitrate	200	lb	\$ 0.10	\$ 20.00	
Herbicide	2	qts	\$ 11.53	\$ 10.14	c
Insecticides	1	acre		\$ 53.89	c
Fungicide	1	acre		\$ 78.76	c
Irrigation	4	hours	\$ 7.50	\$ 30.00	f
Hired Labor	15	hours	\$ 8.00	\$ 120.00	
Machinery Variable Costs	1	acre	\$ 35.32	\$ 35.32	d
Total Preharvest Variable Costs				\$ 762.98	
HARVESTING AND MARKETING					
Boxes	600	boxes	\$ 1.25	\$ 750.00	
Bags	50	bags	\$ 0.50	\$ 25.00	
Hired Labor					
Harvest & Pack	\$ 0.30	box		\$ 180.00	e
Misc. Harvest Labor	2.50	hrs	\$ 8.00	\$ 20.00	
Marketing Costs (10% of Gross)	10.0%	gross		\$ 331.25	
Hauling Variable Costs	600	boxes	\$ 0.07	\$ 42.00	
Total Harvesting and Marketing Cost				\$ 1,348.25	
Interest on Variable Costs				\$ 64.67	
TOTAL VARIABLE COST				\$ 2,175.90	
RETURN ABOVE VARIABLE COSTS				\$ 974.10	
FIXED COSTS					
Machinery and Equipment				\$ 86.58	d
Depreciation on Irrigation System				\$ 175.00	
Taxes on Land				\$ 5.00	
Insurance				\$ 15.75	
TOTAL FIXED COSTS				\$ 282.33	
TOTAL EXPENSES				\$ 2,458.23	
RETURN TO OPERATOR LABOR, LAND, CAPITAL, & MGT.				\$ 691.77	
Operator and Unpaid Family Labor	50	hrs.	\$ 8.00	\$ 400.00	
RETURN TO LAND, CAPITAL, AND MANAGEMENT				\$ 291.77	

a Average Yield for US was 332 cwt per acre in 2000.

b Price based on USDA season average price received by producers 1994-2002 and 2002 terminal market price trends in Atlanta, Detroit, and St. Louis.

c Pesticide costs based on recommended applications of various products using 2000 UK product costs

d Machinery costs based on 2000 Iowa State generator modified for KY and vegetable production

e Based on NC State Budgets with revisions from Kentucky vegetable experts.

f Irrigation assumes on-farm water source. Costs may vary considerably depending on water supply.

CANTALOUPE, FRESH MARKET, TRICKLE IRRIGATED
Kentucky Estimated per Acre Costs and Returns for 2002

	Quantity	Unit	\$/Unit	Total	
GROSS RETURNS					
Cantaloupes	7200	cantaloupes	\$ 0.70	\$ 5,040.00	a,b
VARIABLE COSTS					
Production					
Plants	3.6	1000	\$ 100.00	\$ 360.00	
Lime	0.5	ton	\$ 12.12	\$ 6.06	
Fertilizer: 5-10-10 Spread	10	cwt	\$ 7.50	\$ 75.00	
Fertilizer: Side Dressing 33.5%N	1.2	cwt	\$ 12.50	\$ 15.00	
Black Plastic/Drip Lines	1	acre	\$ 300.00	\$ 300.00	c
Herbicides	4	qts		\$ 44.46	d
Insecticides	5	apps.		\$ 95.04	d
Fungicides	3	apps.		\$ 159.49	d
Pollination	1	hive	\$ 64.00	\$ 64.00	
Irrigation	90	hrs.	\$ 0.40	\$ 36.00	c
Additional Hired Labor (Transplants)	15	hrs.	\$ 8.00	\$ 120.00	
Machinery Variable Costs	1	acre	\$ 37.06	\$ 37.06	e
Total Preharvest Variable Costs				\$ 1,312.12	
HARVESTING AND MARKETING					
Plastic Disposal	18	hours	\$ 8.00	\$ 144.00	
Plastic Disposal Fee	1	fee	\$ 10.00	\$ 10.00	
Hired Labor					
Harvest	72	hours	\$ 8.00	\$ 576.00	f
Grading	5	hours	\$ 8.00	\$ 40.00	f
Harvest Bin Rental	1	acre	\$ 100.00	\$ 100.00	
Bins for Marketing	70	bins	\$ 9.00	\$ 630.00	g
Marketing Costs (15% of Gross)	15.0%	gross		\$ 756.00	
Hauling Variable Costs	7200	melons	\$ 0.03	\$ 216.00	e
Total Harvesting and Marketing Cost				\$ 2,472.00	
Interest on Variable Costs				\$ 114.67	
TOTAL VARIABLE COST				\$ 3,898.79	
RETURN ABOVE VARIABLE COSTS				\$ 1,141.21	
FIXED COSTS					
Machinery and Equipment				\$ 61.99	e
Depreciation on Irrigation System				\$ 159.94	c
Taxes on Land				\$ 5.00	
Insurance				\$ 25.20	
TOTAL FIXED COSTS				\$ 252.13	
TOTAL EXPENSES				\$ 4,150.92	
RETURN TO OPERATOR LABOR, LAND, CAPITAL, & MGT.				\$ 889.08	
Operator and Unpaid Family Labor	50	hrs.	\$ 8.00	\$ 400.00	
RETURN TO LAND, CAPITAL, AND MANAGEMENT				\$ 489.08	

a Average Yield for US was 207 cwt per acre in 2000. KY yields with trickle irrigation system are significantly higher

b Price based on USDA season average price received by producers 1994-2002 and 2002 terminal market price trends in Atlanta, Detroit, and St. Louis.

c 2002 UK estimate for trickle irrigation. Based on \$1244 fixed costs, st. line depreciation, 7-year useful life

d Pesticide costs based on recommended applications of various products using 2002 UK product costs

e Machinery costs based on 2002 IA State standards and modified for KY vegetable production

CUCUMBERS, FRESH MARKET, TRICKLE IRRIGATED
Kentucky Estimated per Acre Costs and Returns for 2002

	Quantity	Unit	\$/Unit	Total
GROSS RETURNS				
Cucumbers (1 1/9 bu box)	525	box	\$ 7.55	\$ 3,963.75 a,b
VARIABLE COSTS				
Production				
Seed	2	lb	\$ 60.00	\$ 120.00
Lime	0.5	ton	\$ 12.12	\$ 6.06
Fertilizer: 5-10-10 Spread	10	cwt	\$ 7.50	\$ 75.00
Fertilizer: Side Dressing 33.5%N	1	cwt	\$ 13.00	\$ 13.00
Black Plastic/Drip Lines	1	acre	\$ 300.00	\$ 300.00 c
Herbicides: Curbit 3E	1	apps.		\$ 26.00 d
Nematicide	1	apps.		\$ 20.16 d
Insecticides	5	apps.		\$ 47.30 d
Fungicides	3	apps.		\$ 153.41 d
Pollination	1	hive	\$ 40.00	\$ 40.00
Irrigation	90	hrs.	\$ 0.40	\$ 36.00 c
Machinery Variable Costs	1	acre	\$ 36.95	\$ 36.95 e
Total Preharvest Variable Costs				\$ 873.88
HARVESTING AND MARKETING				
Boxes	525	boxes	\$ 1.25	\$ 656.25
Plastic Disposal	18	hours	\$ 8.00	\$ 144.00
Plastic Disposal Fee	1	fee	\$ 10.00	\$ 10.00
Hired Labor				
Harvest	\$ 0.80	box		\$ 420.00 f
Wash/Wax/Pack	\$ 1.40	box		\$ 735.00 f
Marketing Costs (10% of Gross)	10.0%	gross		\$ 396.38
Hauling Labor Charge	10	hours	\$ 8.00	\$ 80.00
Hauling Variable Costs	525	boxes	\$ 0.07	\$ 36.75 e
Total Harvesting and Marketing Cost				\$ 2,478.38
Interest on Variable Costs				\$ 95.09
TOTAL VARIABLE COST				\$ 3,447.34
RETURN ABOVE VARIABLE COSTS				\$ 516.41
FIXED COSTS				
Machinery and Equipment			\$ 81.77	\$ 81.77 e
Depreciation on Irrigation System			\$ 159.94	\$ 159.94 c
Taxes on Land			\$ 5.00	\$ 5.00
Insurance			\$ 19.82	\$ 19.82
TOTAL FIXED COSTS				\$ 266.53
TOTAL EXPENSES				\$ 3,713.87
RETURN TO OPERATOR LABOR, LAND, CAPITAL, & MGT.				\$ 249.88
Operator and Unpaid Family Labor	20	hrs.	\$ 8.00	\$ 160.00
RETURN TO LAND, CAPITAL, AND MANAGEMENT				\$ 89.88

a Average Yield for US was 208 cwt per acre in 2000.

b Price based on USDA season average price received by producers 1994-2002 and 2002 terminal market price trends in Atlanta, Detroit, and St. Louis.

c 2002 UK estimate for trickle irrigation. Based on \$1244 fixed costs, st. line depreciation, 7-year useful life.

Irrigation costs may vary widely depending on water source; on-farm source is assumed here.

d Pesticide costs based on recommended applications of various products using 2002 UK product costs

e Machinery costs based on 2002 Iowa State estimates modified for Kentucky vegetable production

f Based on NC State Budgets with revisions by Kentucky vegetable experts. 1996 NC State total for harvest/pack: \$2.10/bu

**CUCUMBERS, FRESH MARKET, TRICKLE IRRIGATED, SINGLE STRAND TRELLIS, LATE SUMMER PLANTING
Kentucky Estimated per Acre Costs and Returns for 2002**

	Quantity	Unit	\$/Unit	Total	
GROSS RETURNS					
Cucumbers (1 1/9 bu box)	800	box	\$ 7.55	\$ 6,040.00	a,b
VARIABLE COSTS					
Production					
Seed	2	lb	\$ 60.00	\$ 120.00	
Lime	0.5	ton	\$ 12.12	\$ 6.06	
Fertilizer: 5-10-10 Spread	10	cwt	\$ 7.50	\$ 75.00	
Fertilizer: Side Dressing 33.5%N	1	cwt	\$ 13.00	\$ 13.00	
Black Plastic/Drip Lines	1	acre	\$ 300.00	\$ 300.00	c
Trellis Materials	1	acre	\$ 200.00	\$ 200.00	d
Trellis Labor	50	hours	\$ 8.00	\$ 400.00	d
Herbicides: Curbit 3E	1	apps.		\$ 26.00	e
Nematicide	1	apps.		\$ 20.16	e
Insecticides	5	apps.		\$ 47.30	e
Fungicides	3	apps.		\$ 153.41	e
Pollination	1	hive	\$ 40.00	\$ 40.00	
Irrigation	90	hrs.	\$ 0.40	\$ 36.00	c
Machinery Variable Costs	1	acre	\$ 36.95	\$ 36.95	f
Total Preharvest Variable Costs				\$ 1,473.88	
HARVESTING AND MARKETING					
Boxes	800	boxes	\$ 1.25	\$ 1,000.00	
Plastic Disposal	18	hours	\$ 8.00	\$ 144.00	
Plastic Disposal Fee	1	fee	\$ 10.00	\$ 10.00	
Hired Labor					
Harvest	\$ 0.80	box		\$ 640.00	g
Wash/Wax/Pack	\$ 1.40	box		\$ 1,120.00	g
Marketing Costs (10% of Gross)	10.0%	gross		\$ 604.00	
Hauling Labor Charge	10	hours	\$ 8.00	\$ 80.00	
Hauling Variable Costs	800	boxes	\$ 0.07	\$ 56.00	f
Total Harvesting and Marketing Cost				\$ 3,654.00	
Interest on Variable Costs				\$ 148.54	
TOTAL VARIABLE COST				\$ 5,276.42	
RETURN ABOVE VARIABLE COSTS				\$ 763.58	
FIXED COSTS					
Machinery and Equipment				\$ 95.52	f
Depreciation on Irrigation System				\$ 159.94	c
Taxes on Land				\$ 5.00	
Insurance				\$ 30.20	
TOTAL FIXED COSTS				\$ 290.66	
TOTAL EXPENSES				\$ 5,567.08	
RETURN TO OPERATOR LABOR, LAND, CAPITAL, & MGT.				\$ 472.92	
Operator and Unpaid Family Labor	20	hrs.	\$ 8.00	\$ 160.00	
RETURN TO LAND, CAPITAL, AND MANAGEMENT				\$ 312.92	

a Average Yield for US was 208 cwt per acre in 2000.

b Price based on USDA season average price received by producers 1994-2002 and 2002 terminal market price trends in Atlanta, Detroit, and St. Louis.

c 2002 UK estimate for trickle irrigation. Based on \$1244 fixed costs, st. line depreciation, 7-year useful life.

Irrigation costs may vary widely depending on water source; on-farm source is assumed here.

d Trellising costs estimated from 2002 studies in western Kentucky

e Pesticide costs based on recommended applications of various products using 2002 UK product costs

f Machinery costs based on 2002 Iowa State estimates modified for Kentucky vegetable production

**SWEET CORN, FRESH MARKET, Overhead Irrigated
Kentucky Estimated per Acre Costs and Returns for 2002**

	Quantity	Unit	\$/Unit	Total	
GROSS RETURNS					
Sweet Corn (Crate)	340	crate	\$ 5.75	\$ 1,955.00	a,b
VARIABLE COSTS					
Production					
Seed	15	lb	\$ 6.00	\$ 90.00	
Lime	0.5	ton	\$ 12.12	\$ 6.06	
Fertilizer: 10-10-10 Spread	8	cwt	\$ 6.65	\$ 53.23	
Fertilizer: Side Dressing 33.5%N	1.5	cwt	\$ 12.50	\$ 18.75	
Herbicide	4	qts	\$ 5.85	\$ 22.72	c
Insecticides	9	apps.		\$ 149.98	c
Fungicide	4	oz	\$ 2.66	\$ 10.65	
Irrigation	8	hrs	\$ 7.50	\$ 80.00	f
Machinery Variable Costs	1	acre	\$ 29.17	\$ 29.17	d
Total Preharvest Variable Costs				\$ 460.56	
HARVESTING AND MARKETING					
Crates	340	crates	\$ 1.45	\$ 493.00	
Hired Labor					
Harvest & Pack	\$ 1.30	crate		\$ 442.00	e
Misc. Harvest Labor	2.50	hrs	\$ 8.00	\$ 20.00	
Marketing Costs (10% of Gross)	10.0%	gross		\$ 195.50	
Hauling Variable Costs	340	crates	\$ 0.08	\$ 27.20	
Total Harvesting and Marketing Cost				\$ 1,177.70	
Interest on Variable Costs				\$ 47.22	
TOTAL VARIABLE COST				\$ 1,685.48	
RETURN ABOVE VARIABLE COSTS				\$ 269.52	
FIXED COSTS					
Machinery and Equipment				\$ 73.32	d
Depreciation on Irrigation System				\$ 175.00	
Taxes on Land				\$ 5.00	
Insurance				\$ 29.33	
TOTAL FIXED COSTS				\$ 282.64	
TOTAL EXPENSES				\$ 1,968.12	
RETURN TO OPERATOR LABOR, LAND, CAPITAL, & MGT.				\$ (13.12)	
Operator and Unpaid Family Labor	20	hrs.	\$ 8.00	\$ 160.00	
RETURN TO LAND, CAPITAL, AND MANAGEMENT				\$ (173.12)	

a Average Yield for US was 105 cwt per acre in 2000.

b Price based on USDA season average price received by producers 1994-2001 average \$17.50/cwt and seasonal terminal market price trends from Atlanta, Detroit, and St. Louis.

c Pesticide costs based on recommended applications of various products using 2002 UK product costs

d Machinery costs based on 2002 Iowa State estimated machinery costs adjusted to Kentucky and vegetable production

e Based on NC State Budgets with revisions by Kentucky vegetable experts. 1996 NC State total for harvest/pack: \$1.10/crate

f Irrigation costs assume on-farm water source. Costs may vary considerably by irrigation system and water source.

EGGPLANT, FRESH MARKET, TRICKLE IRRIGATED
Kentucky Estimated per Acre Costs and Returns for 2002

	Quantity	Unit	\$/Unit	Total
GROSS RETURNS				
Eggplant (1 1/9 bu. box)	700	box	\$ 7.75	\$ 5,425.00 a,b
VARIABLE COSTS				
Production				
Plants	7	1000	\$ 35.00	\$ 245.00
Lime	0.5	ton	\$ 12.12	\$ 6.06
Fertilizer	10	cwt	\$ 7.75	\$ 77.50
Black Plastic/Drip Lines	1	acre	\$ 300.00	\$ 300.00 c
Herbicides	2.5	pts		\$ 19.55 d
Insecticides	5	apps.		\$ 34.54 d
Fungicides	3	apps.		\$ 108.43 d
Irrigation	90	hrs.	\$ 0.40	\$ 36.00 c
Hired Labor	25	hrs.	\$ 8.00	\$ 200.00
Machinery Variable Costs	1	acre	\$ 36.84	\$ 36.84
Total Preharvest Variable Costs				\$ 1,063.92
HARVESTING AND MARKETING				
Boxes	700	boxes	\$ 1.00	\$ 700.00
Plastic Disposal	18	hours	\$ 8.00	\$ 144.00
Plastic Disposal Fee	1	fee	\$ 10.00	\$ 10.00
Hired Labor				
Harvest	\$ 0.85	box		\$ 595.00 f
Wash/Pack	\$ 1.25	box		\$ 875.00 f
Marketing Costs (10% of Gross)	10.0%	gross		\$ 542.50
Hauling Labor Charge	10	hours	\$ 8.00	\$ 80.00
Hauling Variable Costs	700	boxes	\$ 0.07	\$ 49.00 e
Total Harvesting and Marketing Cost				\$ 2,995.50
Interest on Variable Costs				\$ 115.28
TOTAL VARIABLE COST				\$ 4,174.70
RETURN ABOVE VARIABLE COSTS				\$ 1,250.30
FIXED COSTS				
Machinery and Equipment			\$ 90.59	\$ 90.59 e
Depreciation on Irrigation System			\$ 159.94	\$ 159.94 c
Taxes on Land			\$ 5.00	\$ 5.00
Insurance			\$ 27.13	\$ 27.13
TOTAL FIXED COSTS				\$ 282.65
TOTAL EXPENSES				\$ 4,457.35
RETURN TO OPERATOR LABOR, LAND, CAPITAL, & MGT.				\$ 967.65
Operator and Unpaid Family Labor	50	hrs.	\$ 8.00	\$ 400.00
RETURN TO LAND, CAPITAL, AND MANAGEMENT				\$ 567.65

a Based on estimated KY yields

b Price based on USDA season average price received by producers 1994-2002 and 2002 terminal market price trends in Atlanta, Detroit, and St. Louis.

c 2002 UK estimate for trickle irrigation. Based on \$1244 fixed costs, st. line depreciation, 7-year useful life

d Pesticide costs based on recommended applications of various products using 2002 UK product costs

e Machinery costs based on 2002 Iowa State estimated machinery costs adjusted to Kentucky and vegetables

f Based on Georgia Vegetable Production Budgets and UK estimates

BELL PEPPERS, FRESH MARKET, TRICKLE IRRIGATED
Kentucky Estimated per Acre Costs and Returns for 2002

	Quantity	Unit	\$/Unit	Total	
GROSS RETURNS					
Bell Peppers (1 1/9 bushel)	1500	box	\$ 8.00	\$ 12,000.00	a,b
VARIABLE COSTS					
Production					
Plants	12	1000	\$ 50.00	\$ 600.00	
Lime	0.5	ton	\$ 12.12	\$ 6.06	
Fertilizer: 5-10-10 Spread	12	cwt	\$ 7.75	\$ 93.00	
Fertilizer: Side Dressing Ammonium Nitrate	75	lbs	\$ 0.10	\$ 7.50	
Black Plastic/Drip Lines	1	acre	\$ 300.00	\$ 300.00	c
Herbicides	1	acre		\$ 17.71	d
Insecticides	6	apps.		\$ 67.91	d
Fungicides	3	apps.		\$ 159.70	d
Irrigation	90	hrs.	\$ 0.40	\$ 36.00	c
Machinery Variable Costs	1	acre	\$ 34.51	\$ 34.51	e
Total Preharvest Variable Costs				\$ 1,322.39	
HARVESTING AND MARKETING					
Boxes	1500	boxes	\$ 1.25	\$ 1,875.00	
Plastic Disposal	18	hours	\$ 8.00	\$ 144.00	
Plastic Disposal Fee	1	fee	\$ 10.00	\$ 10.00	
Hired Labor					
Harvest	\$ 0.75	box		\$ 1,125.00	f
Packing, Grading	\$ 1.30			\$ 1,950.00	
Marketing Costs (10% of Gross)	10.0%	gross		\$ 1,200.00	
Hauling Labor Charge	10	hours	\$ 8.00	\$ 80.00	
Hauling Variable Costs	1500	boxes	\$ 0.07	\$ 105.00	e
Total Harvesting and Marketing Cost				\$ 6,489.00	
Interest on Variable Costs				\$ 205.51	
TOTAL VARIABLE COST				\$ 8,016.90	
RETURN ABOVE VARIABLE COSTS				\$ 3,983.10	
FIXED COSTS					
Machinery and Equipment				\$ 125.26	e
Depreciation on Irrigation System				\$ 159.94	d
Taxes on Land				\$ 5.00	
Insurance				\$ 60.00	
TOTAL FIXED COSTS				\$ 350.20	
TOTAL EXPENSES				\$ 8,367.10	
RETURN TO OPERATOR LABOR, LAND, CAPITAL, & MGT.				\$ 3,632.90	
Operator and Unpaid Family Labor	40	hrs.	\$ 8.00	\$ 320.00	
RETURN TO LAND, CAPITAL, AND MANAGEMENT				\$ 3,312.90	

a Yield based on USDA season averages and KY historical data

b Price based on USDA season average price received by producers 1995-2000 average \$31.48/cwt

c 2002 UK standard value for trickle irrigation. Startup costs = \$1244 for small farm trickle irrigation system

Irrigation costs may vary widely depending on water source; on-farm source is assumed here.

d Pesticide costs based on recommended applications of various products using 2002 UK product costs

e Machinery costs based on 2002 Iowa State estimated machinery costs adjusted to Kentucky and vegetable production

f Based on state budgets with revisions by Kentucky vegetable experts. 1996 Clemson total for harvest/pack: \$1.10

JALEPENO PEPPERS, FRESH MARKET, TRICKLE IRRIGATED
Kentucky Estimated per Acre Costs and Returns for 2002

	Quantity	Unit	\$/Unit	Total	
GROSS RETURNS					
Jalepeno Peppers (1/2 bushel)	1300	box	\$ 6.00	\$ 7,800.00	a, b
VARIABLE COSTS					
Production					
Plants	12	1000	\$ 50.00	\$ 600.00	
Lime	0.5	ton	\$ 12.12	\$ 6.06	
Fertilizer: 5-10-10 Spread	12	cwt	\$ 7.75	\$ 93.00	
Fertilizer: Side Dressing Ammonium Nitrate	75	lbs	\$ 0.10	\$ 7.50	
Black Plastic/Drip Lines	1	acre	\$ 300.00	\$ 300.00	c
Herbicides	1	acre		\$ 17.71	d
Insecticides	6	apps.		\$ 67.91	d
Fungicides	3	apps.		\$ 159.70	d
Irrigation	90	hrs.	\$ 0.40	\$ 36.00	c
Machinery Variable Costs	1	acre	\$ 34.51	\$ 34.51	e
Total Preharvest Variable Costs				\$ 1,322.39	
HARVESTING AND MARKETING					
Boxes	1300	boxes	\$ 1.05	\$ 1,365.00	
Plastic Disposal	18	hours	\$ 8.00	\$ 144.00	
Plastic Disposal Fee	1	fee	\$ 10.00	\$ 10.00	
Hired Labor					
Harvest	140	hours	\$ 8.00	\$ 1,120.00	f
Marketing Costs (10% of Gross)	10.0%	gross		\$ 780.00	
Hauling Labor Charge	10	hours	\$ 8.00	\$ 80.00	
Hauling Variable Costs	1300	boxes	\$ 0.07	\$ 91.00	e
Total Harvesting and Marketing Cost				\$ 3,590.00	
Interest on Variable Costs				\$ 140.28	
TOTAL VARIABLE COST				\$ 5,052.67	
RETURN ABOVE VARIABLE COSTS				\$ 2,747.33	
FIXED COSTS					
Machinery and Equipment				\$ 115.26	e
Depreciation on Irrigation System				\$ 159.94	d
Taxes on Land				\$ 5.00	
Insurance				\$ 39.00	
TOTAL FIXED COSTS				\$ 319.20	
TOTAL EXPENSES				\$ 5,371.87	
RETURN TO OPERATOR LABOR, LAND, CAPITAL, & MGT.				\$ 2,428.13	
Operator and Unpaid Family Labor	40	hrs.	\$ 8.00	\$ 320.00	
RETURN TO LAND, CAPITAL, AND MANAGEMENT				\$ 2,108.13	

a Yield based on USDA season averages and KY historical data

b Price based average prices reported by Kentucky producers

c 2002 UK standard value for trickle irrigation. Startup costs = \$1244 for small farm trickle irrigation system

Irrigation costs may vary widely depending on water source; on-farm source is assumed here.

d Pesticide costs based on recommended applications of various products using 2002 UK product costs

e Machinery costs based on 2002 Iowa State estimated machinery costs adjusted to Kentucky and vegetable production

f Based on state budgets with revisions by Kentucky vegetable experts. 1996 Clemson total for harvest/pack: 1.10

PUMPKINS: Non-irrigated
Kentucky Estimated per Acre Costs and Returns for 2002

	Quantity	Unit	\$/Unit	Total
GROSS RETURNS				
Pumpkins (18-22 lb size)	22,000	lb	\$ 0.08	\$ 1,760.00 a,b
VARIABLE COSTS				
Production				
Seed	2	lb	\$ 45.00	\$ 90.00
Lime	0.5	ton	\$ 12.12	\$ 6.06
Fertilizer	1	acre	\$ 85.00	\$ 85.00
Herbicides	1	acre		\$ 30.55 c
Insecticides	4	apps.		\$ 50.05 c
Fungicides	3	apps.		\$ 176.91 c
Pollination	1	hive	\$ 40.00	\$ 40.00
Machinery Variable Costs	1	acre	\$ 34.51	\$ 34.51 d
Total Preharvest Variable Costs				\$ 513.08
HARVESTING AND MARKETING				
Hired Labor				
Harvesting, Hauling, Handling	70	hr	\$ 8.00	\$ 560.00
Marketing Costs (10% of Gross)	10.0%	gross		\$ 176.00 e
Hauling Variable Costs	220	cwt	\$ 0.15	\$ 33.00
Total Harvesting and Marketing Cost				\$ 769.00
Interest on Variable Costs				\$ 40.39
TOTAL VARIABLE COST				\$ 1,322.47
RETURN ABOVE VARIABLE COSTS				\$ 437.53
FIXED COSTS				
Machinery and Equipment				\$ 50.26
Taxes on Land				\$ 5.00
Insurance				\$ 26.40
TOTAL FIXED COSTS				\$ 81.66
TOTAL EXPENSES				\$ 1,404.13
RETURN TO OPERATOR LABOR, LAND, CAPITAL, & MGT.				\$ 355.87
Operator and Unpaid Family Labor	20	hrs.	\$ 8.00	\$ 160.00
RETURN TO LAND, CAPITAL, AND MANAGEMENT				\$ 195.87

a Average Yield for US was 215 cwt per acre in 1999.

b Price based on USDA season average price and terminal market price trends in Atlanta, Detroit & St. Louis

c Pesticide costs based on recommended applications of various products using 2002 UK product costs

d Machinery costs based on 2002 Iowa State machinery budget generator modified for KY

e Based on state budgets with revisions by Kentucky vegetable experts

YELLOW CROOKNECK SQUASH, FRESH MARKET, TRICKLE IRRIGATED
Kentucky Estimated per Acre Costs and Returns for 2002

	Quantity	Unit	\$/Unit	Total	
GROSS RETURNS					
Summer Squash (5/9 bu. box)	1000	boxes	\$ 5.75	\$ 5,750.00	a,b
VARIABLE COSTS					
Production					
Seed	2	lb	\$ 45.00	\$ 90.00	
Lime	0.5	ton	\$ 12.12	\$ 6.06	
Fertilizer: 5-10-10 Spread	10	cwt	\$ 7.75	\$ 77.50	
Fertilizer: Side Dressing 33.5%N	2	cwt	\$ 13.50	\$ 27.00	
Black Plastic/Drip Lines	1	acre	\$ 300.00	\$ 300.00	c
Herbicides: Preplant	5.5	qts		\$ 50.63	d
Insecticides	5	apps.		\$ 57.56	d
Fungicides	3	apps.		\$ 129.65	d
Pollination	1	hive	\$ 40.00	\$ 40.00	d
Irrigation	90	hrs.	\$ 0.40	\$ 36.00	g
Hired Labor	25	hrs.	\$ 8.00	\$ 200.00	
Machinery Variable Costs	1	acre	\$ 32.71	\$ 32.71	e
Total Preharvest Variable Costs				\$ 1,047.11	
HARVESTING AND MARKETING					
Boxes	1000	boxes	\$ 1.00	\$ 1,000.00	
Plastic Disposal	18	hours	\$ 8.00	\$ 144.00	
Plastic Disposal Fee	1	fee	\$ 10.00	\$ 10.00	
Hired Labor					
Harvest	\$ 0.60	box		\$ 600.00	f
Wash/Pack	\$ 1.20	box		\$ 1,200.00	f
Marketing Costs (10% of Gross)	10.0%	gross		\$ 575.00	
Hauling Labor Charge	10	hours	\$ 8.00	\$ 80.00	
Hauling Variable Costs	1000	boxes	\$ 0.07	\$ 70.00	e
Total Harvesting and Marketing Cost				\$ 3,679.00	
Interest on Variable Costs				\$ 129.90	
TOTAL VARIABLE COST				\$ 4,856.00	
RETURN ABOVE VARIABLE COSTS				\$ 894.00	
FIXED COSTS					
Machinery and Equipment				\$ 101.37	e
Depreciation on Irrigation System				\$ 159.94	d
Taxes on Land				\$ 5.00	
Insurance				\$ 28.75	
TOTAL FIXED COSTS				\$ 295.06	
TOTAL EXPENSES				\$ 5,151.07	
RETURN TO OPERATOR LABOR, LAND, CAPITAL, & MGT.				\$ 598.93	
Operator and Unpaid Family Labor	20	hrs.	\$ 8.00	\$ 160.00	
RETURN TO LAND, CAPITAL, AND MANAGEMENT				\$ 438.93	

a Based on estimated KY yields

b Price based on terminal market prices received in Atlanta, Detroit, and St. Louis

c 2002 UK estimate for trickle irrigation. Based on \$1244 fixed costs, st. line depreciation, 7-year useful life

d Pesticide costs based on recommended applications of various products using 2002 UK product costs

e Machinery costs based on 2002 Iowa State estimated machinery costs

f Based on NC State Budgets with revisions by Kentucky vegetable experts. NC State total for harvest/pack: \$1.70

g Actual irrigation costs may be highly variable depending on source and cost of water.

Budget assumes an established on-farm water source.

TOMATOES, STAKED: FRESH MARKET, TRICKLE IRRIGATED
Kentucky Estimated per Acre Costs and Returns for 2002

	Quantity	Unit	\$/Unit	Total	
GROSS RETURNS					
Tomatoes (25# box)	1600	box	\$ 8.00	\$ 12,800.00	a,b
VARIABLE COSTS					
Production					
Plants	4.5	1000	\$ 90.00	\$ 405.00	
Lime	0.5	ton	\$ 12.12	\$ 6.06	
Transplant Labor	15	hours	\$ 8.00	\$ 120.00	
Fertilizer: 10-20-20	12	cwt	\$ 8.50	\$ 102.00	
Fertilizer: Starter	2	cwt	\$ 12.50	\$ 25.00	
Fertilizer: Ammonium Nitrate	30	lb	\$ 0.10	\$ 3.00	
Black Plastic/Drip Lines	1	acre	\$ 300.00	\$ 300.00	d
Stakes & Twine	1	acre	\$ 115.00	\$ 115.00	c
Herbicides (row middles only)	1	acre		\$ 39.88	e
Insecticides	5	apps.		\$ 89.73	e
Fungicides	6	apps.		\$ 130.45	e
Irrigation	90	hrs.	\$ 0.40	\$ 36.00	c
Machinery Variable Costs	1	acre	\$ 43.79	\$ 43.79	f
Total Preharvest Variable Costs				\$ 1,415.91	
HARVESTING AND MARKETING					
Boxes	1600	boxes	\$ 1.00	\$ 1,600.00	
Trays	50	each	\$ 2.25	\$ 112.50	
Plastic Disposal	18	hours	\$ 8.00	\$ 144.00	
Plastic Disposal Fee	1	fee	\$ 10.00	\$ 10.00	
Hired Labor					
Harvest	\$ 1.65	box		\$ 2,640.00	g
Grade/Pack	\$ 0.65	box		\$ 1,040.00	g
Marketing Costs (10% of Gross)	10.0%	gross		\$ 1,280.00	
Hauling Variable Costs	1600	boxes	\$ 0.05	\$ 80.00	f
Total Harvesting and Marketing Cost				\$ 6,906.50	
Interest on Variable Costs				\$ 219.11	
TOTAL VARIABLE COST				\$ 8,541.52	
RETURN ABOVE VARIABLE COSTS				\$ 4,258.48	
FIXED COSTS					
Machinery and Equipment				\$ 145.76	f
Depreciation on Irrigation System				\$ 159.94	c
Taxes on Land				\$ 5.00	
Insurance				\$ 64.00	
TOTAL FIXED COSTS				\$ 374.70	
TOTAL EXPENSES				\$ 8,916.22	
RETURN TO OPERATOR LABOR, LAND, CAPITAL, & MGT.				\$ 3,883.78	
Operator and Unpaid Family Labor	220	hrs.	\$ 8.00	\$ 1,760.00	
RETURN TO LAND, CAPITAL, AND MANAGEMENT				\$ 2,123.78	

a Average yield for US was 270 cwt (about 1100 boxes) per acre for all tomatoes from 1995-2001.

b Price based on USDA season average price received by producers June-Aug for 1994-99 at \$27.74/cwt and monthly trends in 1998-2002 Atlanta, Detroit, and St. Louis terminal market averages.

c Reflects 3-year amortized cost for stakes and twine. First year expense will be in the \$225 range

d 2002 UK estimate for trickle irrigation. Based on \$1244 fixed costs, st. line depreciation, 7-year useful life

e Pesticide costs based on recommended applications of various products using 2002 UK product costs

f Machinery costs based on 1996 NC State standards used in tomato budget and 2002 Iowa State machinery generator

g Based on NC State Budgets with revisions by Kentucky vegetable experts. 1996 NC State total for harvest/pack: \$2.50/box

WATERMELON (seeded), FRESH MARKET, TRICKLE IRRIGATED
Kentucky Estimated per Acre Costs and Returns for 2002

	Quantity	Unit	\$/Unit	Total
GROSS RETURNS				
Watermelons, Seeded	350	cwt	\$ 7.00	\$ 2,450.00 a,b
VARIABLE COSTS				
Production				
Plants	800	plants	\$ 0.09	\$ 68.00
Lime	0.5	ton	\$ 12.12	\$ 6.06
Fertilizer: 5-10-10 Spread	10	cwt	\$ 7.50	\$ 75.00
Fertilizer: Side Dressing 33.5%N	1.2	cwt	\$ 12.50	\$ 15.00
Black Plastic/Drip Lines	1	acre	\$ 250.00	\$ 250.00 c
Herbicides (Row Middles)	1	acre		\$ 30.55 d
Insecticides/Nematicides	4	apps.		\$ 50.05 d
Fungicides	3	apps.		\$ 112.13 d
Pollination	1	hive	\$ 40.00	\$ 40.00
Irrigation	90	hrs.	\$ 0.40	\$ 36.00 c
Additional Hired Labor (Transplants)	16	hrs.	\$ 8.00	\$ 128.00
Machinery Variable Costs	1	acre	\$ 34.51	\$ 34.51 e
Total Preharvest Variable Costs				\$ 845.30
HARVESTING AND MARKETING				
Plastic Disposal	18	hours	\$ 8.00	\$ 144.00
Plastic Disposal Fee	1	fee	\$ 10.00	\$ 10.00
Hired Labor				
Harvest & Field Grading	\$ 1.85	cwt		\$ 647.50 f
Marketing Costs (10% of Gross)	10.0%	gross		\$ 245.00
Hauling Variable Costs	350	cwt	\$ 0.15	\$ 52.50 e
Total Harvesting and Marketing Cost				\$ 1,099.00
Interest on Variable Costs				\$ 62.77
TOTAL VARIABLE COST				\$ 2,007.07
RETURN ABOVE VARIABLE COSTS				\$ 442.93
FIXED COSTS				
Machinery and Equipment				\$ 93.22 e
Depreciation on Irrigation System				\$ 159.94 c
Taxes on Land				\$ 5.00
Insurance				\$ 35.00
TOTAL FIXED COSTS				\$ 293.16
TOTAL EXPENSES				\$ 2,300.23
RETURN TO OPERATOR LABOR, LAND, CAPITAL, & MGT.				\$ 149.77
Operator and Unpaid Family Labor	30	hrs.	\$ 8.00	\$ 240.00
RETURN TO LAND, CAPITAL, AND MANAGEMENT				\$ (90.23)

a Average Yield for US was 233 cwt per acre in 2001. On plastic with trickle irrigation will result in yields of 300-400 cwt.

b Price based on USDA season average price and terminal market price trends in Atlanta, Detroit & St. Louis

c 2002 UK estimate for trickle irrigation. Based on \$1244 fixed costs, st. line depreciation, 7-year useful life

d Pesticide costs based on recommended applications of various products using 2002 UK product costs

e Machinery costs generated using 2002 IA State machinery cost generator

f Based on state budgets with revisions by Kentucky vegetable experts

WATERMELON (seedless), FRESH MARKET, TRICKLE IRRIGATED
Kentucky Estimated per Acre Costs and Returns for 2002

	Quantity	Unit	\$/Unit	Total	
GROSS RETURNS					
		350 cwt			
Watermelons, Seedless	234.5	cwt	\$ 9.00	\$ 2,110.50	a,b
Watermelons, Seeded	115.5	cwt	\$ 7.00	\$ 808.50	
Total Returns				\$ 2,919.00	
VARIABLE COSTS					
Production					
Plants, Seedless	536	plants	\$ 0.16	\$ 85.76	
Plants, Seeded	264	plants	\$ 0.09	\$ 23.76	
Lime	0.5	ton	\$ 12.12	\$ 6.06	
Fertilizer: 5-10-10 Spread	10	cwt	\$ 7.50	\$ 75.00	
Fertilizer: Side Dressing 33.5%N	1.2	cwt	\$ 12.50	\$ 15.00	
Black Plastic/Drip Lines	1	acre	\$ 250.00	\$ 250.00	c
Herbicides (Row Middles)	1	acre		\$ 30.55	d
Insecticides	4	apps.		\$ 50.05	d
Fungicides	3	apps.		\$ 112.13	d
Pollination	1	hive	\$ 40.00	\$ 40.00	
Irrigation	90	hrs.	\$ 0.40	\$ 36.00	c
Additional Hired Labor (Transplants)	16	hrs.	\$ 8.00	\$ 128.00	
Machinery Variable Costs	1	acre	\$ 34.51	\$ 34.51	e
Total Preharvest Variable Costs				\$ 886.82	
HARVESTING AND MARKETING					
Plastic Disposal	18	hours	\$ 8.00	\$ 144.00	
Plastic Disposal Fee	1	fee	\$ 10.00	\$ 10.00	
Hired Labor					
Harvest & Field Grading	\$ 1.85	cwt		\$ 647.50	f
Marketing Costs (10% of Gross)	10.0%	gross		\$ 291.90	
Hauling Variable Costs	350	cwt	\$ 0.15	\$ 52.50	e
Total Harvesting and Marketing Cost				\$ 1,145.90	
Interest on Variable Costs				\$ 65.69	
TOTAL VARIABLE COST				\$ 2,098.41	
RETURN ABOVE VARIABLE COSTS				\$ 820.59	
FIXED COSTS					
Machinery and Equipment				\$ 81.67	e
Depreciation on Irrigation System				\$ 159.94	c
Taxes on Land				\$ 5.00	
Insurance				\$ 35.00	
TOTAL FIXED COSTS				\$ 281.61	
TOTAL EXPENSES				\$ 2,380.02	
RETURN TO OPERATOR LABOR, LAND, CAPITAL, & MGT.				\$ 538.98	
Operator and Unpaid Family Labor	30	hrs.	\$ 8.00	\$ 240.00	
RETURN TO LAND, CAPITAL, AND MANAGEMENT				\$ 298.98	

a Average Yield for US was 233 cwt per acre in 2001. On plastic with trickle irrigation will result in yields of 300-400 cwt.

b Price based on USDA season average price and terminal market price trends in Atlanta, Detroit & St. Louis

c 2002 UK estimate for trickle irrigation. Based on \$1244 fixed costs, st. line depreciation, 7-year useful life

d Pesticide costs based on recommended applications of various products using 2002 UK product costs

e Machinery costs generated using 2002 IA State estimated machinery costs

f Based on state budgets with revisions by Kentucky vegetable experts