WINTER SQUASH, FRESH MARKET, TRICKLE IRRIGATED
Kentucky Estimated per Acre Costs and Returns for 2017
Large Scale (5 or more acres trickle irrigated)*
NOT TO BE CONSIDERED CROPPING RECOMMENDATIONS OR PROFITABILITY PROJECTIONS. FOR COMPARISON AND PLANNING PURPOSES ONLY.

CENTER FOR CROP DIVERSIFICATION

	Quantity	Unit	$/Unit	Total		
GROSS RETURNS						
Winter Squash (50-lb box)	375	boxes	$ 12.00	$4,500.00	a,b	**Harvest, Handling, Hauling Labor** **6.25 boxes/hour**
				$ -		
Total Returns				**$4,500.00**		
VARIABLE COSTS						**Your Numbers**
Production						
Winter Squash Transplants	1815	plants	$ 0.25	$ 453.75		
N Fertilizer: Urea	100	lbs	$ 0.40	$ 40.00		
K Fertilizer: Potash (0-0-60)	80	lbs	$ 0.30	$ 24.00		
N Fertilizer: Fertigation (Calcium Nitrate)	154	lbs	$ 0.45	$ 69.30	g	
Plastic Mulch	1	acre	$ 143.00	$ 143.00	c	
Drip Lines & Irrigation Fittings	1	acre	$ 230.00	$ 230.00	c	
Pollination	1	hive	$ 75.00	$ 75.00		
Herbicides (Row Middles)	1	acre	$ 12.69	$ 12.69		
Insecticides	1	acre	$ 29.85	$ 29.85	d	
Fungicides	1	acre	$ 264.06	$ 264.06	d	
Irrigation	1	acre	$ 50.00	$ 50.00	c	
Hired Labor (Planting)	16	hrs.	$ 12.50	$ 200.00		
Machinery Variable Costs	1	acre	$ 43.61	$ 43.61	e	
Total Preharvest Variable Costs				**$ 1,635.26**		
HARVESTING AND MARKETING						
Plastic Disposal	10	hours	$ 12.50	$ 125.00		
Hired Labor						
Harvest & Field Grading	60	hrs	$ 12.50	$ 750.00	f	
Boxes	375	boxes	$ 1.40	$ 525.00		
Marketing Costs (10% of Gross)	10.0%	gross		$ 450.00		
Hauling Variable Costs	375	boxes	$ 0.50	$ 187.50	e	
Total Harvesting and Marketing Cost				**$ 2,037.50**		
Interest on Variable Costs				$ 79.62		
TOTAL VARIABLE COST				**$ 3,752.38**		
RETURN ABOVE VARIABLE COSTS				**$ 747.62**		
FIXED COSTS						
Machinery and Equipment				$ 68.99	e	
Irrigation System Capital Recovery				$ 322.80	c	
Taxes on Land				$ 5.00		
Insurance				$ 37.52		
TOTAL FIXED COSTS				**$ 434.31**		
TOTAL EXPENSES				**$ 4,186.69**		
RETURN TO OPERATOR LABOR, LAND, CAPITAL, & MGT.				$ 313.31		
Operator Labor (machinery and irrigation)	15	hrs.	$ 15.00	$ 225.00		
RETURN TO LAND, CAPITAL, AND MANAGEMENT				**$ 88.31**		

a Yields based on prior UK budget yield assumption.
b Price based on terminal market and shipping point prices from IL, MO and NC, 2016; Ky. auction price trends, 2016.
c Fuel and power for irrigation system. Assumes established well or water source. Depreciation fixed costs in capital recovery line.
d Pesticide costs based on recommended applications of various products using 2017 product costs.
e Machinery costs generator (ISU, 2002) using updated fuel, purchase price and replacement cost estimates.
f Based on state budgets with revisions by Kentucky vegetable experts.
g Fertilizer assumption: 8.5 lbs calcium nitrate per week per 1,000 plants.
* Farm has 5 or more acres total in trickle-irrigated crops