WATERMELON (seedless), 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	**450**	cwt				
Watermelons, Seedless	67	bins	$ 115.00	$ 7,705.00	a,b	**Harvest Labor 4.17 cwt/hour**
				$ -		
Total Returns				**$ 7,705.00**		
VARIABLE COSTS						**Your Numbers**
Production						
Seedless Plants - $250 per thousand TOTAL	1815	plants	$ 0.25	$ 453.75		
Pollenizers - $150 per thousand	908	plants	$ 0.15	$ 136.13		
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)	483	lbs	$ 0.45	$ 217.35	g	
Plastic Mulch	1	acre	$ 191.00	$ 191.00	c	
Drip Lines & Irrigation Fittings	1	acre	$ 284.00	$ 284.00	c	
Pollination	1	hive	$ 75.00	$ 75.00		
Herbicides (Row Middles)	1	acre	$ 12.69	$ 12.69		
Insecticides	1	acre	$ 76.71	$ 76.71	d	
Fungicides	1	acre	$ 185.97	$ 185.97	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				**$ 1,990.21**		
HARVESTING AND MARKETING						
Plastic Disposal	10	hours	$ 12.50	$ 125.00		
Hired Labor						
Harvest & Field Grading	$ 3.00	cwt		$ 1,349.00	f	
Bins (45-count)	67	bins	$ 12.00	$ 804.00		
Marketing Costs (% of Gross)	10%	gross		$ 770.50		
Hauling Variable Costs	450	cwt	$ 0.50	$ 225.00	e	
Total Harvesting and Marketing Cost				**$ 3,273.50**		
Interest on Variable Costs				$ 108.81		
TOTAL VARIABLE COST				**$ 5,372.51**		
RETURN ABOVE VARIABLE COSTS				**$ 2,332.49**		
FIXED COSTS						
Machinery and Equipment				$ 74.49	e	
Irrigation System Capital Recovery				$ 328.40	c	
Taxes on Land				$ 5.00		
Insurance				$ 53.73		
TOTAL FIXED COSTS				**$ 461.62**		
TOTAL EXPENSES				**$ 5,834.13**		
RETURN TO OPERATOR LABOR, LAND, CAPITAL, & MGT.				$ 1,870.87		
Operator Labor (machinery and irrigation)	15	hrs.	$ 15.00	$ 225.00		
RETURN TO LAND, CAPITAL, AND MANAGEMENT				**$ 1,645.87**		

a Yields based on UK variety trials and grower yield estimates. Yields on plastic with trickle irrigation will be 300-400 cwt.
b Price based on shipping point prices from MO and NC and terminal market price trends in Atlanta, 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 gasoline, purchase price and replacement cost estimates.
f Based on state budgets with revisions by Kentucky vegetable experts.
g Fertilizer assumption: 17.75 lbs calcium nitrate per week per 1,000 plants.
* Farm has 5 or more acres total in trickle-irrigated crops