

CLEMSON COOPERATIVE EXTENSION

Last revised: 1/15/2016

WATERMELONS - ON PLASTIC - DRIP IRRIGATION - SEEDLESS

ESTIMATED COSTS AND RETURNS PER ACRE
400 HUNDREDWEIGHT - HARVEST IN LATE JUNE

	UNIT	QUANTITY	PRICE OR COST/UNIT	TOTAL PER ACRE	YOUR FARM
1. GROSS RECEIPTS					
WATERMELONS (SEEDLESS)	CWT	400.00	\$14.00	\$5,600.00	_____
TOTAL RECEIPTS:				\$5,600.00	\$0.00
2. VARIABLE COSTS					
SEED & TRANSPLANT ***	THOU.	2.00	\$225.00	\$450.00	_____
FERTILIZER					
12-24-18	LBS	300.00	\$0.29	\$87.00	_____
8-0-8 (LIQ.)	GAL	100.00	\$1.95	\$195.00	_____
LIME (PRORATED)	TON	0.33	\$45.00	\$14.85	_____
HERBICIDES	ACRE	1.00	\$110.83	\$110.83	_____
INSECTICIDES	ACRE	1.00	\$6.57	\$6.57	_____
FUNGICIDES	ACRE	1.00	\$84.91	\$84.91	_____
PLASTIC MULCH - 54" WIDE	FT.	5000.00	\$0.03	\$150.00	_____
TAKE UP PLASTIC	ACRE	1.00	\$100.00	\$100.00	_____
DRIP TAPE & ACCESSORIES	ACRE	1.00	\$200.00	\$200.00	_____
IRRIGATION, MACHINERY & LABOR	ACRE	1.00	\$156.50	\$156.50	_____
HARVEST & HAULING	CWT	400.00	\$2.75	\$1,100.00	_____
CONTAINER	EACH	1.00	\$1.95	\$1.95	_____
TRACTOR/MACHINERY	ACRE	1.00	\$62.02	\$62.02	_____
LABOR	HRS	18.25	\$9.50	\$173.38	_____
INTEREST ON OP. CAP.	DOL.	\$1,446.51	5.0%	\$72.33	_____
TOTAL VARIABLE COSTS:				\$2,965.34	\$0.00
				\$2,634.66	\$0.00
4. FIXED COSTS					
TRACTOR/MACHINERY	ACRE	1.00	\$73.15	\$73.15	_____
IRRIGATION	ACRE	1.00	\$79.58	\$79.58	_____
TOTAL FIXED COSTS:				\$152.73	\$0.00
5. OTHER COSTS					
LAND RENT	ACRE	1.00	\$50.00	\$50.00	_____
GENERAL OVERHEAD	DOL.	\$2,965.34	7.0%	\$207.57	_____
TOTAL OTHER COSTS:				\$257.57	\$0.00
6. TOTAL COSTS:				\$3,375.64	\$0.00
7. NET RETURNS TO RISK AND MANAGEMENT:				\$2,224.36	\$0.00

<u>BREAK-EVEN YIELD</u>		<u>BREAK-EVEN PRICE PER CWT</u>	
VARIABLE COSTS	166 CWT	VARIABLE COSTS	\$7.41
TOTAL COSTS	199 CWT	TOTAL COSTS	\$8.44

* PLEASE NOTE: THIS BUDGET IS FOR PLANNING PURPOSES ONLY.

** BASED ON IMPROVED PRODUCTION PRACTICES FOR COMMERCIAL PRODUCERS.

*** SEED WATERMELON WILL INCUR A LOWER SEED COST

WATERMELONS - ON PLASTIC - DRIP IRRIGATION - SEEDLESS						
PER ACRE MACHINERY AND LABOR REQUIREMENTS FOR WATERMELONS ON PLASTIC						
MONTH	OPERATION	TIMES OVER	LABOR HOURS	MACHINE HOURS	VARIABLE COSTS	FIXED COSTS
2	DISK W/ SPRAYER 16'	1.00	0.17	0.15	\$2.40	\$3.38
2	SUBSOILER BEDDER 2-ROW	1.00	0.50	0.45	\$4.58	\$4.90
3	TRANSPLANTER 1-ROW	1.00	3.03	2.75	\$18.84	\$22.30
3	MULCH BEDDER-LAYER	1.00	0.57	0.52	\$8.43	\$9.72
5	CULTIVATOR 2-ROW	1.00	0.62	0.56	\$3.86	\$4.18
4,5&6	TRACTOR MTD SPRAYER	14.00	2.46	2.24	\$18.90	\$21.98
3	TRUCK 1.5 TON	3.00	0.76	0.69	\$5.01	\$6.69
PER ACRE TOTALS FOR SELECTED OPERATIONS			8.11	7.36	\$62.02	\$73.15
UNALLOCATED LABOR(HRS./AC.)			10.14			
Note: Eleven inches of water is applied using a 10 acre drip irrigation system. The variable cost includes provisions for the annual replacement of 62,228 feet of 0.38 GPM drip tape at \$0.02 per foot and other items that are replaced annually. The fixed cost includes the cost of the well, a 36 gpm pump and other items that do not have to be replaced annually.						

INCOME ABOVE VARIABLE COSTS AT DIFFERING YIELDS AND PRICES						
YIELD	PRICE PER CWT					
CWT	\$11.20	\$12.60	\$14.00	\$15.40	\$16.80	
320	\$838.66	\$1,286.66	\$1,734.66	\$2,182.66	\$2,630.66	
360	\$1,176.66	\$1,680.66	\$2,184.66	\$2,688.66	\$3,192.66	
400	\$1,514.66	\$2,074.66	\$2,634.66	\$3,194.66	\$3,754.66	
440	\$1,852.66	\$2,468.66	\$3,084.66	\$3,700.66	\$4,316.66	
480	\$2,190.66	\$2,862.66	\$3,534.66	\$4,206.66	\$4,878.66	

CHEMICAL USE ASSUMPTIONS FOR WATERMELONS ON PLASTIC						
	UNIT	QUANTITY	PRICE OR COST/UNIT	TOTAL PER ACRE	MONTH	
HERBICIDES						
ethalfuralin (Curbit)	PT	3.00	\$5.25	\$15.75	1X APR	
halosulfuron-methyl (Sandae)	OZ	0.75	\$0.27	\$0.20	1X APR, 1X MAY	
sethoxydim (Poast)	PT	1.50	\$13.25	\$19.88	1X MAY	
clomazone + ethalfuralin (Strategy)	PT	4.00	\$18.75	\$75.00	1X APR	
INSECTICIDES						
esfenvalerate (Asana)	OZ	11.60	\$0.57	\$6.57	1X APR, 1X JUN	
FUNGICIDES						
chlorothalonil (Bravo)	PT	3.00	\$5.56	\$16.69	2X MAY	
tebuconazole(Folicur)	OZ	5.00	\$1.09	\$5.47	2X JUN, 1X JUL	
mancozeb (Manzate)	LB	8.60	\$4.75	\$40.85	2X JUN, 1X JUL	
quinzozyfen (Quintec)	OZ	6.00	\$3.65	\$21.90	1X JUN	
TOTAL:				\$202.31		

The above listed chemicals are examples and do not imply exclusive recommendations by Clemson University. The "Vegetable Crop Guidelines for the Southeastern US" must be consulted. Production assumptions provided by Gilbert Miller, (803) 284-3343, gmlr@clemson.edu.

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