

Sweet Potato - 2023

NC STATE UNIVERSITY

ESTIMATED COSTS PER ACRE, 2023

Variety: Covington
Yield (BU/Ac.): 500.00

	UNIT	QUANTITY	PRICE OR COST/UNIT	TOTAL PER ACRE	YOUR FARM
1. GROSS RECEIPTS					
		Yield	Price/BU		
Sweet Potato GRADE # 1's	BU. 50lbs	335.00	\$10.00	\$3,350.00	_____
Lower Grade	BU.	155.00	\$5.00	\$775.00	_____
<i>Average Price per Bushel</i>	BU		\$8.25		
TOTAL RECEIPTS:				\$4,125.00	_____
2. VARIABLE COSTS					
PLANTS / SLIPS	LBS	12.50	\$40.00	\$500.00	_____
FERTILIZER					
24S LIQUID	LBS	80.00	\$1.43	\$114.40	_____
PHOSPHATE (0-46-0)	LBS	57.50	\$0.46	\$26.45	_____
POTASH (0-0-60)	LBS	160.00	\$0.51	\$81.60	_____
LIME (PRORATED)	TON	0.33	\$57.00	\$18.81	_____
PESTICIDE					
MULTIPURPOSE FUMIGATION	PER ACRE	1.00	\$180.00	\$180.00	_____
HERBICIDES	PER ACRE	1.00	\$68.36	\$68.36	_____
NEMATACIDES	PER ACRE	1.00	\$375.00	\$375.00	_____
INSECTICIDES	PER ACRE	1.00	\$59.10	\$59.10	_____
TRACTOR/MACHINERY	PER ACRE	1.00	\$62.48	\$62.48	_____
SCOUTING	PER ACRE	1.00	\$20.00	\$20.00	_____
LABOR					
TRANSPLANT	HRS	10.00	\$14.91	\$149.10	_____
HAND WEEDING	HRS	2.00	\$14.91	\$29.82	_____
TRACTOR/MACHINERY	HRS	7.81	\$14.91	\$116.45	_____
HARVEST COST	BUSHEL	490.00	\$1.65	\$808.50	_____
STORAGE	BUSHEL	490.00	\$1.10	\$500.00	_____
COVER CROP	PER ACRE	1.00	\$50.00	\$50.00	_____
INTEREST ON OP. CAP.	DOL.	\$1,580.04	8.0%	\$126.40	_____
TOTAL VARIABLE COSTS:				\$3,286.47	_____
3. INCOME ABOVE VARIABLE COSTS:				\$838.53	_____
4. FIXED COSTS					
TRACTOR/MACHINERY	PER ACRE	1.00	\$109.13	\$109.13	_____
TOTAL FIXED COSTS:				\$109.13	_____
5. OTHER COSTS					
GENERAL OVERHEAD	DOL.	\$3,286.47	0.7%	\$23.01	_____
TOTAL OTHER COSTS:				\$23.01	_____
6. TOTAL COSTS:				\$3,418.61	_____
7. NET RETURNS TO LAND, RISK, AND MANAGEMENT:				\$706.39	_____

<u>BREAK-EVEN YIELD</u>		<u>BREAK-EVEN PRICE</u>	
VARIABLE COSTS	390 BU.	9.8 Bins	VARIABLE COSTS \$6.71 per BU.
TOTAL COSTS	406 BU.	10.2 Bins	TOTAL COSTS \$6.98 per BU.
			\$268.28 / Bin
			\$279.07 / Bin

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

Notes: N based on 2019 SE Vegetable Handbook. P & K based on Eastern NC removal rates. Assuming 500/lb acre yield with packout of 67% #1 Grade, 30% Lower Grade, and 3% Culls. Interest on operating capital assumes an average loan length of 6 months.

PER ACRE MACHINERY AND LABOR REQUIREMENTS FOR SWEET POTATOES

MONTH	OPERATION	TIMES OVER	LABOR HOURS	MACHINE HOURS	VARIABLE COSTS	FIXED COSTS
4,9	HEAVY DISK 16'	3.00	0.43	0.36	\$13.68	\$21.24
5	DISK W/ SPRAYER 21'	1.00	0.14	0.12	\$3.40	\$5.32
5	SUBSOILER-BEDDER 8-ROW	1.00	0.14	0.12	\$6.83	\$12.54
5	TOBACCO BED SHAPER 4-ROW	1.00	0.19	0.16	\$1.84	\$1.85
5	POTATO PLANTER (SWEET)	1.00	0.47	0.39	\$6.32	\$11.20
5,5,6	CULTIVATOR 4-ROW	3.00	0.83	0.69	\$10.86	\$13.08
6	TRACTOR MTD SPRAYER 90FT	4.00	0.14	0.12	\$5.44	\$16.64
8	ROTARY MOWER 14'	1.00	0.18	0.15	\$1.70	\$2.16
8	POTATO DIGGER (SWEET)	1.00	0.95	0.79	\$12.41	\$25.10
PER ACRE TOTALS FOR SELECTED OPERATIONS			3.47	2.90	\$62.48	\$109.13
UNALLOCATED LABOR(HRS./AC.)			4.34			

INCOME ABOVE VARIABLE COSTS AT DIFFERING YIELDS AND PRICES

YIELD BU. / Ac.	PRICE (\$/BU.)			YIELD Bins / Ac.	PRICE (\$/Bin)		
	\$5.00	\$8.00	\$11.00		\$200.00	\$320.00	\$440.00
300	-\$1,786.47	-\$886.47	\$13.53	15	-\$286.47	\$1,513.53	\$3,313.53
400	-\$1,286.47	-\$86.47	\$1,113.53	20	\$713.53	\$3,113.53	\$5,513.53
500	-\$786.47	\$713.53	\$2,213.53	25	\$1,713.53	\$4,713.53	\$7,713.53
600	-\$286.47	\$1,513.53	\$3,313.53	30	\$2,713.53	\$6,313.53	\$9,913.53
700	\$213.53	\$2,313.53	\$4,413.53	35	\$3,713.53	\$7,913.53	\$12,113.53

Note: 1 Bin = 40 Bushels

CHEMICAL USE ASSUMPTIONS FOR SWEET POTATOES

	UNIT	QUANTITY	PRICE OR COST/UNIT	TOTAL PER ACRE	MONTH
MULTIPURPOSE FUMIGATION:					
dichloropropene (Telone II)	GAL	9.00	\$20.00	\$180.00	MAY
HERBICIDES:					
flumioxazin (Valor)	OZ	3.00	\$5.86	\$17.58	MAY
clomazone (Command)	PT	2.50	\$20.31	\$50.78	MAY
metolachlor (Dual II)	PT	0.75	\$21.09	\$15.82	MAY
INSECTICIDES					
bifenthrin	OZ	28.00	\$1.03	\$28.95	MAY, JUNE
chlorpyrifos (Lorsban)	QT	2.00	\$15.08	\$30.15	MAY
NEMATICIDES					
fluopyram (Velum Prime)	OZ	6.00	\$62.50	\$375.00	JUNE
TOTAL:				\$518.28	

Notes: Use of Telone II and Velum Prime assumes that the field has a high rate of nematodes and/or *M. enterlobii* has been detected.