

# Cotton, Tidewater, Conventional Till-2021

NC STATE  
UNIVERSITY

ESTIMATED COSTS AND RETURNS PER ACRE, 2021  
900 POUND YIELD

	UNIT	QUANTITY	PRICE OR COST/UNIT	TOTAL PER ACRE	YOUR FARM
<b>1. GROSS RECEIPTS</b>					
COTTON LINT	LBS	900.00	\$0.69	\$621.00	_____
COTTON SEED	LBS	1503.00	\$0.08	\$120.24	_____
TOTAL RECEIPTS:				<b>\$741.24</b>	_____
<b>2. VARIABLE COSTS</b>					
SEED	THOU.	46.00	\$2.11	\$97.06	_____
FERTILIZER****					
NITROGEN (30% solution)	LBS	150.00	\$0.14	\$21.00	_____
PHOSPHATE (DAP 18-46-0)	LBS	100.00	\$0.25	\$25.00	_____
POTASH (0-0-60)	LBS	66.67	\$0.21	\$14.00	_____
BORON	LBS	3.00	\$1.35	\$4.05	_____
SULFUR	LBS	10.00	\$0.28	\$2.80	_____
LIME (PRORATED)	TON	0.33	\$54.50	\$17.99	_____
HERBICIDES	ACRE	1.00	\$71.05	\$71.05	_____
INSECTICIDES	ACRE	1.00	\$36.54	\$36.54	_____
GROWTH REG. & DEFOLIANTS	ACRE	1.00	\$21.30	\$21.30	_____
SURFACTANT	ACRE	1.00	\$6.44	\$6.44	_____
SCOUTING	ACRE	1.00	\$16.00	\$16.00	_____
GINNING	LBS	900.00	\$0.13	\$117.00	_____
CROP INSURANCE	ACRE	1.00	\$30.00	\$30.00	_____
TRACTOR/MACHINERY	ACRE	1.00	\$45.39	\$45.39	_____
LABOR	HRS	2.70	\$12.67	\$34.21	_____
INTEREST ON OP. CAP.	DOL.	\$198.42	2.7%	\$5.40	_____
TOTAL VARIABLE COSTS:				<b>\$565.23</b>	_____
<b>3. INCOME ABOVE VARIABLE COSTS:</b>				<b>\$176.01</b>	_____
<b>4. FIXED COSTS</b>					
TRACTOR/MACHINERY	ACRE	1.00	\$138.66	\$138.66	_____
TOTAL FIXED COSTS:				<b>\$138.66</b>	_____
<b>5. OTHER COSTS</b>					
GENERAL OVERHEAD	DOL.	\$565.23	7.0%	\$39.57	_____
TOTAL OTHER COSTS:				<b>\$39.57</b>	_____
<b>6. TOTAL COSTS:</b>				<b>\$743.46</b>	_____
<b>7. NET RETURNS TO LAND, RISK, AND MANAGEMENT:</b>				<b>-\$2.22</b>	_____

## BREAK-EVEN YIELD

VARIABLE COSTS	646	LBS	<u>BREAK-EVEN PRICE</u>	VARIABLE COSTS	\$0.49
TOTAL COSTS	903	LBS	TOTAL COSTS	TOTAL COSTS	\$0.69

\* This budget was developed for planning purposes only and does not include storage cost, land rent, or government payments

\*Prices paid to farmers are subject to change based on global, national, and local market conditions, budget represents futures + or - local basis

\*Fertilization rates are not a recommendation but a estimate of realized cost based on: <https://articles.extension.org/sites/default/files/fertilization.pdf>

\*Machinery fixed and variable cost assume a round bale cotton picker not requiring a module builder, each farm will need to consider how these distribute over their farming operation based on their number of acres as these budgets assume ideal farm size to leverage savings from equipment

\*Herbicide cost represent three sprays at retail pricing, many cotton acres are sprayed four times over depending on year, soil type, and location

COTTON - TIDEWATER - 900 LBS						
PER ACRE MACHINERY AND LABOR REQUIREMENTS FOR 900 LBS COTTON - TIDEWATER						
MONTH	OPERATION	TIMES OVER	LABOR HOURS	MACHINE HOURS	VARIABLE COSTS	FIXED COSTS
2	HEAVY DISK 20'	1.00	0.11	0.10	\$3.51	\$5.86
3	TANDOM LIGHT DISK 30'	1.00	0.08	0.07	\$4.31	\$6.06
3	PLANTER 12-ROW	1.00	0.11	0.10	\$5.13	\$16.25
3 thru 9	HIBOY 120'	10.00	0.22	0.20	\$5.50	\$58.50
10	COTTON PICKER 6-ROW ROUND BALE	1.00	0.20	0.18	\$16.86	\$42.52
10	BALE HAULER	1.00	0.37	0.34	\$10.08	\$9.47
PER ACRE TOTALS FOR SELECTED OPERATIONS			1.20	0.99	\$45.39	\$138.66
UNALLOCATED LABOR(HRS./AC.)			1.50			

INCOME ABOVE VARIABLE COSTS AT DIFFERING YIELDS AND PRICES						
YIELD		PRICE (\$/lbs.)				
LINT ----->>		\$0.55	\$0.62	\$0.69	\$0.76	\$0.83
SEED ----->>		\$0.060	\$0.070	\$0.080	\$0.090	\$0.100
720	1202	-\$73.71	-\$11.29	\$51.13	\$113.55	\$175.97
810	1353	-\$26.85	\$43.38	\$113.61	\$183.84	\$254.07
900	1503	\$19.95	\$97.98	\$176.01	\$254.04	\$332.07
990	1653	\$66.75	\$152.58	\$238.41	\$324.24	\$410.07
1080	1804	\$113.61	\$207.25	\$300.89	\$394.53	\$488.17

\*NC STATE DOES NOT ENDORSE ANY COMPANY OR CHEMICAL NAMES ASSOCIATED TO ACTIVE INGREDIENTS  
 \*\*CHEMICALS LISTED ARE NOT A RECOMMENDATION FOR CHEMICAL USE BUT A REPRESENTATION OF COST ASSUMPTIONS ONLY

*CHEMICAL USE ASSUMPTIONS FOR 900 LBS COTTON						
	UNIT	QUANTITY	PRICE OR COST/UNIT	TOTAL PER ACRE	MONTH	
<b>**HERBICIDES</b>						
2,4-D	PT	4.00	\$1.82	\$7.29		MAY
glyphosate (Roundup ultra)	QT	2.00	\$4.19	\$8.38		2 X MAY/JUN
Acetochlor (Warrant)	PT	2.25	\$3.03	\$6.82		APR
glufosinate (Liberty)	OZ	29.00	\$0.46	\$13.48		JUN
dicamba (Banvel)	PT	2.00	\$9.79	\$19.58		JUN
s-metolachlor (Dual Magnum EC)	PT	2.00	\$7.75	\$15.50		JUN
<b>**INSECTICIDES</b>						
imidacloprid (Admire Pro)	OZ	9.00	\$1.00	\$9.00		MAY
bifenthrin	OZ	6.40	\$0.82	\$5.27		JUN
acephate (Orthene)	OZ	16.00	\$0.37	\$5.86		JUN
Chlorantraniliprole (Prevathon)	OZ	14.00	\$1.17	\$16.41		JUL
<b>**GROWTH REGULATOR &amp; DEFOLIANTS</b>						
mepiquat chloride (Pix)	OZ	16.00	\$0.29	\$4.69		2X JUN, JUL
ethephon+cyclanilide (Finish6)	QT	0.75	\$13.38	\$10.03		SEP
tribufos (Folex)	PT	1.00	\$6.58	\$6.58		SEP
TOTAL:				\$128.89		

Prepared by: Charles Cahoon, Derek Washburn, Ashley Wollett  
 North Carolina State University, Dept. Agricultural and Resource Economics