

## **FLUE-CURED TOBACCO BUDGET INFORMATION**

**Eric Eberly, Retired Extension Agent, Farm Business Management**

### Introduction

The flue-cured tobacco budget is an estimate of the costs to produce 2500 pounds of marketable tobacco. Expense values used in the budget are based upon projected input prices and recommended production practices. Every producer is encouraged to adjust this budget using the right hand column to reflect production practices and prices that are relevant to their own farming operation. This column is your estimated cost of production.

### Budget Assumptions

1. The average price received is not being calculated or estimated. However, break-even prices to cover cost variable and fixed costs are calculated based on 2500 pounds of cured leaf contracted per acre.
2. The short term energy outlook published monthly by the U. S. FEIA <http://www.eia.doe.gov/emeu/steo/pub/contents.html> has estimated average prices of fuels for 2016. The price of fuels used in the budget reflects this estimation.
3. Hired labor cost is estimated to be \$13.34 per hour. It includes an unpublished adverse wage of \$10.72 and indirect labor cost of \$2.55 per hour. The indirect labor cost per hour is calculated by dividing total indirect labor costs of \$ 16,925 (association fees, visas, transportation, housing, insurance, etc.) by 6650 hours of labor (70 acres x 95 hours).
4. Crop insurance cost of \$163.53 per acre was calculated by dividing the total unsubsidized premiums payable by total Virginia acreage insured in 2015.
5. The quantity of curing fuel is estimated based on pounds of cured leaf per gallon of fuel used. Farm cooperators have achieved higher curing efficiency in new barn installations.

### Budget Interpretation

Income and expense items for the 2016 budget are broken down into four separate sections: Gross Receipts, Pre-harvest Variable Costs, Harvest Variable Costs, and Fixed Costs. Explanations of the items that fall into each section and the economic returns that can be calculated are detailed below

- Gross Receipts represents per acre cash income to the tobacco operation. Gross receipts are calculated by multiplying the average yield per acre by the average gross contract price per pound. Four

different leaf separations with a contract price can be entered into an Excel spreadsheet referenced at the end of this section.

- Pre-harvest costs are typically cash expenses that must be paid annually to produce a crop of tobacco prior to harvest. Examples of pre-harvest variable costs include plants, fertilizer, chemicals, machinery fuel and repairs and hired labor.
- Harvest costs are cash expenses getting the tobacco from the field to the buying station. Examples of harvest costs include harvest labor, curing fuel and electricity.
- Total Variable Costs is the sum of pre-harvest and harvest variable costs. Variable costs are often called “cash costs” or “out-of-pocket expenses”.
- Return over variable costs is simply the gross receipts of the crop minus the total variable costs. This value can essentially be viewed as the return over “cash costs” or the return over “out-of-pocket expenses”.
- Fixed Costs are the expenses that result from the ownership of a fixed input. Examples of fixed costs include depreciation, property taxes, and insurance on the barns and machinery. A land charge has been excluded from this calculation.
- The return to land, risk, and management is calculated by subtracting the total variable costs and the fixed expenses from Gross Receipts. This represents the return to the operator’s land (the equivalent of an annual land charge or rental value), time (unpaid operator/family labor), and management skills employed in producing a crop.

**FLUE-CURED TOBACCO –Contract, Irrigated**

ESTIMATED COSTS AND RETURNS PER ACRE  
2500 POUND YIELD

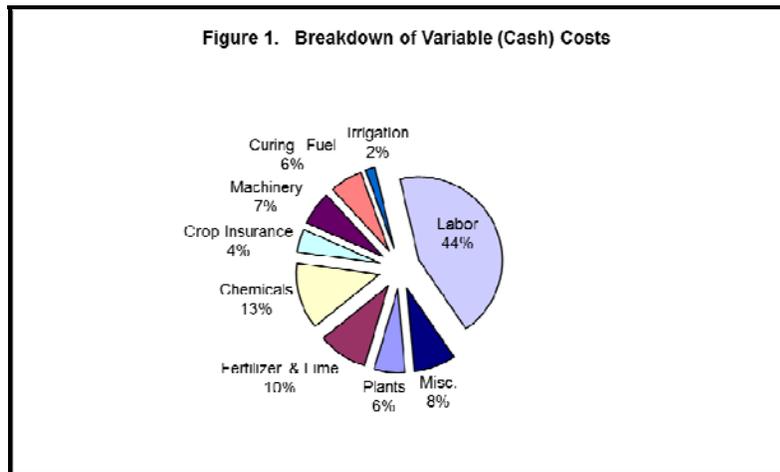
Acres  
**1**

	Unit	Quantity /Acre	Price or Cost/ Unit	Total Acre	Your Farm
<b>1. GROSS RECEIPTS</b>					
Stalk Position Lbs					.....
Stalk Position Lbs					.....
Stalk Position Lbs					.....
Stalk Position Lbs					.....
<b>TOTAL RECEIPTS:</b>	Lbs				.....
<b>2. PRE-HARVEST VARIABLE COSTS</b>					
TOBACCO PLANTS -					
Flue-cured	1M	6.20	\$35.00	\$217.00	.....
Cover Crop: Rye	BU.	2.00	\$20.00	40.00	.....
Lime (Prorated)	TON	0.56	\$43.65	\$24.44	.....
FRow: Fertilizer (6-12-18)	CWT	6.50	\$36.50	\$237.25	.....
Sidedress: (13-0-14)	CWT	2.50	\$35.25	\$88.13	.....
Herbicides	ACRE	1.00	\$32.89	\$32.89	.....
Insecticides	ACRE	1.00	\$40.72	\$40.72	.....
Fungicides	ACRE	1.00	\$70.00	\$70.00	.....
Nematicides	ACRE	1.00	\$220.00	\$220.00	.....
Sucker Control	ACRE	1.00	\$104.86	\$104.86	.....
Fed. Crop & Hail Ins. APH	ACRE	1.00	\$163.53	\$163.53	.....
Land Rent	ACRE	1.00	\$0.00	\$0.00	.....
Tractor Equip: Fuel & Oil	Eq Gal	86.25	\$1.75	\$150.94	.....
Tractor & Equip.: Repairs	ACRE	1.00	\$79.09	\$79.09	.....
Tractor & Equip.: Labor	HRS	14.65	\$14.50	\$212.43	.....
Hand Production Labor	HRS	35.00	\$13.34	\$466.90	.....
Production Interest	6 Months	\$1074.09	5.5%	\$59.07	.....
<b>TOTAL PRE-HARVEST COSTS</b>			<b>\$0.88 Per Pound</b>	<b>\$2,207.25</b>	.....
<b>3. HARVEST VARIABLE COSTS</b>					
Tractor Equip: Fuel & Oil	Eq Gal	18.07	\$1.75	\$31.63	.....
Tractor & Equip.: Repairs	ACRE	1.00	\$44.48	\$44.48	.....
Tractor & Equip.: Labor	HRS	8.54	\$14.50	\$123.83	.....
Hand Harvest Labor	HRS	60.00	\$13.34	\$800.40	.....
Curing Fuel (LP)	8 gal/cwt	250.00	\$0.92	\$230.00	.....
Building Ins. & Electricity	ACRE	1.00	\$181.00	\$181.00	.....
Supplies	ACRE	1.00	\$16.10	\$16.10	.....
<b>TOTAL HARVEST COSTS:</b>			<b>\$0.57 Per Pound</b>	<b>\$1,427.44</b>	.....
<b>Breakeven Yield      Breakeven Price</b>					
<b>4. TOTAL VARIABLE COSTS</b>		<b>___ Pounds</b>	<b>\$1.45 Per Pound</b>	<b>\$3,634.69</b>	.....
<b>5. RETURN OVER TOTAL VARIABLE COST</b>				<b>\$0.00</b>	.....
<b>6. MACHINERY FIXED COSTS (BASED ON NEW EQUIPMENT COST)</b>					
	ACRE	1.00	\$856.35	\$856.35	.....
<b>7. OTHER FIXED COSTS</b>	DOL	\$3,634.69	8.0%	\$290.78	.....
<b>8. TOTAL FIXED COSTS</b>			<b>\$0.46 Per Pound</b>	<b>\$1,147.13</b>	.....
<b>9. TOTAL VARIABLE &amp; FIXED COSTS</b>			<b>\$1.91 Per Pound</b>	<b>\$4781.82</b>	.....
<b>10. PROJECTED NET RETURNS TO LAND, RISK AND MANAGEMENT:</b>					
					<b>\$0.00</b>

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

### Profit Analysis

Based upon budget projections, the “Total Variable Costs or Cash Costs” of production for the 2016 crop are estimated at \$3,634.69 per acre or \$1.45 a pound. The breakdown of variable costs is displayed in Figure 1. Fixed Costs were estimated at \$1,147.13 an acre or \$0.46 a pound. Farmers must be able to cover fixed costs in the long run for the farm business to be sustainable.



The price needed to cover total cost with varying yields is in the following table. It also calculates additional prices needed to generate varying profit levels that can pay for family living expenses.

Since yield and average sale price will vary from farm to farm each year, calculated returns over variable costs with varying yield and price levels are displayed in the following table.

AVERAGE PRICE (\$/lb.) NEEDED TO COVER TOTAL COSTS (VARIABLE AND FIXED) <sup>1</sup>							
FARM YIELD	TOTAL COST/ACRE	Fixed Cost /Lb	Desired Net Income per Acre Above Total Costs				
			\$0.00	\$250.00	\$500.00	\$750.00	\$1,000.00
			-- Average Price Needed to Cover Total Cost (\$/Lb) --				
2000	\$4,735.82	0.57	\$2.37	\$2.49	\$2.62	\$2.74	\$2.87
2250	\$4,758.82	0.51	\$2.12	\$2.23	\$2.34	\$2.45	\$2.56
2500	\$4,781.82	0.46	\$1.91	\$2.01	\$2.11	\$2.21	\$2.31
2750	\$4,804.82	0.42	\$1.75	\$1.84	\$1.93	\$2.02	\$2.11
3000	\$4,827.82	0.38	\$1.61	\$1.69	\$1.78	\$1.86	\$1.94

<sup>1</sup>. Fixed Cost does not include a land charge. Subtract \$.57, \$.51, \$.46, \$.42, \$.38 per Lb respectively in the table above to remove Fixed Costs at each yield level.

This budget was developed in Microsoft Excel and is available from your county Extension Office or online at:

<http://www.avec.vaes.vt.edu/southern-piedmont/farm-management/index.html> .

