
**2013
Projected
Commodity
Costs
And
Returns**

**Sugarcane Production in
Louisiana**

Michael E. Salassi and Michael A. Deliberto



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PROJECTED COSTS AND RETURNS - SUGARCANE LOUISIANA, 2013

by

Michael E. Salassi and Michael Deliberto



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INTERNET ACCESS

This publication, along with 2013 projected costs and returns for other commodities as well as other farm management publications, is available on the Internet on the LSU Ag Center web page under "Money and Business - Farm and Business - Budgets". This publication is also available on the LSU Ag Center web page under "Crops and Livestock - Sugarcane - Economics." The web address for the LSU Ag Center is: **www.lsuagcenter.com**

PROJECTED COSTS AND RETURNS -- SUGARCANE, LOUISIANA, 2013

by

Michael E. Salassi and Michael Deliberto¹

INTRODUCTION

This report presents estimates of costs and returns associated with sugarcane production practices in Louisiana for 2013. It is part of a continuing effort to provide farmers, researchers, extension personnel, lending agencies and others working in agriculture and/or agribusiness timely planning information. Sugarcane production is unique in that it is a perennial crop grown in a rotation; processing, storage and marketing services are provided by a single entity and payments for said services are "in kind." Further, the large majority of growers are tenants, paying approximately 20 percent of the "after milling crop proceeds" (12.2% of gross production) for land. Returns shown in Table 1A-3C and in the whole farm analysis in Appendix A reflect returns to management and risk. No charges for family living expenses or management are included as a cost in this analysis.

SUGARCANE BUDGETS

The enterprise budgets for tenant-operators producing sugarcane are presented in two formats. One format is a summary of costs and returns for a particular phase of sugarcane production. This format presents costs by broad categories such as fertilizer, herbicides, insecticides, labor, fuel and repairs, etc. The other format presents a detailed listing of the operations, the equipment size and the associated power unit along with the date performed and the associated costs for tractor, machinery and materials. Together these budget formats provide the detailed information necessary to adjust the sugarcane budgets to individual situations. In addition, the appendix to this report contains detailed cost estimates for an extensive list of equipment and operating inputs. These may be used to modify budgets contained in this report or construct new enterprise budgets.

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This report presents 2013 projected costs and returns associated with the various phases of sugarcane production using three row machinery and the production practices followed by most growers in the main sugarcane producing area of the state (see figure on page 6). Fertilizer and chemical rates were based on recommendations of the LSU Agricultural Center.^{2,3} Only tenant-operator budgets are presented in this report, reflecting the predominant share rent land tenure situation. Most growers pay 1/5 of the crop harvested for sugar after the "in kind" mill payment has been made. The landlord does not share in any of the production expenses other than seed cane (in the form of reduced current year income) and provides little assistance in maintaining or improving farm housing, drainage, and roads.

Determination of costs associated with sugarcane is not a straight forward process. The uniqueness of the production rotation normally associated with sugarcane coupled with the fact that a portion of the rotation is non-income generating creates some difficulty. Thus, the sugarcane budgets presented in this report reflect costs per acre of land. Returns are based on pounds of raw sugar and gallons of molasses per acre of land harvested. Yield information used in estimating income in these budgets is based on typical yield levels per harvested acre. These typical yield levels reflect the approximate state-level sugarcane yield per acre harvested for sugar. Grower income reflects the usual disposition of raw sugar and molasses between the grower, landlord and mill.⁴

Projections of harvest costs are included for 1 and 2-row wholestalk (soldier) harvesters. The harvest budgets (Tables 14 and 15) includes the costs of hauling cane directly from the field to the mill (direct haul) with tractors using two 10-ton cane wagons. Under this scenario, the hauling rebate from the mill would be paid to the producer.

Projected total costs and returns for sugarcane production on a representative 1000 acre farm are shown in Table 1A, 2A, and 3A. Table 1A uses a 4-year land rotation with 250 acres each of plantcane, first stubble, second stubble, and fallow/plant. Table 2A uses a 5-year rotation with 200 acres of plantcane, first stubble, second stubble, third stubble and fallow/plant. Table 3A uses a 6-year rotation with 167 acres of plantcane, first stubble, second stubble, third stubble, fourth stubble, and fallow/plant. Gross value of production is shown, along with estimated mill and land charges, as well as producer income and expenses for each scenario. Net returns to management and risk are estimated. No charges for management, risk or family living expenses are included.

Projected output per rotational acre and its distribution between the grower and suppliers of land and milling services is presented in Table 1B, 2B and 3B. Table 1B reflects the output distribution associated with a 4-year sugarcane rotation and approximates the projected average yield levels in 2013 for established producers. Sugarcane land under a standard rotation is

² "Sugarcane Fertilization," *Sugarcane Production Handbook – 2001*, Louisiana State University Agricultural Center, Baton Rouge, LA, Pub. No. 2859.

³ "Controlling Weeds in Sugarcane," *Sugarcane Production Handbook – 2001*, Louisiana State University Agricultural Center, Baton Rouge, LA, Pub. No. 2859.

⁴ Sugar mills normally retain approximately 39 percent of the raw sugar and slightly more than 50 percent of the molasses to cover hauling and processing of sugarcane and storage and marketing of raw sugar. Landlords normally retain 20 percent of the remaining raw sugar and molasses for land rent.

assumed to have 25 percent each of land in plant cane, first stubble, second stubble, and fallow/plant. Sugar output per rotational for land under an extended 5-year and 6-year rotation, with harvest through third stubble and fourth stubble, respectively, are shown in Tables 2B and 3B. Sugar yields for plantcane and stubble crops presented in this report are based on research results from outfield variety trials for commercial varieties of sugarcane currently grown in Louisiana, adjusted to reflect average producer yields.⁵

Tables 1C, 2C and 3C presents breakeven raw sugar selling prices required to cover production costs for selected yield levels and rental arrangements. Base yield level reflects budgeted yields included in Tables 1A, 2A and 3A. Distribution shares of sugar production to mill, landlord, and grower, in pounds of sugar per rotational acre, are shown for a 1/5 and a 1/6 share rent arrangement. Breakeven prices per pound of raw sugar are calculated by dividing grower's share of production into direct costs, total specified costs, and total specified costs plus overhead expenses.

PROCEDURE

Survey data collected from sugarcane producers provided basic production practice, equipment and input information. The survey indicated that farm size was increasing. Producer's complement of tractors were larger, and the use of high clearance tractors with mechanical front wheel drive was common. Producers are cultivating both fallow and cane crops more. Nearly all producers use cultured seed cane in their clean seed program. They were or intended on keeping some stubble beyond the standard 4 year rotations.

Current estimates of machinery and other input costs were used in conjunction with the production practices and input data to estimate costs of production for sugarcane. Input price data were collected in late 2012 from farm suppliers throughout the sugarcane producing area to provide a basis for estimating projected 2013 budgets. Machinery price data were obtained from machinery dealers in 2012. Detailed machinery cost data are shown in the Appendix.

The general procedure used in this report was to apply current machinery and other input price data to the production practices noted above. Production practice data were based on a sample of sugarcane farms randomly drawn by size of farm and area. In an effort to simplify the budgets, individual budgets for separate production areas and soil types were eliminated. The costs associated with operations specific to certain areas or situations can be added to any budget to more accurately match a specific farm situation.

Sugarcane budgets presented in this report were developed using a microcomputer enterprise budget generator program. The budget generator is a computer program that specifies a system of sequential computational procedures for calculating costs and returns associated with the production of a specific agricultural commodity. It also includes report writing features for printing the final budget(s) in standardized terminology. The user specifies the data requirements essential for preparation of a particular budget (e.g. field operations, input quantities and prices, interest rates, fuel consumption, etc.). The user dictates the computations to be made and data sets used for the selected computations to be made. Functions, such as repair costs, depreciation and performance rates for machinery and equipment are specified by the user of the budget generator. While selected data sets may be stored in the system, the user has the prerogative of substituting

⁵ "Sugarcane Outfield Variety Trials," *Sugarcane Research, Annual Progress Report – 2012*, Louisiana State University Agricultural Center, Baton Rouge, LA.

data. The responsibility for selection of appropriate data sets used in the program rests with the user. The program includes standardized procedures for developing estimates for selected data elements for users with limited information.

Budget information is presented for ten activity sets, an overhead budget, and projected revenues. The activities include breaking stubble and fallow operations, seedbed preparation, cutting and planting seed cane (propagated and field run), cultural regimes for the plant cane and first stubble, second stubble and older and succession planting on a per acre of land basis. An individual may select those budgets that fit his "unique" situation to develop cost and return estimates reflecting his land situation and production activities.

Machinery Costs

Machinery cost data for implements were obtained from annual surveys of machinery dealers. In addition, these data were supplemented with data from a recent issue of Official Guide, Tractors and Farm Equipment.⁶ Purchase prices for machinery items used in this report may be found in the Appendix. Purchase prices for tractors and harvesting equipment were updated in 2013. Appendix Tables 1-4 provide pertinent information used to compute direct and fixed costs per acre and per hour for new powered and towed machines. Machinery performance rates are based on survey data collected from sugarcane producers. These tables are the basis for all machinery costs shown in the budgets and accompanying tables.

Price Data

Input price data reflect current quotes obtained from suppliers of agricultural chemicals and services in the area, Appendix Tables 1 and 5. These data were used as a basis for estimating input costs for 2013. Chemical weed control practices are identified as individual operations within the production sequence. Materials are designated by common name and reflect recommended rates. Chemical names are for identification purposes only and do not constitute endorsement of these products.

Regular hired farm labor was charged at \$9.60 per hour. This wage rate includes a \$7.50 per hour basic wage rate plus additional costs (27.65%) for social security, Medicare, and workman's compensation (6.2%, 1.45%, 20%). Operator labor was charged at \$15.30 per hour, which includes a basic wage rate of \$12.00 per hour plus (27.65%) for social security, Medicare, and workman's compensation (6.2%, 1.45%, 20%). Labor charged at the lower rate includes time spent operating tractors as well as time spent in direct support of any field operation, while labor charged at the higher rate reflects only the time required for operating self-propelled (harvest) machines. It is recognized that full time labor is not generally available on an hourly basis. However, for a single enterprise, the hourly charge represents a practical approach for charging the enterprise for labor necessary to produce that enterprise.

Interest on operating capital was charged at 4.25 percent. Operating capital was assumed borrowed only for the length of time necessary to secure inputs in a timely fashion. Diesel fuel was priced at \$3.31 per gallon and regular gasoline at \$3.40 per gallon. Variable costs for operating tractors and self-propelled machines include fuel, lubrication and repairs. Variable costs for

⁶ *Official Guide Tractors and Farm Equipment*. St. Louis: National Farm and Power Services, Inc., Fall 1993.

machinery items include lubrication and repairs. The "sequence of operations" tables for each production activity show both variable and fixed costs per acre for performing each machine operation. The non-land capital or intermediate term interest rate was charged at a historical real rate of 5.25 percent.

Product price projections were made in January 2013, based primarily upon existing supply and use and government program information. Price forecasting at this time has a low degree of reliability since most factors affecting both supply and demand cannot be ascertained at this time. However, the product price estimates are made for the primary purpose of making comparative evaluations among alternative sugarcane production systems or across alternative crops. Return estimates in this report are computed using a \$0.230 per pound raw sugar market price and a selling price for molasses of \$0.70 per gallon.

Overhead Costs

Overhead costs reflect significant expenses associated with the operation of the entire farm business, but are not necessarily attributable to a specific enterprise. Examples of farm overhead costs include tax services, record keeping, utilities, farmstead maintenance, and insurance and property taxes where applicable.

Overhead cost projections presented in this report are based on the 2000 ERS survey of overhead costs. This survey is conducted every three to eight years. Methodology and detailed information can be found on the ERS website at <http://www.ers.usda.gov>. Forecasts for general farm overhead, and taxes and insurance for corn, soybeans, cotton and rice for regions that include Louisiana for 2005 were averaged. The percentage difference between 2005 and the projected costs for 2013 for each crop national average was calculated and these were averaged. The 2005 regional average was then increased by this average to produce the figure used in this report.

Projected enterprise budgets for sugarcane production included in this report incorporate the variable and fixed cost overhead components as a single lump sum. The total overhead costs for a farm firm are related to tenure and size of business. The overhead costs included in this report were estimated on a per acre basis, and thus are included on a per acre of land use basis.

Machinery Size

The budgets in this report are based on typical size machines for performing each of the various operations. Appendix Tables 2 and 3 present information for each of the machines used in the budgets found in this report. This machinery information (Appendix Tables 2 and 3) can be used to adjust machinery costs and labor requirements for budgets presented in this report to fit a particular farm situation.

Louisiana Sugarcane Producing Areas



Table 1A. Projected Costs and Returns on 1,000 Acres of Sugarcane, 4-Year Rotation, Harvest through 2nd stubble, Tenant-Operator, Louisiana, 2013.

Item	Dollars Per Acre	Number of Acres	Total Dollar Value	Per Acre Dollar Value 6/	Per Pound of Sugar Value 7/
	(\$/acre)	(acres)	(\$)	(\$/acre)	(\$/lb)
GROSS VALUE OF PRODUCTION: 1/					
Sugar: (\$0.230/lb; 5,491,024 lbs.)					
Plantcane (8,140 lbs/acre)	1,872.20	201.6	377,436		
1st stubble (7,920 lbs/acre)	1,821.60	250.0	455,400		
2nd stubble (7,480 lbs/acre)	1,720.40	250.0	430,100		
Total sugar			1,262,936	1,262.94	0.230
Molasses: (\$0.70/gal; 164,713 gallons)	--	--	115,312		
TOTAL GROSS VALUE			1,378,247	1,378.25	0.251
MILL CHARGE (Payment in kind):					
Sugar (39%)	--	--	492,545		
Molasses	--	--	62,598		
Total mill charge			555,143	555.14	0.101
NET RETURNS TO LAND AND PRODUCER			823,104	823.10	0.150
LAND RENT (Payment in kind):					
Sugar (20% after mill charge)	--	--	154,078		
Molasses(20% after mill charge)	--	--	10,543		
Total land charge			164,621	164.62	0.030
PRODUCER INCOME					
Sugar and Molasses	--	--	658,484	658.48	0.120
ASCL Check Off (\$0.14 /ton)	--	--	(3,844)		
Total Income			654,640	654.64	0.119
VARIABLE PRODUCTION EXPENSES: 3/					
Fallow Field & Seedbed Preparation	152.12	250.0	38,030		
Cultured Seed Cane	523.20	4.1	2,140		
Hand Planting	280.09	4.1	1,146		
Wholestalk Seedcane Harvest	79.19	49.2	3,896		
Mechanical Planting - Wholestalk	245.54	245.9	60,378		
Plant Cane Field Operations	278.99	250.0	69,748		
1st Stubble Field Operations	356.35	250.0	89,088		
2nd Stubble Field Operations	351.25	250.0	87,813		
Harvest for Sugar 4/	168.85	700.8	118,330		
Total variable expenses			470,567	470.57	0.086
RETURNS ABOVE VARIABLE PRODUCTION EXPENSES			184,072	184.07	0.034
FIXED PRODUCTION EXPENSES 5/		1,000.0	148,017	148.02	0.027
RETURNS ABOVE TOTAL PRODUCTION EXPENSES			36,055	36.06	0.007
FARM OVERHEAD EXPENSES		1,000.0	30,000	30.00	0.005
NET RETURNS TO MANAGEMENT AND RISK			6,055	6.06	0.001

- 1/ Gross value of production is determined using estimated production from 1000 acres of sugarcane land in a standard 4 year rotation (fallow/plant, plantcane, 1st stubble, and 2nd stubble). Raw sugar is valued at 23.0 cents per pound and molasses at 70.0 cents per gallon.
- 2/ Harvested sugarcane is assumed to be transloaded to custom truck and trailer. Hauling costs from farm to mill and hauling rebate are excluded.
- 3/ Each category of production expense listed includes all variable costs associated with the specified operations including cost of inputs, labor, fuel, repairs, and interest on operating capital.
- 4/ Harvest costs are estimated assuming 100% of sugarcane is harvested with a combine harvester.
- 5/ Fixed expenses includes depreciation and interest charges on equipment used in production.
- 6/ Per acre dollar value is calculated by dividing total dollar value by total farm acreage.
- 7/ Per pound of sugar value is calculated by dividing total dollar value by total sugar production over 1,000 farm acres (5,491,024 pounds of sugar from 24,959 tons of cane).

Table 1B. Expected Sugar Yield per Rotational Acre of Sugarcane, 4-Year Rotation, Harvest through 2nd stubble, Tenant-Operator, Louisiana, 2013.

	Land Use (%)	Sugar yield			Rotational Acre
		Plantcane	1st stubble	2nd stubble	
Sugar Yield per Acre Harvested for Sugar		8140	7920	7480	
Sugar Yield per Rotational Acre 1/:					
Plantcane	25.00%	2035	--	--	
Plantcane used for seed 2/	4.92%	400	--	--	
1st Stubble	25.00%	--	1980	--	
2nd Stubble	25.00%	--	--	1870	
Fallow/plant	25.00%	--	--	--	
Total Raw Sugar per Rotational Acre		1635	1980	1870	5485
Mill/Landlord Share:					
Mill share	39%	637	772	729	2139
Landlord share (1/5 share)	12.2%	199	242	228	669
Grower's Share:					
Tenant	48.8%	798	966	913	2676

- 1/ Assumes a standard rotation of 25% each of plantcane, 1st stubble, 2nd stubble, and fallow/plant.
- 2/ Assumes .409 acres of disease-free cultured seed planted annually with two expansions of plant cane and first stubble cultured seed cane crops, using a 5:1 planting ratio, for every 25 acres planted each year. Plantcane cut for seed (4.92 acres) will plant 24.6 acres, plus .409 acres planted in cultured seed, yields 25 acres planted.
- 3/ Landlord share is 20 percent of after milling crop proceeds.
- 4/ Grower's share is total raw sugar less amount taken for mill and land share.

Table 1C. Breakeven Selling Prices for Raw Sugar for Selected Yields and Rental Arrangements, 4-Year Rotation, Harvest through 2nd stubble, Tenant-Operators, Louisiana, 2013.

	Selected Yield Levels				
	-20%	-10%	Base	+10%	+20%
Cane yield per harvested acre (tons) 1/	28.5	32.0	35.6	39.2	42.7
Sugar yield per harvested acre (lbs) 2/	6266	7049	7832	8615	9398
Sugar yield per rotational acre (lbs) 3/	4388	4936	5485	6033	6581
ONE-FIFTH LAND SHARE RENT	-----cents per pound of sugar-----				
Breakeven price to recover: 4/					
Direct costs	20.8	19.0	17.6	16.4	15.4
Total specified costs	27.8	25.2	23.1	21.4	20.0
Total costs plus overhead	29.2	26.4	24.2	22.4	20.9
ONE-SIXTH LAND SHARE RENT:	-----cents per pound of sugar-----				
Breakeven price to recover: 4/					
Direct costs	20.0	18.3	16.9	15.7	14.8
Total specified costs	26.6	24.2	22.2	20.5	19.2
Total costs plus overhead	28.0	25.3	23.2	21.5	20.1

- 1/ Average farm yield across harvested acreage of plantcane, 1st stubble and 2nd stubble.
- 2/ Average yield in tons per acre multiplied by a 220 CRS.
- 3/ Assumes a standard land rotation of 25% each of plantcane, 1st stubble, 2nd stubble, and fallow/plant.
- 4/ Breakeven prices are calculated by dividing grower's share of production (48.8% for 1/5 share, 50.8% for 1/6 share) into direct costs, total specified costs, and total specified costs plus overhead. Breakeven sugar price excludes molasses payment. Mill share assumed to be 39%.

Table 1D. Breakeven Raw Sugar Yields for Selected Yields and Rental Arrangements, 4-Year Rotation, Harvest through 2nd stubble, Tenant-Operators, Louisiana, 2013.

	Selected Price Levels				
	-1.0	-0.5	Base	+0.5	+1.0
Raw sugar price (cents per pound)	22.0	22.5	23.0	23.5	24.0
ONE-FIFTH LAND SHARE RENT	-----pounds of sugar per harvested acre-----				
Breakeven yield to recover: 1/					
Direct costs	6,253	6,114	5,981	5,854	5,732
Total specified costs	8,219	8,037	7,862	7,695	7,534
Total costs plus overhead	8,618	8,426	8,243	8,068	7,900
ONE-SIXTH LAND SHARE RENT:	-----pounds of sugar per harvested acre-----				
Breakeven yield to recover: 1/					
Direct costs	6,006	5,873	5,745	5,623	5,506
Total specified costs	7,896	7,720	7,552	7,392	7,238
Total costs plus overhead	8,279	8,095	7,919	7,750	7,589

- 1/ Breakeven sugar yield per harvested acre to recover direct costs, total specified costs, and total costs plus overhead. Breakeven sugar yield excludes molasses payment.

Table 2A. Projected Costs and Returns on 1,000 Acres of Sugarcane, 5-Year Rotation, Harvest through 3rd stubble, Tenant-Operator, Louisiana, 2013.

Item	Dollars Per Acre	Number of Acres	Total Dollar Value	Per Acre Dollar Value 6/	Per Pound of Sugar Value 7/
	(\$/acre)	(acres)	(\$)	(\$/acre)	(\$/lb)
GROSS VALUE OF PRODUCTION: 1/					
Sugar: (\$0.230/lb; 5,839,284 lbs)					
Plantcane (8,140 lbs/acre)	1,872.20	160.6	300,675		
1st stubble (7,920 lbs/acre)	1,821.60	200.0	364,320		
2nd stubble (7,480 lbs/acre)	1,720.40	200.0	344,080		
3rd stubble (7,260 lbs/acre)	1,669.80	200.0	333,960		
Total sugar			1,343,035	1,343.04	0.230
Molasses (\$0.70/gal; 175,179 gallons)	--	--	122,625		
TOTAL GROSS VALUE			1,465,660	1,465.66	0.251
MILL CHARGE (Payment in kind):					
Sugar (39%)	--	--	523,784		
Molasses	--	--	66,568		
Total mill charge			590,352	590.35	0.101
NET RETURNS TO LAND AND PRODUCER			875,309	875.31	0.150
LAND RENT (Payment in kind):					
Sugar (20% after mill charge)	--	--	163,850		
Molasses(20% after mill charge)	--	--	11,211		
Total land charge			175,062	175.06	0.030
PRODUCER INCOME					
Sugar and Molasses	--	--	700,247	700.25	0.120
ASCL Check Off (\$0.14 /ton)	--	--	(4,087)		
Total Income			696,159	696.16	0.119
VARIABLE PRODUCTION EXPENSES: 3/					
Fallow Field & Seedbed Preparation	152.12	200.0	30,424		
Cultured Seed Cane	523.20	3.3	1,727		
Hand Planting	280.09	3.3	924		
Harvesting Wholestalk Seedcane	79.19	39.4	3,120		
Mechanical Planting - Wholestalk	245.54	196.7	48,298		
Plant Cane Field Operations	278.99	200.0	55,798		
1st Stubble Field Operations	356.35	200.0	71,270		
2nd Stubble Field Operations	351.25	200.0	70,250		
3rd Stubble Field Operations	351.25	200.0	70,250		
Harvest for Sugar 4/	168.85	760.6	128,427		
Total variable expenses			480,488	480.49	0.082
RETURNS ABOVE VARIABLE PRODUCTION EXPENSES			215,671	215.67	0.037
FIXED PRODUCTION EXPENSES 5/		1000.0	148,497	148.50	0.025
RETURNS ABOVE TOTAL PRODUCTION EXPENSES			67,174	67.17	0.012
FARM OVERHEAD EXPENSES		1000.0	30,000	30.00	0.005
NET RETURNS TO MANAGEMENT AND RISK			37,174	37.17	0.006

- 1/ Gross value of production is determined using estimated production from 1000 acres of sugarcane land in an extended 5 year rotation (fallow/plant, plantcane, 1st stubble, 2nd stubble and 3rd stubble). Raw sugar is valued at 23.0 cents per pound and molasses at 70.0 cents per gallon.
- 2/ Harvested sugarcane is assumed to be transloaded to custom truck and trailer. Hauling costs from farm to mill and hauling rebate are excluded.
- 3/ Each category of production expense listed includes all variable costs associated with the specified operations including cost of inputs, labor, fuel, repairs, and interest on operating capital.
- 4/ Harvest costs are estimated assuming 100% of sugarcane is harvested with a combine harvester.
- 5/ Fixed expenses includes depreciation and interest charges on equipment used in production.
- 6/ Per acre dollar value is calculated by dividing total dollar value by total farm acreage.
- 7/ Per pound of sugar value is calculated by dividing total dollar value by total sugar production over 1000 farm acres (5,839,284 pounds of sugar from 26,542 tons of cane).

Table 2B. Expected Sugar Yield per Rotational Acre of Sugarcane, 5-Year Rotation, Harvest through 3rd stubble, Tenant-Operator, Louisiana, 2013.

	Land Use (%)	Sugar yield				Rotational Acre
		Plantcane	1st stubble	2nd stubble	3rd stubble	
Sugar Yield per Acre Harvested for Sugar		8140	7920	7480	7260	
Sugar Yield per Rotational Acre 1/:						
Plantcane	20.00%	1628	--	--	--	
Plantcane used for seed 2/	3.94%	321	--	--	--	
1st Stubble	20.00%	--	1584	--	--	
2nd Stubble	20.00%	--	--	1496	--	
3rd Stubble	20.00%	--	--	--	1452	
Fallow/plant	20.00%	--	--	--	--	
Total Raw Sugar per Rotational Acre		1307	1584	1496	1452	5839
Mill/Landlord Share:						
Mill share	39%	510	618	583	566	2277
Landlord share (1/5 share)	12.2%	159	193	183	177	712
Grower's Share:						
Tenant	48.8%	638	773	730	709	2850

- 1/ Assumes an extended 5 year rotation with 20.00% each of plantcane, 1st stubble 2nd stubble, 3rd stubble, and fallow.
 2/ Assumes .330 acres of disease-free cultured seed planted annually with two expansions of plant cane and first stubble cultured seed cane crops, using a 5:1 planting ratio, for every 20.00 acres planted each year. Plantcane cut for seed (3.94 acres) will plant 19.70 acres, plus .330 acres planted in cultured seed, yields 20.00 acres planted.

Table 2C. Breakeven Selling Prices for Raw Sugar for Selected Yields and Rental Arrangements, 5-Year Rotation, Harvest through 3rd stubble, Tenant-Operators, Louisiana, 2013.

	Selected Yield Levels				
	-20%	-10%	Base	+10%	+20%
Cane yield per harvested acre (tons) 1/	27.9	31.4	34.9	38.4	41.9
Sugar yield per harvested acre (lbs) 2/	6142	6910	7678	8446	9214
Sugar yield per rotational acre (lbs) 3/	4671	5255	5839	6423	7007
ONE-FIFTH LAND SHARE RENT					
Breakeven price to recover: 4/	-----cents per pound of sugar-----				
Direct costs	20.0	18.2	16.9	15.7	14.8
Total specified costs	26.5	24.0	22.1	20.5	19.1
Total costs plus overhead	27.8	25.2	23.1	21.4	20.0
ONE-SIXTH LAND SHARE RENT:					
Breakeven price to recover: 4/	-----cents per pound of sugar-----				
Direct costs	19.2	17.5	16.2	15.1	14.2
Total specified costs	25.4	23.1	21.2	19.7	18.4
Total costs plus overhead	26.7	24.2	22.2	20.6	19.2

- 1/ Average farm yield across harvested acreage of plantcane, 1st stubble, 2nd stubble and 3rd stubble.
 2/ Average yield in tons per acre multiplied by a 220 CRS.
 3/ Assumes a standard land rotation of 20.00% each of plantcane, 1st stubble, 2nd stubble, 3rd stubble, and fallow/plant.
 4/ Breakeven prices are calculated by dividing grower's share of production (48.8% for 1/5 share, 50.8% for 1/6 share) into direct costs, total specified costs, and total specified costs plus overhead. Breakeven sugar price excludes molasses payment. Mill share assumed to be 39%.

Table 2D. Breakeven Raw Sugar Yields for Selected Yields and Rental Arrangements, 5-Year Rotation, Harvest through 3rd stubble, Tenant-Operators, Louisiana, 2013.

	Selected Price Levels				
	-1.0	-0.5	Base	+0.5	+1.0
Raw sugar price (cents per pound)	22.0	22.5	23.0	23.5	24.0
ONE-FIFTH LAND SHARE RENT					
Breakeven yield to recover: 1/	-----pounds of sugar per harvested acre-----				
Direct costs	5,881	5,750	5,625	5,506	5,391
Total specified costs	7,699	7,528	7,364	7,207	7,057
Total costs plus overhead	8,066	7,887	7,715	7,551	7,394
ONE-SIXTH LAND SHARE RENT:					
Breakeven yield to recover: 1/	-----pounds of sugar per harvested acre-----				
Direct costs	5,650	5,524	5,404	5,289	5,179
Total specified costs	7,396	7,231	7,074	6,923	6,779
Total costs plus overhead	7,748	7,576	7,411	7,254	7,103

- 1/ Breakeven sugar yield per harvested acre to recover direct costs, total specified costs, and total costs plus overhead. Breakeven sugar yield excludes molasses payment.

Table 3A. Projected Costs and Returns on 1,000 Acres of Sugarcane, 6-Year Rotation, Harvest through 4th stubble, Tenant-Operator, Louisiana, 2013.

Item	Dollars Per Acre	Number of Acres	Total Dollar Value	Per Acre Dollar Value 6/	Per Pound of Sugar Value 7/
	(\$/acre)	(acres)	(\$)	(\$/acre)	(\$/lb)
GROSS VALUE OF PRODUCTION: 1/					
Sugar: (\$0.230/lb; 6,040,936 lbs.)					
Plantcane (8,140 lbs/acre)	1,872.20	133.9	250,688		
1st stubble (7,920 lbs/acre)	1,821.60	166.7	303,661		
2nd stubble (7,480 lbs/acre)	1,720.40	166.7	286,791		
3rd stubble (7,260 lbs/acre)	1,669.80	166.7	278,356		
4th stubble (7,040 lbs/acre)	1,619.20	166.7	269,921		
Total sugar			1,389,415	1,389.42	0.230
Molasses (\$0.70/gal, 181,228 gallons)	--	--	126,860		
TOTAL GROSS VALUE			1,516,275	1,516.27	0.251
MILL CHARGE (Payment in kind):					
Sugar (39%)	--	--	541,872		
Molasses	--	--	68,867		
Total mill charge			610,739	610.74	0.101
NET RETURNS TO LAND AND PRODUCER			905,536	905.54	0.150
LAND RENT (Payment in kind):					
Sugar (20% after mill charge)	--	--	169,509		
Molasses(20% after mill charge)	--	--	11,599		
Total land charge			181,107	181.11	0.030
PRODUCER INCOME					
Sugar and Molasses	--	--	724,429	724.43	0.120
ASCL Check Off (\$0.14 /ton)	--	--	(4,229)		
Total Income			720,200	720.20	0.119
VARIABLE PRODUCTION EXPENSES: 3/					
Fallow Field & Seedbed Preparation	152.12	166.7	25,358		
Cultured Seed Cane	523.20	2.7	1,413		
Hand Planting	280.09	2.7	756		
Wholestalk Seedcane Harvest	79.19	32.8	2,597		
Mechanical Planting - Wholestalk	245.54	164.0	40,269		
Plant Cane Field Operations	278.99	166.7	46,508		
1st Stubble Field Operations	356.35	166.7	59,404		
2nd Stubble Field Operations	351.25	166.7	58,553		
3rd Stubble Field Operations	351.23	166.7	58,553		
4th Stubble Field Operations	351.25	166.7	58,553		
Harvest for Sugar 4/	168.85	800.7	135,198		
Total variable expenses			487,163	487.16	0.081
RETURNS ABOVE VARIABLE PRODUCTION EXPENSES			233,038	233.04	0.039
FIXED PRODUCTION EXPENSES 5/		1000.0	148,848	148.85	0.025
RETURNS ABOVE TOTAL PRODUCTION EXPENSES			84,190	84.19	0.014
FARM OVERHEAD EXPENSES		1000.0	30,000	30.00	0.005
NET RETURNS TO MANAGEMENT AND RISK			54,190	54.19	0.009

- 1/ Gross value of production is determined using estimated production from 1000 acres of sugarcane land in an extended 6 year rotation (fallow/plant, plantcane, 1st stubble, 2nd stubble, 3rd stubble and 4th stubble). Raw sugar is valued at 23.0 cents per pound and molasses at 70.0 cents per gallon.
- 2/ Harvested sugarcane is assumed to be transloaded to custom truck and trailer. Hauling costs from farm to mill and hauling rebate are excluded.
- 3/ Each category of production expense listed includes all variable costs associated with the specified operations including cost of inputs, labor, fuel, repairs, and interest on operating capital.
- 4/ Harvest costs are estimated assuming 100% of sugarcane is harvested with a combine harvester.
- 5/ Fixed expenses includes depreciation and interest charges on equipment used in production.
- 6/ Per acre dollar value is calculated by dividing total dollar value by total farm acreage.
- 7/ Per pound of sugar value is calculated by dividing total dollar value by total sugar production over 1000 farm acres (6,040,936 pounds of sugar from 27,459 tons of cane).

Table 3B. Expected Sugar Yield per Rotational Acre of Sugarcane, 6-Year Rotation, Harvest through 4th stubble, Tenant-Operator, Louisiana, 2013.

	Land Use (%)	Sugar yield					Rotational Acre
		Plant cane	1st stubble	2nd stubble	3rd stubble	4th stubble	
Sugar Yield per Acre Harvested for Sugar		8140	7920	7480	7260	7040	
pounds of sugar							
Sugar Yield per Rotational Acre 1/:							
Plantcane	16.67%	1357	--	--	--	--	
Plantcane used for seed 2/	3.28%	267	--	--	--	--	
1st Stubble	16.67%	--	1320	--	--	--	
2nd Stubble	16.67%	--	--	1247	--	--	
3rd Stubble	16.67%	--	--	--	1210	--	
4th Stubble	16.67%	--	--	--	--	1174	
Fallow/plant	16.67%	--	--	--	--	--	
Total Raw Sugar per Rotational Acre		1090	1320	1247	1210	1174	6014
Mill/Landlord Share:							
Mill share	39%	425	515	486	472	458	2356
Landlord share (1/5 share)	12.2%	133	161	152	148	143	737
Grower's Share:							
Tenant	48.8%	532	644	608	591	573	2948

- 1/ Assumes an extended 6 year rotation with 16.67% each of plantcane, 1st stubble 2nd stubble, 3rd stubble, 4th stubble and fallow.
 2/ Assumes .273 acres of disease-free cultured seed planted annually with two expansions of plant cane and first stubble cultured seed cane crops, using a 5:1 planting ratio, for every 16.67 acres planted each year. Plantcane cut for seed (3.28 acres) will plant 16.40 acres, plus .273 acres planted in cultured seed, yields 16.67 acres planted.

Table 3C. Breakeven Selling Prices for Raw Sugar for Selected Yields and Rental Arrangements, 6-Year Rotation, Harvest through 4th stubble, Tenant-Operators, Louisiana, 2013.

	Selected Yield Levels				
	-20%	-10%	Base	+10%	+20%
Cane yield per harvested acre (tons) 1/	27.4	30.9	34.3	37.7	41.2
Sugar yield per harvested acre (lbs) 2/	6037	6791	7546	8301	9055
Sugar yield per rotational acre (lbs) 3/	4833	5437	6041	6645	7294
ONE-FIFTH LAND SHARE RENT					
Breakeven price to recover: 4/	-----cents per pound of sugar-----				
Direct costs	19.5	17.9	16.5	15.4	14.5
Total specified costs	25.8	23.5	21.6	20.0	18.7
Total costs plus overhead	27.1	24.6	22.6	21.0	19.6
ONE-SIXTH LAND SHARE RENT:					
Breakeven price to recover: 4/	-----cents per pound of sugar-----				
Direct costs	18.7	17.1	15.9	14.8	14.0
Total specified costs	24.8	22.5	20.7	19.2	18.0
Total costs plus overhead	26.0	23.6	21.7	20.1	18.8

- 1/ Average farm yield across harvested acreage of plantcane and stubble crops (1st, 2nd, 3rd and 4th).
 2/ Average yield in tons per acre multiplied by a 220 CRS.
 3/ Assumes a standard land rotation of 16.67% each of plantcane, 1st stubble, 2nd stubble, 3rd stubble, and fallow/plant.
 4/ Breakeven prices are calculated by dividing grower's share of production (48.8% for 1/5 share, 50.8% for 1/6 share) into direct costs, total specified costs, and total specified costs plus overhead. Breakeven sugar price excludes molasses payment. Mill share assumed to be 39%.

Table 3D. Breakeven Raw Sugar Yields for Selected Yields and Rental Arrangements, 6-Year Rotation, Harvest through 4th stubble, Tenant-Operators, Louisiana, 2013.

	Selected Price Levels				
	-1.0	-0.5	Base	+0.5	+1.0
Raw sugar price (cents per pound)	22.0	22.5	23.0	23.5	24.0
ONE-FIFTH LAND SHARE RENT					
Breakeven yield to recover: 1/	-----pounds of sugar per harvested acre-----				
Direct costs	5,665	5,539	5,419	5,303	5,193
Total specified costs	7,396	7,232	7,074	6,924	6,780
Total costs plus overhead	7,745	7,573	7,408	7,250	7,099
ONE-SIXTH LAND SHARE RENT:					
Breakeven yield to recover: 1/	-----pounds of sugar per harvested acre-----				
Direct costs	5,442	5,321	5,205	5,095	4,988
Total specified costs	7,105	6,947	6,796	6,651	6,513
Total costs plus overhead	7,440	7,275	7,116	6,965	6,820

- 1/ Breakeven sugar yield per harvested acre to recover direct costs, total specified costs, and total costs plus overhead. Breakeven sugar yield excludes molasses payment.

Table 4.A Estimated costs per acre, Breaking stubble, fallow activities & seedbed preparation, Sugarcane, Louisiana 2013.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
HERBICIDES					
Roundup Power Max	pt	2.83	2.7500	7.78	_____
SERVICE FEE					
Crop Consultant	acre	5.00	1.0000	5.00	_____
LA Hired Labor					
Tractors	hour	9.60	3.0827	29.59	_____
DIESEL FUEL					
Tractors	gal	3.31	24.8144	82.14	_____
REPAIR & MAINTENANCE					
Implements	acre	13.01	1.0000	13.01	_____
Tractors	acre	11.47	1.0000	11.47	_____
INTEREST ON OP. CAP.	acre	3.13	1.0000	3.13	_____
TOTAL DIRECT EXPENSES				152.12	_____
FIXED EXPENSES					
Implements	acre	17.99	1.0000	17.99	_____
Tractors	acre	71.40	1.0000	71.40	_____
TOTAL FIXED EXPENSES				89.39	_____
TOTAL SPECIFIED EXPENSES				241.51	_____

Table 4.B Estimated resource use and costs for field operations, per acre Breaking stubble, fallow activities & seedbed preparation, Sugarcane, Louisiana 2013.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST	
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST		
						-----dollars-----				dollars		-----dollars-----				
SC Disk	20 ft	MFWD 190	0.100	2.00	Mar	7.27	5.10	1.54	2.16	0.20	1.92				17.99	
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Mar	1.12	0.62	0.13	0.13	0.08	0.77				2.77	
SC Chisel Plow	13 ft	MFWD 190	0.219	1.00	Mar	7.99	5.60	0.97	1.21	0.21	2.11				17.88	
SC Land Plane	15 ft	MFWD 150	0.300	2.00	Apr	17.85	15.28	1.32	2.81	0.60	5.77				43.03	
SC Chisel Plow	13 ft	MFWD 190	0.219	1.00	Apr	7.99	5.60	0.97	1.21	0.21	2.11				17.88	
SC Disk	20 ft	MFWD 190	0.100	1.00	Apr	3.64	2.55	0.77	1.08	0.10	0.96				9.00	
SC Disk	20 ft	MFWD 190	0.100	1.00	Apr	3.64	2.55	0.77	1.08	0.10	0.96				9.00	
SC 3Row (Marker)	18 ft	MFWD 150	0.120	1.00	May	3.57	3.05	0.59	0.70	0.12	1.15				9.06	
SC 3Row (Hipper)	18 ft	MFWD 150	0.120	2.00	May	7.14	6.11	1.37	1.68	0.24	2.30				18.60	
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	May	1.12	0.62	0.13	0.13	0.08	0.77				2.77	
SC Boom Sprayer	16 ft	MFWD 150	0.120	1.00	Jun	3.57	3.05	0.26	0.29	0.12	1.15				8.32	
Roundup Power Max	pt											1.3750	2.83	3.89	3.89	
SC 3Row Plow	18 ft	MFWD 190	0.120	1.00	Jul	4.37	3.06	1.11	1.36	0.12	1.15				11.05	
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Jul	1.12	0.62	0.13	0.13	0.08	0.77				2.77	
SC Boom Sprayer	16 ft	MFWD 150	0.120	1.00	Aug	3.57	3.05	0.26	0.29	0.12	1.15				8.32	
Roundup Power Max	pt											1.3750	2.83	3.89	3.89	
SC 3Row (Hipper)	18 ft	MFWD 190	0.120	1.00	Aug	4.37	3.06	0.69	0.84	0.12	1.15				10.11	
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Aug	1.12	0.62	0.13	0.13	0.08	0.77				2.77	
Crop Consultant	acre			1.00	Sep							1.0000	5.00	5.00	5.00	
TOTALS						93.61	71.40	13.01	17.99	3.08	29.59				12.78	238.38
INTEREST ON OPERATING CAPITAL															3.13	
UNALLOCATED LABOR															0.00	
TOTAL SPECIFIED COST															241.51	

Table 5.A Estimated costs per acre,
Cultured seed cane,
Sugarcane, Louisiana, 2013.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
SEED/PLANTS					
SC Cultured seedcane	acre	484.00	1.0000	484.00	_____
LA Hired Labor					
Self-Propelled	hour	9.60	0.3303	3.17	_____
DIESEL FUEL					
Self-Propelled	gal	3.31	2.1021	6.96	_____
REPAIR & MAINTENANCE					
Self-Propelled	acre	7.74	1.0000	7.74	_____
INTEREST ON OP. CAP.	acre	21.33	1.0000	21.33	_____

TOTAL DIRECT EXPENSES				523.20	_____
FIXED EXPENSES					
Self-Propelled	acre	13.06	1.0000	13.06	_____

TOTAL FIXED EXPENSES				13.06	_____

TOTAL SPECIFIED EXPENSES				536.26	

Table 5.B Estimated resource use and costs for field operations, per acre
Cultured seed cane,
Sugarcane, Louisiana, 2013.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
SC Cultured seedcane	acre			1.00	Sep	-----dollars-----						dollars			
SC Loader 2Rw		12 ft	0.300	1.00	Sep	14.70	13.06			0.33	3.17	1.0000	484.00	484.00	484.00
						-----						-----dollars-----			
TOTALS						14.70	13.06	0.00	0.00	0.33	3.17			484.00	514.93
INTEREST ON OPERATING CAPITAL														21.33	
UNALLOCATED LABOR														0.00	
TOTAL SPECIFIED COST														536.26	

Table 6.A Estimated costs per acre,
Wholestalk seedcane harvest,
Sugarcane, Louisiana, 2013.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
LA OPERATOR LABOR					
Self-Propelled	hour	15.30	0.4268	6.53	_____
LA Hired Labor					
Tractors	hour	9.60	0.6300	6.05	_____
Self-Propelled	hour	9.60	0.3303	3.17	_____
DIESEL FUEL					
Tractors	gal	3.31	4.5553	15.08	_____
Self-Propelled	gal	3.31	5.2061	17.23	_____
REPAIR & MAINTENANCE					
Implements	acre	0.76	1.0000	0.76	_____
Tractors	acre	2.39	1.0000	2.39	_____
Self-Propelled	acre	24.72	1.0000	24.72	_____
INTEREST ON OP. CAP.	acre	3.24	1.0000	3.24	_____
TOTAL DIRECT EXPENSES				79.17	_____
FIXED EXPENSES					
Implements	acre	1.01	1.0000	1.01	_____
Tractors	acre	14.61	1.0000	14.61	_____
Self-Propelled	acre	35.11	1.0000	35.11	_____
TOTAL FIXED EXPENSES				50.73	_____
TOTAL SPECIFIED EXPENSES				129.90	_____

Table 6.B Estimated resource use and costs for field operations, per acre
Wholestalk seedcane harvest,
Sugarcane, Louisiana, 2013.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
SC Harvester 2Rw		12 ft	0.388	1.00	Sep	27.25	22.05			0.42	6.53				55.83
SC Loader 2Rw		12 ft	0.300	1.00	Sep	14.70	13.06			0.33	3.17				30.93
SC Cane Wagon 10T	10 Ton	MFWD 150	0.500	1.00	Sep	16.35	13.99	0.63	0.88	0.55	5.28				37.13
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Sep	1.12	0.62	0.13	0.13	0.08	0.77				2.77
TOTALS						59.42	49.72	0.76	1.01	1.38	15.75			0.00	126.66
INTEREST ON OPERATING CAPITAL															3.24
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															129.90

Table 7.A Estimated costs per acre,
Billet seedcane harvest,
Sugarcane, Louisiana, 2013.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
LA OPERATOR LABOR					
Self-Propelled	hour	15.30	0.7700	11.78	_____
LA Hired Labor					
Tractors	hour	9.60	0.7400	7.11	_____
DIESEL FUEL					
Tractors	gal	3.31	5.4046	17.89	_____
Self-Propelled	gal	3.31	8.4000	27.80	_____
REPAIR & MAINTENANCE					
Implements	acre	5.46	1.0000	5.46	_____
Tractors	acre	2.84	1.0000	2.84	_____
Self-Propelled	acre	27.07	1.0000	27.07	_____
INTEREST ON OP. CAP.	acre	4.25	1.0000	4.25	_____
TOTAL DIRECT EXPENSES				104.20	_____
FIXED EXPENSES					
Implements	acre	4.25	1.0000	4.25	_____
Tractors	acre	17.41	1.0000	17.41	_____
Self-Propelled	acre	32.93	1.0000	32.93	_____
TOTAL FIXED EXPENSES				54.59	_____
TOTAL SPECIFIED EXPENSES				158.79	_____

Table 7.B Estimated resource use and costs for field operations, per acre
Billet seedcane harvest,
Sugarcane, Louisiana, 2013.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF TIMES RATE OVER MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
				DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
				-----dollars-----				dollars		-----dollars-----			
SC Billet Harvester	6 ft	0.700	1.00	Sep	54.87	32.93	5.33	4.12	0.77	11.78			99.58
SC Cane Wgn Billt HD 10Ton	MFWD 150	0.600	1.00	Sep	19.61	16.79	0.13	0.13	0.66	6.34			52.19
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Sep	1.12	0.62	0.13	0.13	0.08	0.77		2.77
TOTALS					75.60	50.34	5.46	4.25	1.51	18.89		0.00	154.54
INTEREST ON OPERATING CAPITAL													4.25
UNALLOCATED LABOR													0.00
TOTAL SPECIFIED COST													158.79

Table 8.A Estimated costs per acre,
Hand planting, 1-Row Wholestalk,
Sugarcane, Louisiana, 2013.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZERS					
LA Nitrogen	lb	0.56	15.0000	8.40	_____
LA Phosphate	lb	0.65	45.0000	29.25	_____
LA Potash	lb	0.47	45.0000	21.15	_____
HERBICIDES					
Sencor DF	lb	14.85	1.5000	22.28	_____
Prowl 3.3 EC	pt	2.75	7.2000	19.80	_____
LA SC Planting Labor					
Special Labor	acre	25.00	3.0000	75.00	_____
LA Hired Labor					
Tractors	hour	9.60	2.2505	21.61	_____
DIESEL FUEL					
Tractors	gal	3.31	17.0264	56.36	_____
REPAIR & MAINTENANCE					
Implements	acre	16.37	1.0000	16.37	_____
Tractors	acre	8.58	1.0000	8.58	_____
INTEREST ON OP. CAP.	acre	1.29	1.0000	1.29	_____
TOTAL DIRECT EXPENSES				280.09	_____
FIXED EXPENSES					
Implements	acre	25.26	1.0000	25.26	_____
Tractors	acre	52.81	1.0000	52.81	_____
TOTAL FIXED EXPENSES				78.07	_____
TOTAL SPECIFIED EXPENSES				358.16	_____

Table 8.B Estimated resource use and costs for field operations, per acre
Hand planting, 1-Row Wholestalk,
Sugarcane, Louisiana, 2013.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT		TOTAL COST	
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE		COST
						-----dollars-----				dollars		-----dollars-----			
SC Rototiller	18 ft	MFWD 190	0.219	1.00	Sep	7.99	5.60	3.52	3.61	0.21	2.11			22.83	
SC 3Row (Hipper)	18 ft	MFWD 150	0.120	1.00	Sep	3.57	3.05	0.69	0.84	0.12	1.15			9.30	
LA Nitrogen	lb											15.0000	0.56	8.40	
LA Phosphate	lb											45.0000	0.65	29.25	
LA Potash	lb											45.0000	0.47	21.15	
SC 3Row (Opener)	18 ft	MFWD 150	0.120	1.00	Sep	3.57	3.05	0.47	0.58	0.12	1.15			8.82	
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Sep	1.12	0.62	0.13	0.13	0.08	0.77			2.77	
SC Cane Planters Aid	6 ft	MFWD 150	1.000	1.00	Sep	29.72	25.44	8.44	17.78	1.00	9.60			90.98	
LA SC Planting Labor	acre									3.00	75.00			75.00	
SC 3Row (Cover)	18 ft	2WD 170	0.120	1.00	Sep	3.94	2.87	1.44	0.46	0.12	1.16			9.87	
SC Flat Roller	18 ft	MFWD 150	0.190	1.00	Sep	5.65	4.84	0.47	0.47	0.19	1.83			13.26	
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Sep	1.12	0.62	0.13	0.13	0.08	0.77			2.77	
SC Boom Sprayer	16 ft	MFWD 150	0.120	1.00	Sep	3.57	3.05	0.26	0.29	0.12	1.15			8.32	
Sencor DF	lb											1.5000	14.85	22.28	
Prowl 3.3 EC	pt											7.2000	2.75	19.80	
SC 3Row (Hipper)	18 ft	MFWD 150	0.120	1.00	Oct	3.57	3.05	0.69	0.84	0.12	1.15			9.30	
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Oct	1.12	0.62	0.13	0.13	0.08	0.77			2.77	
TOTALS						64.94	52.81	16.37	25.26	5.25	96.61			100.88	356.87
INTEREST ON OPERATING CAPITAL															1.29
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															358.16

Table 9.A Estimated costs per acre,
Mechanical planting, 1-Row
Wholestalk, Sugarcane, Louisiana, 2013.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZERS					
LA Nitrogen	lb	0.56	15.0000	8.40	_____
LA Phosphate	lb	0.65	45.0000	29.25	_____
LA Potash	lb	0.47	45.0000	21.15	_____
HERBICIDES					
Sencor DF	lb	14.85	1.5000	22.28	_____
Prowl 3.3 EC	pt	2.75	7.2000	19.80	_____
LA SC Planting Labor					
Special Labor	acre	25.00	2.0000	50.00	_____
LA Hired Labor					
Tractors	hour	9.60	1.9205	18.44	_____
DIESEL FUEL					
Tractors	gal	3.31	14.3544	47.51	_____
REPAIR & MAINTENANCE					
Implements	acre	11.62	1.0000	11.62	_____
Tractors	acre	7.25	1.0000	7.25	_____
INTEREST ON OP. CAP.	acre	9.81	1.0000	9.81	_____
TOTAL DIRECT EXPENSES				245.51	_____
FIXED EXPENSES					
Implements	acre	15.24	1.0000	15.24	_____
Tractors	acre	44.62	1.0000	44.62	_____
TOTAL FIXED EXPENSES				59.86	_____
TOTAL SPECIFIED EXPENSES				305.37	_____

Table 9.B Estimated resource use and costs for field operations, per acre
Mechanical planting, 1-Row Wholestalk,
Sugarcane, Louisiana, 2013.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
SC Rototiller	18 ft	MFWD 190	0.219	1.00	Sep	7.99	5.60	3.52	3.61	0.21	2.11				22.83
SC 3Row (Hipper)	18 ft	MFWD 150	0.120	1.00	Sep	3.57	3.05	0.69	0.84	0.12	1.15				9.30
LA Nitrogen	lb											15.0000	0.56	8.40	8.40
LA Phosphate	lb											45.0000	0.65	29.25	29.25
LA Potash	lb											45.0000	0.47	21.15	21.15
SC 3Row (Opener)	18 ft	MFWD 150	0.120	1.00	Sep	3.57	3.05	0.47	0.58	0.12	1.15				8.82
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Sep	1.12	0.62	0.13	0.13	0.08	0.77				2.77
SC Cane Plt-Whlstalk	6 ft	MFWD 150	0.670	1.00	Sep	19.90	17.05	3.69	7.76	0.67	6.43				54.83
LA SC Planting Labor	acre									2.00	50.00				50.00
SC 3Row (Cover)	18 ft	MFWD 150	0.120	1.00	Sep	3.58	3.07	1.44	0.46	0.12	1.16				9.71
SC Flat Roller	18 ft	MFWD 150	0.190	1.00	Sep	5.65	4.84	0.47	0.47	0.19	1.83				13.26
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Sep	1.12	0.62	0.13	0.13	0.08	0.77				2.77
SC Boom Sprayer	16 ft	MFWD 150	0.120	1.00	Oct	3.57	3.05	0.26	0.29	0.12	1.15				8.32
Sencor DF	lb											1.5000	14.85	22.28	22.28
Prowl 3.3 EC	pt											7.2000	2.75	19.80	19.80
SC 3Row (Hipper)	18 ft	MFWD 150	0.120	1.00	Nov	3.57	3.05	0.69	0.84	0.12	1.15				9.30
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Nov	1.12	0.62	0.13	0.13	0.08	0.77				2.77
TOTALS						54.76	44.62	11.62	15.24	3.92	68.44			100.88	295.56
INTEREST ON OPERATING CAPITAL															9.81
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															305.37

Table 10.A Estimated costs per acre,
Mechanical planting, 1-Row Billet,
Sugarcane, Louisiana, 2013.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZERS					
LA Nitrogen	lb	0.56	15.0000	8.40	_____
LA Phosphate	lb	0.65	45.0000	29.25	_____
LA Potash	lb	0.47	45.0000	21.15	_____
HERBICIDES					
Sencor DF	lb	14.85	1.5000	22.28	_____
Prowl 3.3 EC	pt	2.75	7.2000	19.80	_____
LA SC Planting Labor					
Special Labor	acre	25.00	1.0000	25.00	_____
LA Hired Labor					
Tractors	hour	9.60	1.9205	18.44	_____
DIESEL FUEL					
Tractors	gal	3.31	14.3544	47.51	_____
REPAIR & MAINTENANCE					
Implements	acre	11.62	1.0000	11.62	_____
Tractors	acre	7.25	1.0000	7.25	_____
INTEREST ON OP. CAP.	acre	8.74	1.0000	8.74	_____

TOTAL DIRECT EXPENSES				219.44	_____
FIXED EXPENSES					
Implements	acre	15.24	1.0000	15.24	_____
Tractors	acre	44.62	1.0000	44.62	_____

TOTAL FIXED EXPENSES				59.86	_____

TOTAL SPECIFIED EXPENSES				279.30	_____

Table 10.B Estimated resource use and costs for field operations, per acre
Mechanical planting, 1-Row Billet,
Sugarcane, Louisiana, 2013.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----		-----dollars-----		dollars		-----dollars-----			
SC Rototiller	18 ft	MFWD 190	0.219	1.00	Sep	7.99	5.60	3.52	3.61	0.21	2.11				22.83
SC 3Row (Hipper)	18 ft	MFWD 150	0.120	1.00	Sep	3.57	3.05	0.69	0.84	0.12	1.15				9.30
LA Nitrogen	lb											15.0000	0.56	8.40	8.40
LA Phosphate	lb											45.0000	0.65	29.25	29.25
LA Potash	lb											45.0000	0.47	21.15	21.15
SC 3Row (Opener)	18 ft	MFWD 150	0.120	1.00	Sep	3.57	3.05	0.47	0.58	0.12	1.15				8.82
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Sep	1.12	0.62	0.13	0.13	0.08	0.77				2.77
SC Cane Plt-1R Bille	1 row	MFWD 150	0.670	1.00	Sep	19.90	17.05	3.69	7.76	0.67	6.43				54.83
LA SC Planting Labor	acre									1.00	25.00				25.00
SC 3Row (Cover)	18 ft	MFWD 150	0.120	1.00	Sep	3.58	3.07	1.44	0.46	0.12	1.16				9.71
SC Flat Roller	18 ft	MFWD 150	0.190	1.00	Sep	5.65	4.84	0.47	0.47	0.19	1.83				13.26
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Sep	1.12	0.62	0.13	0.13	0.08	0.77				2.77
SC Boom Sprayer	16 ft	MFWD 150	0.120	1.00	Oct	3.57	3.05	0.26	0.29	0.12	1.15				8.32
Sencor DF	lb											1.5000	14.85	22.28	22.28
Prowl 3.3 EC	pt											7.2000	2.75	19.80	19.80
SC 3Row (Hipper)	18 ft	MFWD 150	0.120	1.00	Nov	3.57	3.05	0.69	0.84	0.12	1.15				9.30
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Nov	1.12	0.62	0.13	0.13	0.08	0.77				2.77
TOTALS						54.76	44.62	11.62	15.24	2.92	43.44			100.88	270.56
INTEREST ON OPERATING CAPITAL															8.74
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															279.30

Table 11.A Estimated costs per acre,
Plant cane field operations,
Sugarcane, Louisiana, 2013.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (2 gal)	appl	4.00	2.0000	8.00	_____
FERTILIZERS					
LA Nitrogen	lb	0.56	80.0000	44.80	_____
LA Potash	lb	0.47	80.0000	37.60	_____
HERBICIDES					
Sencor DF	lb	14.85	0.7500	11.14	_____
Prowl 3.3 EC	pt	2.75	3.6000	9.90	_____
LA Weedmaster	qt	2.78	0.7500	2.09	_____
LA Asulox/Asulam	gal	36.75	0.5000	18.38	_____
Treflan HFP	pt	2.84	4.0000	11.36	_____
Atrazine 4L	pt	1.56	4.0000	6.24	_____
INSECTICIDES					
Confirm 2F	oz	1.94	16.0000	31.04	_____
SERVICE FEE					
Crop Consultant	acre	5.00	1.0000	5.00	_____
ADJUVANTS					
Surfactant	pt	3.50	3.2000	11.20	_____
LA Hired Labor					
Tractors	hour	9.60	1.9381	18.60	_____
DIESEL FUEL					
Tractors	gal	3.31	13.4200	44.42	_____
REPAIR & MAINTENANCE					
Implements	acre	6.69	1.0000	6.69	_____
Tractors	acre	6.90	1.0000	6.90	_____
INTEREST ON OP. CAP.	acre	5.63	1.0000	5.63	_____
TOTAL DIRECT EXPENSES				278.99	_____
FIXED EXPENSES					
Implements	acre	8.50	1.0000	8.50	_____
Tractors	acre	42.21	1.0000	42.21	_____
TOTAL FIXED EXPENSES				50.71	_____
TOTAL SPECIFIED EXPENSES				329.70	_____

Table 11.B Estimated resource use and costs for field operations, per acre
 Plant cane field operations,
 Sugarcane, Louisiana, 2013.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
SC 3Row (Offbar)	18 ft	MFWD 150	0.120	1.00	Feb	3.57	3.05	0.69	0.85	0.12	1.15				9.31
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Feb	1.12	0.62	0.13	0.13	0.08	0.77				2.77
SC Boom Sprayer	16 ft	MFWD 150	0.120	1.00	Mar	3.57	3.05	0.26	0.29	0.12	1.15				8.32
Sencor DF	lb											0.7500	14.85	11.14	11.14
Prowl 3.3 EC	pt											3.6000	2.75	9.90	9.90
LA Weedmaster	qt											0.7500	2.78	2.09	2.09
SC Fert 3Row Lq App	18 ft	MFWD 150	0.130	1.00	Mar	3.86	3.31	0.36	0.56	0.13	1.25				9.34
LA Nitrogen	lb											80.0000	0.56	44.80	44.80
SC 3Row (Hipper)	18 ft	MFWD 150	0.120	2.00	Mar	7.14	6.11	1.37	1.68	0.24	2.30				18.60
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Mar	1.12	0.62	0.13	0.13	0.08	0.77				2.77
SC Fert DrySlingApp	42 ft	MFWD 150	0.059	1.00	Apr	1.78	1.53	0.23	0.32	0.05	0.58				4.44
LA Potash	lb											80.0000	0.47	37.60	37.60
Disk Bed (Hipper)	4R-38	MFWD 150	0.147	1.00	Apr	4.38	3.76	0.28	0.76	0.14	1.42				10.60
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Apr	1.12	0.62	0.13	0.13	0.08	0.77				2.77
SC 3Row (Hipper)	18 ft	MFWD 150	0.120	1.00	Apr	3.57	3.05	0.69	0.84	0.12	1.15				9.30
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Apr	1.12	0.62	0.13	0.13	0.08	0.77				2.77
SC Boom Sprayer	16 ft	MFWD 150	0.120	1.00	Apr	3.57	3.05	0.26	0.29	0.12	1.15				8.32
LA Asulox/Asulam	gal											0.5000	36.75	18.38	18.38
Surfactant	pt											1.6000	3.50	5.60	5.60
SC 3Row (Hipper)	18 ft	MFWD 150	0.120	1.00	May	3.57	3.05	0.69	0.84	0.12	1.15				9.30
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	May	1.12	0.62	0.13	0.13	0.08	0.77				2.77
SC Boom Sprayer	16 ft	MFWD 150	0.120	1.00	May	3.57	3.05	0.26	0.29	0.12	1.15				8.32
Treflan HFP	pt											4.0000	2.84	11.36	11.36
SC 3Row (Hipper)	18 ft	MFWD 150	0.120	1.00	May	3.57	3.05	0.69	0.84	0.12	1.15				9.30
SC Boom Sprayer	16 ft	MFWD 150	0.120	1.00	May	3.57	3.05	0.26	0.29	0.12	1.15				8.32
Atrazine 4L	pt											4.0000	1.56	6.24	6.24
Surfactant	pt											1.6000	3.50	5.60	5.60
App by Air (2 gal)	appl			1.00	Jun							1.0000	4.00	4.00	4.00
Confirm 2F	oz											8.0000	1.94	15.52	15.52
App by Air (2 gal)	appl			1.00	Jul							1.0000	4.00	4.00	4.00
Confirm 2F	oz											8.0000	1.94	15.52	15.52
Crop Consultant	acre			1.00	Aug							1.0000	5.00	5.00	5.00
TOTALS						51.32	42.21	6.69	8.50	1.93	18.60			196.75	324.07
INTEREST ON OPERATING CAPITAL															5.63
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															329.70

Table 12.A Estimated costs per acre,
 First Stubble field operations,
 Sugarcane, Louisiana, 2013.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (2 gal)	appl	4.00	3.0000	12.00	_____
FERTILIZERS					
LA Nitrogen	lb	0.56	100.0000	56.00	_____
LA Phosphate	lb	0.65	40.0000	26.00	_____
LA Potash	lb	0.47	100.0000	47.00	_____
Sulfur	lb	0.27	24.0000	6.48	_____
HERBICIDES					
Sencor DF	lb	14.85	0.7500	11.14	_____
Prowl 3.3 EC	pt	2.75	3.6000	9.90	_____
LA Weedmaster	qt	2.78	0.7500	2.09	_____
LA Asulox/Asulam	gal	36.75	0.5000	18.38	_____
Treflan HFP	pt	2.84	4.0000	11.36	_____
Atrazine 4L	pt	1.56	4.0000	6.24	_____
INSECTICIDES					
Confirm 2F	oz	1.94	16.0000	31.04	_____
GROWTH REGULATORS					
LA Polado	oz	0.38	8.0000	3.04	_____
SERVICE FEE					
Crop Consultant	acre	5.00	1.0000	5.00	_____
ADJUVANTS					
Surfactant	pt	3.50	4.8000	16.80	_____
LA Hired Labor					
Tractors	hour	9.60	2.1506	20.63	_____
DIESEL FUEL					
Tractors	gal	3.31	15.0607	49.86	_____
REPAIR & MAINTENANCE					
Implements	acre	8.06	1.0000	8.06	_____
Tractors	acre	7.79	1.0000	7.79	_____
INTEREST ON OP. CAP.	acre	7.51	1.0000	7.51	_____
TOTAL DIRECT EXPENSES				356.32	_____
FIXED EXPENSES					
Implements	acre	9.74	1.0000	9.74	_____
Tractors	acre	47.61	1.0000	47.61	_____
TOTAL FIXED EXPENSES				57.35	_____
TOTAL SPECIFIED EXPENSES				413.67	_____

Table 12.B Estimated resource use and costs for field operations, per acre
 First Stubble field operations,
 Sugarcane, Louisiana, 2013.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
SC 3Row (Offbar)	18 ft	MFWD 150	0.120	2.00	Feb	7.14	6.11	1.38	1.70	0.24	2.30				18.63
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Feb	1.12	0.62	0.13	0.13	0.08	0.77				2.77
SC Boom Sprayer	16 ft	MFWD 150	0.120	1.00	Mar	3.57	3.05	0.26	0.29	0.12	1.15				8.32
Sencor DF	lb											0.7500	14.85	11.14	11.14
Prowl 3.3 EC	pt											3.6000	2.75	9.90	9.90
LA Weedmaster	qt											0.7500	2.78	2.09	2.09
SC Fert 3Row Lq App	18 ft	MFWD 150	0.130	1.00	Mar	3.86	3.31	0.36	0.56	0.13	1.25				9.34
LA Nitrogen	lb											100.0000	0.56	56.00	56.00
SC 3Row (Offbar)	18 ft	MFWD 150	0.120	2.00	Mar	7.14	6.11	1.38	1.70	0.24	2.30				18.63
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Mar	1.12	0.62	0.13	0.13	0.08	0.77				2.77
SC Fert DrySlingApp	42 ft	MFWD 150	0.059	1.00	Mar	1.78	1.53	0.23	0.32	0.05	0.58				4.44
LA Phosphate	lb											40.0000	0.65	26.00	26.00
LA Potash	lb											100.0000	0.47	47.00	47.00
Sulfur	lb											24.0000	0.27	6.48	6.48
SC 3Row (Hipper)	18 ft	MFWD 150	0.120	1.00	Mar	3.57	3.05	0.69	0.84	0.12	1.15				9.30
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Mar	1.12	0.62	0.13	0.13	0.08	0.77				2.77
SC Boom Sprayer	16 ft	MFWD 150	0.120	1.00	Mar	3.57	3.05	0.26	0.29	0.12	1.15				8.32
Surfactant	pt											1.6000	3.50	5.60	5.60
SC 3Row (Hipper)	18 ft	MFWD 150	0.120	1.00	Apr	3.57	3.05	0.69	0.84	0.12	1.15				9.30
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Apr	1.12	0.62	0.13	0.13	0.08	0.77				2.77
SC Boom Sprayer	16 ft	MFWD 150	0.120	1.00	Apr	3.57	3.05	0.26	0.29	0.12	1.15				8.32
LA Asulox/Asulam	gal											0.5000	36.75	18.38	18.38
Surfactant	pt											1.6000	3.50	5.60	5.60
SC 3Row (Hipper)	18 ft	MFWD 150	0.120	1.00	May	3.57	3.05	0.69	0.84	0.12	1.15				9.30
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	May	1.12	0.62	0.13	0.13	0.08	0.77				2.77
SC Boom Sprayer	16 ft	MFWD 150	0.120	1.00	May	3.57	3.05	0.26	0.29	0.12	1.15				8.32
Treflan HPP	pt											4.0000	2.84	11.36	11.36
SC 3Row (Hipper)	18 ft	MFWD 150	0.120	1.00	May	3.57	3.05	0.69	0.84	0.12	1.15				9.30
SC Boom Sprayer	16 ft	MFWD 150	0.120	1.00	May	3.57	3.05	0.26	0.29	0.12	1.15				8.32
Atrazine 4L	pt											4.0000	1.56	6.24	6.24
Surfactant	pt											1.6000	3.50	5.60	5.60
App by Air (2 gal)	appl			1.00	Jun							1.0000	4.00	4.00	4.00
Confirm 2F	oz											8.0000	1.94	15.52	15.52
App by Air (2 gal)	appl			1.00	Jul							1.0000	4.00	4.00	4.00
Confirm 2F	oz											8.0000	1.94	15.52	15.52
App by Air (2 gal)	appl			1.00	Sep							1.0000	4.00	4.00	4.00
LA Polado	oz											8.0000	0.38	3.04	3.04
Crop Consultant	acre			1.00	Sep							1.0000	5.00	5.00	5.00
TOTALS						57.65	47.61	8.06	9.74	2.15	20.63			262.47	406.16
INTEREST ON OPERATING CAPITAL															7.51
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															413.67

Table 13.A Estimated costs per acre,
 Second Stubble and older field operations,
 Sugarcane, Louisiana, 2013.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (2 gal)	appl	4.00	3.0000	12.00	_____
FERTILIZERS					
LA Nitrogen	lb	0.56	110.0000	61.60	_____
LA Phosphate	lb	0.65	40.0000	26.00	_____
LA Potash	lb	0.47	100.0000	47.00	_____
Sulfur	lb	0.27	24.0000	6.48	_____
HERBICIDES					
Sencor DF	lb	14.85	0.7500	11.14	_____
Prowl 3.3 EC	pt	2.75	3.6000	9.90	_____
LA Weedmaster	qt	2.78	0.7500	2.09	_____
LA Asulox/Asulam	gal	36.75	0.5000	18.38	_____
Treflan HFP	pt	2.84	4.0000	11.36	_____
Atrazine 4L	pt	1.56	4.0000	6.24	_____
INSECTICIDES					
Confirm 2F	oz	1.94	16.0000	31.04	_____
GROWTH REGULATORS					
LA Polado	oz	0.38	8.0000	3.04	_____
SERVICE FEE					
Crop Consultant	acre	5.00	1.0000	5.00	_____
ADJUVANTS					
Surfactant	pt	3.50	3.2000	11.20	_____
LA Hired Labor					
Tractors	hour	9.60	2.0306	19.48	_____
DIESEL FUEL					
Tractors	gal	3.31	14.1338	46.79	_____
REPAIR & MAINTENANCE					
Implements	acre	7.80	1.0000	7.80	_____
Tractors	acre	7.29	1.0000	7.29	_____
INTEREST ON OP. CAP.	acre	7.42	1.0000	7.42	_____
TOTAL DIRECT EXPENSES				351.25	_____
FIXED EXPENSES					
Implements	acre	9.45	1.0000	9.45	_____
Tractors	acre	44.56	1.0000	44.56	_____
TOTAL FIXED EXPENSES				54.01	_____
TOTAL SPECIFIED EXPENSES				405.26	_____

Table 13.B Estimated resource use and costs for field operations, per acre
 Second Stubble and older field operations,
 Sugarcane, Louisiana, 2013.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF TIMES			POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
			RATE	OVER	MTH	DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
SC 3Row (Offbar)	18 ft	MFWD 150	0.120	2.00	Feb	7.14	6.11	1.38	1.70	0.24	2.30				18.63
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Feb	1.12	0.62	0.13	0.13	0.08	0.77				2.77
SC Fert 3Row Lq App	18 ft	MFWD 150	0.130	1.00	Mar	3.86	3.31	0.36	0.56	0.13	1.25				9.34
LA Nitrogen	lb											110.0000	0.56	61.60	61.60
SC 3Row (Offbar)	18 ft	MFWD 150	0.120	2.00	Mar	7.14	6.11	1.38	1.70	0.24	2.30				18.63
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Mar	1.12	0.62	0.13	0.13	0.08	0.77				2.77
SC Fert DrySlingApp	42 ft	MFWD 150	0.059	1.00	Mar	1.78	1.53	0.23	0.32	0.05	0.58				4.44
LA Phosphate	lb											40.0000	0.65	26.00	26.00
LA Potash	lb											100.0000	0.47	47.00	47.00
Sulfur	lb											24.0000	0.27	6.48	6.48
SC 3Row (Hipper)	18 ft	MFWD 150	0.120	1.00	Mar	3.57	3.05	0.69	0.84	0.12	1.15				9.30
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Mar	1.12	0.62	0.13	0.13	0.08	0.77				2.77
SC Boom Sprayer	16 ft	MFWD 150	0.120	1.00	Mar	3.57	3.05	0.26	0.29	0.12	1.15				8.32
Sencor DF	lb											0.7500	14.85	11.14	11.14
Prowl 3.3 EC	pt											3.6000	2.75	9.90	9.90
LA Weedmaster	qt											0.7500	2.78	2.09	2.09
SC 3Row (Hipper)	18 ft	MFWD 150	0.120	1.00	Apr	3.57	3.05	0.69	0.84	0.12	1.15				9.30
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	Apr	1.12	0.62	0.13	0.13	0.08	0.77				2.77
SC Boom Sprayer	16 ft	MFWD 150	0.120	1.00	Apr	3.57	3.05	0.26	0.29	0.12	1.15				8.32
LA Asulox/Asulam	gal											0.5000	36.75	18.38	18.38
Surfactant	pt											1.6000	3.50	5.60	5.60
SC 3Row (Hipper)	18 ft	MFWD 150	0.120	1.00	May	3.57	3.05	0.69	0.84	0.12	1.15				9.30
SC Drain Cleaner	6 ft	MFWD 75	0.080	1.00	May	1.12	0.62	0.13	0.13	0.08	0.77				2.77
SC Boom Sprayer	16 ft	MFWD 150	0.120	1.00	May	3.57	3.05	0.26	0.29	0.12	1.15				8.32
Treflan HFP	pt											4.0000	2.84	11.36	11.36
SC 3Row (Hipper)	18 ft	MFWD 150	0.120	1.00	May	3.57	3.05	0.69	0.84	0.12	1.15				9.30
SC Boom Sprayer	16 ft	MFWD 150	0.120	1.00	May	3.57	3.05	0.26	0.29	0.12	1.15				8.32
Atrazine 4L	pt											4.0000	1.56	6.24	6.24
Surfactant	pt											1.6000	3.50	5.60	5.60
App by Air (2 gal)	appl			1.00	Jun							1.0000	4.00	4.00	4.00
Confirm 2F	oz											8.0000	1.94	15.52	15.52
App by Air (2 gal)	appl			1.00	Jul							1.0000	4.00	4.00	4.00
Confirm 2F	oz											8.0000	1.94	15.52	15.52
App by Air (2 gal)	appl			1.00	Aug							1.0000	4.00	4.00	4.00
LA Polado	oz											8.0000	0.38	3.04	3.04
Crop Consultant	acre			1.00	Sep							1.0000	5.00	5.00	5.00
TOTALS						54.08	44.56	7.80	9.45	2.03	19.48			262.47	397.84
INTEREST ON OPERATING CAPITAL															7.42
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															405.26

Table 14.A Estimated costs per acre,
Harvest-1R Combine Harvester, 10-Ton High Dump wagons,
Custom truck/trailer haul, Sugarcane, Louisiana, 2013.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
LA OPERATOR LABOR					
Self-Propelled	hour	15.30	0.7700	11.78	_____
LA Hired Labor					
Tractors	hour	9.60	2.0600	19.79	_____
DIESEL FUEL					
Tractors	gal	3.31	15.5962	51.63	_____
Self-Propelled	gal	3.31	8.4000	27.80	_____
REPAIR & MAINTENANCE					
Implements	acre	16.12	1.0000	16.12	_____
Tractors	acre	8.32	1.0000	8.32	_____
Self-Propelled	acre	27.07	1.0000	27.07	_____
INTEREST ON OP. CAP.	acre	6.34	1.0000	6.34	_____
TOTAL DIRECT EXPENSES				168.85	_____
FIXED EXPENSES					
Implements	acre	12.49	1.0000	12.49	_____
Tractors	acre	50.99	1.0000	50.99	_____
Self-Propelled	acre	32.93	1.0000	32.93	_____
TOTAL FIXED EXPENSES				96.41	_____
TOTAL SPECIFIED EXPENSES				265.26	_____

Table 14.B Estimated resource use and costs for field operations, per acre
Harvest-1R Combine Harvester, 10-Ton High Dump wagons,
Custom truck/trailer haul, Sugarcane, Louisiana, 2013.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT		TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	
						-----dollars-----				dollars		-----dollars-----		
SC Billet Harvester	6 ft	0.700	1.00	Nov	54.87	32.93			0.77	11.78				99.58
SC Cane Wgn Billt HD 10Ton	MFWD 150	0.600	1.00	Nov	19.61	16.79	5.33	4.12	0.66	6.34				52.19
SC Cane Wgn Billt HD 10Ton	MFWD 150	0.600	1.00	Nov	19.61	16.79	5.33	4.12	0.66	6.34				52.19
SC Cane Wgn Billt HD 10Ton	MFWD 150	0.600	1.00	Nov	19.61	16.79	5.33	4.12	0.66	6.34				52.19
SC Drain Cleaner	6 ft	0.080	1.00	Nov	1.12	0.62	0.13	0.13	0.08	0.77				2.77
TOTALS					114.82	83.92	16.12	12.49	2.83	31.57			0.00	258.92
INTEREST ON OPERATING CAPITAL														6.34
UNALLOCATED LABOR														0.00
TOTAL SPECIFIED COST														265.26

Table 15.A Estimated costs per acre,
Harvest-2-row Wholestalk, 10-ton transfer wagons,
Custom truck/trailer haul, Sugarcane, Louisiana, 2013.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
LA OPERATOR LABOR					
Self-Propelled	hour	15.30	0.4268	6.53	_____
LA Hired Labor					
Tractors	hour	9.60	1.2499	12.00	_____
Self-Propelled	hour	9.60	0.6053	5.81	_____
DIESEL FUEL					
Tractors	gal	3.31	9.0717	30.04	_____
Self-Propelled	gal	3.31	6.3811	21.12	_____
REPAIR & MAINTENANCE					
Implements	acre	1.51	1.0000	1.51	_____
Tractors	acre	4.81	1.0000	4.81	_____
Self-Propelled	acre	28.47	1.0000	28.47	_____
INTEREST ON OP. CAP.	acre	4.31	1.0000	4.31	_____
TOTAL DIRECT EXPENSES				114.60	_____
FIXED EXPENSES					
Implements	acre	2.18	1.0000	2.18	_____
Tractors	acre	29.40	1.0000	29.40	_____
Self-Propelled	acre	41.87	1.0000	41.87	_____
TOTAL FIXED EXPENSES				73.45	_____
TOTAL SPECIFIED EXPENSES				188.05	_____

Table 15.B Estimated resource use and costs for field operations, per acre
Harvest-2R Wholestalk, 10-ton transfer wagons,
Custom truck/trailer haul, Sugarcane, Louisiana, 2013.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT		TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	
SC Harvester 2Rw		12 ft	0.388	1.00	Nov	27.25	22.05			0.42	6.53			55.83
SC Burning Unit	18 ft	MFWD 75	0.149	1.00	Nov	2.15	1.42	0.25	0.42	0.14	1.44			5.68
SC Loader 2Rw		12 ft	0.300	1.00	Nov	14.70	13.06			0.33	3.17			30.93
SC Cane Wagon 10T	10 Ton	MFWD 150	0.500	1.00	Nov	16.35	13.99	0.63	0.88	0.55	5.28			37.13
SC Cane Wagon 10T	10 Ton	MFWD 150	0.500	1.00	Nov	16.35	13.99	0.63	0.88	0.55	5.28			37.13
SC Transloader			0.250	1.00	Nov	7.64	6.76			0.27	2.64			17.04
TOTALS						84.44	71.27	1.51	2.18	2.28	24.34		0.00	183.74
INTEREST ON OPERATING CAPITAL														4.31
UNALLOCATED LABOR														0.00
TOTAL SPECIFIED COST														188.05

APPENDIX A

PROCEDURE FOR USING BUDGETS TO ESTIMATE COSTS AND RETURNS

Select the appropriate budgets to reflect your farm situation. This typically includes a cost budget for fallow activities and seedbed preparation, cultured and propagated seedcane, planting seed cane (hand or mechanical), cultural practices for each sugarcane crop (i.e., plantcane, first stubble, second stubble and older, and succession plant as applicable), specified harvest activities, and overhead costs. Income budgets are required for each sugarcane crop producing income.

The situation in this illustration assumes a 1,000 acre sugarcane farm which employs new 3-row equipment and has implemented a cultured seedcane program. The illustration assumes an extended 5 year rotation scheme (harvest through third stubble crop) presented in Table 2A. Its structure contains 20 percent plantcane, 20 percent first stubble, 20 percent second stubble, 20 percent 3rd stubble and 20 percent fallow/plant. Purchased cultured seedcane is expanded twice before being planted as millable cane (plantcane only used for seed), with its first and second stubble being grown for sugar. One acre of propagated seed cane is harvested and used for seed for each five acres to be planted. The cost and yield information used in the illustration comes from tables 4, 5, 6, 8, 9, 11, 12, 13, and 14.

The mill charge is assumed to be payment-in-kind, 39 percent of the total value of raw sugar output. This percentage represents approximately the average share of the sugarcane crop taken by the mill as payment for processing. The illustration assumes a tenant-operator situation, where land cost is 20 percent (one-fifth share) of the raw sugar output remaining after mill charges are removed (12.2% of total production). For illustrative purposes, a selling price of raw sugar of 23.0 cents per pound and a molasses price of 70.0 cents per gallon are used in calculating returns.

COST CALCULATION

Total specified cost per acre presented in each of the budget tables is multiplied by the appropriate number of acres to give total farm cost.

Crop	Total Specified Cost per Acre	Acres	Total Farm Cost
	(dollars/acre)	(acres)	(dollars)
Fallow Field and Seedbed Preparation	241.51	200.00	48,302.00
Cultured Seed Cane	536.26	3.30	1,769.66
Hand Planting Seedcane	358.16	3.30	1,181.93
Wholestalk Seedcane Harvest	129.92	39.40	5,118.85
Mechanical Planting Seedcane	305.40	196.70	60,072.18
Plant Cane Field Operations	329.70	200.00	65,940.00
1st Stubble Field Operations	413.70	200.00	82,740.00
2nd Stubble Field Operations	405.26	200.00	81,052.00
3rd Stubble Field Operations	405.26	200.00	81,052.00
Harvest for Sugar	265.26	760.60	201,756.76
Overhead	30.00	1000.00	30,000.00
			=====
Total Specified Expenses			658,985.37

OUTPUT CALCULATIONS

RAW SUGAR

Total raw sugar output is determined by multiplying the raw sugar yield per acre for each crop by the number of acres of each crop.

Crop	Tons of Cane per Acre	CRS	Raw Sugar per Acre	Acres	Total Raw Sugar
	(tons/acre)	(lbs/ton)	(cwt/acre)	(acres)	(cwt)
Plantcane	37.0	220.00	81.40	160.60	13,073.84
1st Stubble	36.0	220.00	79.20	200.00	15,840.00
2nd Stubble	34.0	220.00	74.80	200.00	14,960.00
3rd Stubble	33.0	220.00	72.60	200.00	14,520.00
Total					58,392.84

MOLASSES

The total molasses output is determined by multiplying the total raw sugar output for each crop by the molasses-to-raw sugar ratio, (assumed to be 3.0 gallons of molasses per cwt. of raw sugar).

Crop	Total Raw Sugar	Molasses/Sugar Ratio	Total Molasses
	(cwt)	(gallons/cwt)	(gallons)
Plantcane	13,073.84	3.0	39,218.52
1st Stubble	15,840.00	3.0	47,520.00
2nd Stubble	14,960.00	3.0	44,880.00
3rd Stubble	14,520.00	3.0	43,560.00
Total			175,178.52

ADJUSTMENT FOR MILL CHARGE AND LAND RENT

Total raw sugar output is reduced by the mill share and the landlord share (39% and 12.2% respectively) to determine the portion of output available to a tenant grower to cover production costs.

Commodity	Total Output	Mill Share	Landlord Share	Grower Share
	----- (cwt) -----			
Sugar	58,392.84	(22,773.21)	(7,123.93)	28,495.71 "one-fifth share rent"
	58,392.84	(22,773.21)	(5,937.79)	29,681.84 "one-sixth share rent"

The returns from molasses are typically shared between the mill, the landlord and the grower. Mill share of molasses arrangements vary from mill to mill. In this example, the mill receives the first six cents of the selling price per gallon and one half of the remaining value. The portion going to the grower (and landlord) is called the molasses bonus. The landlord receives 20 percent of molasses bonus, after mill share is deducted.

Commodity	Total Output	Mill Share	Landlord Share	Grower Share
----- (dollars) -----				
Molasses	122,624.96	(66,567.84)	(11,211.43)	44,845.70

RETURN CALCULATIONS

Net returns to cover cost are calculated by summing income generated by the net output of raw sugar to cover production cost, the molasses bonus, and subtracting the American Sugar Cane League checkoff.

Commodity	Unit	Quantity	Unit Price	Net Returns to Cover Costs
Sugar	cwt.	28,495.71	23.00	655,401.24
Hauling Rebate	tons	19,942.20	0.00	0.00
Molasses bonus	gal.	64,065.29	0.70	44,845.70
ASCL checkoff	tons	26,542.20	-0.14	(3,715.91)
Total				696,531.03

ECONOMIC ANALYSIS

The information resulting from the calculations above can be used to determine total cost per acre and other relevant cost measures per unit of raw sugar.

TOTAL COST PER ACRE

Total cost per acre is simply total farm cost divided by the total acres.

Total Farm Cost	Total Acres	Total Farm Cost per Acre
(dollars)	(acres)	(dollars/acre)
658,985	1,000	658.99

PRODUCTION COST PER UNIT OF OUTPUT AVAILABLE TO COVER PRODUCTION COST

Production cost per unit of output is calculated by reducing total farm cost by the value of the producer's share of molasses, (molasses bonus), then dividing by grower's share of total sugar output to arrive at net production cost per pound of raw sugar. The value of the molasses is removed so that the final measure will be expressed in terms of raw sugar only. This gives the selling price a producer, like the one in the illustration, would need to breakeven.

Total Farm Cost	Molasses Bonus	Adjusted Total Farm Cost	Pounds of Sugar to Cover Cost	Adjusted Total Farm Cost per Pound of Sugar
----- (dollars) -----			(lbs)	(dollars/lb)
<u>Direct Costs</u> 480,488	-44,846	435,642	2,849,571	0.153
<u>Direct and Fixed Costs</u> 628,985	-44,846	584,140	2,849,571	0.205
<u>Direct, Fixed and Overhead Costs</u> 658,985	-44,846	614,140	2,849,571	0.216

Appendix Table 1 Estimated fuel prices, labor wage rates, and interest rates, Louisiana 2013.

ITEM NAME	UNIT	PRICE
dollars		
FUEL TYPES		
Diesel Fuel	gal	3.31
Gasoline	gal	3.40
LABOR TYPES		
Operator	hour	15.30
Hired	hour	9.60
Special	acre	25.00
INTEREST RATES		
Short-term	%	4.25
Intermediate-term	%	5.25

Appendix Table 2. Tractors: estimated useful life, annual use, purchase price, repair cost, fuel consumption rate, and direct and fixed cost per hour, Louisiana 2013.

Item Name	Size	Purchase Price	Annual Use	Useful Life	Fuel Use	Labor	Fuel	R&M	Total Direct	Fixed	Total Cost
		dollars	hours	years	gal/hr	-----\$/hr-----					
Tractor(40-59hp)Cab	2WD 50	35,200	600	8	2.57	9.60	8.51	1.10	19.21	6.73	25.95
Tractor(40-59hp)Cab	MFWD 50	36,700	600	8	2.57	9.60	8.51	1.14	19.26	7.02	26.28
Tractor(40-59hp)RB	2WD 50	20,500	600	8	2.57	9.60	8.51	0.64	18.75	3.92	22.68
Tractor(40-59hp)RB	MFWD 50	29,000	600	8	2.57	9.60	8.51	0.90	19.02	5.54	24.57
Tractor(60-89hp)CAB	2WD 75	45,300	600	8	3.86	9.60	12.77	1.41	23.79	8.66	32.45
Tractor(60-89hp)CAB	MFWD 75	49,400	600	8	3.86	9.60	12.77	1.54	23.92	9.44	33.37
Tractor(60-89hp)RB	2WD 75	33,600	600	8	3.86	9.60	12.77	1.05	23.42	6.42	29.85
Tractor(60-89hp)RB	MFWD 75	40,300	600	8	3.86	9.60	12.77	1.25	23.63	7.70	31.34
Tractor(90-119hp)CB	2WD 105	57,700	600	8	5.40	9.60	17.88	1.80	29.29	11.03	40.32
Tractor(90-119hp)CB	MFWD 105	74,700	600	8	5.40	9.60	17.88	2.33	29.82	14.28	44.11
Tractor(90-119hp)RB	2WD 105	45,800	600	8	5.40	9.60	17.88	1.43	28.92	8.76	37.68
Tractor(90-119hp)RB	MFWD 105	51,800	600	8	5.40	9.60	17.88	1.61	29.10	9.90	39.01
Tractor(120-139hp)CB	2WD 130	82,300	600	8	6.69	9.60	22.14	2.57	34.32	15.74	50.06
Tractor(120-139hp)CB	MFWD 130	101,000	600	8	6.69	9.60	22.14	3.15	34.90	19.32	54.22
Tractor(140-159hp)CB	2WD 150	131,000	600	8	7.72	9.60	25.55	4.09	39.24	25.05	64.30
Tractor(140-159hp)CB	MFWD 150	133,000	600	8	7.72	9.60	25.55	4.15	39.31	25.44	64.75
Tractor(160-179hp)CB	2WD 170	119,000	600	8	8.75	9.60	28.96	3.71	42.28	23.79	66.07
Tractor(160-179hp)CB	MFWD 170	144,000	600	8	8.75	9.60	28.96	4.50	43.06	28.79	71.85
Tractor(160-199hp)CB	Track 180	142,710	600	8	9.26	9.60	30.66	4.45	44.72	28.53	73.26
Tractor(180-199hp)CB	2WD 190	143,000	600	8	9.77	9.60	32.37	4.46	46.43	28.59	75.03
Tractor(180-199hp)CB	MFWD 190	127,500	600	8	9.77	9.60	32.37	3.98	45.95	25.49	71.44
Tractor(200-249hp)CB	4WD 225	147,066	600	8	11.58	9.60	38.33	4.59	52.52	29.40	81.93
Tractor(200-249hp)CB	MFWD 225	208,000	600	8	11.58	9.60	38.33	6.50	54.43	41.58	96.02
Tractor(200-249hp)CB	Track 225	258,000	600	8	11.58	9.60	38.33	8.06	55.99	51.58	107.58
Tractor(250-349hp)CB	4WD 300	262,000	600	8	15.44	9.60	51.11	8.18	68.89	52.38	121.28
Tractor(250-349hp)CB	Track 300	260,000	600	8	15.44	9.60	51.11	8.12	68.83	51.98	120.82
Tractor(350-449hp)CB	4WD 400	300,000	600	8	20.58	9.60	68.14	9.37	87.12	59.98	147.10
Tractor(350-449hp)CB	Track 400	345,000	600	8	20.58	9.60	68.14	10.78	88.53	68.97	157.50
Tractor(450-uphp)CB	TRACK-475	279,879	600	8	24.44	9.60	80.92	8.74	99.27	55.95	155.23

Appendix Table 3. Self-propelled machines: estimated performance rate, useful life, annual use, purchase price, repair cost, fuel consumption rate, and direct and fixed cost per hour and per acre, Louisiana 2013.

Item Name	Size	Purchase Price	Annual Use	Useful Life	Fuel Use	Perf Rate	Labor	Fuel	R&M	Total Direct	Fixed	Total Cost
		dollars	hours	years	gal/hr	hr/ac				\$/acre		
LA Pickup Truck	1/2 ton	25,000	800	5	2.50	1.000	9.60	8.50	2.81	20.91	6.70	27.61
SC Billet Harvester	6 ft	290,000	750	10	12.00	0.700	11.78	27.80	27.06	66.65	32.92	99.57
SC Harvester 1Rw	6 ft	115,000	400	12	6.80	0.875	14.72	19.69	20.96	55.38	27.22	82.61
SC Harvester 2Rw	12 ft	210,000	400	12	8.00	0.388	6.53	10.27	16.97	33.77	22.04	55.82
SC Loader 1Rw	6 ft	85,000	425	10	5.10	0.598	6.32	10.10	8.74	25.17	14.75	39.93
SC Loader 2Rw	12 ft	150,000	425	10	7.00	0.300	3.17	6.95	7.73	17.86	13.06	30.92
SC Transloader		30,000	120	12	4.70	0.250	2.64	3.88	3.75	10.27	6.76	17.04
SC Truck&Trailer	30 Ton	45,000	400	10	7.00	1.000	10.56	23.17	7.87	41.60	13.86	55.46
Sprayer(300-450Gal)	60'	103,000	350	8	5.66	0.017	0.28	0.33	0.09	0.71	0.64	1.36
Sprayer(300-450Gal)	80'	103,000	350	8	5.66	0.013	0.21	0.24	0.07	0.53	0.48	1.02
Sprayer(600-750Gal)	60'	161,000	350	8	10.29	0.017	0.28	0.60	0.15	1.03	1.01	2.05
Sprayer(600-825Gal)	80'	161,000	350	8	10.29	0.013	0.21	0.45	0.11	0.77	0.76	1.54
Sprayer(600-825Gal)	90'	237,000	350	8	10.29	0.011	0.19	0.40	0.14	0.74	0.99	1.73
Sprayer(1000-1400Gal)	90'	272,000	350	8	14.15	0.014	0.22	0.66	0.20	1.09	1.37	2.46
Sprayer(1200PlusGal)	120'	286,000	350	8	15.44	0.008	0.14	0.45	0.13	0.72	0.90	1.63

Appendix Table 4. Implements: estimated performance rate, useful life, annual use, purchase price, repair cost, and direct and fixed cost per hour and per acre, Louisiana 2013.

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	R&M Imp.	Total P.U. Direct	Fixed Imp.	Total P.U. Cost		
			dollars	hours	years	hr/ac				\$/acre				
SC 3Row (Cover)	18 ft	MFWD 150	10,750	200	9	0.120	1.15	3.07	1.43	0.50	6.17	0.45	3.06	9.69
SC 3Row (Hipper)	18 ft	MFWD 150	10,500	200	9	0.120	1.15	3.06	0.68	0.49	5.40	0.84	3.05	9.29
SC 3Row (Marker)	18 ft	MFWD 150	8,800	200	9	0.120	1.15	3.06	0.58	0.49	5.30	0.70	3.05	9.06
SC 3Row (Offbar)	18 ft	MFWD 150	11,500	200	10	0.120	1.15	3.06	0.69	0.49	5.40	0.85	3.05	9.31
SC 3Row (Opener)	18 ft	MFWD 150	7,800	200	10	0.120	1.15	3.06	0.46	0.49	5.18	0.57	3.05	8.81
SC 3Row Plow	18 ft	MFWD 190	17,000	200	9	0.120	1.15	3.88	1.11	0.47	6.62	1.36	3.06	11.04
SC Blade	8 ft	MFWD 150	3,500	100	12	0.877	8.42	22.41	2.55	3.64	37.04	2.25	22.31	61.61
SC Boom Sprayer	16 ft	MFWD 150	2,900	150	10	0.120	1.15	3.06	0.25	0.49	4.97	0.28	3.05	8.31
SC Burning Unit	18 ft	2WD 105	1,300	85	6	0.149	1.43	2.68	0.24	0.27	4.64	0.42	1.65	6.71
SC Cane Planters Aid	6 ft	MFWD 150	4,500	20	20	1.000	9.60	25.55	8.43	4.15	47.74	17.77	25.44	90.96
SC Cane Plt-1R Bille	1 row	MFWD 150	22,000	150	20	0.670	6.43	17.12	3.68	2.78	30.02	7.76	17.04	54.83
SC Cane Plt-3R Bille	3 row	2WD 50	34,000	50	20	0.200	1.92	1.70	5.10	0.12	8.85	10.74	0.78	20.38
SC Cane Plt-Whlstalk	6 ft	MFWD 150	22,000	150	20	0.670	6.43	17.12	3.68	2.78	30.02	7.76	17.04	54.83
Cane Wagon 10T	10 Ton	MFWD 150	7,500	400	15	0.500	5.28	14.05	0.62	2.28	22.24	0.87	12.72	35.84
SC Cane Wgn Billt HD	10Ton	MFWD 150	40,000	750	9	0.600	6.33	16.86	5.33	2.74	31.27	4.12	15.26	50.66
SC Chisel Plow	13 ft	MFWD 190	6,000	200	6	0.219	2.10	7.11	0.96	0.87	11.06	1.21	5.60	17.88
SC Chisel Plow	23 ft	MFWD 190	12,000	200	6	0.120	1.15	3.88	0.49	0.47	6.00	1.32	3.06	10.39
SC Cultimulcher	12 ft	2WD 105	5,500	120	15	0.110	1.05	1.96	0.29	0.19	3.51	0.47	1.21	5.20
SC Cultivate + Post	6 Row	2WD 170	8,200	200	10	0.110	1.05	3.18	0.39	0.40	5.04	0.55	2.61	8.22
SC Cultivator	30" 6 Row	2WD 150	5,350	200	10	0.140	1.34	3.57	0.32	0.57	5.82	0.46	3.50	9.79
SC Disk	12 ft	2WD 50	8,500	200	10	0.149	1.43	1.27	0.56	0.09	3.37	0.78	0.58	4.74
SC Disk	20 ft	MFWD 190	17,500	200	10	0.100	0.96	3.23	0.77	0.39	5.36	1.07	2.54	8.99
SC Disk	26 ft	2WD 170	21,000	200	10	0.069	0.67	2.02	0.64	0.26	3.60	0.90	1.66	6.17
SC Disk + Pre	6 row	2WD 170	9,250	200	10	0.100	0.96	2.89	0.40	0.37	4.63	0.56	2.37	7.58
SC Drain Cleaner	6 ft	MFWD 75	3,750	300	9	0.080	0.76	1.02	0.13	0.10	2.02	0.13	0.61	2.77
SC Fert 3Row Lq App	18 ft	MFWD 150	7,000	200	10	0.130	1.24	3.32	0.36	0.54	5.47	0.56	3.30	9.34
SC Fert DrySlingApp	42 ft	MFWD 150	6,500	150	10	0.059	0.57	1.53	0.22	0.24	2.58	0.32	1.52	4.43
SC Flat Roller	18 ft	MFWD 150	1,400	75	9	0.190	1.82	4.85	0.47	0.79	7.94	0.47	4.83	13.25
SC Hauling Hitch	6 ft	4WD 225	1,000	500	15	1.000	9.60	38.33	0.13	4.59	52.66	0.18	29.40	82.25
SC Land Plane	15 ft	MFWD 150	10,000	200	15	0.300	2.88	7.67	0.66	1.24	12.46	1.40	7.64	21.50
SC Rotary Ditcher	6 ft	MFWD 150	12,500	100	10	0.250	2.40	6.38	3.12	1.03	12.95	3.85	6.36	23.16
SC Rotary Hoe	18 ft	2WD 130	4,500	75	12	0.080	0.76	1.77	0.41	0.20	3.15	0.51	1.25	4.93
SC Rotary Mower	13.1 ft	MFWD 75	7,000	150	10	0.250	2.40	3.19	0.51	0.31	6.42	1.43	1.92	9.78
SC Rototiller	18 ft	MFWD 190	20,000	150	10	0.219	2.10	7.11	3.51	0.87	13.61	3.61	5.60	22.83
SC Tractor Blade	6 ft	2WD 105	3,500	100	15	1.000	9.60	17.88	0.86	1.80	30.15	3.27	11.03	44.46
SC Tractor Spreader	20 ft	2WD 105	700	150	10	0.110	1.05	1.96	0.04	0.19	3.26	0.06	1.21	4.54
SC Trailer Utility	10 ft	2WD 130	2,000	200	15	1.000	9.60	22.14	0.23	2.57	34.55	0.93	15.74	51.23

Appendix Table 5. Operating inputs: estimated prices, Louisiana 2013.

ITEM NAME	UNIT	PRICE	ITEM	UNIT	PRICE	
dollars						
ADJUVANTS						
Crop Oil (Seed Oil)	pt	4.34	Basagran	pt	13.23	
Crop Oil (Petroleum)	pt	3.75	Command 3ME	pt	17.08	
Surfactant	pt	3.50	Direx 4L	pt	3.13	
CUSTOM FERT/LIME						
App Fert by Air	cwt	6.50	Direx 80 DF	lb	7.37	
App Fert by Air(Min)	appl	6.50	Gramoxone Max	pt	5.46	
Custom Spread(Truc)	appl	4.50	Karmex DF	lb	6.81	
Lime (Spread)	ton	45.00	LA Asulox	gal	36.75	
CUSTOM SPRAY						
App by Air (2 gal)	appl	4.00	LA Weedmaster	qt	5.56	
App by Air (3 gal)	appl	4.75	Prowl 3.3 EC	pt	2.75	
App by Air (5 gal)	appl	6.00	Roundup Original	pt	6.00	
App by Air (10 gal)	appl	7.75	Roundup Original Max	oz	0.38	
FERTILIZERS						
Amm Nitrate (34% N)	cwt	22.50	Roundup Power MAX	pt	2.83	
Amm Sulfate (21% N)	cwt	20.70	Roundup WeatherMax	oz	0.24	
Fert 10-34-0	cwt	35.00	Sencor 4F	pt	14.74	
Fert 41-0-0-4	cwt	26.30	Sencor DF	lb	14.85	
LA Nitrogen	lb	0.56	Treflan HFP	pt	2.84	
LA Phosphate	lb	0.65	INSECTICIDES			
LA Potash	lb	0.47	Asana .66 XL	oz	0.75	
Phosphorus(46% P2O5)	cwt	29.30	Baythroid 2	oz	2.27	
Potash (60% K2O)	cwt	29.30	Confirm 2F	oz	1.94	
UAN (32% N)	cwt	21.10	Fury 1.5 EC	oz	1.30	
Urea, Solid (46% N)	cwt	28.40	Karate Z	oz	3.15	
HERBICIDES						
2,4-D Amine 4	pt	1.89	Mustang Max	oz	1.58	
Atrazine 4L	pt	1.56	Thimet 20-G	lb	3.33	
Atrazine 90DF	lb	2.92	RIPENER			
SEED CANE						
				Polado	oz	0.38
				Cultured seedcane	acre	484.00