

## ECONOMIC RESEARCH IN SUGARCANE IN 2002

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Projected costs and returns for the various stages of sugarcane production in Louisiana were estimated for the 2003 crop year. Production and tillage practices, as well as application rates for fertilizer, herbicides, and insecticides, were updated. Input suppliers and equipment dealers were surveyed in 2002 for current input prices. Specific operations for which production costs were estimated included field operations on fallow land, seedbed preparation, cutting and planting heat-treated seedcane, planting cultured seedcane, field operations on plantcane, first stubble, second stubble, and third stubble, succession planting, as well as the costs of harvesting with whole-stalk and combine harvesters. Costs and returns were estimated for tenant-operators, reflecting the predominant land tenure situation, and reflect a mill payment of 39% of production and a land rent payment of 20% of the "after milling crop" proceeds (12.2% of production). Total costs of production plus overhead for crop cycles through harvest of second, third and fourth stubble were estimated and breakeven prices to cover direct and total specified production costs were estimated for one-fifth and one-sixth share rental arrangements. Summary breakeven prices to cover production costs through harvest of third stubble for alternative yield levels are shown in Table 1.

Allocation of sugarcane planting costs entering the 2002 crop year was estimated for planting cultured seedcane, propagated seedcane and plantcane. Table 2 presents the estimated total investment in planting costs associated with standing fields of cultured seedcane in 2002. Total investment in planting costs were estimated to be \$982.16 per acre planted. This cane was assumed to be hand planted in 2001, and the estimated costs include expenses for fallow operations, seedbed preparation, purchase of cultured seedcane, and hand planting. Table 3 presents estimated total investment in planting costs associated with standing fields of propagated seedcane (first expansion) in 2002. In this case, it is assumed cultured seedcane was planted in 2000, then harvested and replanted in 2001. Total investment in planting costs were estimated to be \$594.85 per acre planted. This cost includes the allocated portion of hand planted cultured seedcane harvested and replanted mechanically. Table 4 presents estimated total investment in planting costs associated with standing fields of plantcane in 2002. Total costs were estimated to be \$520.62 per planted acre and represent costs associated with two expansions of cultured seedcane. This cost value represents the total cost of planting 1 acre of sugarcane that will be harvested for sugar (plantcane). Allocated values of this planting cost to stubble crops were estimated at \$390 per acre for first stubble, \$260 per acre for second stubble, and \$130 per acre for third stubble.

Table 1. Projected Breakeven Selling Prices for Raw Sugar for Selected Yield Levels, Harvest Through Third Stubble, Tenant-Operators, Louisiana, 2003

	Selected Yield Levels				
	-20%	-10%	Base	+10%	+20%
Cane yield per harvested acre <sup>1</sup> (tons)	25.8	28.7	32.2	35.4	38.6
Sugar yield per harvested acre <sup>2</sup> (lbs)	5,152	5,732	6,440	7,084	7,728
Sugar yield per rotational (farm)	3,924	4,365	4,905	5,395	5,885

One-Fifth Land Share Rent:

	-----pounds of sugar per rotational acre-----				
Share of production per rotational					
Mill share (39.0%)	1,530	1,702	1,913	2,104	2,295
Landlord share (12.2%)	479	533	598	658	718
Grower share (48.8%)	1,915	2,130	2,393	2,633	2,872
	-----dollars per pound of sugar-----				
Breakeven price to recover <sup>4</sup> :					
Direct costs	0.159	0.144	0.132	0.122	0.114
Total specified costs	0.205	0.185	0.168	0.155	0.144
Total costs plus overhead	0.242	0.218	0.198	0.183	0.169

One-Sixth Land Share Rent:

	-----pounds of sugar per rotational acre-----				
Share of production per rotational					
Mill share (39.0%)	1,530	1,702	1,913	2,104	2,295
Landlord share (10.2%)	400	445	500	550	600
Grower share (50.8%)	1,993	2,217	2,492	2,741	2,990
	-----dollars per pound of sugar-----				
Breakeven price to recover <sup>4</sup> :					
Direct costs	0.152	0.138	0.126	0.117	0.109
Total specified costs	0.196	0.177	0.162	0.149	0.139
Total costs plus overhead	0.232	0.209	0.190	0.175	0.163

<sup>1</sup> Average farm yield across harvested acreage of plantcane, first stubble, second stubble, and third stubble (base yield of 33 tons plantcane, 34 tons first stubble, 32 tons second stubble, 30 tons third stubble).

<sup>2</sup> Average yield in tons per acre multiplied by a 200 CRS.

<sup>3</sup> Assumes standard land rotation of 20% each of fallow, plantcane, first stubble, second stubble, and third stubble.

<sup>4</sup> Breakeven prices are calculated by dividing grower's share of production into direct costs, total specified costs, and total specified costs plus overhead. No adjustment is made for molasses payments, hauling rebate, or other adjustments.

Table 2. Allocated Cultured Seedcane Planting Costs in 2002

Year	Operation	Cost Per Acre	Allocation Percentage	Allocated Planting Cost
2001	Fallow and Seedbed Preparation	\$231.62	100%	\$231.62
	Cultured Seedcane	\$499.75	100%	\$499.75
	Hand Plant	\$250.79	100%	<u>\$250.79</u>
				\$982.16

Total costs associated with planting cultured seedcane in 2001.

Table 3. Allocated Propagated Seedcane Planting Costs in 2002

Year	Operation	Cost Per Acre	Allocation Percentage	Allocated Planting Cost
2000	Fallow and Seedbed Preparation	\$215.86	20%	\$43.17
	Cultured Seedcane	\$494.96	20%	\$98.99
	Hand Plant	\$221.36	20%	\$44.27
2001	Fallow and Seedbed Preparation	\$231.62	100%	\$231.62
	Harvest 1 <sup>st</sup> Propagated Seedcane	\$73.91	20%	\$14.78
	Mechanical Plant	\$162.02	100%	<u>\$162.02</u>
				\$594.85

Total costs associated with planting propagated seedcane (first expansion) in 2001.