

ECONOMIC RESEARCH IN SUGARCANE IN 2003

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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 2003 crop year were 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 2003. Total investment in planting costs was estimated to be \$972.64 per acre planted. This cane was assumed to be hand planted in 2002, and the estimated costs include expenses for fallow operations, seedbed preparation, purchase of cultured seed cane, and hand planting. Table 3 presents estimated total investment in planting costs associated with standing fields of propagated seedcane (1st expansion) in 2003. In this case, it is assumed cultured seedcane was planted in 2001, then harvested and replanted in 2002. Total investment in planting costs was estimated to be \$577.43 per acre planted. This cost includes the allocated portion of hand planted cultured seed cane harvested and replanted mechanically. Table 4 presents estimated total investment in planting costs associated with standing fields of plantcane in 2003. Total costs were estimated to be \$504.16 per planted acre and represent costs associated with two expansions of cultured seedcane. This cost value represents the total cost of planting one acre of sugarcane which will be harvested for sugar (plantcane). Allocated values of this planting cost to stubble crops were estimated at \$378 per acre for first stubble, \$252 per acre for second stubble, and \$126 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 ¹ (tons)	25.8	28.7	32.2	35.4	38.6
Sugar yield per harvested acre ² (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 ⁴ :					
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 ⁴ :					
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

¹ Average farm yield across harvested acreage of plantcane, 1st stubble, 2nd stubble, and 3rd stubble (base yield of 33 tons plantcane, 34 tons 1st stubble, 32 tons 2nd stubble, 30 tons 3rd stubble).

² Average yield in tons per acre multiplied by a 200 CRS.

³ Assumes standard land rotation of 20% each of fallow, plantcane, 1st stubble, 2nd stubble and 3rd stubble.

⁴ 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 Seed Cane Planting Costs in 2003.

Year	Operation	Cost Per Acre	Allocation Percentage	Allocated Planting Cost
2002	Fallow and Seedbed Preparation	\$175.32	100%	\$175.32
	Cultured Seed Cane	\$524.51	100%	\$524.51
	Hand Plant	\$272.81	100%	<u>\$272.81</u>
				\$972.64

Total costs associated with planting cultured seed cane in 2002.

Table 3. Allocated Propagated Seed Cane Planting Costs in 2003.

Year	Operation	Cost Per Acre	Allocation Percentage	Allocated Planting Cost
2001	Fallow and Seedbed Preparation	\$231.62	20%	\$46.32
	Cultured Seed Cane	\$499.75	20%	\$99.95
	Hand Plant	\$250.79	20%	\$50.16
2002	Fallow and Seedbed Preparation	\$175.32	100%	\$175.32
	Harvest 1 st Propagated Seed Cane	\$59.94	20%	\$7.79
	Mechanical Plant	\$197.89	100%	<u>\$197.89</u>
				\$577.43

Total costs associated with planting propagated seed cane (1st expansion) in 2002.

Table 4. Allocated Plant Cane Planting Costs in 2003.

Year	Operation	Cost Per Acre	Allocation Percentage	Allocated Planting Cost
2000	Fallow and Seedbed Preparation	\$215.86	4%	\$8.63
	Cultured Seed Cane	\$494.96	4%	\$19.80
	Hand Plant	\$221.36	4%	\$8.85
2001	Fallow and Seedbed Preparation	\$231.62	20%	\$46.32
	Harvest 1 st Propagated Seed Cane	\$73.91	4%	\$2.96
	Mechanical Plant	\$162.02	20%	\$32.40
2002	Fallow and Seedbed Preparation	\$175.32	100%	\$175.32
	Harvest 2 nd Propagated Seed Cane	\$59.94	20%	\$11.99
	Mechanical Plant	\$197.89	100%	<u>\$197.89</u>
				\$504.16

Total costs associated with planting plant cane in 2002.