
**2008
Projected
Commodity
Costs
And
Returns**

Crawfish Production in Louisiana

Robert W. Boucher and Jeffrey M. Gillespie



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PROJECTED COSTS AND RETURNS FOR CRAWFISH PRODUCTION IN LOUISIANA, 2008

by

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INTRODUCTION

Aquaculture production enterprises, like other farm enterprises, require advanced planning to make production decisions that are likely to result in profit. The purpose of this report is to provide production cost estimates for crawfish enterprises to assist producers in making decisions and obtaining adequate financing. Crawfish production and its associated costs differ considerably among producers and resource situations. The projected costs presented here should not be interpreted as averages for producers in the industry. The purpose of the cost projections is to provide guidelines whereby producers and others with an interest in crawfish production costs can make cost estimates appropriate to their unique situations.

Data used in development of the budgets is a combination of information obtained directly from producers, Louisiana Cooperative Extension Service Specialists and Louisiana Agricultural Experiment Station Scientists. Current machinery and other input price data were combined with production practice data using the Microcomputer Enterprise Budget Generator developed at Mississippi State University. Fixed costs were estimated based on typical rates of use and sizes of operations. Production budget estimates are presented on a 'per acre' basis to facilitate using the estimates for different sized operations. Overhead costs associated with operation of the farm business have been allocated as a residual claimant on a per acre basis in the enterprise budgets, but have not been included in the computation of breakeven selling prices.

Crawfish budgets are presented for three production-marketing situations. They are based primarily on a 1990 survey of 39 commercial crawfish producers with supplemental information provided by researchers and Cooperative Extension Service personnel. The personal interview survey collected information on production, harvesting, and marketing practices.

Budgets are presented for three owner-operator situations without aeration that typify producers included in the survey: 1) Northeast Louisiana single crop ponds (Table 3), 2) Southwest Louisiana single crop ponds (Table 4), and 3) Southwest Louisiana rice-crawfish double crop in a fallow rotation (Table 5). Fixed costs for non-aerated systems are based on a 120-acre production unit consisting of six 20-acre ponds configured in two 60-acre units.

Harvesting is assumed to be performed by one person using a power boat with 20 traps per acre. In Southwest Louisiana, harvesting is assumed to occur every other day during December through February and daily during March through May. In Northeast Louisiana, harvesting is assumed to occur daily from March 1 to May 15 to accommodate retail marketing.

Appendix table 1 presents a summary of projected costs based on reduced fishing days for the three situations discussed. This table provides the direct, fixed, and total costs for the base situation and for 10%, 20%, and 30% reductions in fishing days. Though lower costs for the reduced fishing days do not result in a proportional percentage drop in costs, recent studies have shown that, with the use of pyramid traps, 30% fewer fishing days does not reduce the yield significantly.

Seasonal yield distributions reflect those reported by surveyed producers. Total season

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yields are not absolute sample averages, but reflect typical yields reported by respondents. No crawfish returns are included since there are no publicly published sources of crawfish prices. Marketing costs included in the budgets assume that the product is sold to processors and wholesalers in Southwest Louisiana and is sold retail in Northeast Louisiana.

Table 1 presents a summary comparison of projected costs and yields per acre for the three crawfish production situations. Breakeven selling prices required to recover costs are presented in Table 2 for five alternative yield levels for each crawfish situation. Tables with an "A" designation provide estimated cost budgets, whereas tables with a "B" designation show costs for detailed operations.

Table 1. A Summary of Projected Costs and Returns per Acre for Crawfish and Crawfish-Rice Production in Louisiana, 2008.

Crop Description	Yield Per Acre	Direct Expenses	Fixed Expenses	Total Expenses
	Pounds	----- Dollars per Acre -----		
Crawfish Enterprises:				
Northeast Louisiana				
Non-aerated, Owner b	600.00	362.15	161.22	523.37
Southwest Louisiana				
Non-aerated, Owner b	1200.00	587.01	169.55	756.56
Crawfish-Rice, Owner a b	700+5800	1099.50	205.62	1305.12

a Income for rice was calculated by multiplying the market price of \$12.80 by actual yield.

b Land costs are not included.

c Yield includes 700 lbs of crawfish and 58 cwt of rice.

Table 2. Breakeven Selling Prices for Crawfish for Selected Yield Levels, Louisiana, 2008.

	Total Costs a	Total Variable Costs	Base Yield Level	-20	-10	Yield Level Base	10	20				
	--Dollar/Acre---	lb.		----- Dollars/Lb.-----								
PRICES REQUIRED TO RECOVER TOTAL SPECIFIED COSTS												
Crawfish Enterprises:												
Northeast Louisiana												
Non-aerated, Owner	523.37		600	1.09	0.97	0.87	0.79	0.73				
Southwest Louisiana												
Non-aerated, Owner	756.56		1200	0.79	0.70	0.63	0.57	0.53				
Crawfish-Rice, Owner b	609.42		700	1.09	0.97	0.87	0.79	0.73				
PRICES REQUIRED TO RECOVER VARIABLE COSTS												
Crawfish Enterprises:												
Northeast Louisiana												
Non-aerated, Owner	362.15		600	0.75	0.67	0.60	0.55	0.50				
Southwest Louisiana												
Non-aerated, Owner	587.01		1200	0.61	0.54	0.49	0.45	0.41				
Crawfish-Rice, Owner b	502.38		700	0.90	0.80	0.72	0.65	0.60				

a Land costs are not included.

b Breakeven Selling Prices for Crawfish double cropped with rice represents the net cost of producing crawfish in the double crop situation compared to producing rice alone.

Table 3.A Estimated Costs and Returns per Acre, Single Crop Crawfish,
Owner-Operator, Northeast Louisiana, 2008.

ITEM	UNIT	PRICE dollars	QUANTITY	AMOUNT dollars	YOUR FARM
INCOME					
Crawfish (March)	lbs	60.0000			
Crawfish (April)	lbs	210.0000			
Crawfish (May)	lbs	240.0000			
Crawfish (June)	lbs	90.0000			

TOTAL INCOME					
DIRECT EXPENSES					
BAIT					
Manuf. crawfish bait	lbs	0.20	330.0000	66.00	
FERTILIZER					
Nitrogen	lbs	0.54	51.0000	27.54	
Phosphate	lbs	0.44	51.0000	22.44	
Potash	lbs	0.36	51.0000	18.36	
HIRED LABOR					
Irrigation labor	hour	9.60	1.5000	14.40	
OTHER					
Hip boots	pair	74.95	0.0083	0.62	
Sacks	each	0.40	15.0260	6.01	
SEED					
Rice seed	lbs	0.26	100.0000	26.00	
OPERATOR LABOR					
Tractors	hour	9.60	0.5033	4.83	
Self-Propelled Eq.	hour	9.60	7.2600	69.69	
IRRIGATION LABOR					
Crawf irrig north LA	hour	9.60	0.2400	2.30	
DIESEL FUEL					
Tractors	gal	2.90	2.7909	8.09	
Crawf irrig north LA	gal	2.90	16.9920	49.27	
GASOLINE					
Self-Propelled Eq.	gal	2.80	1.9800	5.54	
REPAIR & MAINTENANCE					
Implements		2.94	1.0000	2.94	
Tractors		0.90	1.0000	0.90	
Self-Propelled Eq.		1.58	1.0000	1.58	
Crawf irrig north LA	acin	0.35	24.0000	8.54	
Crawf pond&eq north	acre	11.58	1.0000	11.58	
INTEREST ON OP. CAP.		15.46	1.0000	15.46	

TOTAL DIRECT EXPENSES					362.15
FIXED EXPENSES					
Implements		6.86	1.0000	6.86	
Tractors		6.40	1.0000	6.40	
Self-Propelled Eq.		5.49	1.0000	5.49	
Crawf irrig north LA		16.68	1.0000	16.68	
Crawf pond&eq north		125.78	1.0000	125.78	

TOTAL FIXED EXPENSES					161.22

TOTAL SPECIFIED EXPENSES					523.37
ALLOCATED COST ITEMS					
Overhead (owner)	acre	30.00	1.0000	30.00	
Land (oppor. cost)	acre	90.00	1.0000	90.00	

Table 4.A Estimated Costs and Returns per Acre, Single Crop Crawfish,
Owner-Operator, Southwest Louisiana, 2008.

ITEM	UNIT	PRICE dollars	QUANTITY	AMOUNT dollars	YOUR FARM
INCOME					
Crawfish (December)	lbs	60.0000			
Crawfish (January)	lbs	120.0000			
Crawfish (February)	lbs	180.0000			
Crawfish (March)	lbs	240.0000			
Crawfish (April)	lbs	360.0000			
Crawfish (May)	lbs	240.0000			

TOTAL INCOME					
DIRECT EXPENSES					
CUSTOM					
Airplane seed	cwt	5.60	1.4000	7.84	
Airplane fert	cwt	5.00	0.7500	3.75	
BAIT					
Crawfish bait (fish)	lbs	0.35	225.0000	78.75	
Manuf. crawfish bait	lbs	0.20	245.0000	49.00	
FERTILIZER					
Urea (45%)	lbs	0.18	75.0000	13.50	
HIRED LABOR					
Irrigation labor	hour	9.60	1.8500	17.76	
OTHER					
Hip boots	pair	74.95	0.0083	0.62	
Sacks	each	0.40	29.1220	11.64	
SEED					
Rice seed	lbs	0.26	140.0000	36.40	
OPERATOR LABOR					
Tractors	hour	9.60	0.3491	3.35	
Self-Propelled Eq.	hour	9.60	8.1580	78.31	
IRRIGATION LABOR					
Crawf irrig single	hour	9.60	0.3960	3.80	
DIESEL FUEL					
Tractors	gal	2.90	1.7397	5.04	
Self-Propelled Eq.	gal	2.90	1.0075	2.92	
Crawf irrig single	gal	2.90	73.4910	213.12	
GASOLINE					
Self-Propelled Eq.	gal	2.80	2.1150	5.92	
REPAIR & MAINTENANCE					
Implements		1.42	1.0000	1.42	
Tractors		0.54	1.0000	0.54	
Self-Propelled Eq.		3.05	1.0000	3.05	
Crawf irrig single	acin	0.52	33.0000	17.32	
Crawf pond&eq single	acre	7.49	1.0000	7.49	
INTEREST ON OP. CAP.		25.40	1.0000	25.40	

TOTAL DIRECT EXPENSES					
		587.01			
FIXED EXPENSES					
Implements		3.67	1.0000	3.67	
Tractors		3.87	1.0000	3.87	
Self-Propelled Eq.		9.34	1.0000	9.34	
Crawf irrig single		34.59	1.0000	34.59	
Crawf pond&eq single		118.06	1.0000	118.06	

TOTAL FIXED EXPENSES					
		169.55			
TOTAL SPECIFIED EXPENSES					
		756.57			
ALLOCATED COST ITEMS					
Overhead (owner)	acre	30.00	1.0000	30.00	
Land (oppor. cost)	acre	90.00	1.0000	90.00	

Table 5.A Estimated costs and returns per Acre, Rice-Crawfish
Double Crop, in Field Rotation, Owner-Operator,
Southwest, Louisiana, 2008.

ITEM	UNIT	PRICE dollars	QUANTITY	AMOUNT dollars	YOUR FARM
INCOME					
Rice	cwt	12.80	58.0000	742.40	
Rice Checkoff	cwt	0.08	-58.0000	-4.64	
Crawfish (January)	lbs		21.0000		
Crawfish (February)	lbs		56.0000		
Crawfish (March)	lbs		126.0000		
Crawfish (April)	lbs		210.0000		
Crawfish (May)	lbs		196.0000		
Crawfish (June)	lbs		88.0000		
TOTAL INCOME				737.76	
DIRECT EXPENSES					
CUSTOM					
Airplane fert	cwt	5.00	3.8000	19.00	
Global pos. system	acre	0.35	9.0000	3.15	
Airplane seed	cwt	5.60	1.2000	6.72	
App by air	appl	4.50	5.0000	22.50	
Drying rice	cwt	0.90	65.0000	58.50	
Haul rice	cwt	0.30	58.0000	17.40	
BAIT					
Crawfish bait (fish)	lbs	0.35	84.3750	29.53	
Manuf. crawfish bait	lbs	0.20	226.8750	45.37	
FERTILIZER					
Nitrogen	lbs	0.54	130.0000	70.20	
Phosphate	lbs	0.44	40.0000	17.60	
Potash	lbs	0.36	60.0000	21.60	
FUNGICIDES					
Quadris	oz	1.97	10.0000	19.70	
HERBICIDES					
Facet 75DF	lb	50.75	0.5000	25.37	
Londax 60DF	oz	11.25	1.0000	11.25	
2,4-D Amine 4	pt	1.72	2.5000	4.30	
Hired LABOR					
Other labor	hour	9.60	0.0500	0.48	
Irrigation labor	hour	9.60	2.0000	19.20	
INSECTICIDES					
Karate Z	oz	3.10	4.0000	12.40	
OTHER					
Rice gate	each	3.65	1.0000	3.65	
Seed crawfish	lbs	1.00	60.0000	60.00	
Hip boots	pair	74.95	1.0000	74.95	
Sacks	each	0.40	31.2900	12.51	
SEED					
Rice seed	lbs	0.26	120.0000	31.20	
OPERATOR LABOR					
Tractors	hour	9.60	1.1192	10.74	
Self-Propelled Eq.	hour	9.60	7.2415	69.51	
IRRIGATION LABOR					
Crawf irrig double	hour	9.60	0.2580	2.47	
Irrigation system 1	hour	9.60	0.3000	2.88	
OWNER LABOR					
Self-Propelled Eq.	hour	15.30	0.3303	5.05	
DIESEL FUEL					
Tractors	gal	2.90	12.4264	36.03	
Self-Propelled Eq.	gal	2.90	3.5675	10.34	
Crawf irrig double	gal	2.90	47.8805	138.85	
Irrigation system 1	gal	2.90	53.9580	156.47	
GASOLINE					
Self-Propelled Eq.	gal	2.80	1.8675	5.22	
REPAIR & MAINTENANCE					
Implements		2.99	1.0000	2.99	
Tractors		4.35	1.0000	4.35	
Self-Propelled Eq.		16.03	1.0000	16.03	
Crawf irrig double	acin	0.29	21.5000	6.40	
Crawf pond&eq double	acre	1.06	1.0000	1.06	
Irrigation system 1	acre	3.75	1.0000	3.75	
INTEREST ON OP. CAP.		40.68	1.0000	40.68	
TOTAL DIRECT EXPENSES				1099.50	
FIXED EXPENSES					
Implements		7.27	1.0000	7.27	
Tractors		31.41	1.0000	31.41	
Self-Propelled Eq.		31.47	1.0000	31.47	
Crawf irrig double		34.59	1.0000	34.59	
Crawf pond&eq double		58.09	1.0000	58.09	
Irrigation system 1		42.77	1.0000	42.77	
TOTAL FIXED EXPENSES				205.62	
TOTAL SPECIFIED EXPENSES				1305.12	
ALLOCATED COST ITEMS					
Overhead (owner)	acre	30.00	1.0000	30.00	
Land (oppor. cost)	acre	90.00	1.0000	90.00	

Table 3.B Estimated Resource Use and Costs for Field Operations per Acre, Single Crop Crawfish, Owner-Operators, Northeast Louisiana, 2008.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	TRACTOR SIZE	PERF RATE	TIMES OVER MTH	TRACTOR COST		EQUIP COST		ALLOC LABOR		OPERATING INPUT			TOTAL COST	
					DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST		
<hr/>															
Crawf pond&eq north	acre			1.00	Jul		11.58	125.78			1.0000			137.36	
Disk	24 ft	150	0.081	2.00	Jul	4.10	3.12	1.22	3.05	0.163	1.57			13.08	
Fertilizer buggy	30 ft	105	0.060	1.00	Jul	1.04	0.72	0.37	0.58	0.060	0.57			3.30	
Nitrogen	lbs											51.0000	0.54	27.54	
Phosphate	lbs											51.0000	0.44	22.44	
Potash	lbs											51.0000	0.36	18.36	
Rotary mower-levees	6.7 ft	50	0.500	0.05	Jul	0.21	0.10	0.02	0.08	0.026	0.25			0.69	
Grain drill	20 ft	150	0.094	1.00	Jul	2.36	1.79	1.14	2.59	0.094	0.90			8.80	
Rice seed	lbs											100.0000	0.26	26.00	
Rotary mower-levees	6.7 ft	50	0.500	0.05	Aug	0.21	0.10	0.02	0.08	0.026	0.25			0.69	
Rotary mower-levees	6.7 ft	50	0.500	0.05	Sep	0.21	0.10	0.02	0.08	0.026	0.25			0.69	
Crawf irrig north LA	acin			1.00	Oct		14.45	16.68	0.060	0.57		6.0000		31.71	
Hip boots	pair											0.0083	74.95	0.62	
Irrigation labor	hour											0.5000	9.60	4.80	
Rotary mower-levees	6.7 ft	50	0.500	0.05	Oct	0.21	0.10	0.02	0.08	0.026	0.25			0.69	
Crawf irrig north LA	acin			1.00	Nov		14.45		0.060	0.57		6.0000		15.03	
Irrigation labor	hour											0.1000	9.60	0.96	
Crawf irrig north LA	acin			1.00	Dec			4.81		0.020	0.19		2.0000		5.01
Irrigation labor	hour											0.1000	9.60	0.96	
Crawf irrig north LA	acin			1.00	Jan			2.40		0.010	0.09		1.0000		2.50
Irrigation labor	hour											0.1000	9.60	0.96	
Crawf irrig north LA	acin			1.00	Feb			7.22		0.030	0.28		3.0000		7.51
Irrigation labor	hour											0.1000	9.60	0.96	
Crawfish combine	12 hp		0.075	26.00	Mar			2.10	1.62	2.145	20.59				24.32
Manuf. crawfish bait	lbs											97.5000	0.20	19.50	
Sacks	each											1.5080	0.40	0.60	
Crawf irrig north LA	acin			1.00	Mar			2.40		0.010	0.09		1.0000		2.50
Irrigation labor	hour											0.1000	9.60	0.96	
Crawfish combine	12 hp		0.075	24.00	Apr			1.94	1.49	1.980	19.00				22.45
Manuf. crawfish bait	lbs											90.0000	0.20	18.00	
Sacks	each											5.2560	0.40	2.10	
Crawf irrig north LA	acin			1.00	Apr			2.40		0.010	0.09		1.0000		2.50
Irrigation labor	hour											0.1000	9.60	0.96	
Rotary mower-levees	6.7 ft	50	0.500	0.05	Apr	0.21	0.10	0.02	0.08	0.026	0.25			0.69	
Crawfish combine	12 hp		0.075	26.00	May			2.10	1.62	2.145	20.59				24.32
Manuf. crawfish bait	lbs											97.5000	0.20	19.50	
Sacks	each											6.0060	0.40	2.40	
Crawf irrig north LA	acin			1.00	May			4.81		0.020	0.19		2.0000		5.01
Irrigation labor	hour											0.1000	9.60	0.96	
Rotary mower-levees	6.7 ft	50	0.500	0.05	May	0.21	0.10	0.02	0.08	0.026	0.25			0.69	
Crawfish combine	12 hp		0.075	12.00	Jun			0.97	0.74	0.990	9.50				11.22
Manuf. crawfish bait	lbs											45.0000	0.20	9.00	
Sacks	each											2.2560	0.40	0.90	
Crawf irrig north LA	acin			1.00	Jun			4.81		0.020	0.19		2.0000		5.01
Irrigation labor	hour											0.3000	9.60	2.88	
Rotary mower-levees	6.7 ft	50	0.500	0.05	Jun	0.21	0.10	0.02	0.08	0.026	0.25			0.69	
TOTALS				9.00		6.40	79.48	154.82	8.003	76.83			181.37	507.91	
INTEREST ON OPERATING CAPITAL														15.46	
UNALLOCATED LABOR														0.00	
TOTAL SPECIFIED COST														523.37	

Table 4.B Estimated Resource Use and Costs for Field Operations per Acre, Single Crop Crawfish, Owner-Operators, Southwest Louisiana, 2008.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	TRACTOR SIZE	PERF RATE	TIMES OVER MTH	TRACTOR COST		EQUIP COST		ALLOC LABOR		OPERATING INPUT			TOTAL COST
					DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
Crawf pond&eq single acre			1.00	Jul	7.49	118.06					1.0000			125.55
Disk	24 ft	150	0.081	2.00 Jul	4.10	3.12	1.22	3.05	0.163	1.57				13.08
Crawf irrig single acin			1.00	Jul			10.47	34.59	0.018	0.17	1.5000			45.23
Irrigation labor	hour										0.2500	9.60	2.40	2.40
Airplane seed	cwt			1.00 Jul							1.4000	5.60	7.84	7.84
Rice seed	lbs										140.0000	0.26	36.40	36.40
Rotary mower-levees	6.7 ft	50	0.500	0.05 Jul	0.21	0.10	0.02	0.08	0.026	0.25				0.69
Airplane fert	cwt			1.00 Jul							0.7500	5.00	3.75	3.75
Urea (45%)	lbs										75.0000	0.18	13.50	13.50
Crawf irrig single acin			1.00 Aug				10.47		0.018	0.17	1.5000			10.64
Irrigation labor	hour										0.1000	9.60	0.96	0.96
Rotary mower-levees	6.7 ft	50	0.500	0.05 Aug	0.21	0.10	0.02	0.08	0.026	0.25				0.69
Crawf irrig single acin			1.00 Sep				10.47		0.018	0.17	1.5000			10.64
Irrigation labor	hour										0.1000	9.60	0.96	0.96
Rotary mower-levees	6.7 ft	50	0.500	0.05 Sep	0.21	0.10	0.02	0.08	0.026	0.25				0.69
Crawf irrig single acin			1.00 Oct				83.79		0.144	1.38	12.0000			85.18
Hip boots	pair										0.0083	74.95	0.62	0.62
Irrigation labor	hour										0.5000	9.60	4.80	4.80
Rotary mower-levees	6.7 ft	50	0.500	0.05 Oct	0.21	0.10	0.02	0.08	0.026	0.25				0.69
Crawf irrig single acin			1.00 Nov				27.93		0.048	0.46	4.0000			28.39
Irrigation labor	hour										0.1000	9.60	0.96	0.96
Pickup truck	1/2 ton		1.000	0.04 Dec			0.45	0.37	0.043	0.41				1.24
Crawfish combine	12 hp		0.075	13.00 Jan			1.05	0.81	1.072	10.29				12.16
Crawfish bait (fish)	lbs										65.0000	0.35	22.75	22.75
Sacks	each										3.0030	0.40	1.20	1.20
Crawf irrig single acin			1.00 Dec				17.45		0.030	0.28	2.5000			17.74
Irrigation labor	hour										0.1000	9.60	0.96	0.96
Pickup truck	1/2 ton		1.000	0.05 Jan			13.96		0.024	0.23	2.0000			1.61
Crawfish combine	12 hp		0.075	12.00 Feb			0.59	0.48	0.056	0.53				11.22
Crawfish bait (fish)	lbs						0.97	0.74	0.990	9.50				21.00
Sacks	each										60.0000	0.35	21.00	21.00
Crawf irrig single acin			1.00 Feb				13.96		0.024	0.23	2.0000			14.19
Irrigation labor	hour										0.1000	9.60	0.96	0.96
Pickup truck	1/2 ton		1.000	0.05 Feb			0.54	0.43	0.051	0.48				1.47
Crawfish combine	12 hp		0.075	20.00 Mar			1.62	1.24	1.650	15.84				18.71
Manuf. crawfish bait	lbs										50.0000	0.20	10.00	10.00
Crawfish bait (fish)	lbs										50.0000	0.35	17.50	17.50
Sacks	each										5.3400	0.40	2.13	2.13
Crawf irrig single acin			1.00 Mar				13.96		0.024	0.23	2.0000			14.19
Irrigation labor	hour										0.1000	9.60	0.96	0.96
Pickup truck	1/2 ton		1.000	0.08 Mar			0.91	0.74	0.086	0.82				2.48
Crawfish combine	12 hp		0.075	21.00 Apr			1.70	1.31	1.732	16.63				19.64
Manuf. crawfish bait	lbs										105.0000	0.20	21.00	21.00
Sacks	each										9.0090	0.40	3.60	3.60
Crawf irrig single acin			1.00 Apr				13.96		0.024	0.23	2.0000			14.19
Irrigation labor	hour										0.1000	9.60	0.96	0.96
Pickup truck	1/2 ton		1.000	0.09 Apr			0.95	0.77	0.090	0.86				2.59
Rotary mower-levees	6.7 ft	50	0.500	0.05 Apr	0.21	0.10	0.02	0.08	0.026	0.25				0.69
Crawfish combine	12 hp		0.075	18.00 May			1.45	1.12	1.485	14.25				16.83
Manuf. crawfish bait	lbs										90.0000	0.20	18.00	18.00
Sacks	each										5.9400	0.40	2.37	2.37
Crawf irrig single acin			1.00 May				13.96		0.024	0.23	2.0000			14.19
Irrigation labor	hour										0.3000	9.60	2.88	2.88
Pickup truck	1/2 ton		1.000	0.07 May			0.81	0.66	0.077	0.73				2.22
Rotary mower-levees	6.7 ft	50	0.500	0.05 May	0.21	0.10	0.02	0.08	0.026	0.25				0.69
Rotary mower-levees	6.7 ft	50	0.500	0.05 Jun	0.21	0.10	0.02	0.08	0.026	0.25				0.69
TOTALS					5.59	3.87	251.27	165.67	8.903	85.46			219.27	731.16
INTEREST ON OPERATING CAPITAL														25.40
UNALLOCATED LABOR														0.00
TOTAL SPECIFIED COST														756.57

Table 5.A Estimated resource use and costs for field operations, per Acre, Rice-Crawfish Double Crop, in Field Rotation, Owner-Operator, Southwest, Louisiana, 2008.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	TRACTOR SIZE	PERF RATE	TIMES OVER	MTH	TRACTOR COST		EQUIP COST		ALLOC LABOR		OPERATING INPUT			TOTAL COST	
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST		
-----dollars-----																
Disk Harrow	32'	4WD 225	0.061	2.00	Nov	4.68	4.12	1.19	2.98	0.122	1.17				14.17	
Levee plow	8 Ft	4WD 300	0.050	2.00	Nov	4.95	3.45	0.15	0.42	0.100	0.96				9.94	
Blade-Scraper	10'	MFWD 150	1.176	0.09	Nov	2.70	2.37	0.13	0.13	0.105	1.01				6.36	
Ditcher rotary	1.5 ft	MFWD 150	0.020	1.00	Nov	0.51	0.44	0.03	0.05	0.020	0.19				1.23	
Field cultivator	32 ft	4WD 300	0.046	1.00	Feb	2.31	1.61	0.32	1.64	0.046	0.44				6.34	
Airplane fert	cwt				Feb	1.00						1.5000	5.00	7.50	7.50	
Nitrogen	lbs											70.0000	0.54	37.80	37.80	
Global pos. system	acre											1.0000	0.35	0.35	0.35	
Airplane fert	cwt				Feb	1.00						1.0000	5.00	5.00	5.00	
Phosphate	lbs											40.0000	0.44	17.60	17.60	
Potash	lbs											60.0000	0.36	21.60	21.60	
Global pos. system	acre											1.0000	0.35	0.35	0.35	
Ditcher rotary	1.5 ft	MFWD 150	0.020	1.00	Feb	0.51	0.44	0.03	0.05	0.020	0.19				1.23	
Blade-Scraper	10'	MFWD 150	1.176	0.09	Feb	2.70	2.37	0.13	0.13	0.105	1.01				6.36	
Rice gate	each					1.00	Feb						1.0000	3.65	3.65	3.65
Backhoe		MFWD 150	0.500	0.05	Feb	0.63	0.56	0.13	0.20	0.025	0.24				1.77	
Water level	24 ft	4WD 300	0.149	2.00	Feb	14.84	10.37	0.46	1.14	0.299	2.87				29.70	
Irrigation system	1 acre					1.00	Mar			160.22	42.77	0.300	2.88	1.0000		205.87
Airplane seed	cwt					1.00	Apr						1.2000	5.60	6.72	6.72
Rice seed	lbs											120.0000	0.26	31.20	31.20	
Global pos. system	acre											1.0000	0.35	0.35	0.35	
App by air	appl					1.00	Apr					1.0000	4.50	4.50	4.50	
Karate Z	oz											2.0000	3.10	6.20	6.20	
Global pos. system	acre											1.0000	0.35	0.35	0.35	
App by air	appl					1.00	Apr					1.0000	4.50	4.50	4.50	
Facet 75DF	lb											0.5000	50.75	25.37	25.37	
Londax 60DF	oz											1.0000	11.25	11.25	11.25	
Global pos. system	acre											1.0000	0.35	0.35	0.35	
App by air	appl					1.00	Jun					1.0000	4.50	4.50	4.50	
2,4-D Amine	4 pt											2.5000	1.72	4.30	4.30	
Global pos. system	acre											1.0000	0.35	0.35	0.35	
Airplane fert	cwt					1.00	Jun					1.3000	5.00	6.50	6.50	
Nitrogen	lbs											60.0000	0.54	32.40	32.40	
Global pos. system	acre											1.0000	0.35	0.35	0.35	
App by air	appl					1.00	Jun					1.0000	4.50	4.50	4.50	
Quadris	oz											10.0000	1.97	19.70	19.70	
Global pos. system	acre											1.0000	0.35	0.35	0.35	
Seed crawfish	lbs					1.00	Jun					60.0000	1.00	60.00	60.00	
Other labor	hour											0.0500	9.60	0.48	0.48	
App by air	appl					1.00	Jul					1.0000	4.50	4.50	4.50	
Karate Z	oz											2.0000	3.10	6.20	6.20	
Global pos. system	acre											1.0000	0.35	0.35	0.35	
Combine Rice	25 Ft														48.65	
Grain cart	500 bu	MFWD 150	0.300	1.00	Aug			20.70	22.89	0.330	5.05					
Drying rice	cwt					0.057	0.20	0.29	0.25	0.04	0.09	0.011	0.10		0.79	
Haul rice	cwt							1.00	Aug				65.0000	0.90	58.50	58.50
Blade-Scraper	10'	MFWD 150	1.176	0.20	Aug	6.01	5.27	0.30	0.30	0.235	2.25				14.15	
Crawf irrig double	acin					1.00	Oct			40.53	34.59	0.072	0.69		75.81	
Hip boots	pair											1.0000	74.95	74.95	74.95	
Irrigation labor	hour											0.6000	9.60	5.76	5.76	
Rotary mower-levees	6.7 ft	50	0.500	0.05	Oct	0.21	0.10	0.02	0.08	0.026	0.25				0.69	
Crawf irrig double	acin					1.00	Nov			27.02		0.048	0.46		27.48	
Irrigation labor	hour											0.2000	9.60	1.92	1.92	
Crawf irrig double	acin					1.00	Dec			13.51		0.024	0.23		13.74	
Irrigation labor	hour											0.2000	9.60	1.92	1.92	
Crawfish combine	12 hp					0.075	5.00	Jan			0.40	0.31	0.412	3.96		4.67
Crawfish bait (fish)	lbs											18.7500	0.35	6.56	6.56	
Sacks	each											0.9000	0.40	0.36	0.36	
Crawf irrig double	acin					1.00	Jan			10.13		0.018	0.17		10.30	
Irrigation labor	hour											1.5000				
Pickup truck	1/2 ton					1.000	0.05	Jan			0.59	0.48	0.056	0.53		1.61
Crawf pond&eq double	acre							1.00	Jan		1.06	58.09				59.15
Crawfish combine	12 hp					0.075	10.00	Feb			0.81	0.62	0.825	7.92		9.35
Crawfish bait (fish)	lbs											37.5000	0.35	13.12	13.12	
Sacks	each											3.7000	0.40	1.48	1.48	
Crawf irrig double	acin					1.00	Feb			13.51		0.024	0.23		13.74	
Irrigation labor	hour											0.2000	9.60	1.92	1.92	
Pickup truck	1/2 ton					1.000	0.05	Feb			0.54	0.43	0.051	0.48		1.47
Crawfish combine	12 hp					0.075	15.00	Mar			1.21	0.93	1.237	11.88		14.03
Manuf. crawfish bait	lbs											28.1250	0.20	5.62	5.62	
Crawfish bait (fish)	lbs											28.1250	0.35	9.84	9.84	
Sacks	each											3.9000	0.40	1.56	1.56	
Crawf irrig double	acin					1.00	Mar			13.51		0.024	0.23		13.74	
Irrigation labor	hour											0.2000	9.60	1.92	1.92	
Pickup truck	1/2 ton					1.000	0.06	Apr			0.68	0.55	0.064	0.61		1.84
Pickup truck	1/2 ton					1.000	0.05	Apr			0.54	0.43	0.051	0.48		1.47
Crawfish combine	12 hp					0.075	21.00	May			1.70	1.31	1.732	16.63		19.64
Manuf. crawfish bait	lbs											78.7500	0.20	15.75	15.75	
Sacks	each											9.0300	0.40	3.61	3.61	
Crawf irrig double	acin					1.00	May			13.51		0.024	0.23		13.74	
Irrigation labor	hour											0.2000	9.60	1.92	1.92	
Pickup truck	1/2 ton					1.000	0.08	May			0.91	0.74	0.086	0.82		2.48
Pickup truck	1/2 ton					1.000	0.08	May			0.89	0.68	0.907	8.71		10.29
Crawfish combine	12 hp					0.075	11.00	Jun					41.2500	0.20	8.25	8.25
Manuf. crawfish bait	lbs											4.7300	0.40	1.89	1.89	
TOTALS						40.38	31.41	341.16	174.20	9.249	90.67		586.59	1264.44		
INTEREST ON OPERATING CAPITAL														40.68		
UNALLOCATED LABOR														0.00		
TOTAL SPECIFIED COST														1305.12		

Appendix Table 1. A Summary of Projected Costs Based on Reduced Fishing Days for Crawfish and Crawfish-Rice Production, Louisiana, 2008.

	Base	-10%	-20%	-30%
Crawfish Enterprises:				
Northeast Louisiana				
Non-aerated, Owner fishing days	88	79	71	61
Direct Expenses	362.15	346.66	332.86	315.67
Fixed Expenses	161.22	160.66	160.16	159.11
Total Expenses	523.37	507.32	493.02	475.20
Southwest Louisiana				
Non-aerated, Owner fishing days	94	85	75	66
Direct Expenses	587.01	565.45	541.07	518.67
Fixed Expenses	169.55	168.99	168.36	167.80
Total Expenses	756.56	734.44	709.43	686.47
Crawfish -Rice Owner				
fishing days	83	75	67	59
Direct Expenses	1108.71	1083.75	1067.61	1051.48
Fixed Expenses	213.42	205.23	204.73	204.23
Total Expenses	1322.13	1288.98	1272.34	1255.71

Appendix Table 2. Operating Inputs: Estimated Prices, Louisiana, 2008.

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
BAIT					
Crawfish bait (fish)	lbs	0.35	Manuf. crawfish bait	lbs	0.20
CUSTOM					
Airplane fert	cwt	5.00	Airplane fert	acre	5.00
Airplane seed	acre	5.00	Airplane seed	cwt	5.60
Airplane stam	acre	6.50	App by air	appl	4.50
Drying rice	cwt	0.90	Fertilizer truck	acre	5.00
Global pos. system	acre	0.35	Haul rice	cwt	0.30
LARice Air Plant sw	cwt	5.60	LARice GPS Charge SW	acre	0.35
Storage rice	cwt	0.10			
FERTILIZER					
Anhydrous (82%)	lbs	0.15	Nitrogen	lbs	0.54
Nitrogen (32%)	lbs	0.39	Phosphate	lbs	0.44
Potash	lbs	0.36	Urea (45%)	lbs	0.18
FUNGICIDES					
Quadris	oz	1.97	Tilt	oz	2.39
HERBICIDES					
2,4-D Amine 4	pt	1.72	2,4-D LV4	pt	1.93
Facet 75DF	lb	50.75	Londax 60DF	oz	11.25
Stam 4E	qt	5.12			
Hired Labor					
Irrigation labor	hour	9.60	Other labor	hour	9.60
INSECTICIDES					
Karate Z	oz	3.10	Methyl parathion	pt	4.26
Sevin 80% s	lbs	5.90			
OTHER					
Accounting service	dol	1.00	Farmstead & drainage	dol	1.00
Hip boots	pair	74.95	Levee gate	gate	3.50
Misc. overhead	dol	1.00	Plastic	sqft	0.05
Rice forage	ac ai	63.27	Rice gate	each	3.65
Sacks	each	0.40	Seed crawfish	lbs	1.00
Stunted crawfish	lbs	0.80	Supply & misc	dol	1.00
Utilities	dol	1.00	Waders	pair	120.00
SEED					
Common bermuda seed	lbs	4.50	Rice seed	lbs	0.26
Ryegrass seed	lbs	0.41			

Appendix Table 3. Powered Equipment: Estimated Useful Life, Annual Use, Purchase Price, Repair Cost, Fuel Consumption Rate, and Direct and Fixed Cost per Hour, Louisiana, 2008.

ITEM NAME	SIZE	PERF RATE	USEFUL LIFE	ANNUAL USE	PURCHASE PRICE	REPAIR COST	CONS RATE	--DIRECT COST--		--FIXED COST--							
								hrs/ac	years	hours	dollars	percent	/hour	\$/hr	\$/ac	\$/hr	\$/ac
Double Hitch	0		10	1000	0	100	0.00				0.00						
Pickup Truck	1\2 ton		5	800	30,000	45	2.50				10.62						
Tractor (15-30hp) 22			8	600	8,200	15	1.13				3.42						
Tractor (40-59hp) 50			8	600	18,365	15	2.57				8.02						
Tractor (60-89hp) 75			8	600	28,341	15	3.86				12.07						
Tractor (90-115hp) 105			8	600	54,618	15	5.40				17.36						
Tractor (200-249hp) 225			8	600	147,066	15	11.58				38.17						
Tractor (106-130hp) 118			8	600	78,141	15	6.69				21.84						
Tractor (140-159hp) 150			8	600	86,566	15	7.72				25.09						
Tractor (140-159hp) 150 MFWD			8	600	101,499	15	7.72				25.56						
Tractor (160-170hp) 170			8	600	92,716	15	8.75				28.27						
Tractor (180-199hp) 190			8	600	107,324	15	9.77				31.71						
Tractor (200-249)CB 4WD 225			8	600	147,066	15	11.58				38.18						
Tractor (250-349hp) 300			8	600	167,310	15	15.44				50.00						
Tractor GC(90-115hp) 105			8	600	54,618	15	2.59				9.21						
Tractor PTO(60-89hp) 68			8	600	28,341	15	3.86				12.07						
Tractor(140-159hp)CB MFWD 150			8	600	101,499	15	7.72				25.56						
Tractor(250-349hp) 4WD 300			8	600	151,284	15	15.44				49.50						
2 man cf combine	12 hp	0.063	10	923	6,600	40	0.30				1.12						
Boat, Motor&Trailer	14 ft	0.075	8	12	5,775	69	4.00				48.71						
Combine Rice	25 Ft	0.300	10	300	165,000	80	8.60				68.94						
Crawfish combine	12 hp	0.075	10	1098	6,600	40	0.30				1.08						
Feeder truck	1 ton	0.016	10	200	25,325	33	2.66				11.64						
Pickup truck	1/2 ton	1.000	5	800	30,000	45	2.50				10.62						
Truck	5 ton	1.000	12	100	115,000	100	5.00				109.83					142.42	142.42

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, 2008.

ITEM NAME	SIZE	PERF	USEFUL	ANNUAL	PURCHASE	REPAIR	--DIRECT COST--		--FIXED COST--	
		hrs/ac	years	hours	dollars	percent	\$/hr	\$/ac	\$/hr	\$/ac
Backhoe		0.500	10	100	6,000	88	5.28	2.64	8.31	4.15
Blade-Scraper	10'	1.176	20	200	2,728	190	1.29	1.52	1.29	1.51
Cultimulcher	12 Ft	0.160	15	120	3,375	88	1.65	0.26	3.07	0.49
Disk	24 ft	0.081	10	180	26,978	50	7.49	0.61	18.65	1.52
Disk Harrow	32'	0.061	10	180	35,157	50	9.76	0.59	24.31	1.49
Ditcher rotary	1.5 ft	0.020	10	200	4,304	80	1.72	0.03	2.67	0.05
Ditcher side	1.5	0.009	10	200	4,304	80	1.72	0.01	2.67	0.02
Dozer blade	8 ft	0.880	20	100	3,500	66	1.15	1.01	3.35	2.95
Drag	14 ft	0.130	8	200	800	88	0.44	0.05	0.64	0.08
Fertilizer buggy	30 ft	0.060	10	150	10,633	88	6.23	0.37	9.82	0.58
Fertilizer buggy (R)	30 ft	0.060	10	150	1	0	0.00	0.00	0.00	0.00
Field cultivator	24 ft	0.062	10	100	19,178	25	4.79	0.29	23.87	1.48
Field cultivator	32 ft	0.046	10	100	28,281	25	7.07	0.32	35.20	1.64
Grain cart	500 bu	0.057	12	200	14,819	65	4.01	0.22	8.37	0.47
Grain drill	12 ft	0.157	8	150	14,144	45	5.30	0.83	12.03	1.89
Grain drill	20 ft	0.094	8	150	32,350	45	12.13	1.14	27.52	2.59
Harrow	13Ft	0.119	10	200	3,690	70	1.29	0.15	2.29	0.27
Levee plow	8 Ft	0.050	10	150	4,600	50	1.53	0.07	4.25	0.21
Rotary mower	13.3 ft	0.130	10	150	8,336	44	2.44	0.31	7.70	1.00
Rotary mower-levees	6.7 ft	0.500	10	150	3,661	44	1.07	0.53	3.38	1.69
Side Mount Mower	6 ft	0.500	6	50	4,400	20	2.93	1.46	17.53	8.76
Spike harrow	18 ft	0.080	10	200	4,590	70	1.60	0.12	2.85	0.22
Tractor blade	6 ft	1.000	20	200	1,168	190	0.55	0.55	0.55	0.55
Water level	24 ft	0.149	15	100	3,500	66	1.54	0.23	3.83	0.57

Appendix Table 5. Other Durable Inputs: Estimated Repair Cost, Fuel Consumption Rate, Direct Cost per Unit of Measure, and Fixed Cost per Unit of Measure or per Acre, Louisiana, 2008.

ITEM NAME	UNIT	FUEL				
		REPAIR	CONS		DIRECT COST	----FIXED COST----
			COST	RATE		
		\$/U of M	/U of M	\$/U of M	\$/U of M	\$/acre
Crawf irrig double	acin	0.298	2.227	6.756		34.59
Crawf irrig north LA	acin	0.356	0.708	2.409		16.68
Crawf irrig single	acin	0.525	2.227	6.983		34.59
Crawf pond&eq relay	acre	1.071	0.000	1.071		116.05
Crawf pond&eq double	acre	1.060	0.000	1.060		58.09
Crawf pond&eq north	acre	11.587	0.000	11.587		125.78
Crawf pond&eq recir	acre	8.107	0.000	8.107		124.19
Crawf pond&eq single	acre	7.498	0.000	7.498		118.06
Irrigation system 1	acre	3.750	53.958	160.228		42.77

Appendix Table 6. Definitions of Selected Line Items in the Crawfish and Catfish Production Budgets.

Item	Definition
Crawf irrig double	Irrigation system for rice-crawfish double crop production in Southwest Louisiana
Crawf irrig north LA	Irrigation system for crawfish production in North Louisiana
Crawf irrig single	Irrigation system for single-crop crawfish production in Southwest Louisiana
Crawf pond&eq double	Pond and equipment for rice-crawfish double crop production in Southwest Louisiana
Crawf pond&eq north	Pond and equipment for crawfish production in North Louisiana
Crawf pond&eq single	Pond and equipment for single-crop crawfish production in Southwest Louisiana
Irrigation system1	Irrigation system for rice portion of rice-crawfish double-crop production in Southwest Louisiana
Self-Propelled Eq	Pickup truck