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PROJECTED CASH FLOWS AND PROFITABILITY FOR REPRESENTATIVE LOUISIANA FARMS, 1997

by

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PROJECTED CASH FLOWS AND PROFITABILITY FOR REPRESENTATIVE LOUISIANA FARMS, 1997

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INTRODUCTION

Changes in commodity prices and input costs along with adjustments in capital structure significantly affect farm cash flow requirements and whole farm profitability. These changes coupled with crop yield and price variability increase the need for farm business cash flow and profitability planning on a whole farm basis. Planning for profits is expected to affect both the short and long run success of the business and cash flow planning is expected to allow the manager to establish farm business cash needs for a specified period of time (production period) so that cash commitments are met as they come due. Furthermore, agricultural lenders have become increasingly concerned with loan repayment capacity and are placing relatively more emphasis on cash flow analysis in the loan evaluation process. In general, farm managers who develop cash flow and profitability projections should find it easier to justify and to secure adequate financing for their businesses.

The purpose of this report is to supplement the series of annual cost projections for enterprises by providing profitability and cash flow projections for several whole farm situations throughout the state. Whole farm projections of returns and expenses are expected to provide information regarding the relative profitability of individual farming situations throughout the state. Estimates from cash flow projections provide information concerning the timing of cash flows and the distribution of cash flows for individual farm situations and comparison of estimates for these situations provide an indication of the relative cash flow positions of farms across the state. These projections are expected to be of value to farmers, agricultural credit agencies, extension personnel, researchers, and other professionals with an interest in the agricultural production industry.

This report is organized into three general parts. Data sources and procedures used in the study are presented in the first section. In the second section, projected income and cash flow statements for representative farms in major crop producing areas of the state are presented and discussed.¹ The final section summarizes the financial projections for representative farms considered in the study.

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¹ A representative farm in this report is defined to be a farm in which resources and production activities are typical for a given area.

PROCEDURES AND DATA

This report uses the income statement to develop projections of profitability on representative farms while the cash flow statement is used to estimate cash flow projections on these farms. The income statement summarizes the revenues and expenses of the farm business over a specified period of time. If projected revenues for the production year exceed total expenses, a profit will result for the business. A loss for the business will result if projected total expenses exceed projected revenues.

The cash flow statement is the basic tool used to determine farm business cash needs. A cash flow statement provides a summary of expected cash outflows and cash inflows. Cash flows normally include cash items such as operating (direct production) expenses, overhead expenses, debt servicing, capital expenditures, income taxes and family living expenses. Cash inflows normally include farm product sales; however, cash inflows may also include off farm income and other sources of cash income to the farm business. When cash outflows exceed cash inflows, the difference must be met from cash on hand at the beginning of the time period (for example, a month) or from borrowing during the time period. Differences between cash income projections and cash expense projections by month provide an indication of the borrowing needs of farms in this analysis. Specifically, a loan to cover deficits in projected cash flows may be repaid from cash surpluses occurring at a different time in the production period. Alternatively, when cash inflows are expected to exceed cash outflows, the excess may be used to repay loans, to increase cash on hand, to purchase machinery or land or to increase holdings of income earning assets.

The general procedure used in the report was to estimate projected income and cash flows statements for representative farm businesses from 1997 projected enterprise crop and livestock budgets and farm overhead budgets. Whole farm income statement estimates represent a return to labor, management, and risk for tenant operated farms, and a return to labor, management, risk, and land for owner-operated farming situations. Projected cash flow estimates generally include farm enterprise production receipts, variable production (direct) expenses and farm overhead cash expenses. Net cash income estimates (differences between production receipts and variable direct production expenses and overhead costs) generally represent required borrowing or dollar amounts that may be used to repay existing farm debt, to meet family living expenses, to pay income taxes or to purchase additional land and machinery.

Income and cash flow projections in this report were calculated by an enterprise budget generator developed at Mississippi State University and used at Louisiana State University. The budget generator is a microcomputer program which specifies a system of computational procedures for calculating enterprise budgets. The budget generator was then used to estimate farm income and cash flow statements by aggregating specified enterprise budgets into the whole farming situations.

Study Area and Source of Data

Profitability and cash flow projections were estimated for representative farms in seven major Louisiana crop producing areas. As shown in Figure 1, these include the Red River, Central Louisiana, Ouachita and Mississippi Deltas, Macon Ridge, Southwest Louisiana, and

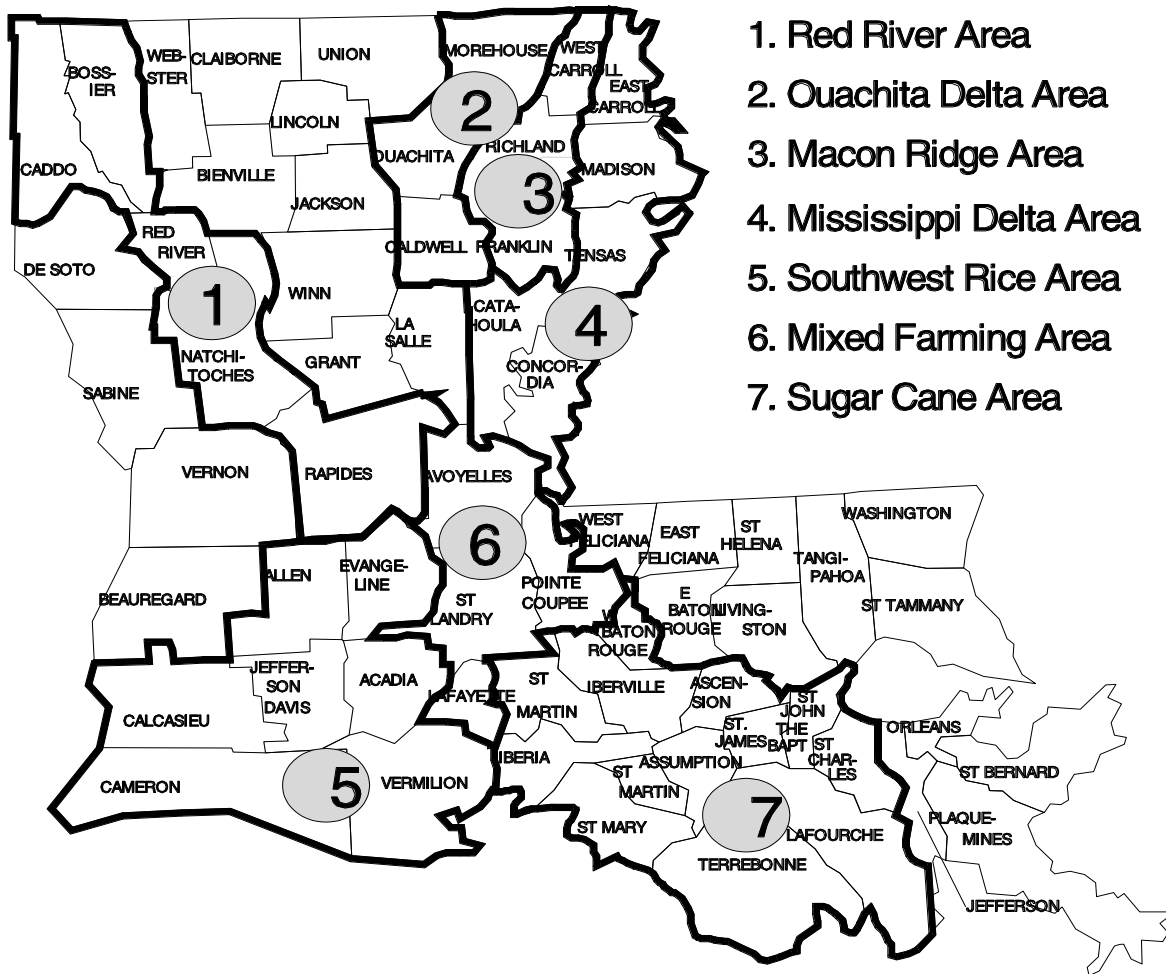


Figure 1. Study Areas for Representative Louisiana Farms.

the Sugar Cane producing area. Some areas were modified to maintain consistency with study areas of other companion publications (projected enterprise cost and return budgets in A.E.A. Information Series Numbers 150-154). Projections were estimated for the combined Mississippi Delta and Ouachita Delta crop producing areas. Representative farms in the Sugar Cane area are based on enterprise budgets estimated for the River Region within this area. River Region parishes include Iberville, West Baton Rouge, Assumption, Ascension, Saint James, Saint John the Baptist, Lafourche, Saint Charles, and Terrebonne. In addition, projections were estimated for a representative dairy farm which was not restricted to a specific area in the state.

Farm organization data for representative farms in this study were developed from a statewide farm structure survey conducted by the LSU Department of Agricultural Economics and Agribusiness. These data along with farm enterprise cost and return budgets are used to estimate projected profitability and cash flows for representative farming situations.

Interest Computation

An annual rate of 10 percent was used to compute operating interest charges in whole farm income statements. Operating capital was assumed to be borrowed as necessary for the timely acquisition of operating inputs. For income statement analysis, interest on investment in machinery and equipment was charged on a long term rate of interest at 6.4 percent. This represents a real rate of interest and was computed from the nominal interest rate adjusted for inflation (implicit gross national product deflator) over the last 15 years. The real interest rate represents a charge for the use of depreciable capital and represents a real rate of return on investment plus a premium for risk. For projected cash flow statements, interest on operating capital (10 percent) was charged on a monthly basis for the amount of required borrowing.

Hired Labor

With the exception of the dairy representative farm, it was assumed that 200 hours of family labor were available each month for farm businesses considered in the analysis. It was assumed that 240 hours of family labor were available each month for the representative dairy farm. For the whole farm projections, this labor was assumed available at no charge. Hired labor for farm businesses was estimated by the difference between total monthly labor requirements and the amount of available family labor. Total labor requirements included the sum of all labor associated with crop and livestock enterprises as well as monthly overhead labor requirements. Hired labor above available operator labor was charged at \$6.00 per hour. Necessary hired skilled labor to operate harvest machinery was charged at \$10.00 per hour.

Description of Representative Farms

Descriptive data for the 13 representative farm situations for which projected cash flows were estimated are shown in Table 1. For example, data in Table 1 describes three representative farms in the Red River area of Louisiana. The first representative farm included an owner-operator producing 475 acres of cotton on sandy soils, 374 acres of soybeans on clay soils, and 300 acres of grain sorghum on mixed soils. Total acreage for this farming situation is

Table 1. Resource Data, Crop and Livestock Enterprises, and Tenure Situations for Representative Louisiana Farms, 1997.

Area, Tenure and Enterprise Budget Descriptions	Units	Quantity	AEA Number ^{a/}
RED RIVER AREA			
<u>Owner-Operator (Crop Farm)</u>			
Milo, 6 Row Equipment, 38 Inch Rows	Acres	300	152
Cotton: Sandy Soil, 6-Row Equipment, Solid Planted	Acres	475	152
Soybeans: Clay Soil, 6-Row Equipment, 38 Inch Rows	Acres	374	152
<u>Owner-Operator (Crop and Livestock Farm)</u>			
Milo, 6 Row Equipment, 38 Inch Rows	Acres	300	152
Cotton: Sandy Soil, 6-Row Equipment, Solid Planted	Acres	475	152
Soybeans: Clay Soil, 6-Row Equipment, 38 Inch Rows	Acres	374	152
Cow-Calf: 435 Pound Weanling Calf, with Replacements, Alluvial Soils, North Louisiana	Head	80	150
Native Pasture: Annual Maintenance of Native Pastures, Louisiana	Acres	261	150
Hay Harvesting from Pasture: Costs Per Ton for Harvesting Hay from Pasture, 1.5 tons Per Cutting, Louisiana	Ton	115	150
<u>Tenant-Operator (Crop Farm)</u>			
Milo, 6-Row Equipment, 38 Inch Rows	Acres	300	152
Cotton: Sandy Soil, 6-Row Equipment, Solid Planted	Acres	475	152
Soybean: Clay Soil, 6-Row Equipment, 38 Inch Rows	Acres	374	152
MACON RIDGE			
<u>Owner-Operator</u>			
Cotton: Sandy Soil, 6-Row Equipment, Solid Planted	Acres	405	151
Soybeans: Sandy Soil, 6-Row Equipment, 38 Inch Rows	Acres	149	151

Table 1. Continued.

Area, Tenure and Enterprise Budget Descriptions	Units	Quantity	AEA Number ^{a/}
<u>MACON RIDGE (continued)</u>			
<u>Tenant-Operator</u>			
Cotton: Sandy Soil, 6-Row Equipment, Solid Planted	Acres	405	151
Soybeans: Sandy Soil, 6-Row Equipment, 38 Inch Rows	Acres	149	151
<u>MISSISSIPPI DELTA</u>			
<u>Owner-Operator</u>			
Cotton: Sandy Soil, 6-Row Equipment, Solid Planted	Acres	629	151
Soybeans: Clay Soil, 6-Row Equipment, 38 Inch Rows	Acres	745	151
<u>Tenant-Operator</u>			
Cotton: Sandy Soil, 6-Row Equipment, Solid Planted	Acres	629	151
Soybeans: Clay Soil, 6-Row Equipment, 38 Inch Rows	Acres	745	151
<u>SOUTHWEST RICE AREA</u>			
<u>Owner-Operator</u>			
Rice: Water Planted	Acres	443	153
Soybeans: Drill Planted	Acres	436	153
<u>Tenant-Operator</u>			
Rice: Water Planted	Acres	443	153
Soybeans: Drill Planted	Acres	436	153
<u>CENTRAL AREA</u>			
<u>Owner-Operator</u>			
Corn: Sandy Soil, 6-Row Equipment, 38 Inch Rows	Acres	445	152
Soybeans: Clay Soil, 6-Row Equipment, 38 Inch Rows	Acres	412	152
<u>Tenant-Operator</u>			
Corn: Sandy Soil, 6-Row Equipment, 38 Inch Rows	Acres	445	152
Soybeans: Clay Soil, 6-Row Equipment, 38 Inch Rows	Acres	412	152

Table 1. Continued.

Area, Tenure and Enterprise Budget Descriptions	Units	Quantity	AEA Number ^{a/}
SUGAR CANE AREA			
<u>Tenant-Operator</u>			
Sugar Cane: Cultivation and Harvest, 3-Row Equipment Alluvial Soils, River Parishes	Acres	679	154
Sugar Cane: Cultivation and Harvest, 3-Row Equipment, Alluvial Soils, River Parishes (Sugar Cane Harvested for Planting)	Acres	47	154
Sugar Cane: Fallow and Plant, 3-Row Equipment and Mechanical Planter, Alluvial Soils, River Parishes	Acres	242	154
DAIRY OPERATION			
<u>Owner-Operator</u>			
Dairy Cow: Average Production, Lagoon Manure Handling System, Pasture-Hay Feeding	Head	114	150
Harvesting Hay from Pasture: Cost Per Ton for Harvesting Hay from Pasture, 1.5 Tons Per Cutting, Louisiana	Tons	185	150
Temporary Winter Pasture for Dairy: Prepared Seedbed, Louisiana	Acres	94	150
Summer Permanent Improved Pasture for Dairy: Annual Maintenance of Summer Permanent Pastures	Acres	114	150
Temporary Summer Pasture for Dairy: Prepared Seedbed	Acres	19	150
Native Pasture	Acres	26	150

^{a/}Refers to the Department of Agricultural Economics and Agribusiness Information Series Number which contains enterprise budgets used in developing whole farm cash flow and profitability estimates.

1,149 acres. Moreover, no government support payments were assumed for the farm, and it was assumed that 6-row equipment was typical for this size farm in the area. Enterprise crop budgets for this farming situation are found in Agricultural Economics and Agribusiness Information Series Number 152.

The second representative farm shown in Table 1 for the Red River area was a crop and livestock farm. This farm differs from the previous farm in that a livestock enterprise was added to existing crop enterprises. In addition to the 1,149 acres of cropland, this farm included 80 head of brood cows and 261 acres of pasture.

The third farming situation for the Red River area was a tenant-operated farm.² Acreages for this situation were the same as the owner-operated farm, however tenant-operated budgets were used to represent this farming situation.

Northeast Louisiana farming situations were represented by two farms in the Macon Ridge area and two farms in the Mississippi Delta area. Mississippi Delta farming situations were considered to be representative of farms in the Ouachita Delta area because of similarity of production levels and practices between the two areas. Both owner-operated and tenant-operated farm (Table 1) in the Macon Ridge were assumed to include 405 acres of cotton and 149 acres of soybeans produced on sandy soils (554 total acres). Representative farms in Mississippi Delta were assumed to include 629 acres of cotton produced on sandy soils and 745 acres of soybeans produced on clay soils. No governments support programs were assumed for these farms and no acreage reduction programs were assumed on farms.

Both owner-operated and tenant-operated farming situations for the Southwest Rice Area were characterized by 443 acres of rice production and 436 acres of soybean production (879 total acres). Soils for representative farms within the area were assumed to be coastal prairie soils with relatively poor runoff and poor internal drainage. Rice was assumed to be water planted and soybeans were assumed to be drill planted. Furthermore, it was assumed that 6-row machinery was used on these farms.

Farm structure survey data suggested that a typical farm in Central Louisiana produced corn and soybeans (Table 1). Both owner and tenant-operated farms included 445 acres of corn produced on sandy soils and 412 acres of soybeans produced on clay soils.

The farm in the Sugar Cane area was represented by a tenant-operated situation and was based on enterprise budgets estimated for the River Region area.³ The farm includes 968 acres and uses three-row equipment. The representative farm was assumed to: 1) have 25 percent of

² It is recognized that many of the farms in this area and other areas of the state include both owned and rented land. It was not feasible to include these intermediate situations in this report. However, both owner-operated and tenant-operated representative farms presented in this report provide the basis to estimate and identify cash flow extremes and these estimates may be used to generalize to other tenure arrangements.

³ Parishes included in this area are Iberville, West Baton Rouge, Assumption, Ascension, Saint James, Saint John the Baptist, Lafourche, Saint Charles, and Terrebonne. Representative farms were assumed to include 40 percent sandy soils and 60 percent clay soils.

total farm acreage in fallow and 2) use one-acre of sugar cane to plant five acres of fallowed land. For example, data in Table 1 show the three-row representative farming situation to consist of 679 acres of sugar cane production, 47 acres that is harvested for planting, and 242 acres of land that is fallowed and planted each year. Five acres of the fallowed land is planted with disease free seed cane each year.

The final representative farm consisted of a 114 cow dairy operation with average milk production (10,300 pounds per cow per year). As shown in Table 1, the operation included 114 acres of permanent pasture, 94 acres of temporary winter pasture 19 acres of temporary summer pasture and 26 acres of native pasture. It was assumed that the operation used a lagoon manure handling system and hay harvested from permanent pastures and grazing from pastures provided necessary forages for milk production. This situation was assumed to be representative of dairy operations in all areas of the state.

INCOME PROJECTIONS

This section presents and discusses net farm income and net cash income projections for representative farms described in the previous section. Appropriate enterprise budgets, overhead budgets, and resource situations described in Table 1 for representative farms were used to estimate projections. Specifically, a projected income statement which estimates net farm income from detailed estimates of income, direct expenditures and fixed expenses is developed for each representative farm. These estimates provide a measure of expected profitability for farming situations for the upcoming year. A projected monthly cash flow statement is also estimated for each representative farming situation. The projected cash flow statement estimates net cash income from detailed monthly estimates of cash income and direct cash expenditures. These estimates establish projected cash needs and hence borrowing necessary for each business over the 1997 production year. In general, information presented here along with information presented in companion publications may be used to estimate cash flows for other farming situations.

Net farm income and net cash income projections do not include government support payments. Enterprise budgets on which these estimates are based do not include any costs or returns associated with government program participation because current farm policy proposals decouple payments and production. Because of these changes, 1997 whole farm projections are not comparable with projections for previous years.

Red River Area

Projected returns and expenses for 1997 were estimated for three different farming situations in the Red River Delta area. As shown in Table 2, these included a tenant-operated crop farm (1,149 total acres), an owner-operated crop farm (1,149 total acres), and an owner-operated crop and livestock farm (1,410 total acres). It was assumed that 200 hours of family labor were available to each farm on a monthly basis at no cost. Total income in the analysis represents total dollar sales of commodities produced by farms and do not include any costs or

Table 2. Projected Returns and Expenses for Tenant and Owner-Operated Farms, 6-Row Equipment, Red River Area, Louisiana, 1997.

ITEM	Tenant Operator ^a	Crop Farm	Owner-Operator
			Crop and Livestock Farm
..... Dollars			
INCOME			
Cotton lint	22,6100	226,100	226,100
Cottonseed prod	25,769	25,769	25,769
Cotton checkoff	-1,281	-1,600	-1,600
Lint share rent	-45,220		
Seed share rent	-5,154		
Soybean	72,930	72,930	72,930
Soybean share rent	-18,233		
Milo	64,800	64,800	64,800
Milo share rent	-16,200		
Weanling calf			13,152
Cull heifer			2,038
Cull cow			1,512
TOTAL INCOME	303,511	387,999	404,701
DIRECT EXPENSES			
Custom	9,085	9,085	9,331
Defoliant	8,402	8,402	8,402
Feed			2,990
Fertilizer	26,080	26,080	26,080
Fungicides	9,263	9,263	9,263
Herbicides	36,777	36,777	36,777
Hired labor ^b	33,913	37,898	52,655
Insecticides	43,755	43,753	43,753
Other ^c	36,767	49,785	56,277
Seed	12,714	12,714	12,714
Diesel fuel	13,075	13,436	14,311
Gasoline	6,927	6,928	8,179
Repair & maintenance	42,799	43,126	47,917
Interest on op. Cap.	12,328	12,943	14,603
TOTAL DIRECT EXPENSES	291,885	310,190	343,252
RETURNS ABOVE DIRECT EXPENSES	11,626	77,809	61,449
TOTAL FIXED EXPENSES^d	66,045	66,708	78,573
TOTAL SPECIFIED EXPENSES	357,930	376,898	421,825
NET FARM INCOME^e	-54,419	11,101	-17,124

^a The landlord shares in one-fourth of milo production and soybean production on clay soils and the landlord shares in one-fifth of cotton production on sandy soils with the landlord paying one-fifth of ginning cost.

^b Hired labor estimates do not include 200 monthly hours of free family labor.

^c Other expenditures include items such as ginning of cotton, insect scouting, medication of livestock, marketing charges for livestock, and non-machinery and non-labor overhead expenditure items shown in Appendix Tables 1 and 2.

^d Includes charges for depreciation, interest, insurance for machinery and equipment.

^e Represents a return to labor, management, and risk for tenant-operated farm and a return to labor, management, risk, and land for owner-operated situations.

Table 3. Projected Monthly Cash Flow for a Representative Tenant-Operated Cotton, Soybean and Milo Farm, 6-Row Equipment, Red River Area, Louisiana, 1997.

ITEM	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
----- dollars -----												
TOTAL CASH INCOME	0	0	0	0	0	0	0	0	48600	54697	200214	0
CASH OPERATING EXPENSES ^a												
Custom	0	0	0	0	0	0	735	3244	3491	1615	0	0
Defoliant	0	0	0	0	0	0	0	0	0	8402	0	0
Fertilizer	0	0	0	16720	9360	0	0	0	0	0	0	0
Fungicides	0	0	0	9263	0	0	0	0	0	0	0	0
Herbicides	0	0	0	19198	6503	7960	3116	0	0	0	0	0
Hired labor ^b	3300	1427	733	6484	3371	2720	834	686	2969	5319	4579	1491
Insecticides	0	0	0	4587	512	0	10549	21311	5295	1501	0	0
Other ^c	712	712	517	494	483	494	483	494	483	494	30505	896
Seed	0	0	0	7104	5610	0	0	0	0	0	0	0
Fuel	2339	480	772	3992	2117	2244	723	626	1532	2841	1852	484
Repair & maint.	2849	600	1171	6862	3406	3239	1170	976	3922	12104	5856	644
Int. on op. Cap.	1019	433	380	4840	1638	885	783	973	393	521	421	42
TOTAL	10219	3652	3573	79544	33000	17542	18393	28310	18085	32797	43213	3557
NET CASH INCOME ^d	-10219	-3652	-3573	-79544	-33000	-17542	-18393	-28310	30515	21900	157001	-3557
CASH POSITION ^e	-10219	-13871	-17444	-96988	-129988	-147530	-165923	-194233	-163718	-141818	15183	11626

^a Estimated from direct expenses from enterprise budgets. Estimates include cash overhead expenditures estimated in Appendix Table 1.

^b Hired labor estimates do not include 200 monthly hours of family labor available at no charge.

^c Other expenditures include items such as ginning of cotton, insect scouting, non-machinery and non-labor overhead expenditure items presented in Appendix Table 1.

^d Difference between total cash income and total cash operating expenses.

^e Cash position is the accumulated sum of net cash income. The ending cash balance for the business is estimated by the cash position in December.

Table 4. Projected Monthly Cash Flow for a Representative Owner-Operated Cotton, Soybean and Milo Farm, 6-Row Equipment, Red River Area, Louisiana, 1997.

ITEM	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
----- dollars -----												
TOTAL CASH INCOME	0	0	0	0	0	0	0	0	64800	72930	250269	0
CASH OPERATING EXPENSES ^a												
Custom	0	0	0	0	0	0	735	3244	3491	1615	0	0
Defoliant	0	0	0	0	0	0	0	0	0	8402	0	0
Fertilizer	0	0	0	16720	9360	0	0	0	0	0	0	0
Fungicide	0	0	0	9263	0	0	0	0	0	0	0	0
Herbicide	0	0	0	19198	6503	7960	3116	0	0	0	0	0
Hired labor ^b	4161	2288	871	6709	3595	2944	1058	910	3194	5543	4273	2352
Insecticide	0	0	0	4587	512	0	10547	21311	5295	1501	0	0
Other ^c	1356	1356	827	827	816	827	816	827	816	827	36825	3665
Seed	0	0	0	7104	5610	0	0	0	0	0	0	0
Fuel	2339	480	772	3992	2117	2244	723	626	1532	2841	2214	484
Repair & maint.	2849	600	1171	6862	3406	3239	1170	976	3922	12104	6183	644
Int. on op. Cap.	1169	571	418	4882	1675	917	811	996	411	535	486	72
TOTAL	11874	5295	4059	80144	33594	18131	18976	28890	18661	33368	49981	7217
NET CASH INCOME ^d	-11874	-5295	-4059	-80144	-33594	-18131	-18976	-28890	46139	39562	200288	-7217
CASH POSITION ^e	-11874	-17169	-21228	-101372	-134966	-153097	-172073	-200963	-154824	-115262	85026	77809

^a Estimated from direct expenses from enterprise budgets. Estimates include cash overhead expenditures estimated in Appendix Table 2.

^b Hired labor estimates do not include 200 monthly hours of family labor available at no charge.

^c Other expenditures include ginning of cotton, insect scouting, non-machinery and non-labor overhead expenditure items presented in Appendix Table 2.

^d Difference between total cash income and total cash operating expenses.

^e Cash position is the accumulated sum of net cash income. The ending cash balance for the business is estimated by the cash position in December.

Table 5. Projected Monthly Cash Flow for a Representative Owner-Operated Cotton, Soybean, Milo and Cow-Calf Farm, 6-Row Equipment, Red River Area, Louisiana, 1997.

ITEM	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
----- dollars -----												
TOTAL CASH INCOME	0	0	0	0	0	0	0	0	64800	72930	250269	16702
CASH OPERATING EXPENSES ^a												
Custom	0	0	0	0	0	0	735	3244	3491	1615	0	246
Defoliant	0	0	0	0	0	0	0	0	0	8402	0	0
Feed	0	0	0	0	0	240	0	0	0	0	0	2750
Fertilizer	0	0	0	16720	9360	0	0	0	0	0	0	0
Fungicide	0	0	0	9263	0	0	0	0	0	0	0	0
Herbicide	0	0	0	19198	6503	7960	3116	0	0	0	0	0
Hired labor ^b	7215	4369	1515	8253	4422	4550	1546	1549	3696	6544	4834	4162
Insecticide	0	0	0	4587	512	0	10547	21311	5295	1501	0	0
Other ^c	1664	1664	1015	1815	1001	1073	1001	1015	1801	1015	37788	5425
Seed	0	0	0	7104	5610	0	0	0	0	0	0	0
Fuel	2551	688	952	4111	2318	2645	829	740	1639	2956	2356	705
Repair & maint.	4724	850	1393	7008	3686	4220	1307	1118	4069	12255	6370	917
Int. on op. Cap.	1714	832	520	5092	1770	1088	857	1041	470	571	517	131
TOTAL	17868	8403	5395	83151	35182	21776	19938	30018	20461	34859	51865	14336
NET CASH INCOME ^d	-17868	-8403	-5395	-83151	-35182	-21776	-19938	-30018	44339	38071	198404	2366
CASH POSITION ^e	-17868	-26271	-31666	-114817	-149999	-171775	-191713	-221731	-177392	-139321	59083	61449

^a Estimated from direct expenses from enterprise budgets. Estimates include cash overhead expenditures estimated in Appendix Table 2.

^b Hired labor estimates do not include 200 monthly hours of family labor available at no charge.

^c Other expenditures include items such as ginning of cotton, insect scouting, medication of livestock, marketing charges for livestock, and non-machinery and non-labor overhead expenditure items presented in Appendix Table 2.

^d Difference between total cash income and total cash operating expenses.

^e Cash position is the accumulated sum of net cash income. The ending cash balance for the business is estimated by the cash position in December.

returns associated with government payments. Total direct expenses generally represent variable production expenditures including overhead while total fixed expenses represent charges for depreciation, interest, and insurance on machinery and equipment. Net farm income estimates represent a return to labor, management, and risk for the tenant representative farm and a return to labor, management, risk, and land for the owner-operated representative farms.

Differences in tenure arrangements and enterprise combinations are reflected in income and expense categories shown in Table 2. Crop share rental arrangements were assumed for the tenant farm. More specifically, it was assumed that the landlord shares in one-fourth of soybean production, one-fifth of grain sorghum production, and one-fifth of cotton production on sandy soils with the landlord paying one-fifth of ginning costs. Results in Table 2 indicate net farm income to be less for the tenant-operated farm than for the owner-operated farms. One reason for this result is that a land charge was made for the tenant farming situation whereas a charge for the land resource was not made for each of the owner-operated scenarios.

Estimates provided in Tables 3, 4, and 5 show projected whole farm cash flows by month for 1997. Net cash income is the difference in monthly total cash income and total cash expenses. Net cash income provides a measure of required borrowing each month. If the monthly net cash income is negative, then borrowing to meet cash expenses is necessary. If the monthly net cash income is positive, then no borrowing is necessary in the month. For example, net cash income estimates in Table 3 indicate that borrowing is necessary in the months of January through August for the tenant-operated farming situation. Cash position is the accumulated sum of net cash income and represents the cash balance for the business at any given month. For example, the ending cash balance for tenant-operated farm for the month of December is \$11,626.

Figure 2

Distribution of Direct Expenses by Item
 Tenant Cotton- Soybean-Milo Farm, Red River Area, Louisiana, 1997.

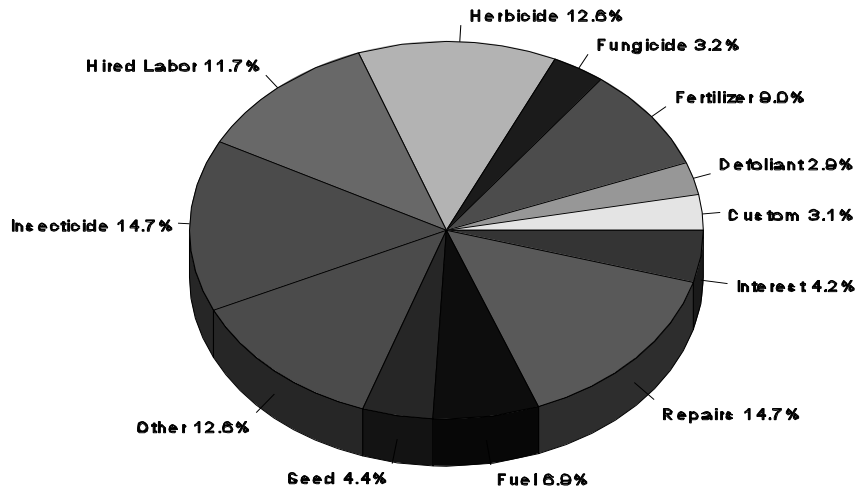


Figure 3

Cash Expenses and Accumulated Borrowing
 Tenant Cotton-Soybean-Milo Farm, Red River Area, Louisiana, 1997.

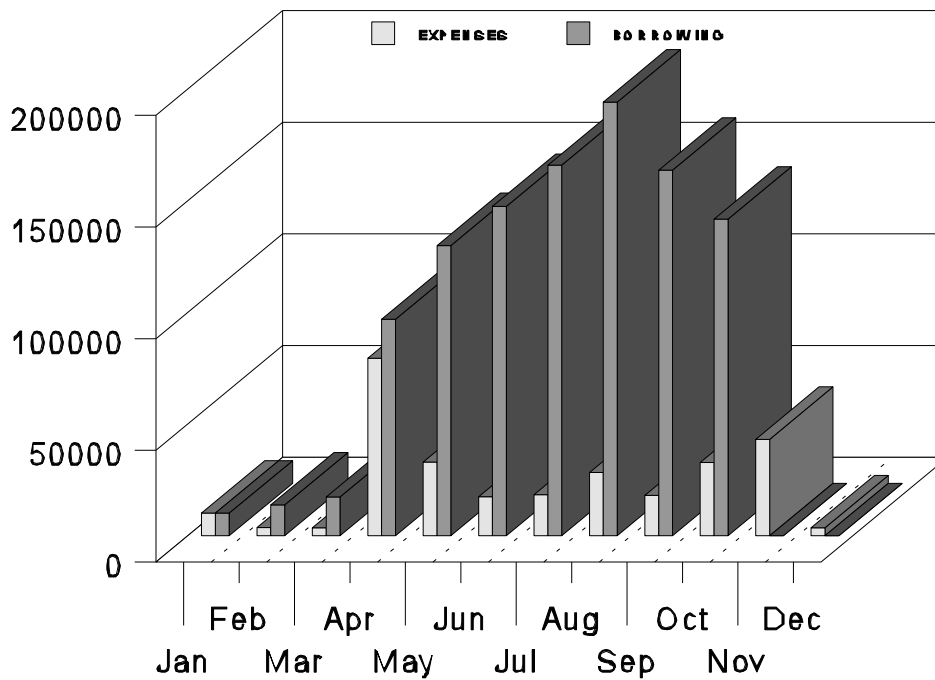


Figure 4

Distribution of Direct Expenses by Item

Owner Cotton- Soybean-Milo Farm, Red River Area, Louisiana, 1997.

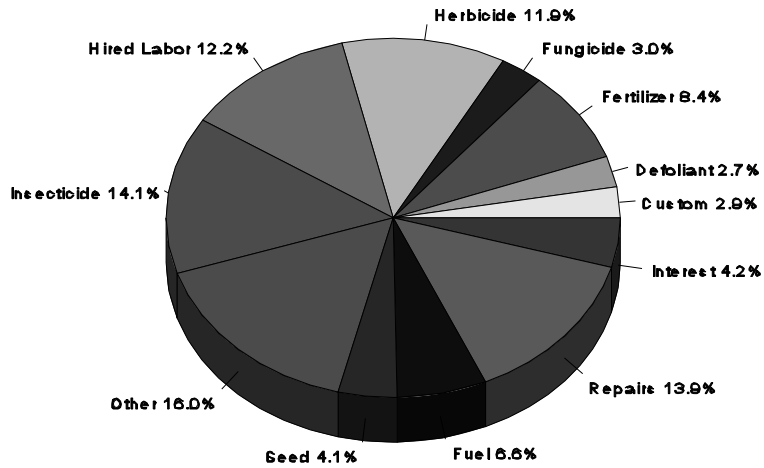


Figure 5

Cash Expenses and Accumulated Borrowing

Owner Cotton-Soybean-Milo Farm, Red River Area, Louisiana, 1997.

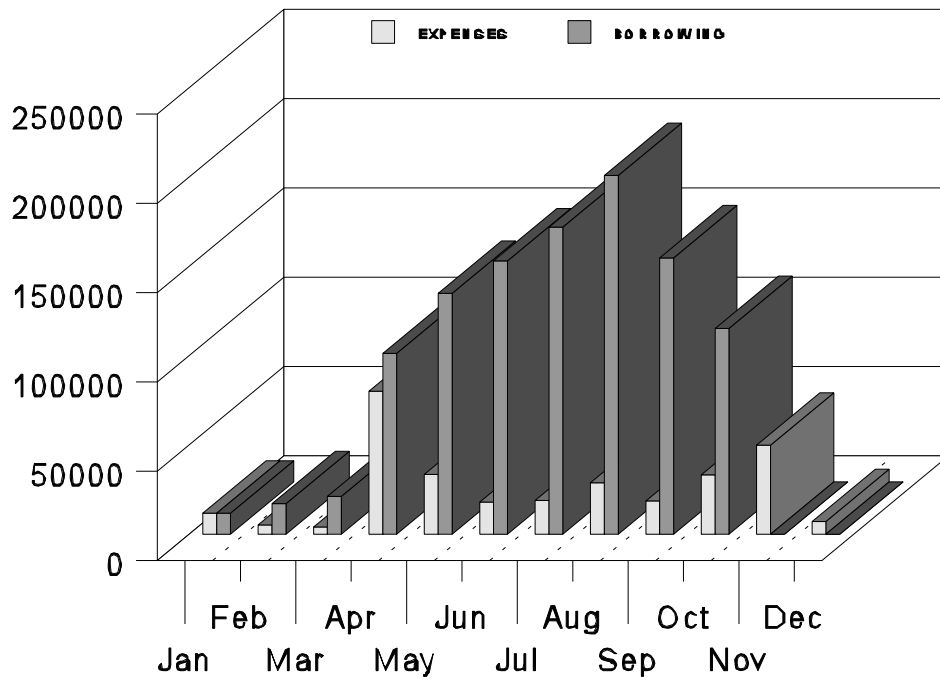


Figure 6

Distribution of Direct Expenses by Item
 Owner Crop-Livestock Farm, Red River Area, Louisiana, 1997.

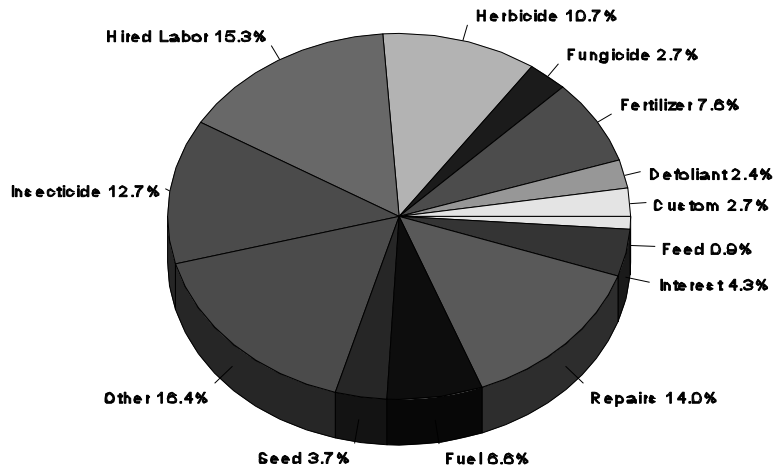
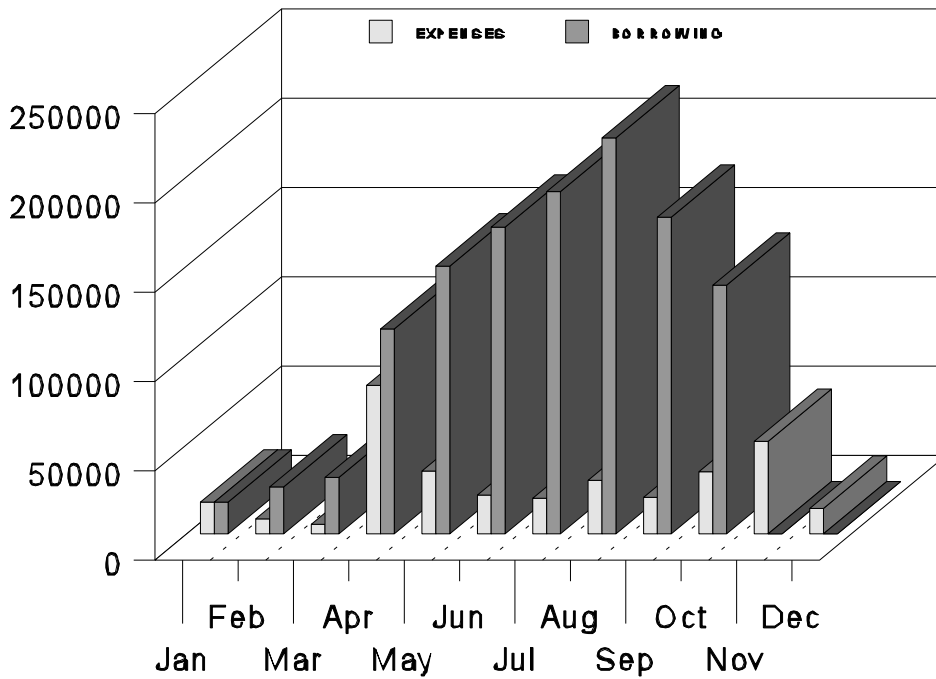


Figure 7

Cash Expenses and Accumulated Borrowing
 Owner Crop-Livestock Farm, Red River Area, Louisiana, 1997.



The percentage distribution of direct expenses for farming situations shown in Table 2 are illustrated in Figures 2, 4, and 6. For instance, data presented in Figure 2 indicate that repair and maintenance of farm machinery accounts for 14.7 percent of total operating expenses for the tenant-operated farm while other expenses account for 12.6 percent of total expenditures. Charges for the ginning of cotton, insect scouting, and non-machinery and non-labor cash overhead expenses were included in the other expenditure category. Interest expenses, which account for 4.2 percent of total operating cash expenses, are less than the annual interest rate of 10 percent because operating capital was not borrowed for the full production period but was borrowed when expenditures were needed.

Monthly cash expenses shown in Tables 3, 4, and 5 are illustrated in Figures 3, 5, and 7, respectively. Cash expenses across months generally reflect seasonal planting and harvesting of crops for all farming situations. Accumulated borrowing was estimated assuming that the representative farm obtains a loan to cover cash deficits throughout the production period. Estimates indicate that accumulated borrowing for the three farming situations peaks in August and then declines as crops are harvested and operating loans are repaid.

In general, income statement estimates indicate negative profits for the tenant and owner-operated crop and livestock farming situations in the Red River area of Louisiana. The results further suggest that without government payments, all farming scenarios are expected to experience losses. Ending cash balance estimates (cash position in December) presented in Tables 4, and 5 suggest that cash flows are expected to be sufficient to cover cash family living expenses and income taxes. However, those operations who need to replace capital equipment and those operations with relatively large debt obligations (principal and interest payments) will experience cash flow and hence financial problems in 1997. The relatively small cash position estimate (\$11,626) suggests that the tenant-operated farming situation will experience cash flow problems in 1997.

Northeast Louisiana

Projected income statements for 1997 were estimated for representative farms in two Northeast Louisiana areas. The farming areas were the Macon Ridge which included West Carrol, Richland, and Franklin parishes and the Mississippi Delta which included East Carrol, Madison, Tensas, Catahoula, and Concordia parishes. Mississippi Delta farming situations were considered to be representative of farming situations in the Ouachita Delta because of the similarity of production levels and practices between the two areas. Annual projected income and expense data are shown in Table 6 for representative farms in the Macon Ridge and the Mississippi Delta areas. Total income in the analysis represents total dollar sales of commodities produced by farms (no government program payments are included). Total direct expenses generally represent variable production expenditures including overhead while total fixed expenses represent charges for depreciation, interest, and insurance on machinery and equipment. Net farm income estimates represent a return to labor, management, and risk for the tenant representative farm and a return to labor, management, risk, and land for the owner-operated representative farms.

Differences in tenure arrangements and production practices between tenure situations are reflected in income and expense categories shown in Table 6. Tenant-operators in both

Table 6. Projected Returns and Expenses for Tenant and Owner-Operated Farms, 8-Row Equipment, Northeast Louisiana, 1997.

ITEM	MACON RIDGE ^a		MISSISSIPPI DELTA ^a	
	Tenant Operator ^b	Owner Operator	Tenant Operator ^b	Owner Operator
..... Dollars				
INCOME				
Cotton lint	179,010	179,010	342,176	342,176
Cottonseed prod	20,412	20,412	38,998	38,998
Cotton checkoff	-1,010	-1,267	-1,816	-2,422
Lint share rent	-35,802		-68,435	
Seed share rent	-4,091		-7,800	
Soybean	20,339	20,339	145,275	145,275
Land share rent	-5,085		-36,319	
TOTAL INCOME	173,773	218,494	412,079	524,027
DIRECT EXPENSES				
Custom	8,824	8,824	8,047	8,047
Defoliant	4,805	4,805	11,126	11,126
Fertilizer	20,108	20,108	14,719	14,719
Fungicides	7,898	7,898	12,266	12,266
Herbicides	18,258	18,258	36,030	36,030
Hired labor ^c	7,944	9,527	40,813	46,069
Insecticides	27,762	27,762	50,248	50,248
Other ^d	26,005	34,315	51,211	69,221
Seed	5,997	5,997	17,364	17,364
Diesel fuel	6,828	6,828	16,554	16,553
Gasoline	3,047	3,047	7,906	7,906
Repair & maintenance	23,068	23,068	52,285	52,286
Interest on op. Cap.	7,472	7,785	13,749	14,490
TOTAL DIRECT EXPENSES	168,016	178,222	332,318	356,325
RETURNS ABOVE DIRECT EXPENSES	5,757	40,272	79,761	167,702
TOTAL FIXED EXPENSES^e	35,010	35,010	81,036	81,036
TOTAL SPECIFIED EXPENSES	203,026	213,232	413,354	437,361
NET FARM INCOME^f	-29,253	5,262	-1,275	86,666

^a The Macon Ridge representative farms consist of 405 acres of cotton and 149 acres of soybeans, while the Mississippi Delta representative farms consist of 629 and 745 acres of cotton and soybeans, respectively.

^b The landlord shares in one-fourth of soybean production on clay soils and the landlord shares in one-fifth of cotton production on sandy soils with the landlord paying one-fifth of the ginning cost.

^c Hired labor estimates do not include 200 monthly hours of free family labor.

^d Other expenditures include items such as ginning of cotton, insect scouting, non-machinery and non-labor overhead expenditure items shown in Appendix Tables 1 and 2.

^e Includes charges for depreciation, interest, insurance for machinery and equipment.

^f Represents a return to labor, management, and risk for tenant-operated farm and a return to labor, management, risk, and land for owner-operated situations.

Table 7. Projected Monthly Cash Flow for a Representative Tenant-Operated Cotton and Soybean Farm, 8-Row Equipment, Macon Ridge Area, Louisiana, 1997.

ITEM	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
TOTAL CASH INCOME	0	0	0	0	0	0	0	0	0	15254	158519	0
CASH OPERATING EXPENSES ^a												
Custom	0	0	0	1438	0	0	1701	2708	1701	1276	0	0
Defoliant	0	0	0	0	0	0	0	0	0	4805	0	0
Fertilizer	3240	0	0	9497	7371	0	0	0	0	0	0	0
Fungicides	0	0	0	7898	0	0	0	0	0	0	0	0
Herbicides	0	0	0	7983	7320	2955	0	0	0	0	0	0
Hired labor ^b	404	0	0	1558	868	389	0	0	0	1967	2758	0
Insecticides	0	0	0	3911	437	0	4971	12060	6383	0	0	0
Other ^c	343	343	249	238	233	238	233	238	233	238	22987	432
Seed	0	0	0	3985	2012	0	0	0	0	0	0	0
Fuel	749	231	448	1945	1159	1089	215	231	217	1568	1790	233
Repair & maint.	1074	289	698	2948	1938	1579	280	289	301	8166	5196	310
Int. on op. Cap.	689	209	202	2866	1297	391	359	558	258	313	310	20
TOTAL	6499	1072	1597	44267	22635	6641	7759	16084	9093	18333	33041	995
NET CASH INCOME ^d	-6499	-1072	-1597	-44267	-22635	-6641	-7759	-16084	-9093	-3079	125478	-995
CASH POSITION ^e	-6499	-7571	-9168	-53435	-76070	-82711	-90470	-106554	-115647	-118726	6752	5757

^a Estimated from direct expenses from enterprise budgets. Estimates include cash overhead expenditures estimated in Appendix Table 1.

^b Hired labor estimates do not include 200 monthly hours of family labor available at no charge.

^c Other expenditures include ginning of cotton, insect scouting, non-machinery and non-labor overhead expenditure items presented in Appendix Table 1.

^d Difference between total cash income and total cash operating expenses.

^e Cash position is the accumulated sum of net cash income. The ending cash balance for the business is estimated by the cash position in December.

Table 8. Projected Monthly Cash Flow for a Representative Owner-Operated Cotton and Soybean Farm, 8- Row Equipment, Macon Ridge Area, Louisiana, 1997.

ITEM	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
----- dollars -----												
TOTAL INCOME	0	0	0	0	0	0	0	0	0	20339	198155	0
DIRECT EXPENSES ^a												
Custom	0	0	0	1438	0	0	1701	2708	1701	1276	0	0
Defoliant	0	0	0	0	0	0	0	0	0	4805	0	0
Fertilizer	3240	0	0	9497	7371	0	0	0	0	0	0	0
Fungicides	0	0	0	7898	0	0	0	0	0	0	0	0
Herbicides	0	0	0	7983	7320	2955	0	0	0	0	0	0
Hired labor ^b	820	327	0	1666	976	497	0	0	0	2075	2808	358
Insecticides	0	0	0	3911	437	0	4971	12060	6383	0	0	0
Other ^c	654	654	399	399	393	399	393	399	393	399	28066	1767
Seed	0	0	0	3985	2012	0	0	0	0	0	0	0
Fuel	749	231	448	1945	1159	1089	215	231	217	1568	1790	233
Repair & maint.	1074	289	698	2948	1938	1579	280	289	301	8166	5196	310
Int. on op. Cap.	761	275	220	2886	1315	407	372	569	267	320	358	35
TOTAL	7298	1776	1765	44556	22921	6926	7932	16256	9262	18609	38218	2703
NET CASH INCOME ^d	-7298	-1776	-1765	-44556	-22921	-6926	-7932	-16256	-9262	1730	159937	-2703
CASH POSITION ^e	-7298	-9074	-10839	-55395	-78316	-85242	-93174	-109430	-118692	-116962	42975	40272

^a Estimated from direct expenses from enterprise budgets. Estimates include cash overhead expenditures estimated in Appendix Table 2.

^b Hired labor estimates do not include 200 monthly hours of family labor available at no charge.

^c Other expenditures include ginning of cotton, insect scouting, non-machinery and non-labor overhead expenditure items presented in Appendix Table 2.

^d Difference between total cash income and total cash operating expenses.

^e Cash position is the accumulated sum of net cash income. The ending cash balance for the business is estimated by the cash position in December.

Table 9. Projected Monthly Cash Flow for a Representative Tenant-Operated Cotton and Soybean Farm, 8- Row Equipment, Mississippi Delta Area, Louisiana, 1997.

ITEM	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
----- dollars -----												
TOTAL CASH INCOME	0	0	0	0	0	0	0	0	0	108956	303123	0
CASH OPERATING EXPENSES ^a												
Custom	0	0	0	0	0	0	0	2103	3963	1981	0	0
Defoliant	0	0	0	0	0	0	0	0	0	11126	0	0
Fertilizer	0	0	0	14719	0	0	0	0	0	0	0	0
Fungicides	0	0	0	12266	0	0	0	0	0	0	0	0
Herbicides	0	0	0	19125	5835	8319	2751	0	0	0	0	0
Hired labor ^b	4336	2430	1064	5655	4182	3184	1354	1146	778	8627	5980	2077
Insecticides	0	0	0	6074	678	0	11685	22811	7012	1988	0	0
Other ^c	852	852	618	591	577	591	577	591	577	591	43722	1072
Seed	0	0	0	6189	11175	0	0	0	0	0	0	0
Fuel	2970	1004	896	3746	3090	2702	900	768	537	4289	2980	578
Repair & maint.	3565	1486	1343	6253	4790	3841	1475	1216	747	18450	8349	770
Int. on op. Cap.	1258	639	440	5035	1729	997	877	1016	412	713	583	50
TOTAL	12981	6411	4361	79653	32056	19634	19619	29651	14026	47765	61614	4547
NET CASH INCOME ^d	-12981	-6411	-4361	-79653	-32056	-19634	-19619	-29651	-14026	61191	241509	-4547
CASH POSITION ^e	-12981	-19392	-23753	-103406	-135462	-155096	-174715	-204366	-218392	-157201	84308	79761

^a Estimated from direct expenses from enterprise budgets. Estimates include cash overhead expenditures estimated in Appendix Table 1.

^b Hired labor estimates do not include 200 monthly hours of family labor available at no charge.

^c Other expenditures include ginning of cotton, insect scouting, non-machinery and non-labor overhead expenditure items presented in Appendix Table 1.

^d Difference between total cash income and total cash operating expenses.

^e Cash position is the accumulated sum of net cash income. The ending cash balance for the business is estimated by the cash position in December.

Table 10. Projected Monthly Cash Flow for a Representative Owner-Operated Cotton and Soybean Farm, 8-Row Equipment, Mississippi Delta Area, Louisiana, 1997.

ITEM	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
----- dollars -----												
TOTAL CASH INCOME	0	0	0	0	0	0	0	0	0	145275	378752	0
CASH OPERATING EXPENSES ^a												
Custom	0	0	0	0	0	0	0	2103	3963	1981	0	0
Defoliant	0	0	0	0	0	0	0	0	0	11126	0	0
Fertilizer	0	0	0	14719	0	0	0	0	0	0	0	0
Fungicides	0	0	0	12266	0	0	0	0	0	0	0	0
Herbicides	0	0	0	19125	5835	8319	2751	0	0	0	0	0
Hired labor ^b	5366	3030	1659	5923	4450	3452	1623	1414	1046	8895	6104	3107
Insecticides	0	0	0	6074	678	0	11685	22811	7012	1988	0	0
Other ^c	1621	1621	989	989	976	989	976	989	976	989	53723	4383
Seed	0	0	0	6189	11175	0	0	0	0	0	0	0
Fuel	2970	574	1325	3746	3090	2702	900	768	537	4289	2980	578
Repair & maint.	3565	718	2112	6253	4790	3841	1475	1216	747	18450	8349	770
Int. on op. Cap.	1438	682	594	5085	1773	1036	910	1043	435	729	679	86
TOTAL	14960	6625	6679	80369	32767	20339	20320	30344	14716	48447	71835	8924
NET CASH INCOME ^d	-14960	-6625	-6679	-80369	-32767	-20339	-20320	-30344	-14716	96828	306917	-8924
CASH POSITION ^e	-14960	-21585	-28264	-108633	-141400	-161739	-182059	-212403	-227119	-130291	176626	167702

^a Estimated from direct expenses from enterprise budgets. Estimates include cash overhead expenditures estimated in Appendix Table 2.

^b Hired labor estimates do not include 200 monthly hours of family labor available at no charge.

^c Other expenditures include ginning of cotton, insect scouting, non-machinery and non-labor overhead expenditure items presented in Appendix Table 2.

^d Difference between total cash income and total cash operating expenses.

^e Cash position is the accumulated sum of net cash income. The ending cash balance for the business is estimated by the cash position in December.

Figure 8

Distribution of Direct Expenses by Item
 Tenant Cotton-Soybean Farm, Macon Ridge Area, Louisiana, 1997.

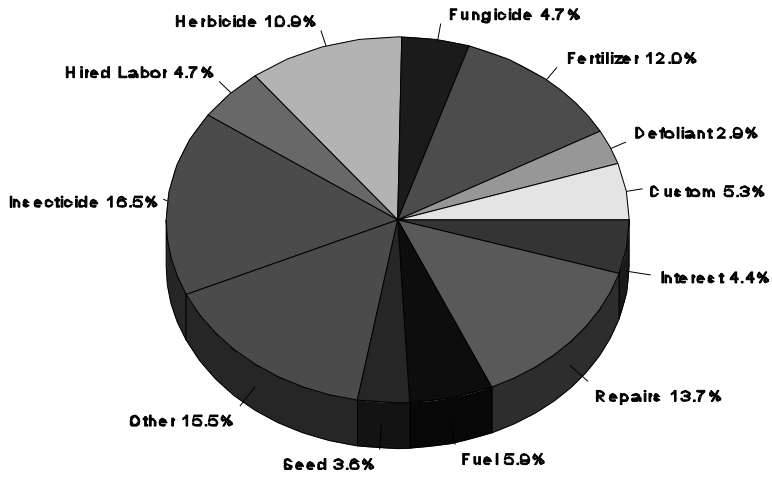


Figure 9

Cash Expenses and Accumulated Borrowing
 Tenant Cotton-Soybean Farm, Macon Ridge Area, Louisiana, 1997.

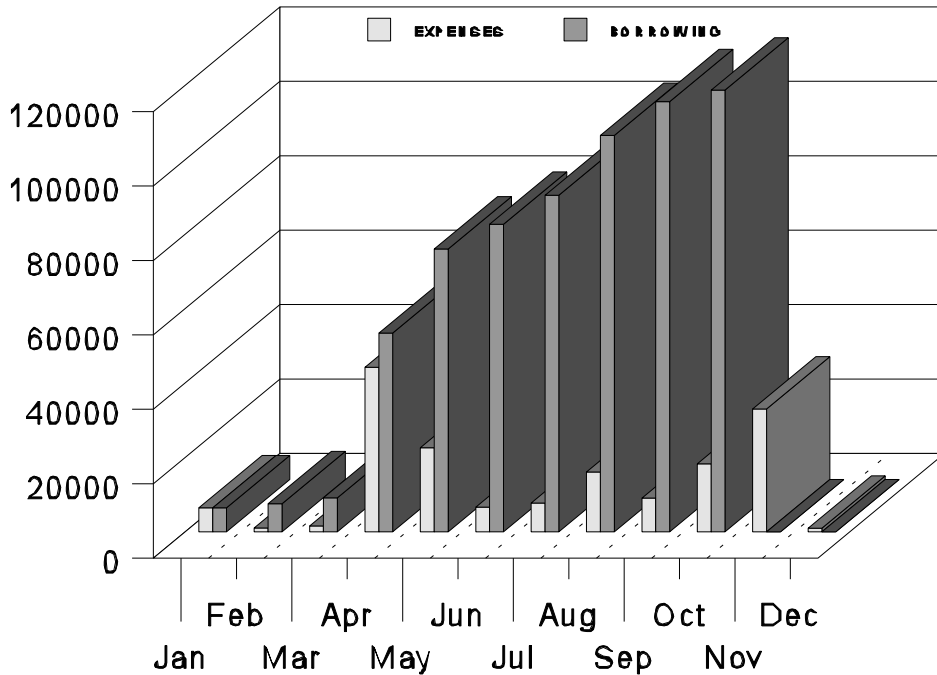


Figure 10

Distribution of Direct Expenses by Item
 Owner Cotton-Soybean Farm, Macon Ridge Area, Louisiana, 1997.

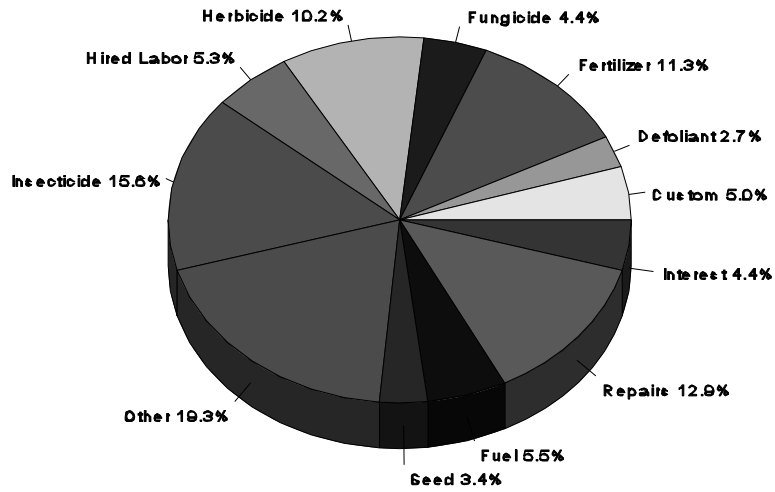


Figure 11

Cash Expenses and Accumulated Borrowing
 Owner Cotton-Soybean Farm, Macon Ridge Area, Louisiana, 1997.

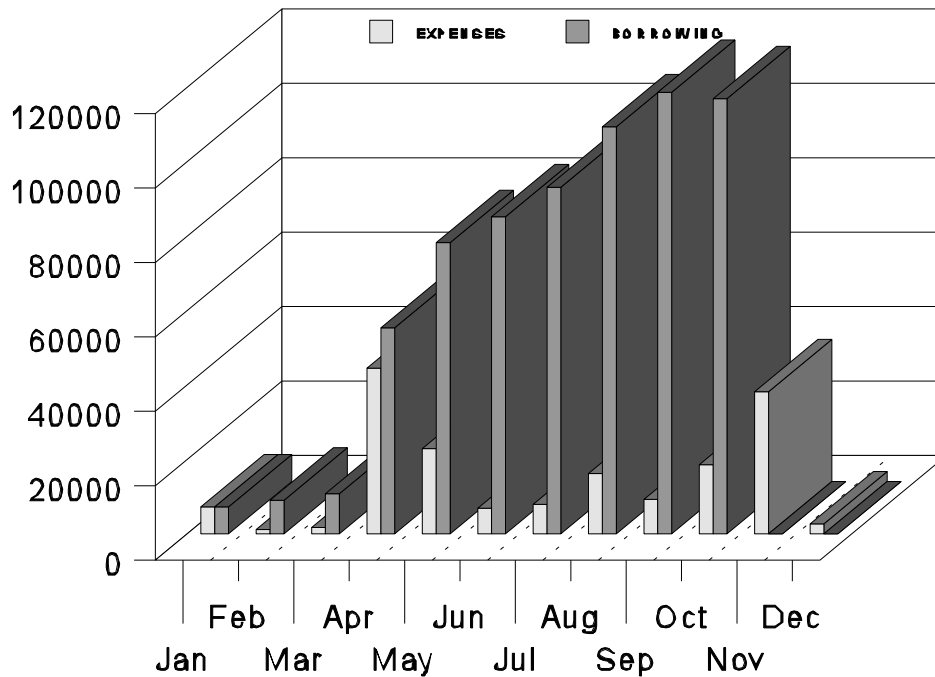


Figure 12

Distribution of Direct Expenses by Item
 Tenant Cotton-Soybean Farm, Mississippi Delta Area, Louisiana, 1997

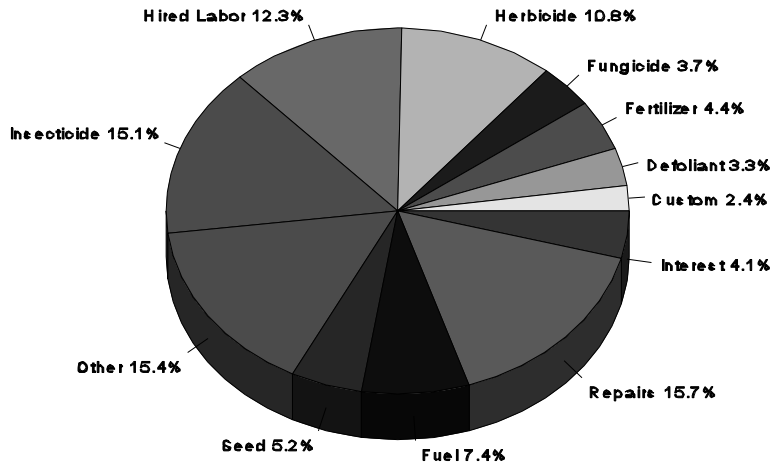


Figure 13

Cash Expenses and Accumulated Borrowing
 Tenant Cotton-Soybean Farm, Mississippi Delta Area, Louisiana, 1997

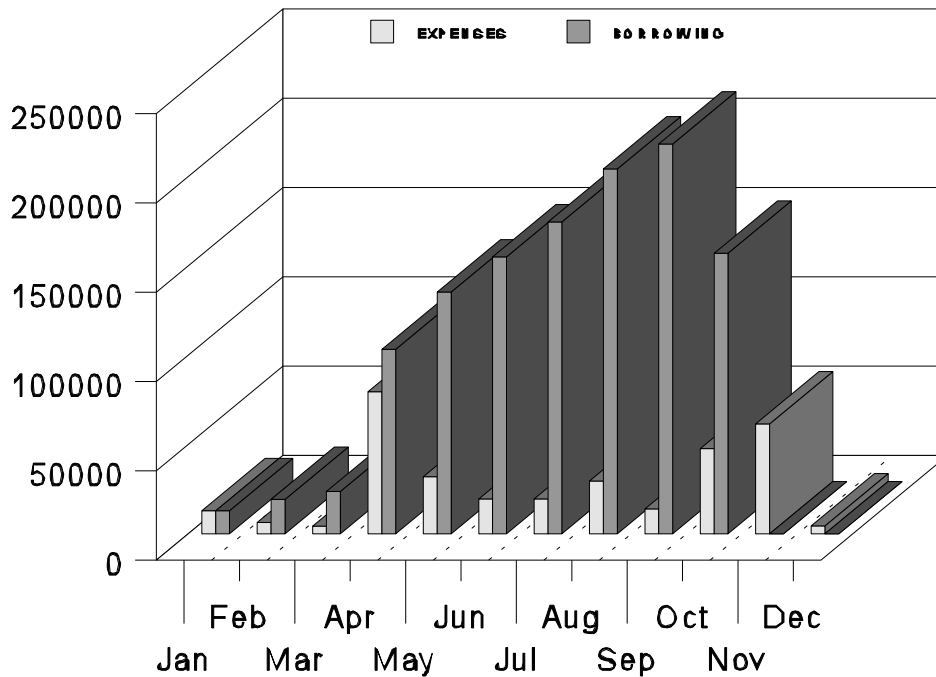


Figure 14

Distribution of Direct Expenses by Item
 Owner Cotton-Soybean Farm, Mississippi Delta Area, Louisiana, 1997.

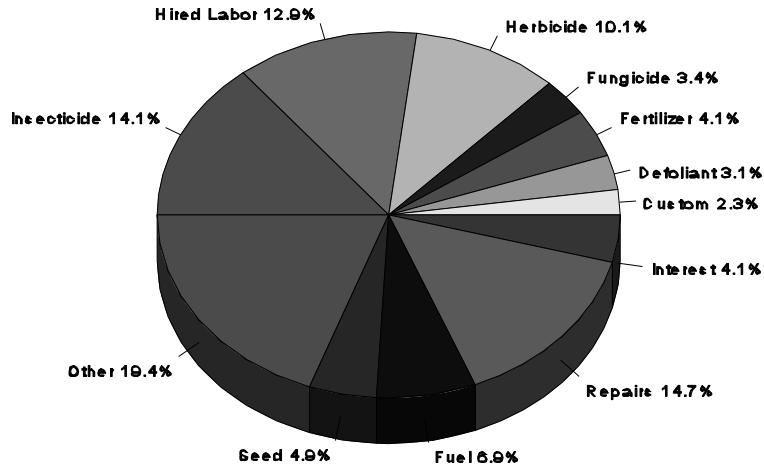
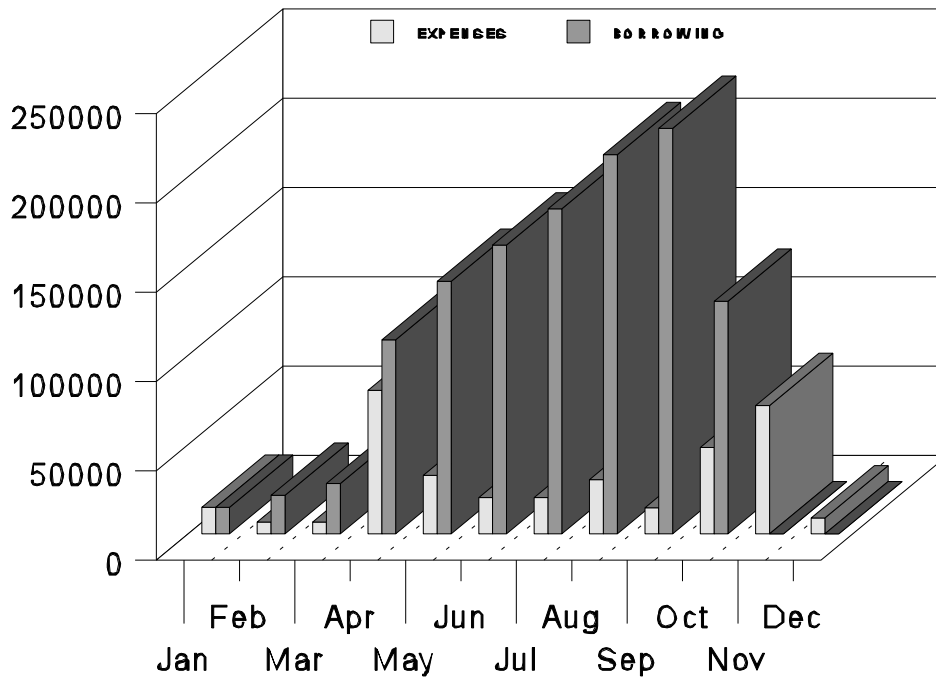


Figure 15

Cash Expenses and Accumulated Borrowing
 Owner Cotton-Soybean Farm, Mississippi Delta Area, Louisiana, 1997.



areas were assumed to share one-fourth of soybean production and one-fifth of cotton production with the landlord. The landlord was also assumed to pay one-fifth of the ginning cost for cotton. Results in Table 6 indicate that net farm income is less for tenant-operated farms than for owner-operated farms. One reason for this result is that a land charge was made for the tenant farming situation whereas a charge for the land resource was not made for the owner-operated scenarios.

Projected monthly whole farm cash flow estimates for representative farming situations in the Macon Ridge are presented in Tables 7 and 8 while estimates for the Mississippi Delta are presented in Tables 9 and 10. Net cash income is the difference in monthly total cash income and total cash expenses. Net cash income provides a measure of required borrowing each month. If the monthly net cash income is negative, then borrowing to meet cash expenses is necessary. If the monthly net cash income is positive, then no borrowing is necessary in the month. For example, net cash income estimates in Table 7 indicate that borrowing is necessary in the months of January through October for the tenant-operated farming situation. Cash position is the accumulated sum of net cash income and represents the cash balance for the business at any given month. For example, the ending cash balance for owner-operated Macon Ridge farm for the month of December is \$40,272.

The percentage distribution of direct expenses for farming situations shown in Table 6 are illustrated in Figures 8, 10, 12, and 14. For example, data presented in Figure 8 show that repair and maintenance of farm machinery accounts for 13.7 percent of total operating expenses for the Macon Ridge tenant-operated farm while other expenses account for 15.5 percent of total expenditures. Charges for the ginning of cotton, insect scouting, and non-machinery and non-labor cash overhead expenditures were included in the other expenditure category. Interest expenses which account for 4.4 percent of total operating cash expenses is less than the annual rate of 10 percent because operating capital was not borrowed for the full production period but was borrowed on a monthly basis to cover cash flow deficits.

Monthly cash expenses and accumulated borrowing shown in Tables 7, 8, 9, and 10 are illustrated in Figures 9, 11, 13, and 15, respectively. Cash expenses across months generally reflect seasonal planting and harvesting of crops for all farming situations. Results show that accumulated borrowing for farming situations peak in September and October and then decline as crops are harvested and operating loans are repaid. For all farming situations, accumulated borrowing in December is zero indicating all operating loans are repaid.

Results in Table 6 indicate that the owner-operated Mississippi Delta farm is the only farm expected to earn any substantial positive profit in Northeast Louisiana in 1997. Similarly, ending cash balance estimates (cash position in December) presented in Tables 7, 8, 9, and 10 generally suggest that some of the cotton and soybean farms in Northeast Louisiana will experience cash flow problems. For instance, the ending cash balance of \$5,757 (Table 7) for the Macon Ridge tenant farm is not expected to be sufficient to cover other cash expenditures such as family living expenses, income taxes, capital expenditures and existing debt repayment. In general, these results suggest that the degree of financial success of Northeast area farms is likely to depend on the amount of financial leverage existing within the capital structure of farms.

Southwest Louisiana

Projected income statements for 1997 were estimated for two farming situations in the Southwest Louisiana Rice producing area. These farming situations included tenant-operated and owner-operated farms with each producing 443 acres of rice and 436 acres of soybeans. It was assumed that 200 hours of family labor were available to farms at no cost and operating interest was charged at a rate of 10 percent. Total income (Table 11) in the analysis represents total dollar sales of commodities produced by farms. No government program payments are included in the analysis. Total direct expenses generally represent variable production expenditures including overhead while total fixed expenses represent charges for depreciation, interest, and insurance on machinery and equipment. Net farm income estimates represent a return to labor, management, and risk for the tenant representative farm and a return to labor, management, risk, and land for the owner-operated representative farm.

Total income estimates for the tenant-operated farm in Table 11 differ from those of the owner-operated farm because of assumed crop share rental arrangements for the tenant farm. It was assumed that the tenant farm shares one-fifth of rice production with the landlord and one-fifth of rice production with the waterlord. It was also assumed that the landlord and the waterlord share in one-fifth of fertilizer, chemical, drying and storage charges for rice production. In addition, the waterlord pays one-fifth of irrigation fuel costs.

Projected cash flow estimates are presented in Tables 12 and 13. Net cash income is the difference in monthly cash income and total cash expenses. Estimates indicate that cash deficits occur in all months for the tenant-operated farm. Cash position is the accumulated sum of net cash income and represents the cash balance for the business at any given month. For example, the ending cash balance for tenant-operated farm for the month of December is \$-1,256.

Percentage distributions of direct expenses for farming situations presented in Table 11 are illustrated in Figures 16 and 18. Data presented in Figure 18 show that fuel accounts for 16.5 percent of total cash operating expenses for the owner-operated farm while repair and maintenance of farm machinery and equipment accounts for 11.1 percent total expenditures. Custom services (21.3 percent) include charges for the application of chemicals and seed by airplane and rice drying and storage charges. Non-machinery and non-labor cash overhead expenses are included in the other expenditure category and represent 5.3 percent of total cash expenses for the owner-operated farm (Figure 18). Interest expense which accounts for 3.8 percent of total cash expenses is less than the annual interest rate of 10 percent because operating capital was not borrowed for the full production period but was borrowed on a monthly basis to cover cash flow deficits.

Income and cash flow projections suggest that many Southwest area farms will experience financial problems in the 1997 production year. Income statement analysis suggests that total farm income is not sufficient to cover costs of all resources used in production. In addition, the ending cash balance for the tenant farming situation was estimated at \$-1,256 while this estimate for the owner-operated farm was estimated at \$25,966. These balances are not sufficient to meet family living expenses, income taxes and other cash obligations of the business.

Table 11. Projected Returns and Expenses for Tenant and Owner-Operated Farms, Water Planted Rice, Drill Planted Soybeans, Louisiana, 1997.

ITEM	Tenant Operator ^a	Owner Operator
 Dollars	
INCOME		
Rice	207,324	207,324
Rice checkoff	-766	-1,276
Land share rent	-41,465	
Water share rent	-41,465	
Soybean	79,352	79,352
Land share rent	-15,870	
TOTAL INCOME	187,110	285,400
DIRECT EXPENSES		
Custom	41,956	55,169
Fertilizer	21,105	29,615
Fungicides	2,940	4,900
Herbicides	18,958	24,335
Hired labor ^b	21,049	24,368
Insecticides	3,249	4,497
Other ^c	7,748	13,637
Seed	21,284	21,284
Diesel fuel	7,914	37,302
Gasoline	5,620	5,620
Repair & maintenance	28,866	28,866
Interest on op. Cap.	7,677	9,841
TOTAL DIRECT EXPENSES	188,366	259,434
RETURNS ABOVE DIRECT EXPENSES	-1,256	25,966
TOTAL FIXED EXPENSES^d	42,515	56,722
TOTAL SPECIFIED EXPENSES	230,881	316,156
NET FARM INCOME^e	-43,771	-30,756

^a The landlord shares in one-fifth of soybean production. For rice, the landlord and waterlord share in one-fifth of rice production with the landlord and waterlord paying one-fifth of fertilizer, chemical, drying, and storage charges. The waterlord also pays one-fifth of irrigation fuel costs.

^b Hired labor estimates do not include 200 monthly hours of free family labor.

^c Other expenditures primarily include charges for non-machinery and non-labor overhead expenditure items shown in Appendix Tables 1 and 2.

^d Includes charges for depreciation, interest, insurance for machinery and equipment.

^e Represents a return to labor, management, and risk for the tenant-operated farm and a return to labor, management, risk, and land for the owner-operated farm.

Table 12. Projected Monthly Cash Flow for a Representative Tenant-Operated Rice, Soybean Farm, Water Planted Rice, Drill Planted Soybeans, Southwest Area, Louisiana, 1997.

ITEM	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
----- dollars -----												
TOTAL CASH INCOME	0	0	0	0	0	0	0	123629	0	63481	0	0
CASH OPERATING EXPENSES ^a												
Custom	0	0	3120	7558	1002	5808	986	20552	0	2930	0	0
Fertilizer	0	0	16751	0	0	4354	0	0	0	0	0	0
Fungicides	0	0	0	0	0	1470	1470	0	0	0	0	0
Herbicides	0	0	0	7591	6845	473	4049	0	0	0	0	0
Hired labor ^b	673	1104	5188	1205	1454	420	1055	4847	0	2279	2036	788
Insecticides	0	0	0	0	1762	0	109	1378	0	0	0	0
Other ^c	545	545	874	378	369	378	369	378	369	378	2479	686
Seed	0	0	0	11474	9810	0	0	0	0	0	0	0
Fuel	341	672	2759	549	1091	445	461	2965	344	1682	1855	370
Repair & maint.	444	1010	4380	1106	2099	1097	1171	8765	478	5084	2740	492
Int. on op. Cap.	350	402	2037	1402	1285	494	348	479	88	162	598	32
TOTAL	2353	3733	35109	31263	25717	14939	10018	39364	1279	12515	9708	2368
NET CASH INCOME ^d	-2353	-3733	-35109	-31263	-25717	-14939	-10018	84265	-1279	50966	-9708	-2368
CASH POSITION ^e	-2353	-6086	-41195	-72458	-98175	-113114	-123132	-38867	-40146	10820	1112	-1256

^a Estimated from direct expenses from enterprise budgets. Estimates include cash overhead expenditures estimated in Appendix Table 1.

^b Hired labor estimates do not include 200 monthly hours of family labor available at no charge.

^c Other expenditures include charges for non-machinery and non-labor overhead expenditure items presented in Appendix Table 1.

^d Difference between total cash income and total cash operating expenses.

^e Cash position is the accumulated sum of net cash income. The ending cash balance for the business is estimated by the cash position in December.

Table 13. Projected Monthly Cash Flow For a Representative Owner-Operated Rice, Soybean Farm, Water Planted Rice, Drill Planted Soybeans, Southwest Area, Louisiana, 1997.

ITEM	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
----- dollars -----												
TOTAL CASH INCOME	0	0	0	0	0	0	0	206048	0	79352	0	0
CASH OPERATING EXPENSES ^a												
Custom	0	0	3120	7558	1002	5808	986	33033	0	3662	0	0
Fertilizer	0	0	22359	0	0	7256	0	0	0	0	0	0
Fungicides	0	0	0	0	0	2450	2450	0	0	0	0	0
Herbicides	0	0	0	12652	6845	789	4049	0	0	0	0	0
Hired labor ^b	1332	1763	5293	1376	1625	592	1226	5019	129	2451	2115	1447
Insecticides	0	0	0	0	2937	0	182	1378	0	0	0	0
Other ^c	1037	1037	1111	633	624	633	624	633	624	633	3244	2804
Seed	0	0	0	11474	9810	0	0	0	0	0	0	0
Fuel	341	672	9476	5587	5290	7162	7178	2965	344	1682	1855	370
Repair & maint.	444	1010	4380	1106	2099	1097	1171	8765	478	5084	2740	492
Int. on op. Cap.	465	508	2681	1855	1493	792	499	601	102	178	612	55
TOTAL	3619	4990	48420	42241	31725	26579	18365	52394	1677	13690	10566	5168
NET CASH INCOME ^d	-3619	-4990	-48420	-42241	-31725	-26579	-18365	153654	-1677	65662	-10566	-5168
CASH POSITION ^e	-3619	-8609	-57029	-99270	-130995	-157574	-175939	-22285	-23962	41700	31134	25966

^a Estimated from direct expenses from enterprise budgets. Estimates include cash overhead expenditures estimated in Appendix Table 2.

^b Hired labor estimates do not include 200 monthly hours of family labor available at no charge.

^c Other expenditures include charges for non-machinery and non-labor overhead expenditure items presented in Appendix Table 2.

^d Difference between total cash income and total cash operating expenses.

^e Cash position is the accumulated sum of net cash income. The ending cash balance for the business is estimated by the cash position in December.

Figure 16

Distribution of Direct Expenses by Item
 Tenant Rice-Soybean Farm, Southwest Rice Area, Louisiana, 1997.

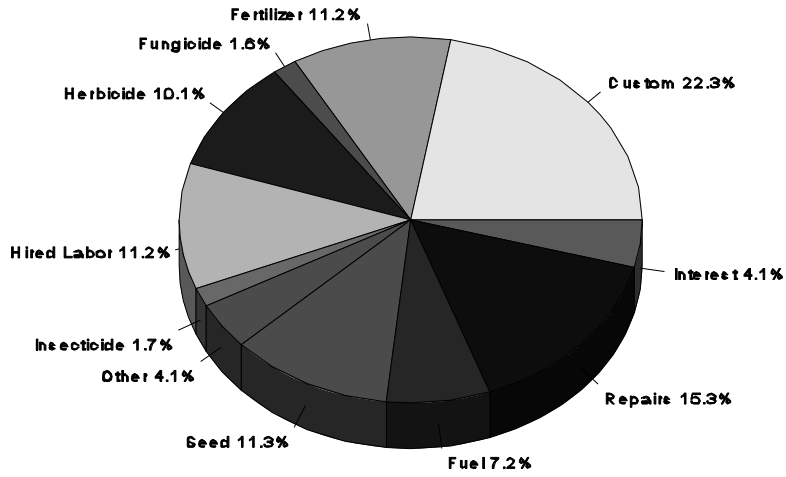


Figure 17

Cash Expenses and Accumulated Borrowing
 Tenant Rice-Soybean Farm, Southwest Rice Area, Louisiana, 1997.

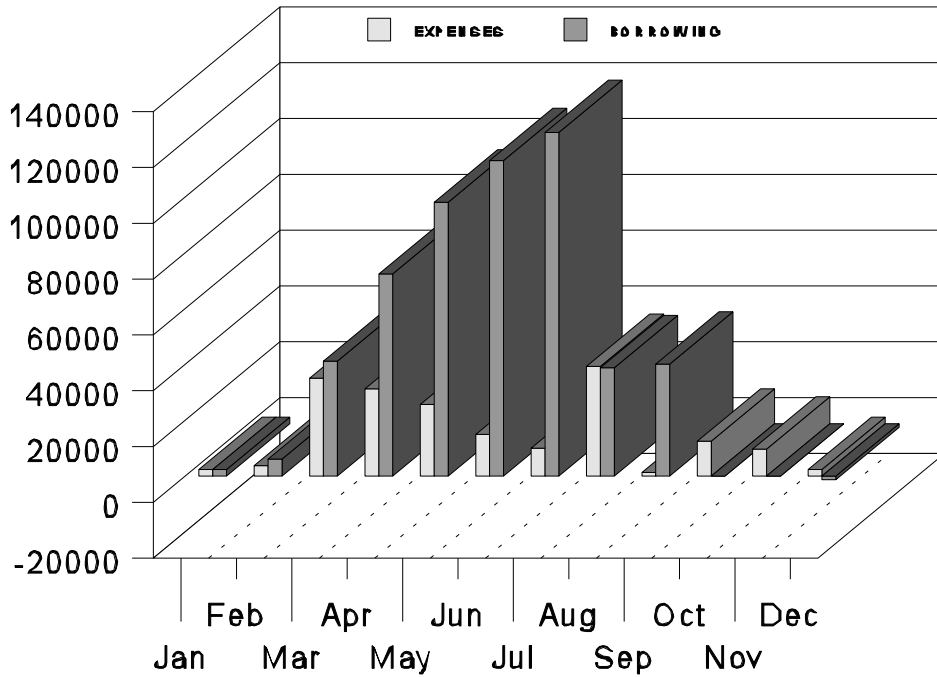


Figure 18

Distribution of Direct Expenses by Item
 Owner Rice-Soybean Farm, Southwest Rice Area, Louisiana, 1997.

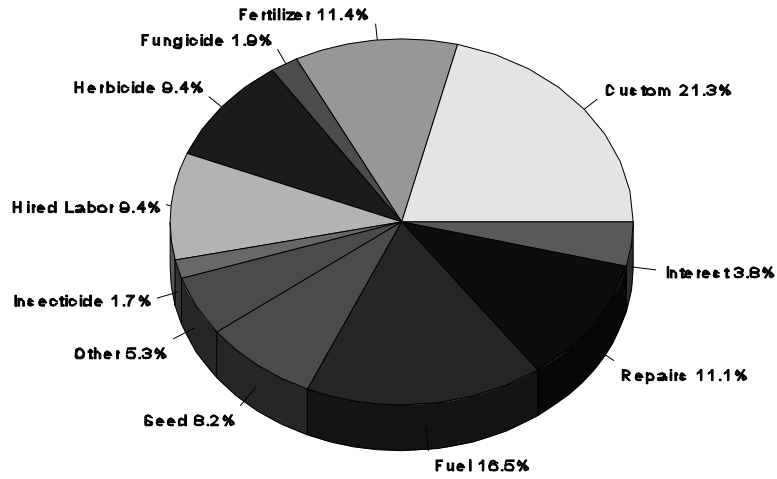
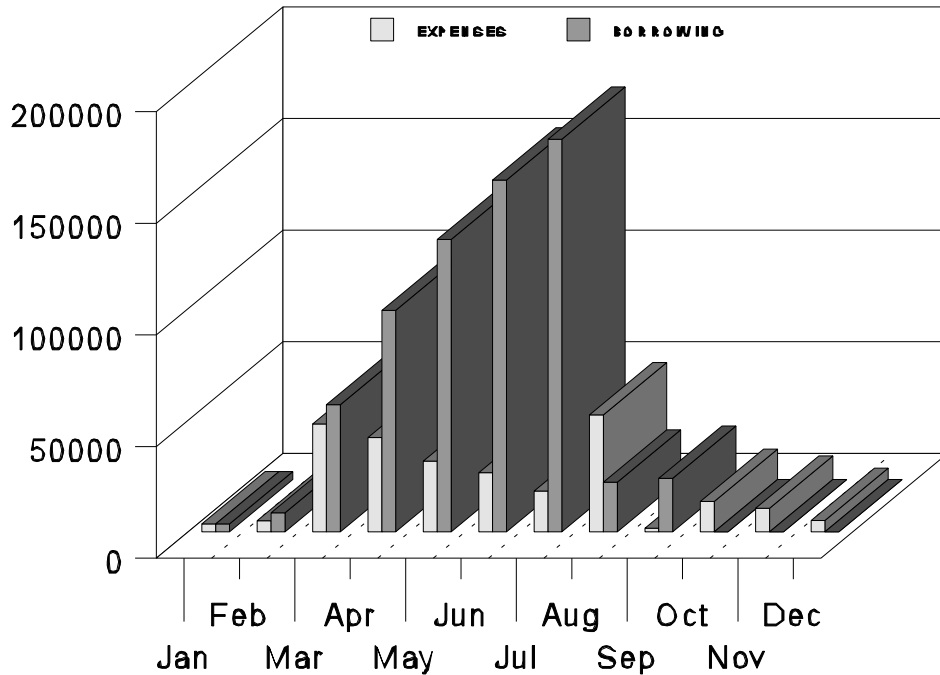


Figure 19

Cash Expenses and Accumulated Borrowing
 Owner Rice-Soybean Farm, Southwest Rice Area, Louisiana, 1997.



Central Area

Projected income statements for the Central area representative farms are presented in Table 14. The area generally includes Avoyelles, Saint Landry, Pointe Coupee and Lafayette parishes. Total income in the analysis represents total dollar sales of commodities produced by farms and include government program payments. Total direct expenses generally represent variable production expenditures including overhead while total fixed expenses represent charges for depreciation, interest, and insurance on machinery and equipment. Net farm income estimates represent a return to labor, management, and risk for the tenant representative farm and a return to labor, management, risk, and land for the owner-operated representative farms.

Differences in tenure arrangements and production practices between tenure situations are reflected in income and expense categories shown in Table 14. Soybeans are assumed to be produced on clay soils with the landlord sharing in one-fourth of production while corn is assumed to be produced on sandy soils with the landlord sharing in one-fifth of production. The landlord is not assumed to share in any of the production expenses. Results in Table 14 indicate that net farm income is less for tenant-operated farms than for owner-operated farms. One reason for this result is that a land charge was made for the tenant farming situation whereas a charge for the land resource was not made for the owner-operated scenarios.

The percentage distribution of direct expenses for tenant and owner-operated farms is shown in Figures 20 and 22, respectively. Estimates indicate that fertilizer and repair and maintenance are major cash expenditures. Custom charges include aerial spraying of soybeans and drying charges for corn. Other cash expenditures generally include non-machinery and non-labor overhead expenditures.

Projected monthly whole farm cash flow estimates for representative farming situations in the Central area are presented in Tables 15 and 16. Net cash income is the difference in monthly total cash income and total cash expenses. Net cash income provides a measure of required borrowing each month. If the monthly net cash income is negative, then borrowing to meet cash expenses is necessary. If the monthly net cash income is positive, then no additional borrowing is necessary in the month. Cash position is the accumulated sum of net cash income and represents the cash balance for the business at any given month. For example, the ending cash balance for owner-operated Central area farm for the month of December is \$55,050.

Results from income projections indicate that revenues are not sufficient to cover expenses for the tenant-operated farm in this area. Net farm income for the owner-operated farm is projected at \$13,642; however, this estimate makes no charge for the land resource. Similarly, estimates indicate positive ending cash positions; however, it should be noted that these estimates do not include family living expenses, income tax payments, capital replacement expenses, and outstanding debt repayment. Relatively large debt loads on some farms are expected to cause financial problems for farms in this area.

Table 14. Projected Returns and Expenses for Tenant and Owner-operated, Farms, Central Area, Louisiana, 1997.

ITEM	Tenant Operator ^a	Owner Operator
 Dollars	
INCOME		
Corn	144,180	144,180
Corn share rent	-28,836	
Soybean	80,340	80,340
Soybean share rent	-20,085	
TOTAL INCOME	175,599	224,520
DIRECT EXPENSES		
Custom	9,126	11,155
Fertilizer	35,111	35,111
Herbicides	17,943	17,943
Hired labor ^b	18,954	21,971
Insecticides	5,418	5,418
Other ^c	7,089	12,827
Seed	18,182	18,182
Diesel fuel	7,512	7,512
Gasoline	5,790	5,790
Repair & maintenance	26,097	26,097
Interest on op. Cap.	7,023	7,464
TOTAL DIRECT EXPENSES	158,245	169,470
RETURNS ABOVE DIRECT EXPENSES	17,354	55,050
TOTAL FIXED EXPENSES^d	41,408	41,408
TOTAL SPECIFIED EXPENSES	199,653	210,878
NET FARM INCOME^e	-24,054	13,642

^a The landlord shares in one-fourth of soybean production on clay soils and the landlord shares in one-fifth of corn production on sandy soils.

^b Hired labor estimates do not include 200 monthly hours of free family labor

^c Other expenditures primarily include charges for non-machinery and non-labor overhead expenditure items shown in Appendix Tables 1 and 2.

^d Includes charges for depreciation, interest, insurance for machinery and equipment.

^e Represents a return to labor, management, and risk for tenant-operated farm and a return to labor, management, risk, and land for owner-operated situations.

Table 15. Projected Monthly Cash Flow for a Representative Tenant-Operated Corn and Soybean Farm, 6-Row Equipment, Central Area, Louisiana, 1997.

ITEM	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
----- dollars -----												
TOTAL CASH INCOME	0	0	0	0	0	0	0	115344	0	60255	0	0
CASH OPERATING EXPENSES ^a												
Custom	0	0	0	0	0	0	0	9126	0	0	0	0
Fertilizer	3560	0	15353	16198	0	0	0	0	0	0	0	0
Herbicides	0	0	5514	3090	7164	2175	0	0	0	0	0	0
Hired labor ^b	1242	1050	2223	1838	1433	1025	0	5904	0	3508	0	731
Insecticides	0	0	4116	0	0	0	0	1302	0	0	0	0
Other ^c	531	531	386	369	360	369	360	369	360	369	2417	668
Seed	0	0	12002	0	6180	0	0	0	0	0	0	0
Fuel	853	664	1701	1617	994	1162	332	3100	335	1848	335	361
Repair & maint.	1246	1001	2819	2822	1667	1648	433	8039	466	5010	466	480
Int. on op. Cap.	709	394	2365	1339	1007	372	125	370	86	147	78	31
TOTAL	8141	3640	46479	27273	18805	6751	1250	28210	1247	10882	3296	2271
NET CASH INCOME ^d	-8141	-3640	-46479	-27273	-18805	-6751	-1250	87134	-1247	49373	-3296	-2271
CASH POSITION ^e	-8141	-11781	-58260	-85533	-104338	-111089	-112339	-25205	-26452	22921	19625	17354

^a Estimated from direct expenses from enterprise budgets. Estimates include cash overhead expenditures estimated in Appendix Table 1.

^b Hired labor estimates do not include 200 monthly hours of family labor available at no charge.

^c Other expenditures include charges for non-labor overhead expenditure items presented in Appendix Table 1.

^d Difference between total cash income and total cash operating expenses.

^e Cash position is the accumulated sum of net cash income. The ending cash balance for the business is estimated by the cash position in December.

Table 16. Projected Monthly Cash Flow for a Representative Owner-Operated Corn and Soybean Farm, 6-Row Equipment, Central Area, Louisiana, 1997.

ITEM	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
----- dollars -----												
TOTAL CASH INCOME	0	0	0	0	0	0	0	144180	0	80340	0	0
CASH OPERATING EXPENSES ^a												
Custom	0	0	0	0	0	0	0	11155	0	0	0	0
Fertilizer	3560	0	15353	16198	0	0	0	0	0	0	0	0
Herbicides	0	0	5514	3090	7164	2175	0	0	0	0	0	0
Hired labor ^b	1885	1693	2325	2005	1600	1192	40	6071	88	3675	23	1374
Insecticides	0	0	4116	0	0	0	0	1302	0	0	0	0
Other ^c	1011	1011	617	617	608	617	608	617	608	617	3162	2734
Seed	0	0	12002	0	6180	0	0	0	0	0	0	0
Fuel	853	664	1701	1617	994	1162	332	3100	335	1848	335	361
Repair & maint.	1246	1001	2819	2822	1667	1648	433	8039	466	5010	466	480
Int. on op. Cap.	822	497	2393	1370	1034	396	146	404	100	157	91	54
TOTAL	9377	4866	46840	27719	19247	7190	1559	30688	1597	11307	4077	5003
NET CASH INCOME ^d	-9377	-4866	-46840	-27719	-19247	-7190	-1559	113492	-1597	69033	-4077	-5003
CASH POSITION ^e	-9377	-14243	-61083	-88802	-108049	-115239	-116798	-33066	-4903	64130	60053	55050

^a Estimated from direct expenses from enterprise budgets. Estimates include cash overhead expenditures estimated in Appendix Table 2.

^b Hired labor estimates do not include 200 monthly hours of family labor available at no charge.

^c Other expenditures include charges for non-labor overhead expenditure items presented in Appendix Table 2

^d Difference between total cash income and total cash operating expenses.

^e Cash position is the accumulated sum of net cash income. The ending cash balance for the business is estimated by the cash position in December.

Figure 20

Distribution of Direct Expenses by Item
 Tenant Soybean-Corn Farm, Central Area, Louisiana, 1997.

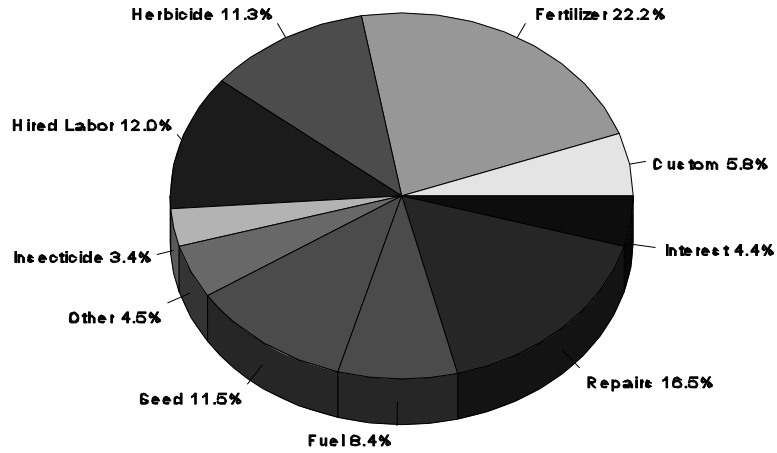


Figure 21

Cash Expenses and Accumulated Borrowing
 Tenant Corn-Soybean Farm, Central Area, Louisiana, 1997.

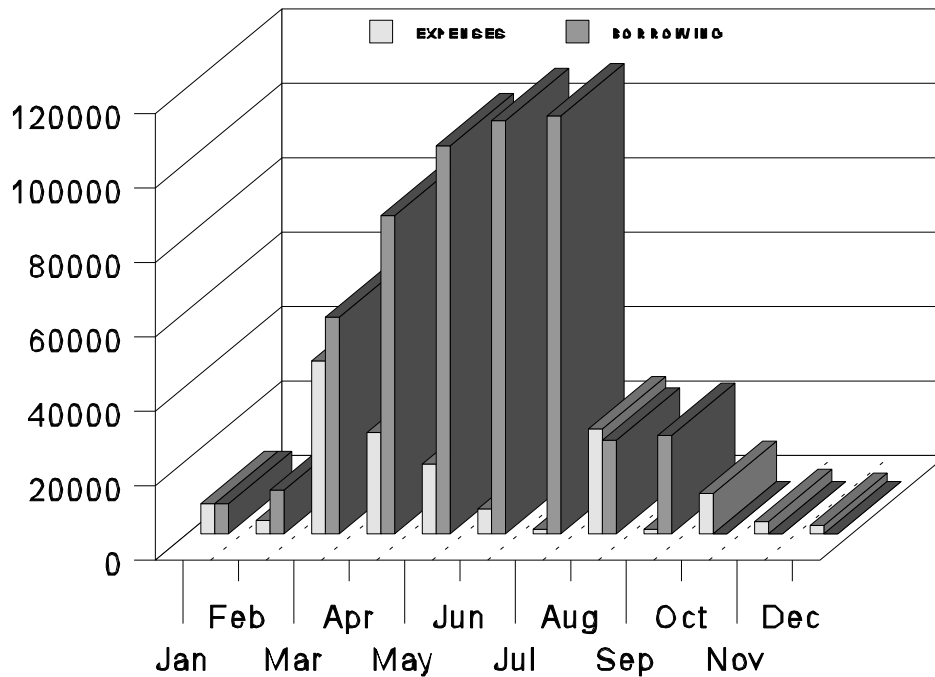


Figure 22

Distribution of Direct Expenses by Item Owner Soybean-Corn Farm, Central Area, Louisiana, 1997.

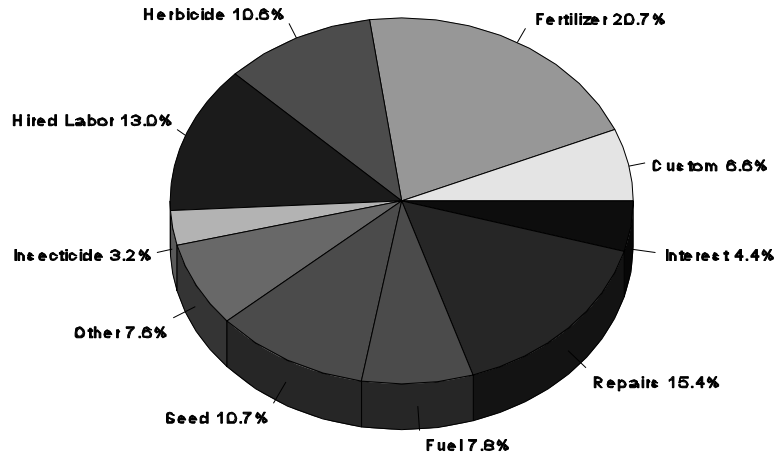
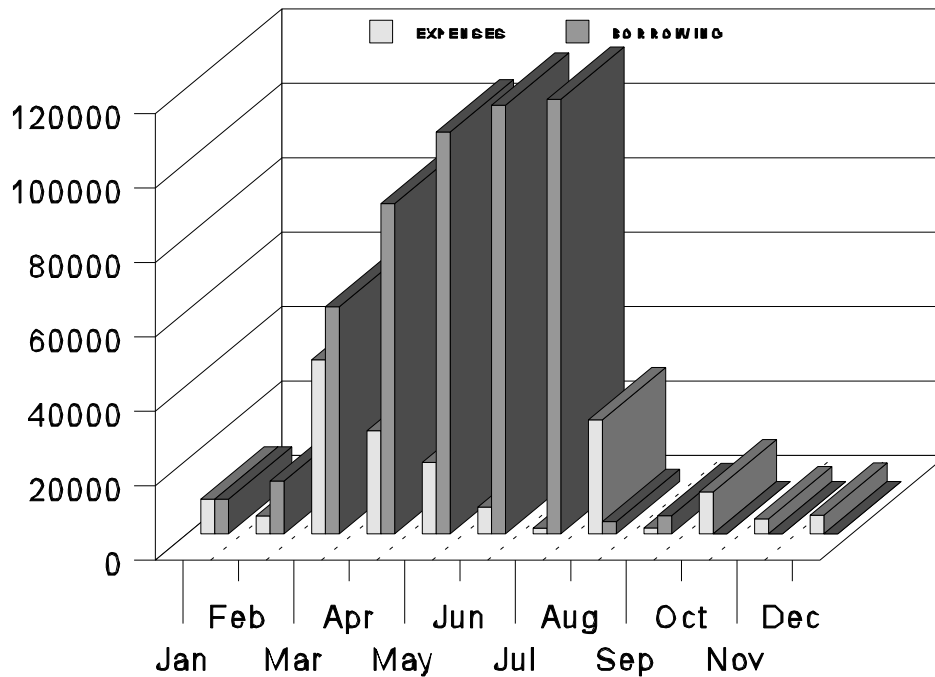


Figure 23

Cash Expenses and Accumulated Borrowing Owner Corn-Soybean Farm, Central Area, Louisiana, 1997.



Sugar Cane Area

Projected income statements for 1997 were estimated for three-row tenant-operated farms in the sugar cane producing area. River region enterprise budgets were used to represent these farming situations. Parishes included in this area are Iberville, West Baton Rouge, Assumption, Ascension, Saint James, Saint John the Baptist, Lafourche, Saint Charles, and Terrebonne. Assumptions for 1997 were: 1) fallowed land accounts for 25 percent of farm total acreage and 2) one acre of sugar cane is required to plant five acres of fallowed land. The 968 acre tenant farm consisted of 679 acres harvested and sold for sugar, 47 acres of sugar cane harvested for seed and 242 acres fallowed and planted each year. Five acres of fallowed land is planted with disease free seed cane each year. Other assumptions were that 200 hours of family labor were available to farms each month at no charge and operating interest (10 percent) was paid on a monthly basis for the amount of required borrowing. Overhead cash requirements for the 3-row equipment farm were estimated from data presented in Appendix Table 1.

Total income and expenses for the sugar cane were estimated and are presented in Table 17. The total income estimate of \$374,893 in Table 17 represents total dollar sales of sugar and molasses by the representative farm. More specifically, it includes the total value of sugar and molasses production plus hauling rebates less mill charges and less landlord land rents of one-fifth of production.⁴ Total direct expenses generally represent variable production expenditures including overhead while total fixed expenses represent charges for depreciation, interest, and insurance on machinery and equipment. The net farm income estimate of \$44,392 represents a return to labor, management, and risk.

Projected monthly whole farm cash flow estimates for the representative sugar cane farming situation are presented in Table 18. Net cash income is the difference in monthly total cash income and total cash expenses. Net cash income provides a measure of required borrowing each month. If the monthly net cash income is negative, then borrowing to meet cash expenses is necessary. If the monthly net cash income is positive, then no additional borrowing is necessary in the month. For instance, net cash income estimates in Table 18 indicate that borrowing is necessary in the months of January through September for this farming situation. Cash position is the accumulated sum of net cash income and represents the cash balance for the business at any given month. The ending cash balance for the tenant-operated sugar cane farm for the month of December is \$121,821.

The percentage distribution of direct expenses for the farming situation shown in Table 17 is illustrated in Figure 24. Percentage estimates shown in Figure 24 show that labor and repairs of farm machinery and equipment account for 42 percent of total operating expenses.

⁴ The landlord shares in one-fifth of production after milling charges are deducted.

Table 17. Projected Returns and Expenses for Tenant-Operated Farms,
3-Row Equipment, All Soils, Sugar Cane Area, Louisiana, 1997.

ITEM	Tenant Operator ^a
	.. Dollars ..
INCOME	
Sugar	703,024
Molasses Bonus	36,892
Hauling Rebate	25,108
Mill sugar share	-274,179
Mill molasses share	-21,359
Land sugar share	-85,769
Land molasses share	-3,107
Mkt. serv. payment	-4,043
ASCL check off	-1,674
TOTAL INCOME	374,893
DIRECT EXPENSES	
Custom	4,435
Fertilizer	35,719
Herbicides	34,750
Insecticides	4,873
Other ^b	12,466
Ripener	1,433
Seed	3,393
Hired labor ^c	49,239
Diesel fuel	26,070
Gasoline	4,356
Repair & maintenance	56,849
Interest on op. Cap.	19,489
TOTAL DIRECT EXPENSES	253,072
RETURNS ABOVE DIRECT EXPENSES	121,821
TOTAL FIXED EXPENSES^d	77,429
TOTAL SPECIFIED EXPENSES	330,501
NET FARM INCOME^e	44,392

^a The landlord shares in one-fifth of sugar and molasses production after milling charges have been deducted.

^b Other expenditures primarily include charges non-machinery and non-labor overhead expenditure items shown in Appendix Table 1.

^c Hired labor estimates do not include 200 monthly hours of free family labor.

^d Includes charges for depreciation, interest, insurance for machinery and equipment.

^e Represents a return to labor, management, and risk.

Figure 24

Distribution of Direct Expenses by Item
 Tenant Sugar Cane Farm, Sugar Cane Area, Louisiana, 1997.

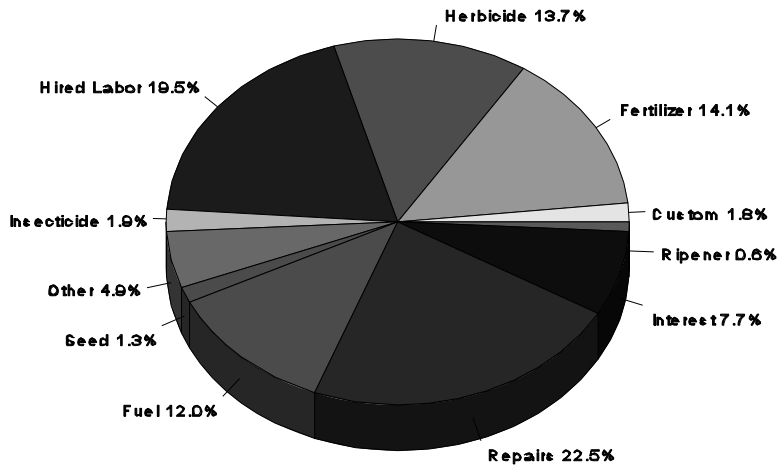


Figure 25

Cash Expenses and Accumulated Borrowing
 Tenant Sugar Cane Farm, Sugar Cane Area, Louisiana, 1997.

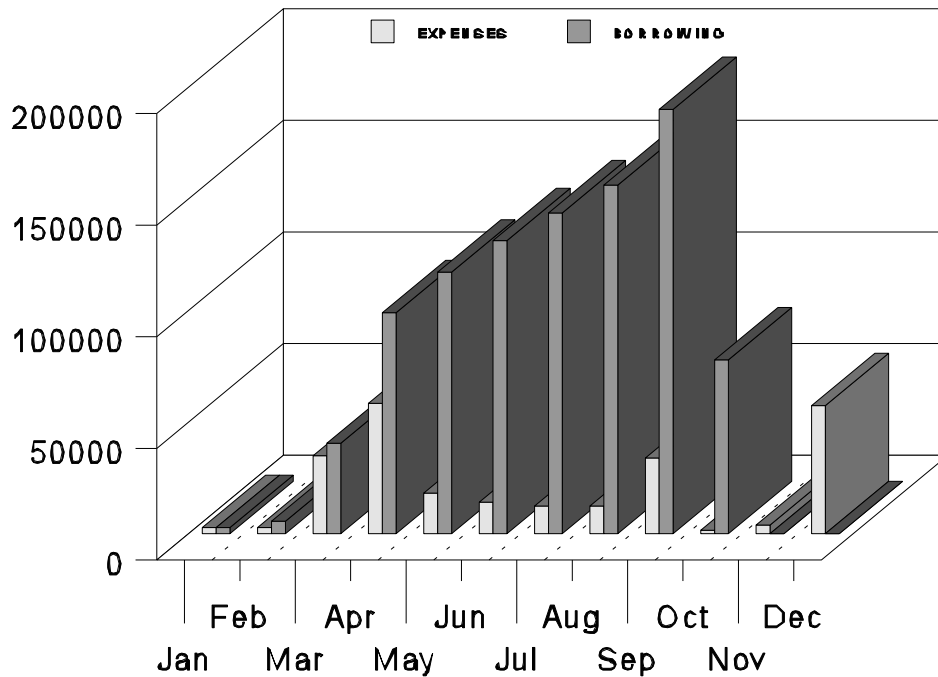


Table 18. Projected Monthly Cash Flow for a Representative Tenant-Operator Sugar Cane Farm, All Soils Sugar Cane Area, Louisiana, 1997.

ITEM	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
----- dollars -----												
TOTAL CASH INCOME	0	0	0	0	0	0	0	0	0	113821	130081	130991
CASH OPERATING EXPENSES ^a												
Custom	0	0	0	0	0	0	3430	1004	0	0	0	0
Fertilizer	0	0	0	35719	0	0	0	0	0	0	0	0
Herbicides	0	0	14125	0	980	8188	0	7706	3751	0	0	0
Insecticides	0	0	0	0	0	0	4873	0	0	0	0	0
Other ^b	600	600	436	416	407	416	407	416	4868	416	2730	755
Ripener	0	0	0	0	0	0	0	1433	0	0	0	0
Seed	0	0	0	0	0	0	0	0	3393	0	0	0
Hired labor ^c	893	965	6349	6708	5445	1446	943	255	8172	178	134	17751
Fuel	375	404	4547	4546	3730	1243	802	477	3555	408	378	9960
Repair & maint.	489	506	6444	6435	6276	1900	1252	610	7131	542	526	24738
Int. on op. Cap.	386	364	3088	4622	1339	933	730	579	3043	76	88	4242
TOTAL	2743	2839	34989	58446	18177	14126	12437	12480	33913	1620	3856	57446
NET CASH INCOME ^d	-2743	-2839	-34989	-58446	-18177	-14126	-12437	-12480	-33913	112201	126225	73545
CASH POSITION ^e	-2743	-5582	-40571	-99017	-117194	-131320	-143757	-156237	-190150	-77949	48276	121821

^a Estimated from direct expenses from enterprise budgets. Estimates include cash overhead expenditures estimated in Appendix Table 1.

^b Hired labor estimates do not include 200 monthly hours of family labor available at no charge.

^c Other expenditures include charges for non-machinery and non-labor overhead expenditure items presented in Appendix Table 1.

^d Difference between total cash income and total cash operating expenses.

^e Cash position is the accumulated sum of net cash income. The ending cash balance for the business is estimated by the cash position in December.

Custom services (1.8 percent) include application of agricultural chemicals by airplane. Other expenditures include charges for non-machinery and non-labor overhead cash expenses. Interest expenses of 7.7 percent are less than the annual interest rate of 10 percent because operating capital was not borrowed for the full production period but was borrowed on a monthly basis to cover cash flow deficits.

Monthly cash expenses and accumulated borrowing shown in Table 18 and illustrated in Figure 25. Cash expenses across months reflect seasonal planting and harvesting of sugar cane. Relatively large expenditures during the month of September result from the planting of sugar cane while relatively large expenditures in December reflect the harvesting of sugar cane. Results also show that accumulated borrowing peaks in September and then declines as sugar cane is harvested and operating loans are repaid.

In general, income analysis suggests a small profit for the tenant-operated sugar cane farm, while relatively greater cash flow margins are estimated for this farm. These estimates do not suggest financial problems for sugar cane farms in 1997; however, this analysis does not include debt repayment, capital asset replacement, income taxes, or family living expenses.

Dairy Operation

Projected income and cash flows were estimated for a 114 cow dairy operation with average milk production (10,300 pounds per cow per year) and with hay-pasture feeding activities. It was assumed that pasture and hay was produced on non-alluvial soils. Specifically, the operation consists of 159 total acres with 114 acres of permanent improved pasture, 26 acres of native pasture and 19 acres of temporary pasture. Annual income and expenses for the dairy operation are summarized in Table 19.

Table 19. Projected Returns and Expenses for Owner-operated, 114 Cow Dairy Farm, Average Production, Hay-Pasture Feeding, Non-Alluvial Soils, Louisiana, 1997.

ITEM	Owner Operator
	.. Dollars ..
INCOME	
Milk	175,560
Cull cow	11,286
Cull heifer	6,224
Bull calves	1,488
TOTAL INCOME	194,558
DIRECT EXPENSES	
Custom	10,959
Feed	94,789
Fertilizer	15,595
Hired labor ^a	20,177
Other ^b	23,526
Seed	2,935
Diesel fuel	1,870
Gasoline	1,023
Repair & maintenance	8,568
Interest on op. Cap.	3,895
TOTAL DIRECT EXPENSES	183,337
RETURNS ABOVE DIRECT EXPENSES	11,221
TOTAL FIXED EXPENSES^c	24,082
TOTAL SPECIFIED EXPENSES	229,017
NET FARM INCOME^d	-34,459

^a Hired labor estimates do not include 240 monthly hours of free family labor.

^b Other expenditures primarily include charges non-machinery and non-labor overhead expenditure items shown in Appendix Table 1.

^c Includes charges for depreciation, interest, insurance for machinery and equipment.

^d Represents a return to labor, management, risk, and land.

Figure 26

Distribution of Direct Expenses by Item

Owner 114 Cow Dairy Farm, Avg. Production, Louisiana, 1997.

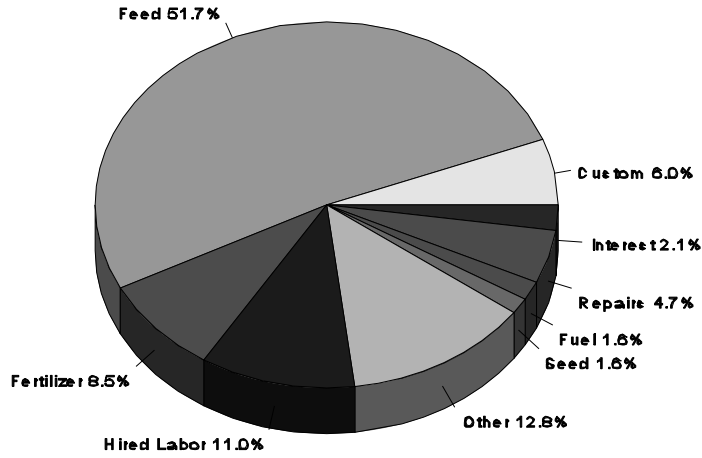


Figure 27

Cash Expenses and Accumulated Borrowing

Owner 114 Cow Dairy Farm, Avg. Production, Louisiana, 1997.

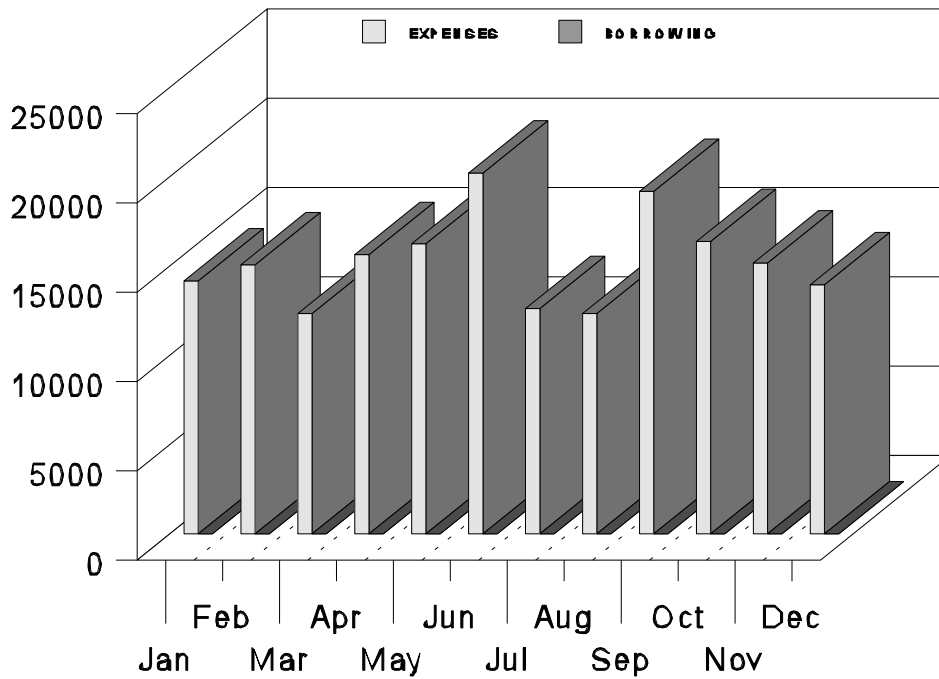


Table 20. Projected Monthly Cash Flow for a Representative Owner-Operated 114 Cow Dairy Farm, Average Production, Pasture Hay Feeding, Non-Alluvial Soils, Louisiana, 1997.

ITEM	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
----- dollars -----												
TOTAL CASH INCOME ¹	6214	16213	16213	16213	16213	16213	16213	16213	16213	16213	16213	16214
CASH OPERATING EXPENSES ^a												
Custom	723	1056	723	1128	1128	1195	723	723	1057	1057	723	723
Feed	7899	7899	7899	7899	7899	7899	7899	7899	7899	7899	7899	7900
Fertilizer	0	1955	0	2668	3256	3143	0	0	2618	1955	0	0
Hired labor ^b	2714	1332	1082	1106	1126	2594	1235	1106	1956	1200	2615	2111
Other ^c	1969	1969	1895	1895	1894	1988	1894	1895	1894	1895	2368	1970
Seed	0	0	0	0	0	171	0	0	1448	1316	0	0
Fuel	147	151	147	151	156	731	208	151	516	189	189	157
Repair & maint.	415	415	415	415	426	1966	492	415	1164	470	1180	795
Int. on op. Cap.	297	290	179	382	368	517	174	158	631	401	201	297
TOTAL	14164	15067	12340	15644	16253	20204	12625	12347	19183	16382	15175	13953
NET CASH INCOME ^d	2050	1146	3873	569	-40	-3991	3588	3866	-2970	-169	1038	2261
CASH POSITION ^e	2050	3196	7069	7638	7598	3607	7195	11061	8091	7922	8960	11221

^a Estimated from direct expenses from enterprise budgets. Estimates include cash overhead expenditures estimated in Appendix Table 2.

^b Hired labor estimates do not include 240 monthly hours of family labor available at no charge.

^c Other expenditures include charges for non-machinery and non-labor overhead expenditure items presented in Appendix Table 2.

^d Difference between total cash income and total cash operating expenses.

^e Cash position is the accumulated sum of net cash income. The ending cash balance for the business is estimated by the cash position in December.

Results indicate that income is forecasted to be \$194,558 while total specified expenses are projected to be \$229,017. The net farm income estimate of -\$34,459 represents a return to labor, management, risk, and land.

Percentage distributions of direct expenses shown in Table 19 are illustrated in Figure 26. Estimates indicate feed accounts for 51.7 percent of total cash operating expenditures. Custom services include charges for custom spreading of fertilizer on pastures, breeding fees and hauling of livestock. Other cash expenses which account for 12.8 percent of total cash (direct) expenses include items such as medication for livestock, miscellaneous dairy supplies, and non-machinery and non-labor cash overhead items.

Projected monthly cash flows for the dairy operation are shown in Table 20 and the monthly distribution of cash expenses is illustrated in Figure 27. In contrast to other representative farms discussed in previous sections, both cash income and cash operating expenses are more uniformly distributed throughout the year. In addition, no operating credit is required for the dairy operation because monthly cash receipts are sufficient to cover monthly cash expenses. In general, the relatively small ending cash flow estimate of \$11,221 suggests that many dairy farmers in Louisiana may experience cash flow problems in 1997.

SUMMARY AND CONCLUSIONS

The purpose of this report was to present 1997 income statement and cash flow projections for several whole farm situations across the state. Income statement projections provide a basis for evaluating whole farm profitability while cash flow projections provide information concerning the cash needs and liquidity conditions of farm businesses expected for the 1997 production year. The general procedure used in the report was to develop projections for representative farm businesses from 1997 projected enterprise crop and livestock budgets (presented in companion publications) and 1997 projected overhead cost budgets presented in Appendix Tables 1 and 2.

In this analysis, the income statement summarizes revenues and expenses of the farm business over the 1997 production year. If projected revenues for the 1997 production year exceed total expenses, net farm income is positive and profits result from business operations. A loss for the business results if projected total expenses exceed projected revenues. Projected cash flow estimates include farm enterprise production cash receipts, cash operating production costs (direct expenses), and farm overhead cash costs. Cash income estimates for representative farms are based on projected enterprise budgets which do not include any government program deficiency payments.

Income and cash flow projections are summarized in Table 21. Net farm income estimates represent a return to labor, management, and risk for the tenant-operated representative farms and a return to labor, management, risk, and land for the owner-operated representative farms. Total cash income in the analysis represents total dollar sales of commodities produced on farms and are annual flows of cash into the business while total operating expenses represent total annual cash outflows from the business. The ending cash balance for each representative farm is the difference between total cash income and total operating expenses. Annual ending cash balances represent cash available to meet payments on existing farm debt, to purchase machinery and land, and to meet family living and income tax expenses.

Gross ratios (total specified expenses divided by total income) shown in Table 21 were computed to provide a measure of relative profitability for representative farms in the analysis. Each ratio provides an indication of the dollar amount of total specified expenses to produce a dollar of farm income. For example, this ratio for a owner-operated cotton, soybean and milo farm in the Red River Louisiana area shows that \$.97 (rounded) of expenses are required to produce a dollar of farm income. Gross ratio estimates between tenant-operated and owner-operated farms are not directly comparable because estimates include a land charge for tenant situations whereas a land charge was not made for owner-operated situations.

Operating cash flow ratios (total operating expenses divided by total cash income) shown in Table 21 were computed to provide a comparison of projected cash flows among representative farms included in the analysis. Each ratio provides an indication of the dollar amount of operating cash expenses (outflows) required to produce a dollar of cash income (inflow) for a farm business. For example, this ratio for a owner-operated cotton, soybean and milo farm in the Red River Louisiana area shows that 80 cents of cash expenses are required to produce a dollar of farm business cash income.

Table 21. Summary of Projected income and Cash Flow Statements, Representative Farm, Louisiana, 1997.

Representative Farm	Total Acres	Income Analysis ^a				Cash Flow Analysis ^a			
		Total Income	Specified Expenses	Net Farm Income	Gross Ratio ^b	Total Cash Income	Total Operating Expenses	Ending Cash Balance	Operating Cash Flow Ratio ^b
RED RIVER AREA									
Tenant-Operator Cotton-Soybean-Milo	1,149	303,511	357,930	-54,419	1.18	303,511	291,885	11,626	.96
Owner-Operator Cotton-Soybean-Milo	1,149	387,999	376,898	11,101	.97	387,999	310,190	77,809	.80
Owner-Operator, Cotton Soybean-Milo and Livestock	1,410	404,701	421,825	-17,124	1.04	404,701	343,252	61,449	.85
MACON RIDGE AREA									
Tenant-Operator Cotton-Soybean	554	173,773	203,026	-29,253	1.17	173,773	168,016	5,757	.97
Owner-Operator Cotton-Soybean	554	218,494	213,232	5,262	.98	218,494	178,222	40,272	.82
MISSISSIPPI DELTA AREA									
Tenant-Operator Cotton-Soybean	1,374	412,079	413,354	-1,275	1.00	412,079	332,318	79,761	.81
Owner-Operator Cotton-Soybean	1,374	524,027	437,361	86,666	.83	524,027	356,325	167,702	.68
SOUTHWEST RICE AREA									
Tenant-Operator Rice-Soybean	879	187,110	230,881	-43,771	1.23	187,110	188,366	-1,256	1.01
Owner-Operator Rice-Soybean	879	285,400	316,156	-30,756	1.11	285,400	259,434	25,966	.91
CENTRAL AREA									
Tenant-Operator Corn-Soybean	857	175,599	199,653	-24,054	1.14	175,599	158,245	17,354	.90
Owner-Operator Corn-Soybean	857	224,520	210,878	13,642	.94	224,520	169,470	55,050	.75
SUGAR CANE AREA									
Tenant-Operator Sugar Cane, 3-Row	968	374,893	330,501	44,392	.88	374,893	253,072	121,821	.68
DAIRY OPERATION									
114 Cow	159	194,558	229,017	-34,459	1.18	194,558	183,337	11,221	.94

^a Total income and total cash income differ because of rounding. Total specified expenses include direct and fixed expenses whereas total operating expenses include only cash direct expenses and overhead expenses.

^b Gross ratio is estimated by dividing total specified expenses by total income and is rounded at two decimal places.

^c Operating cash flow ratio is estimated by dividing total operating expenses by total cash income.

Operating cash flow ratios (Table 21) provide a common basis for comparing cash flow situations for representative farms. Results indicate this ratio is 1.01 for the tenant-operated farm in the Southwest Rice area. This means that it takes \$1.01 of cash operating expenses to produce a dollar of cash receipts. Similarly, the operating cash flow ratio for the tenant-operated cotton-soybean farm in the Macon Ridge is estimated at .97 which indicates that 97 cents of cash production and overhead expenses are required to produce a dollar's worth of commodity. This ratio suggests that the cash flow margin is not likely to be sufficient to meet family living expenses, loan payments on existing debt, income taxes and other capital expenditures.

Estimates provided in Table 21 suggest that many Louisiana tenant-operated farms may experience financial problems in 1997. With the exception of the sugar cane farm, the gross ratio for each of the tenant farms considered in the analysis is greater than one which means that total specified expenses are greater than income generated on farms. Similarly, the operating cash flow ratio is estimated to range from .68 for the tenant-operated sugar cane farm to 1.01 for the tenant-operated rice-soybean farm in the Southwest Rice area of Louisiana. Moreover, the ending cash balance for the Macon Ridge tenant-operated cotton-soybean farm is estimated to be \$5,750 while its corresponding operating cash flow ratio is estimated at .97. This operating cash flow margin is not expected to be sufficient to cover other cash expenditure requirements such as family living expenses, loan payments on existing debt, and other capital expenditures. The magnitude of cash flow problems for these farms will likely vary with the levels of outstanding farm debt existing on farms.

Gross ratios for owner-operated farms were estimated to range from .83 for the Mississippi Delta cotton-soybean farm to 1.18 for the 114 cow dairy operation. These estimates do not indicate that any substantial profits are being earned in any of the farming areas.

It is further noted that some farming situations (Table 21) may experience cash flow problems because the estimates do not include cash flow requirements associated with land mortgage payments for owner-operated farms and machinery related debt repayment, income taxes, or family living expenses for all tenure situations. Within recent years, farms heavily financed with debt capital have experienced cash flow problems and many of the farms will continue to experience these problems in 1997. Furthermore, any of the farming situations may experience cash flow problems because of variable commodity prices and yields in 1997.

These results emphasize the need for continued farm business planning and management of debt in farming operations. Farm managers who develop income and cash flow projections should find it easier to justify and secure adequate financing and to manage the financial position of their farm businesses for the 1997 production year.

Appendix Table 1. Summary of Estimated Overhead Costs per Acre, Tenant-Operators, Louisiana, 1997.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
HIRED LABOR					
Other labor	hour	7.50	0.7600	5.70	_____
OTHER					
Farmstead & drainage	dol	1.00	1.5700	1.57	_____
Utilities	dol	1.00	2.8100	2.81	_____
Misc. overhead	dol	1.00	1.6000	1.60	_____
Insurance	dol	1.00	2.2900	2.29	_____
OPERATOR LABOR					
Tractors	hour	7.50	0.1650	1.24	_____
Self-Propelled Eq.	hour	7.50	1.5000	11.25	_____
Shop bld. & equip.	hour	7.50	0.5800	4.35	_____
DIESEL FUEL					
Tractors	gal	0.85	0.4050	0.34	_____
GASOLINE					
Self-Propelled Eq.	gal	1.20	3.7500	4.50	_____
REPAIR & MAINTENANCE					
Implements	acre	0.11	1.0000	0.11	_____
Tractors	acre	0.42	1.0000	0.42	_____
Self-Propelled Eq.	acre	2.53	1.0000	2.53	_____
Shop bld. & equip.	acre	3.26	1.0000	3.26	_____
INTEREST ON OP. CAP.	acre	2.20	1.0000	2.20	_____
TOTAL DIRECT EXPENSES				44.17	_____
FIXED EXPENSES					
Implements	acre	0.31	1.0000	0.31	_____
Tractors	acre	0.38	1.0000	0.38	_____
Self-Propelled Eq.	acre	6.05	1.0000	6.05	_____
Shop bld. & equip.	acre	2.54	1.0000	2.54	_____
TOTAL FIXED EXPENSES				9.29	_____
TOTAL SPECIFIED EXPENSES				53.46	_____

Appendix Table 2. Summary of Estimated Overhead Costs per Acre, Owner-Operators, Louisiana, 1997.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
HIRED LABOR					
Other labor	hour	7.50	1.2700	9.53	_____
OTHER					
Farmstead & drainage	dol	1.00	4.2500	4.25	_____
Utilities	dol	1.00	4.7900	4.79	_____
Misc. overhead	dol	1.00	1.6000	1.60	_____
Insurance	dol	1.00	2.7300	2.73	_____
Property tax	dol	1.00	1.6000	1.60	_____
OPERATOR LABOR					
Tractors	hour	7.50	0.1650	1.24	_____
Self-Propelled Eq.	hour	7.50	1.5000	11.25	_____
Shop bld. & equip.	hour	7.50	0.5800	4.35	_____
DIESEL FUEL					
Tractors	gal	0.85	0.4050	0.34	_____
GASOLINE					
Self-Propelled Eq.	gal	1.20	3.7500	4.50	_____
REPAIR & MAINTENANCE					
Implements	acre	0.11	1.0000	0.11	_____
Tractors	acre	0.42	1.0000	0.42	_____
Self-Propelled Eq.	acre	2.53	1.0000	2.53	_____
Shop bld. & equip.	acre	3.26	1.0000	3.26	_____
INTEREST ON OP. CAP.	acre	2.70	1.0000	2.70	_____
TOTAL DIRECT EXPENSES				55.19	_____
FIXED EXPENSES					
Implements	acre	0.31	1.0000	0.31	_____
Tractors	acre	0.38	1.0000	0.38	_____
Self-Propelled Eq.	acre	6.05	1.0000	6.05	_____
Shop bld. & equip.	acre	2.54	1.0000	2.54	_____
TOTAL FIXED EXPENSES				9.29	_____
TOTAL SPECIFIED EXPENSES				64.48	_____