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PROJECTED CASH FLOWS AND PROFITABILITY FOR REPRESENTATIVE LOUISIANA FARMS, 2001

by

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TABLE OF CONTENTS

	Page
INTRODUCTION	A-1
PROCEDURES AND DATA	A-2
Study Area and Source of Data	A-2
Interest Computation	A-4
Hired Labor	A-4
Description of Representative Farms	A-4
INCOME PROJECTIONS	A-9
Red River Area	A-9
Northeast Louisiana	A-16
Southwest Louisiana	A-25
Central Area	A-30
Sugar Cane Area	A-35
Dairy Operation	A-38
SUMMARY AND CONCLUSIONS	A-42
APPENDIX	A-45

LIST OF TABLES

TABLE		Page
1	Resource Data, Crop and Livestock Enterprise, and Tenure Situations for Representative Louisiana Farms, 2001	A-5
2	Projected Returns and Expenses for Tenant and Owner Operated Farms, 6-Row Equipment, Red River Area, Louisiana, 2001	A-10
3	Projected Monthly Cash Flow for a Representative Tenant Operated Cotton, Soybean and Milo Farm, 6-Row Equipment, Red River Area, Louisiana, 2001	A-11
4	Projected Monthly Cash Flow for a Representative Owner Operated Cotton, Soybean and Milo Farm, 6-Row Equipment, Red River Area, Louisiana, 2001	A-11
5	Projected Monthly Cash Flow for a Representative Owner Operated Cotton, Soybean, Milo and Cow-Calf Farm, 6-Row Equipment, Red River Area, Louisiana, 2001	A-12
6	Projected Returns and Expenses for Tenant and Owner-Operated Farms, 8-Row Equipment, Northeast Louisiana, 2001	A-17

LIST OF TABLES CONTINUED

TABLE		Page
7	Projected Monthly Cash Flow for a Representative Tenant Operated Cotton and Soybean Farm, 8-Row Equipment, Macon Ridge, Louisiana, 2001	A-18
8	Projected Monthly Cash Flow for a Representative Owner Operated Cotton and Soybean Farm, 8-Row Equipment, Macon Ridge, Louisiana, 2001	A-18
9	Projected Monthly Cash Flow for a Representative Tenant Operated Cotton and Soybean Farm, 8-Row Equipment, Mississippi Delta, Louisiana, 2001	A-19
10	Projected Monthly Cash Flow for a Representative Owner Operated Cotton and Soybean Farm, 8-Row Equipment, Mississippi Delta, Louisiana, 2001	A-19
11	Projected Returns and Expenses for Tenant and Owner Operated Farms, Water Planted Rice, Drill Planted Soybeans, Southwest Louisiana, 2001	A-26
12	Projected Monthly Cash Flow for A Representative Tenant Operated Rice and Soybean Farm, Water Planted Rice, Drill Planted Soybeans, Southwest Rice Area, Louisiana, 2001	A-27
13	Projected Monthly Cash Flow for a Representative Owner Operated Rice and Soybean Farm, Water Planted Rice, Drill Planted Soybeans, Southwest Rice Area, Louisiana, 2001	A-27
14	Projected Returns and Expenses for Tenant and Owner Operated Farms, 6-Row Equipment, Central Area, Louisiana, 2001	A-31
15	Projected Monthly Cash Flow for a Representative Tenant Operated Soybean and Corn Farm, 6-Row Equipment, Central Area, Louisiana, 2001	A-32
16	Projected Monthly Cash Flow for a Representative Owner Operated Soybean and Corn Farm, 6-Row Equipment, Central Area, Louisiana, 2001	A-32
17	Projected Returns and Expenses for a Tenant-Operated Farm, 3-Row Equipment, Alluvial Soils, River Region, Sugar Cane Area, Louisiana, 2001	A-36
18	Projected Monthly Cash Flows for a Representative Tenant Operated Sugar Cane Farm, Alluvial Soils, River Region, Sugar Cane Area, Louisiana, 2001	A-38

LIST OF TABLES CONTINUED

TABLE Page

19 Projected Returns and Expenses for Owner-Operated 114 Cow Dairy Farm, Average Production, Hay-Pasture Feeding, Non-Alluvial Soils, Louisiana, 2001 . . . . . A-39

20 Projected Monthly Cash Flow for a Representative Owner Operated 114-Cow Dairy Farm, Average Production, Hay-Pasture Feeding, Non-Alluvial Soils, Louisiana, 2001 . . . . . A-41

21 Summary of Projected income and Cash Flow Statements, Representative Farms, Louisiana, 2001 . . . . . A-43

LIST OF FIGURES

FIGURE Page

1 Study Areas for Representative Louisiana Farms A-3

2 Distribution of Direct Expenses by Item, Tenant Cotton-Soybean-Milo Farm, Red River Area, Louisiana, 2001 . . . . . A-13

3 Cash Expenses and Accumulated Borrowing, Tenant Cotton-Soybean-Milo Farm, Red River Area, Louisiana, 2001 . . . . . A-13

4 Distribution of Direct Expenses by Item, Owner Cotton-Soybean-Milo Farm, Red River Area, Louisiana, 2001 . . . . . A-14

5 Cash Expenses and Accumulated Borrowing, Owner Cotton-Soybean-Milo Farm, Red River Area, Louisiana, 2001 . . . . . A-14

6 Distribution of Direct Expenses by Item, Owner Crop-Livestock Farm, Red River Area, Louisiana, 2001 . . . . . A-15

7 Cash Expenses and Accumulated Borrowing, Owner Crop-Livestock Farm, Red River Area, Louisiana, 2001 . . . . . A-15

8 Distribution of Direct Expenses by Item, Tenant Cotton-Soybean Farm, Macon Ridge, Louisiana, 2001 . . . . . A-20

9 Cash Expenses and Accumulated Borrowing, Tenant Cotton-Soybean Farm, Macon Ridge, Louisiana, 2001 . . . . . A-20

10 Distribution of Direct Expenses by Item, Owner Cotton-Soybean Farm, Macon Ridge, Louisiana, 2001 . . . . . A-21

11 Cash Expenses and Accumulated Borrowing, Owner Cotton-Soybean Farm, Macon Ridge, Louisiana, 2001 . . . . . A-21

12 Distribution of Direct Expenses by Item, Tenant Cotton-Soybean Farm, Mississippi Delta, Louisiana, 2001 . . . . . A-22

LIST OF FIGURES CONTINUED

FIGURE		Page
13	Cash Expenses and Accumulated Borrowing, Tenant Cotton-Soybean Farm, Mississippi Delta, Louisiana, 2001	A-22
14	Distribution of Direct Expenses by Item, Owner Cotton-Soybean Farm, Mississippi Delta, Louisiana, 2001	A-23
15	Cash Expenses and Accumulated Borrowing, Owner Cotton-Soybean Farm, Mississippi Delta, Louisiana, 2001	A-23
16	Distribution of Direct Expenses by Item, Tenant Rice-Soybean Farm, Southwest Rice Area, Louisiana, 2001	A-28
17	Cash Expenses and Accumulated Borrowing, Tenant Rice-Soybean Farm, Southwest Rice Area, Louisiana, 2001	A-28
18	Distribution of Direct Expenses by Item, Owner Rice-Soybean Farm, Southwest Rice Area, Louisiana, 2001	A-29
19	Cash Expenses and Accumulated Borrowing, Tenant Rice-Soybean Farm, Southwest Rice Area, Louisiana, 2001	A-29
20	Distribution of Direct Expenses by Item, Tenant Soybean-Corn Farm, Central Area, Louisiana, 2001	A-33
21	Cash Expenses and Accumulated Borrowing, Tenant Soybean-Corn Farm, Central Area, Louisiana, 2001	A-33
22	Distribution of Direct Expenses by Item, Owner Soybean-Corn Farm, Central Area, Louisiana, 2001	A-34
23	Cash Expenses and Accumulated Borrowing, Owner Soybean-Corn Farm, Central Area, Louisiana, 2001	A-34
24	Distribution of Direct Expenses by Item, Tenant 3-Row Sugar Cane Farm, Sugar Cane Area, Louisiana, 2001	A-37
25	Cash Expenses and Accumulated Borrowing, Tenant 3-Row Sugar Cane Farm, Sugar Cane Area, Louisiana, 2001	A-37
26	Distribution of Direct Expenses by Item, Owner 114 Cow Dairy Farm, Average Production, Louisiana, 2001	A-40
27	Cash Expenses and Accumulated Borrowing, Owner 114 Cow Dairy Farm, Average Production, Louisiana, 2001	A-40

PROJECTED CASH FLOWS AND PROFITABILITY FOR REPRESENTATIVE LOUISIANA FARMS, 2001

Robert W. Boucher and Lonnie R. Vandeveer*

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 2001 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

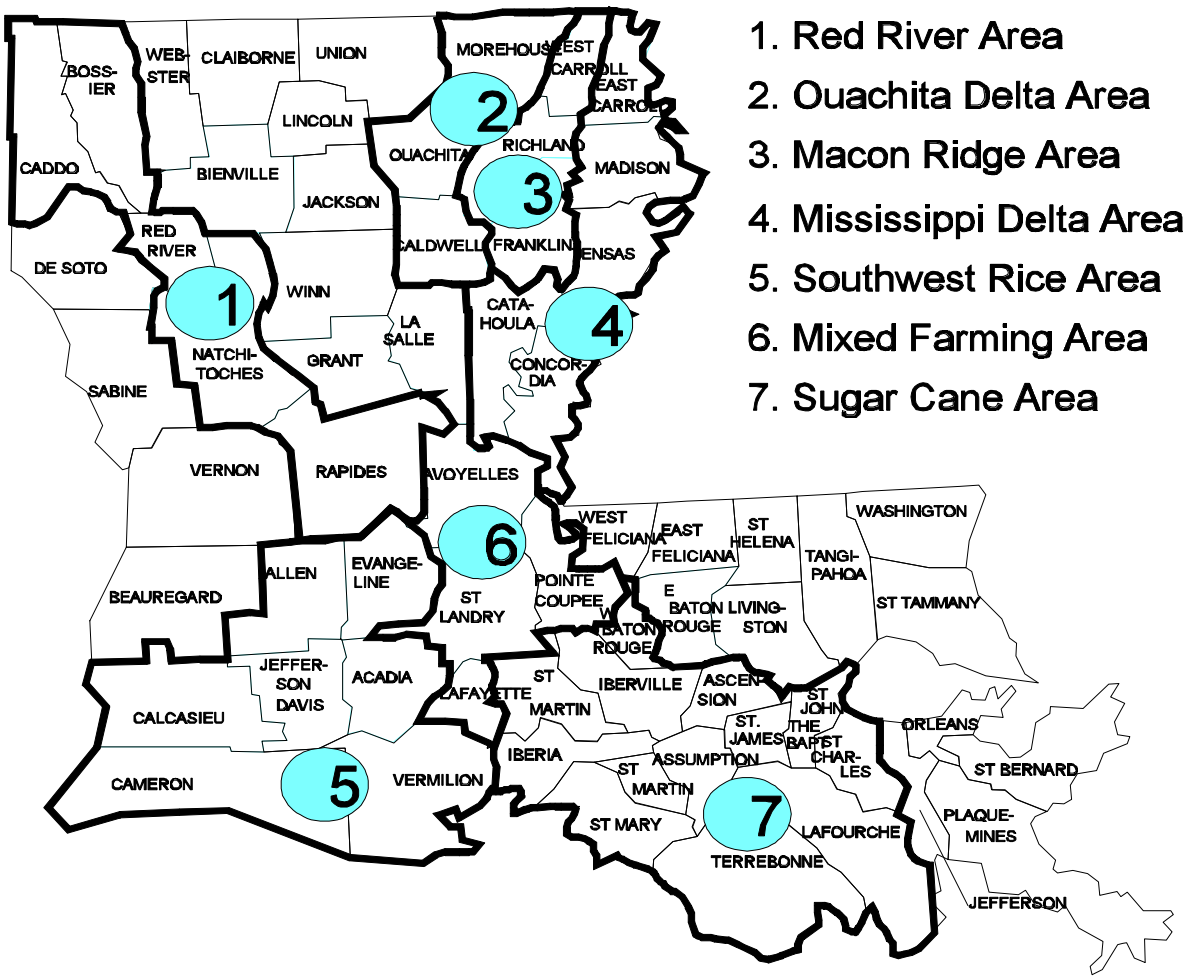

Figure 1. Study Areas for Representative Louisiana Farms.

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 188-191). 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 all areas. 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 $7.50 per hour. Necessary hired skilled labor to operate harvest machinery was charged at $12.00 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 a tenant-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, 2001.

Area, Tenure and Enterprise Budget Descriptions	Units	Quantity	AEA Number [a/]
RED RIVER AREA			
Tenant-Operator (Crop Farm)			
Milo, 6-Row Equipment, 38 Inch Rows	Acres	300	190
Cotton: Sandy Soil, 6-Row Equipment, Solid Planted	Acres	475	190
Soybean: Clay Soil, 6-Row Equipment, 38 Inch Rows	Acres	374	190
Owner-Operator (Crop Farm)			
Milo, 6-Row Equipment, 38 Inch Rows	Acres	300	190
Cotton: Sandy Soil, 6-Row Equipment, Solid Planted	Acres	475	190
Soybeans: Clay Soil, 6-Row Equipment, 38 Inch Rows	Acres	374	190
Owner-Operator (Crop and Livestock Farm)			
Milo, 6-Row Equipment, 38 Inch Rows	Acres	300	190
Cotton: Sandy Soil, 6-Row Equipment, Solid Planted	Acres	475	190
Soybeans: Clay Soil, 6-Row Equipment, 38 Inch Rows	Acres	374	190
Cow-Calf: 435 Pound Weanling Calf, with Replacements, Alluvial Soils, North Louisiana	Head	80	188
Native Pasture: Annual Maintenance of Native Pastures, Louisiana	Acres	210	188
Hay Harvesting from Pasture: Costs Per Ton for Harvesting Hay from Pasture, 1.5 tons Per Cutting, Louisiana	Ton	110	188
MACON RIDGE			
Tenant-Operator			
Cotton: Sandy Soil, 8-Row Equipment, Solid Planted	Acres	405	189
Soybeans: Sandy Soil, 8-Row Equipment, 38 Inch Rows	Acres	149	189

Table 1. Continued.

Area, Tenure and Enterprise Budget Descriptions	Units	Quantity	AEA Number [a/]
MACON RIDGE (continued)			
Owner-Operator			
Cotton: Sandy Soil, 8-Row Equipment, Solid Planted	Acres	405	189
Soybeans: Sandy Soil, 8-Row Equipment, 38 Inch Rows	Acres	149	189
MISSISSIPPI DELTA			
Tenant-Operator			
Cotton: Sandy Soil, 8-Row Equipment, Solid Planted	Acres	629	189
Soybeans: Clay Soil, 8-Row Equipment, 38 Inch Rows	Acres	745	189
Owner-Operator			
Cotton: Sandy Soil, 8-Row Equipment, Solid Planted	Acres	629	189
Soybeans: Clay Soil, 8-Row Equipment, 38 Inch Rows	Acres	745	189
SOUTHWEST RICE AREA			
Tenant- Operator			
Rice: Water Planted	Acres	443	191
Soybeans: Drill Planted	Acres	436	191
Owner-Operator			
Rice: Water Planted	Acres	443	191
Soybeans: Drill Planted	Acres	436	191
CENTRAL AREA			
Tenant-Operator			
Corn: Sandy Soil, 6-Row Equipment, 38 Inch Rows	Acres	445	190
Soybeans: Clay Soil, 6-Row Equipment, 38 Inch Rows	Acres	412	190
Owner-Operator			
Corn: Sandy Soil, 6-Row Equipment, 38 Inch Rows	Acres	445	190
Soybeans: Clay Soil, 6-Row Equipment, 38 Inch Rows	Acres	412	190

Table 1. Continued.

Area, Tenure and Enterprise Budget Descriptions	Units	Quantity	AEA Number [a]
SUGAR CANE AREA			
Tenant-Operator			
Sugar Cane: Cultivation and Harvest, 3-Row Equipment Alluvial Soils, River Parishes	Acres	761	192
Sugar Cane: Cultivation and Harvest, 3-Row Equipment, Alluvial Soils, River Parishes (Sugar Cane Harvested for Planting)	Acres	39	192
Sugar Cane: Fallow and Plant, 3-Row Equipment and Mechanical Planter, Alluvial Soils, River Parishes	Acres	200	192
DAIRY OPERATION			
Owner-Operator			
Dairy Cow: Average Production, Lagoon Manure Handling System, Pasture-Hay Feeding	Head	114	188
Harvesting Hay from Pasture: Cost Per Ton for Harvesting Hay from Pasture, 1.5 Tons Per Cutting, Louisiana	Tons	185	188
Temporary Winter Pasture for Dairy: Prepared Seedbed, Louisiana	Acres	94	188
Summer Permanent Improved Pasture for Dairy: Annual Maintenance of Summer Permanent Pastures	Acres	114	188
Temporary Summer Pasture for Dairy: Prepared Seedbed	Acres	19	188
Native Pasture	Acres	26	188

[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 190.

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

The third 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 210 acres of pasture.

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 all areas. The farm includes 1000 acres and uses three-row equipment. The representative farm was assumed to: 1) have 25 percent of total farm acreage in breaking stubble, fallow activities 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

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[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.

representative farming situation to consist of 761 acres of sugar cane production, 39 acres that is harvested for planting, and 200 acres of land that is fallowed and planted each year. Approximately 6.5 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 2001 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, 2001 whole farm projections are not comparable with projections for previous years.

Red River Area

Projected returns and expenses for 2001 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 (1,359 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, 2001.

ITEM	Tenant Operator a	Crop Farm	Crop and Livestock Farm
	dollars		
INCOME			
Cotton lint	199,500	199,500	199,500
Cottonseed prod	25,768	25,768	25,769
Cotton checkoff	-1,352	-1,689	-1,690
Lint share rent	-39,900		
Seed share rent	-5,153		
Soybean	58,905	58,905	58,905
Soybean share rent	-14,726		
Milo	59,040	59,040	59,040
Milo share rent	-14,760		
Weanling calf			28,795
Cull heifer			3,136
Cull cow			2,240
TOTAL INCOME	267,322	341,524	375,695
DIRECT EXPENSES			
Custom	7,313	7,686	7,968
Defoliant	9,486	9,486	9,487
Feed			2,333
Fertilizer	25,672	25,672	25,673
Fungicides	6,840	6,840	6,840
Herbicides	30,259	30,259	30,260
Hired labor b	33,088	37,483	50,798
Insecticides	21,974	21,974	21,974
Other c	56,087	72,918	79,559
Seed	13,274	13,274	13,274
Diesel fuel	17,680	18,179	19,377
Gasoline	8,255	8,255	9,473
Repair & maintenance	46,016	46,505	52,240
Interest on op. cap.	12,088	12,766	14,319
TOTAL DIRECT EXPENSES	288,032	311,297	343,575
RETURNS ABOVE DIRECT EXPENSES	-20,710	30,227	32,120
TOTAL FIXED EXPENSES d	73,168	74,109	85,581
TOTAL SPECIFIED EXPENSES	361,200	385,406	429,156
NET FARM INCOME e	-93,878	-43,882	-53,461

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, 2001.

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	44280	44178	178864	0
CASH OPERATING EXPENSES a												
Custom	0	0	0	0	0	0	2715	2589	0	2009	0	0
Defoliant	0	0	0	0	0	0	0	0	0	9486	0	0
Fertilizer	0	0	0	16672	9000	0	0	0	0	0	0	0
Fungicides	0	0	0	6840	0	0	0	0	0	0	0	0
Herbicides	0	0	0	17698	638	8529	3394	0	0	0	0	0
Hired labor b	3299	1425	743	6483	3330	2718	574	425	2811	7453	2337	1490
Insecticides	0	0	0	5251	0	0	7143	9580	0	0	0	0
Other c	712	712	517	494	482	494	5232	494	485	494	45075	896
Seed	0	0	0	6916	6358	0	0	0	0	0	0	0
Fuel	3142	577	986	5411	2792	3006	716	578	1816	4715	1611	585
Repair & maintenance	3607	946	1666	8217	3966	3858	1156	950	3383	13787	3452	1028
Interest on op. cap.	1165	473	437	4787	1405	980	927	549	181	628	505	51
TOTAL	11925	4133	4349	78769	27971	19585	21857	15165	8676	38572	52980	4050
NET CASH INCOME d	-11925	-4133	-4349	-78769	-27971	-19585	-21857	-15165	35604	5606	125884	-4050
CASH POSITION e	-11925	-16058	-20407	-99176	-127147	-146732	-168589	-183754	-148150	-142544	-16660	-20710

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, 2001.

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	59041	58905	223578	0
CASH OPERATING EXPENSES a												
Custom	0	0	0	0	0	0	3088	2589	0	2009	0	0
Defoliant	0	0	0	0	0	0	0	0	0	9486	0	0
Fertilizer	0	0	0	16672	9000	0	0	0	0	0	0	0
Fungicides	0	0	0	6840	0	0	0	0	0	0	0	0
Herbicides	0	0	0	17696	638	8529	3396	0	0	0	0	0
Hired labor b	4161	2287	869	6707	3554	2943	799	653	3040	7678	2440	2352
Insecticides	0	0	0	5251	0	0	7144	9579	0	0	0	0
Other c	1355	1355	827	827	815	827	5567	827	816	827	55208	3667
Seed	0	0	0	6916	6358	0	0	0	0	0	0	0
Fuel	3142	577	986	5411	2792	3006	716	578	1817	5212	1612	585
Repair & maintenance	3607	946	1666	8217	3966	3858	1156	951	3382	14276	3452	1028
Interest on op. cap.	1316	611	474	4829	1442	1012	971	575	201	659	600	76
TOTAL	13581	5776	4822	79366	28565	20175	22837	15752	9256	40147	63312	7708
NET CASH INCOME d	-13581	-5776	-4822	-79366	-28565	-20175	-22837	-15752	49785	18758	160266	-7708
CASH POSITION e	-13581	-19357	-24179	-103545	-132110	-152285	-175122	-190874	-141089	-122331	37935	30227

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, 2001.

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	59040	58905	223579	34171
CASH OPERATING EXPENSES a												
Custom	0	0	0	0	0	0	915	4039	724	2008	0	282
Defoliant	0	0	0	0	0	0	0	0	0	9487	0	0
Feed	0	0	0	0	0	240	0	0	0	0	0	2093
Fertilizer	0	0	0	16673	9000	0	0	0	0	0	0	0
Fungicides	0	0	0	6840	0	0	0	0	0	0	0	0
Herbicides	0	0	0	17697	639	8530	3394	0	0	0	0	0
Hired labor b	7050	4200	1427	8158	4228	4422	1196	1190	3443	8581	2911	3992
Insecticides	0	0	0	5251	0	0	1392	13414	1917	0	0	0
Other c	1604	1604	978	1778	965	1061	5715	978	1765	978	55982	6149
Seed	0	0	0	6916	6358	0	0	0	0	0	0	0
Fuel	3393	819	1191	5530	3062	3495	821	689	1921	5324	1764	841
Repair & maintenance	6056	1222	1917	8402	4305	4830	1331	1125	3572	14470	3677	1333
Interest on op. cap.	1900	857	571	5032	1532	1179	682	790	321	693	627	135
TOTAL	20003	8702	6084	82277	30089	23757	15446	22225	13663	41542	64961	14825
NET CASH INCOME d	-20003	-8702	-6084	-82277	-30089	-23757	-15446	-22225	45377	17363	158618	19346
CASH POSITION e	-20003	-28705	-34789	-117066	-147155	-170912	-186358	-208583	-163206	-145843	12775	32120

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 2001. 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 the owner-operated crop farm for the month of December is $30,227.

Figure 2

Distribution of Direct Expenses by Item

Tenant Cotton- Soybean-Milo Farm, Red River Area, Louisiana, 2001.

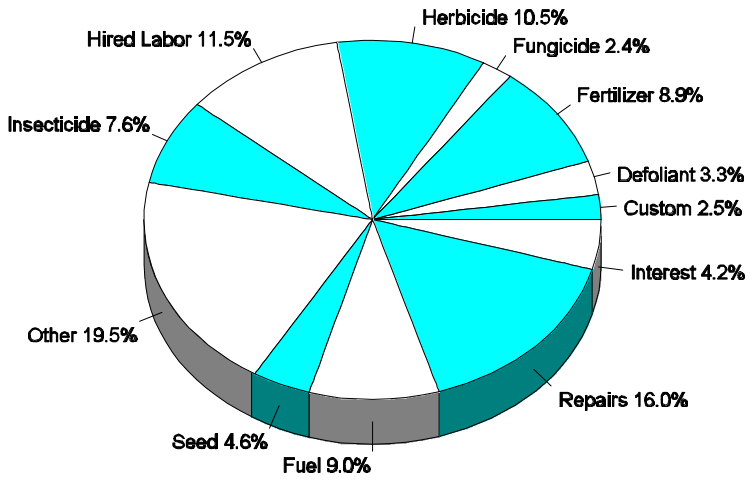


Figure 3

Cash Expenses and Accumulated Borrowing

Tenant Cotton-Soybean-Milo Farm, Red River Area, Louisiana, 2001.

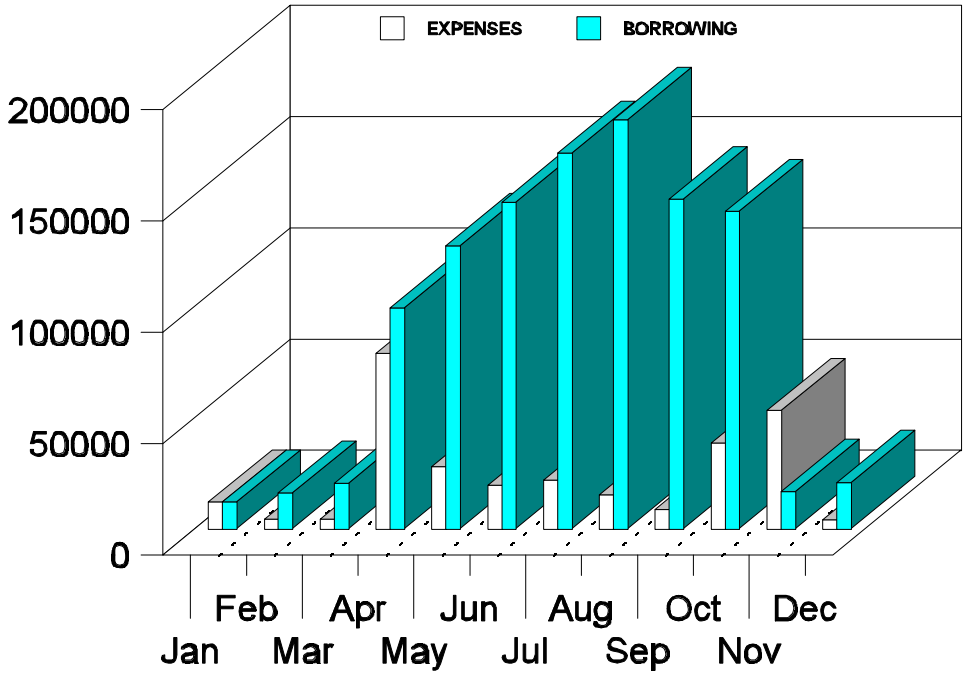


Figure 4

Distribution of Direct Expenses by Item

Owner Cotton- Soybean-Milo Farm, Red River Area, Louisiana, 2001.

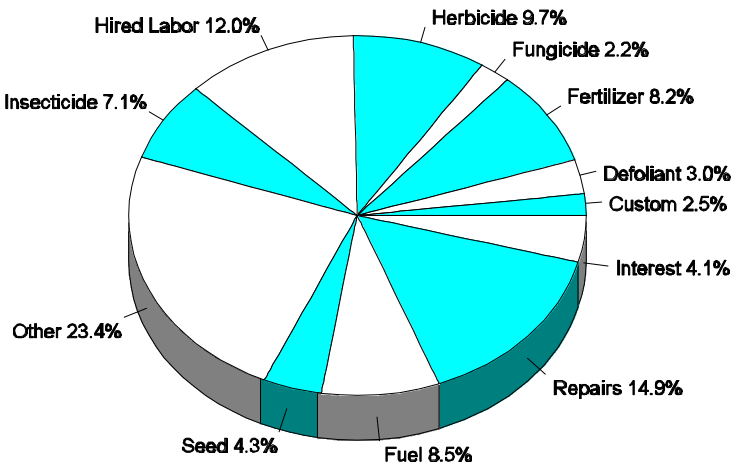


Figure 5

Cash Expenses and Accumulated Borrowing

Owner Cotton-Soybean-Milo Farm, Red River Area, Louisiana, 2001.

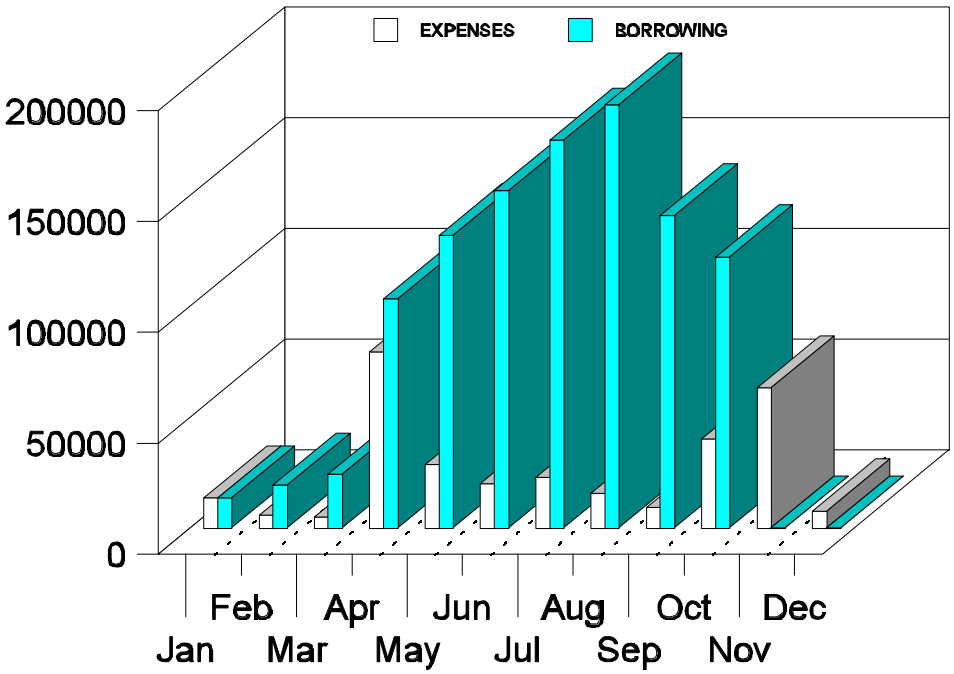


Figure 6

Distribution of Direct Expenses by Item

Owner Crop-Livestock Farm, Red River Area, Louisiana, 2001.

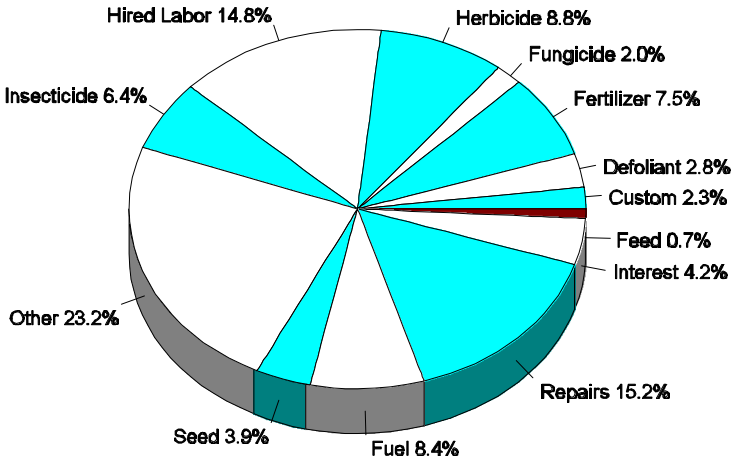
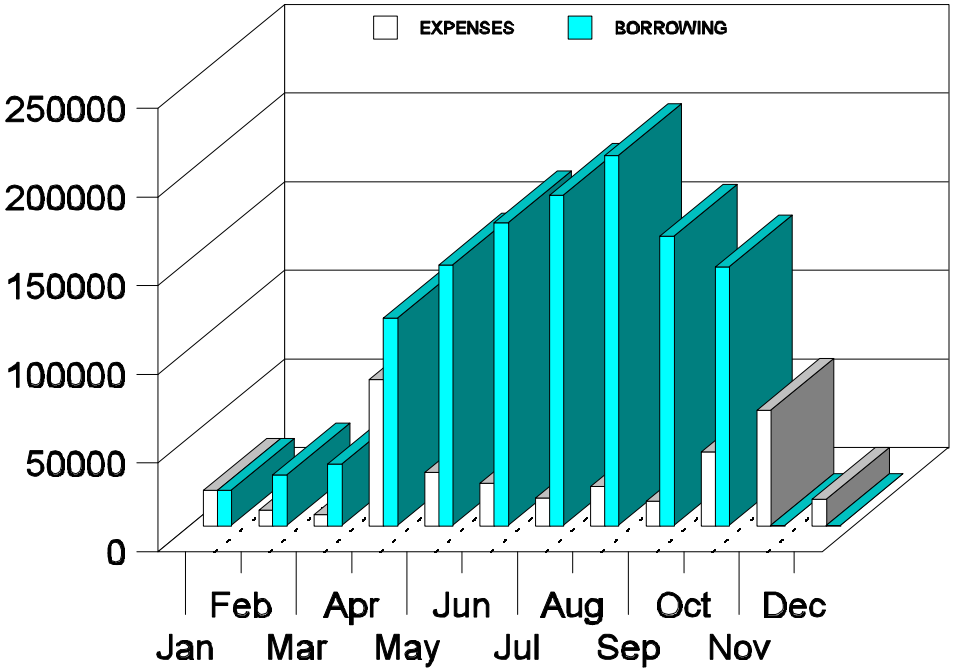


Figure 7

Cash Expenses and Accumulated Borrowing

Owner Crop-Livestock Farm, Red River Area, Louisiana, 2001.



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 16.0 percent of total operating expenses for the tenant-operated farm while other expenses account for 19.5 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 3,4, and 5 indicate a cash deficit for the tenant farm and a relatively small cash position for the owner-operated farm. These results suggest that many farmers in this farming area will experience serious cash flow problems in year 2001. Additional cash expenses include family living, capital equipment, and interest payments on outstanding debt.

Northeast Louisiana

Projected income statements for 2001 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, 2001.

ITEM	MACON RIDGE a		MISSISSIPPI DELTA b	
	Tenant Operator	Owner Operator	Tenant Operator	Owner Operator
	dollars			
INCOME				
Cotton lint	157,950	157,950	301,920	301,920
Cottonseed prod	20,412	20,412	38,998	38,998
Cotton checkoff	-1,067	-1,067	-1,918	-2,558
Lint share rent	-31,590		-60,384	
Seed share rent	-4,090		-7,799	
Soybean	16,427	16,427	117,337	117,337
Soybean share rent	-4,106		-29,334	
TOTAL INCOME	153,936	193,722	358,820	455,697
DIRECT EXPENSES				
Custom	7,090	7,090	11,821	12,242
Defoliant	5,126	5,126	12,562	12,562
Fertilizer	19,877	19,877	14,152	14,152
Fungicides	5,832	5,832	9,057	9,057
Herbicides	18,878	18,878	61,343	61,343
Hired labor c	8,311	9,891	37,778	43,005
Insecticides	24,839	24,839	46,028	46,028
Other d	44,332	54,929	82,550	105,814
Seed	5,843	5,843	18,200	18,200
Diesel fuel	9,806	9,806	19,041	19,041
Gasoline	3,631	3,631	9,421	9,421
Repair & maintenance	26,408	26,408	52,749	52,749
Interest on op. cap.	8,045	8,377	15,472	16,288
TOTAL DIRECT EXPENSES	188,018	200,527	390,174	419,902
RETURNS ABOVE DIRECT EXPENSES	-34,082	-6,805	-31,354	35,795
TOTAL FIXED EXPENSES e	41,323	41,323	84,116	84,116
TOTAL SPECIFIED EXPENSES	229,341	241,850	474,290	504,018
NET FARM INCOME f	-75,405	-48,128	-115,470	-48,321

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, 2001.

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	12320	141616	0
CASH OPERATING EXPENSES a												
Custom	0	0	0	1599	0	0	1927	2105	0	1459	0	0
Defoliant	0	0	0	0	0	0	0	0	0	5126	0	0
Fertilizer	3118	0	0	9671	7088	0	0	0	0	0	0	0
Fungicides	0	0	0	5832	0	0	0	0	0	0	0	0
Herbicides	0	0	0	7957	7733	3188	0	0	0	0	0	0
Hired labor b	403	0	0	1558	867	388	0	0	0	2414	2681	0
Insecticides	0	0	0	5332	901	0	8704	9902	0	0	0	0
Other c	343	343	249	238	232	238	6307	242	232	238	35238	432
Seed	0	0	0	3564	2279	0	0	0	0	0	0	0
Fuel	994	278	580	2637	1558	1459	258	278	261	2548	2302	284
Repair & maintenance	1454	456	950	3449	2292	1892	445	456	485	8566	5464	499
Interest on op. cap.	736	228	232	2895	1387	437	787	475	63	357	422	26
TOTAL	7048	1305	2011	44732	24337	7602	18428	13458	1041	20708	46107	1241
NET CASH INCOME d	-7048	-1305	-2011	-44732	-24337	-7602	-18428	-13458	-1041	-8388	95509	-1241
CASH POSITION e	-7048	-8353	-10364	-55096	-79433	-87035	-105463	-118921	-119962	-128350	-32841	-34082

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, 2001.

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	16427	177295	0
CASH OPERATING EXPENSES a												
Custom	0	0	0	1599	0	0	1927	2105	0	1459	0	0
Defoliant	0	0	0	0	0	0	0	0	0	5126	0	0
Fertilizer	3118	0	0	9671	7088	0	0	0	0	0	0	0
Fungicides	0	0	0	5832	0	0	0	0	0	0	0	0
Herbicides	0	0	0	7957	7734	3187	0	0	0	0	0	0
Hired labor b	818	325	0	1666	975	496	0	0	0	2517	2727	367
Insecticides	0	0	0	5332	901	0	8704	9902	0	0	0	0
Other c	653	653	398	398	393	398	6468	401	393	402	42605	1767
Seed	0	0	0	3564	2279	0	0	0	0	0	0	0
Fuel	994	278	580	2637	1558	1459	258	278	261	2548	2302	284
Repair & maintenance	1454	456	950	3449	2292	1892	445	456	485	8566	5464	499
Interest on op. cap.	809	294	250	2916	1405	453	800	486	75	364	486	39
TOTAL	7846	2006	2178	45021	24625	7885	18602	13628	1214	20982	53584	2956
NET CASH INCOME d	-7846	-2006	-2178	-45021	-24625	-7885	-18602	-13628	-1214	-4555	123711	-2956
CASH POSITION e	-7846	-9852	-12030	-57051	-81676	-89561	-108163	-121791	-123005	-127560	-3849	-6805

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, 2001.

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	88003	270817	0
CASH OPERATING EXPENSES a												
Custom	0	0	0	0	2682	0	1497	3880	1497	2265	0	0
Defoliant	0	0	0	0	0	0	0	0	0	12562	0	0
Fertilizer	0	0	0	14152	0	0	0	0	0	0	0	0
Fungicides	0	0	0	9057	0	0	0	0	0	0	0	0
Herbicides	0	0	0	13404	29035	14825	2996	542	541	0	0	0
Hired labor b	4334	1998	1064	4794	3259	2754	1013	806	779	9044	5856	2077
Insecticides	0	0	0	8282	1400	0	4221	21311	10814	0	0	0
Other c	851	851	618	591	577	591	10012	593	577	592	65626	1071
Seed	0	0	0	5535	12665	0	0	0	0	0	0	0
Fuel	3996	690	1141	3873	2894	2992	879	692	648	6143	3817	697
Repair & maintenance	4459	1131	1888	5520	4217	3951	1412	1131	1204	17665	8937	1234
Interest on op. cap.	1438	567	503	4486	3069	1288	1018	1029	479	756	781	58
TOTAL	15078	5237	5214	69694	59798	26401	23048	29984	16539	49027	85017	5137
NET CASH INCOME d	-15078	-5237	-5214	-69694	-59798	-26401	-23048	-29984	-16539	38976	185800	-5137
CASH POSITION e	-15078	-20315	-25529	-95223	-155021	-181422	-204470	-234454	-250993	-212017	-26217	-31354

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, 2001.

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	117338	338359	0
CASH OPERATING EXPENSES a												
Custom	0	0	0	0	2682	0	1918	3880	1497	2265	0	0
Defoliant	0	0	0	0	0	0	0	0	0	12562	0	0
Fertilizer	0	0	0	14152	0	0	0	0	0	0	0	0
Fungicides	0	0	0	9057	0	0	0	0	0	0	0	0
Herbicides	0	0	0	13404	29034	14826	2996	542	541	0	0	0
Hired labor b	5365	3029	1229	5062	3527	3022	1279	1071	1041	9306	5973	3101
Insecticides	0	0	0	8282	1400	0	4221	21311	10814	0	0	0
Other c	1621	1621	989	989	975	989	10410	989	975	989	80884	4383
Seed	0	0	0	5535	12665	0	0	0	0	0	0	0
Fuel	3996	690	1141	3873	2894	2990	879	692	648	6143	3817	699
Repair & maintenance	4459	1131	1888	5520	4217	3951	1412	1132	1204	17666	8936	1233
Interest on op. cap.	1618	730	548	4536	3114	1327	1069	1058	500	776	922	90
TOTAL	17059	7201	5795	70410	60508	27105	24184	30675	17220	49707	100532	9506
NET CASH INCOME d	-17059	-7201	-5795	-70410	-60508	-27105	-24184	-30675	-17220	67631	237827	-9506
CASH POSITION e	-17059	-24260	-30055	-100465	-160973	-188078	-212262	-242937	-260157	-192526	45301	35795

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, 2001.

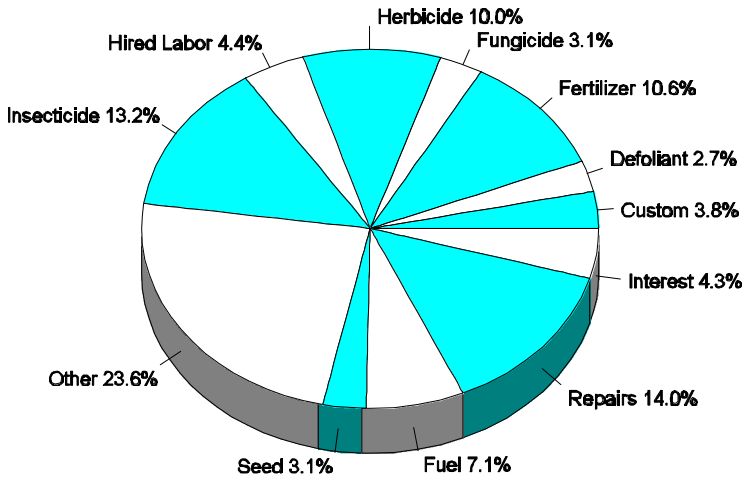


Figure 9

Cash Expenses and Accumulated Borrowing

Tenant Cotton-Soybean Farm, Macon Ridge Area, Louisiana, 2001.

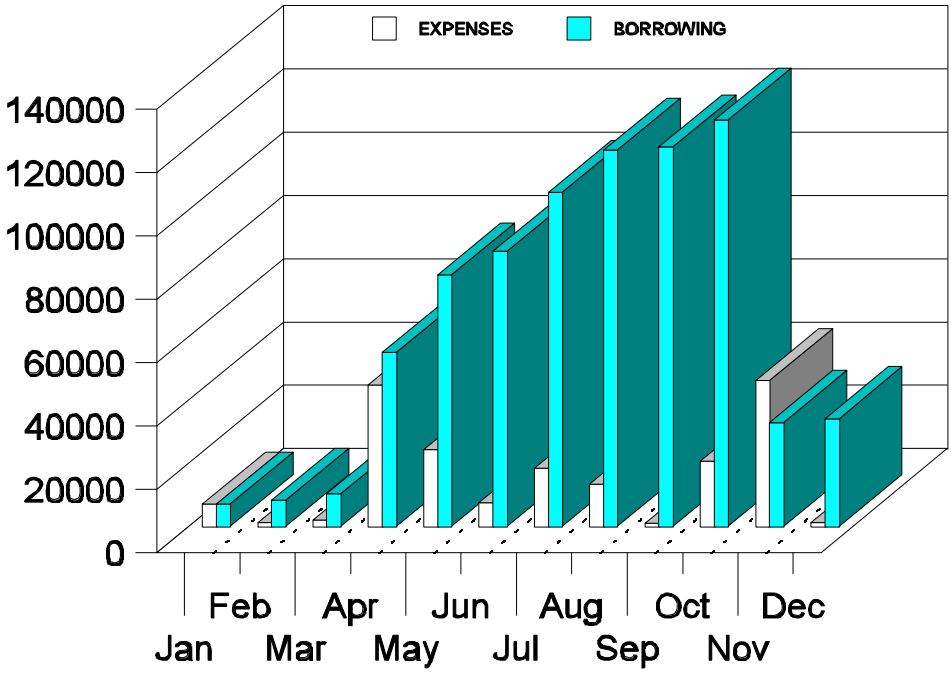


Figure 10

Distribution of Direct Expenses by Item

Owner Cotton-Soybean Farm, Macon Ridge Area, Louisiana, 2001.

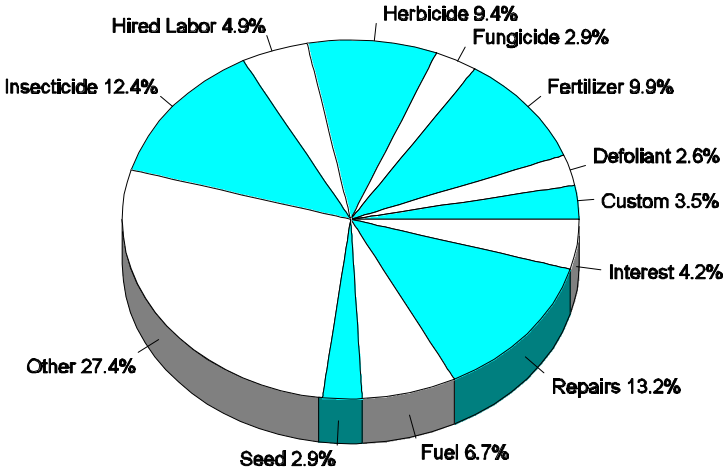


Figure 11

Cash Expenses and Accumulated Borrowing

Owner Cotton-Soybean Farm, Macon Ridge Area, Louisiana, 2001.

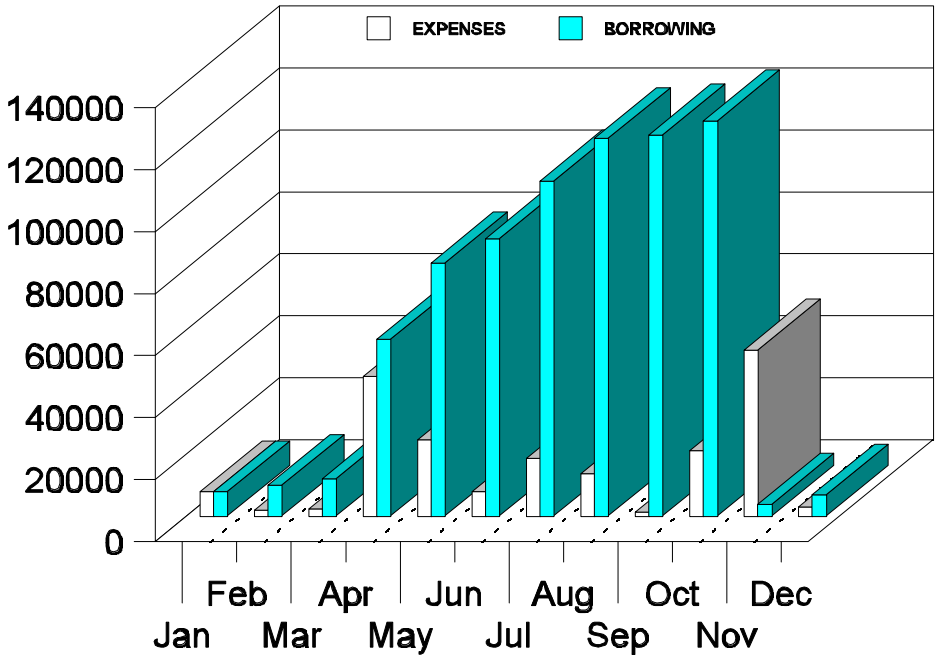


Figure 12

Distribution of Direct Expenses by Item

Tenant Cotton-Soybean Farm, Mississippi Delta Area, Louisiana, 2001.

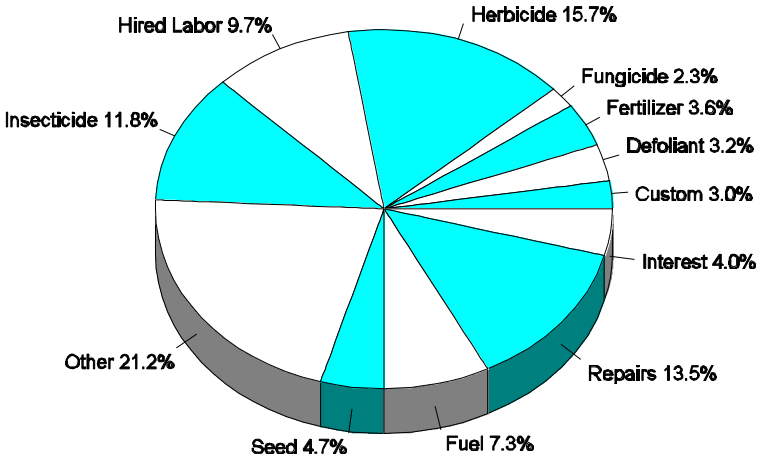


Figure 13

Cash Expenses and Accumulated Borrowing

Tenant Cotton-Soybean Farm, Mississippi Delta Area, Louisiana, 2001.

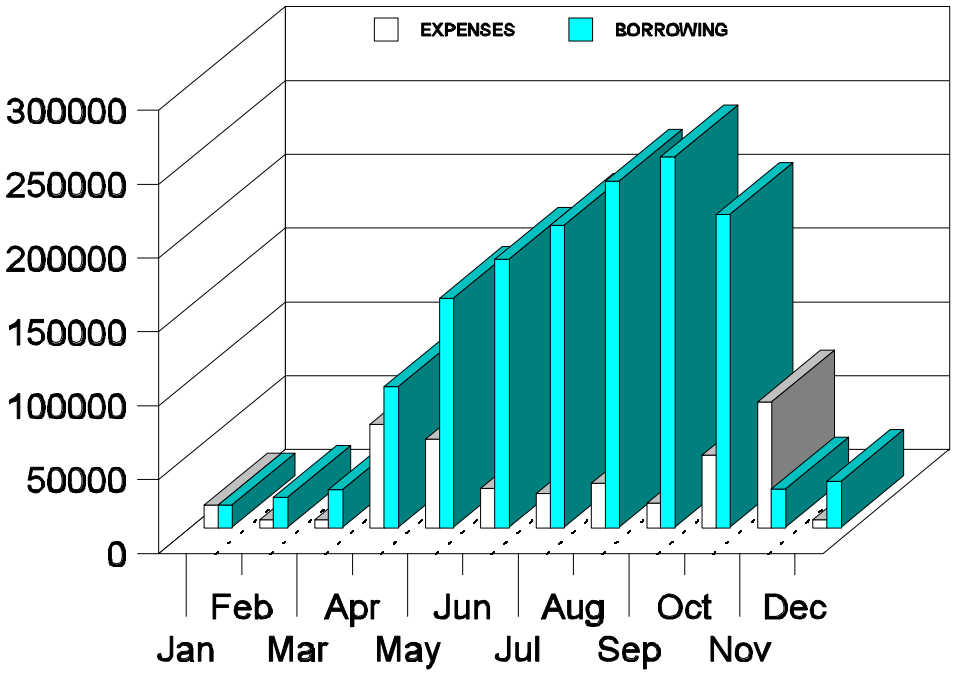


Figure 14

Distribution of Direct Expenses by Item

Owner Cotton-Soybean Farm, Mississippi Delta Area, Louisiana, 2001.

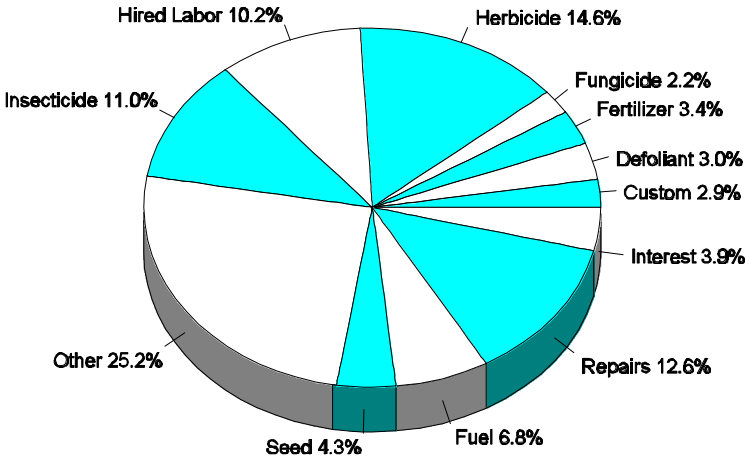
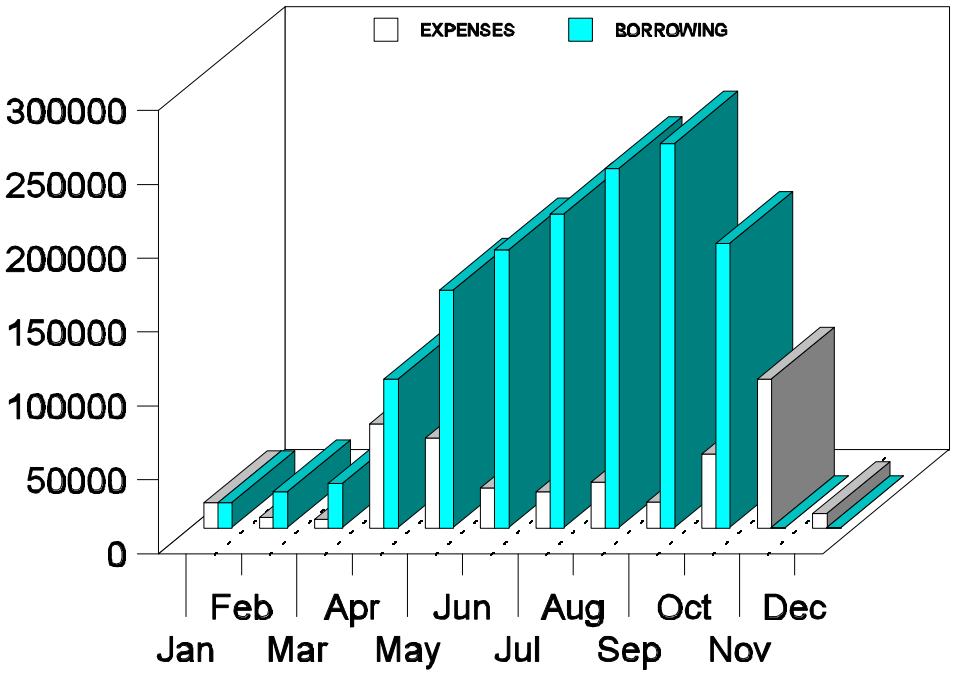


Figure 15

Cash Expenses and Accumulated Borrowing

Owner Cotton-Soybean Farm, Mississippi Delta Area, Louisiana, 2001.



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 -$6,805.

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 14 percent of total operating expenses for the Macon Ridge tenant-operated farm while other expenses account for 23.6 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 4.3 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. With the exception of the owner-operated Mississippi Delta farm, accumulated borrowing in December is positive indicating outstanding operating loans.

Results in Table 6 indicate that representative farms in Northeast Louisiana are not expected to be profitable in 2001. Similarly, ending cash balance estimates (cash position in December) presented in Tables 7, 8, 9, and 10 generally suggest that many of the cotton and soybean farms in Northeast Louisiana will experience cash flow problems. For instance, the ending cash balance of -$34,082 (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 2001 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 -$53,332.

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 20.7 percent of total cash operating expenses for the owner-operated farm while repair and maintenance of farm machinery and equipment accounts for 10.9 percent total expenditures. Custom services (20 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 4.8 percent of total cash expenses for the owner-operated farm (Figure 18). Interest expense which accounts for 3.9 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 2001 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 -$53,332 while this estimate for the owner-operated farm was estimated at -$65,470. 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, Southwest Louisiana, 2001.

ITEM	Tenant Operator a	Owner Operator
	dollars	
INCOME		
Rice	151,949	151,949
Rice checkoff	-1,041	-1,736
Rice share rent	-30,389	
Water share rent	-30,389	
Soybean	64,092	64,092
Soybean share rent	-12,818	
TOTAL INCOME	141,404	214,305
DIRECT EXPENSES		
Custom	42,490	55,957
Fertilizer	21,662	30,051
Fungicides	2,845	4,741
Herbicides	17,296	22,883
Hired labor b	20,232	23,551
Insecticides	6,736	10,192
Other c	7,568	13,457
Seed	19,733	19,733
Diesel fuel	10,685	51,085
Gasoline	6,696	6,696
Repair & maintenance	30,598	30,598
Interest on op. cap.	8,195	10,831
TOTAL DIRECT EXPENSES	194,736	279,775
RETURNS ABOVE DIRECT EXPENSES	-53,332	-65,470
TOTAL FIXED EXPENSES d	47,704	61,911
TOTAL SPECIFIED EXPENSES	242,440	341,686
NET FARM INCOME e	-101,036	-127,381

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 and Soybean Farm, Water Planted Rice, Drill Planted Soybeans, Water Planted Rice, Drill Planted Soybeans, Southwest Area, Louisiana, 2001.

ITEM	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	dollars											
TOTAL CASH INCOME	0	0	0	0	0	0	0	90127	0	51277	0	0
CASH OPERATING EXPENSES a												
Custom	0	0	3472	8284	0	6343	930	21505	0	1956	0	0
Fertilizer	0	0	17476	0	0	4186	0	0	0	0	0	0
Fungicides	0	0	0	0	0	2845	0	0	0	0	0	0
Herbicides	0	0	0	7846	6243	534	2673	0	0	0	0	0
Hired labor b	672	1103	5160	1183	1436	393	1031	4381	0	2051	2035	787
Insecticides	0	0	0	4758	0	0	425	1553	0	0	0	0
Other c	544	544	694	377	369	378	369	379	371	380	2478	685
Seed	0	0	0	9923	9810	0	0	0	0	0	0	0
Fuel	410	861	3738	691	1443	548	575	3769	414	1985	2496	451
Repair & maintenance	707	1415	5317	1432	2537	1434	1519	7207	770	4038	3435	787
Interest on op. cap.	383	448	2213	1607	1206	561	301	496	100	151	694	35
TOTAL	2716	4371	38070	36101	23044	17222	7823	39290	1655	10561	11138	2745
NET CASH INCOME d	-2716	-4371	-38070	-36101	-23044	-17222	-7823	50837	-1655	40716	-11138	-2745
CASH POSITION e	-2716	-7087	-45157	-81258	-104302	-121524	-129347	-78510	-80165	-39449	-50587	-53332

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 and Soybean Farm, Water Planted Rice, Drill Planted Soybeans, Water Planted Rice, Drill Planted Soybeans, Southwest Area, Louisiana, 2001.

ITEM	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	dollars											
TOTAL CASH INCOME	0	0	0	0	0	0	0	150212	0	64093	0	0
CASH OPERATING EXPENSES a												
Custom	0	0	3472	8284	0	6343	930	34484	0	2444	0	0
Fertilizer	0	0	23074	0	0	6977	0	0	0	0	0	0
Fungicides	0	0	0	0	0	4741	0	0	0	0	0	0
Herbicides	0	0	0	13077	6243	890	2673	0	0	0	0	0
Hired labor b	1332	1763	5266	1355	1608	564	1203	4551	128	2220	2114	1447
Insecticides	0	0	0	7930	0	0	709	1553	0	0	0	0
Other c	1037	1037	931	632	624	632	626	632	625	634	3243	2804
Seed	0	0	0	9923	9810	0	0	0	0	0	0	0
Fuel	410	861	12972	7617	7214	9783	9809	3769	414	1985	2496	451
Repair & maintenance	707	1415	5317	1432	2537	1434	1519	7207	770	4038	3433	789
Interest on op. cap.	498	553	2983	2277	1427	943	481	622	114	166	709	58
TOTAL	3984	5629	54015	52527	29463	32307	17950	52818	2051	11487	11995	5549
NET CASH INCOME d	-3984	-5629	-54015	-52527	-29463	-32307	-17950	97394	-2051	52606	-11995	-5549
CASH POSITION e	-3984	-9613	-63628	-116155	-145618	-177925	-195875	-98481	-100532	-47926	-59921	-65470

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, 2001.

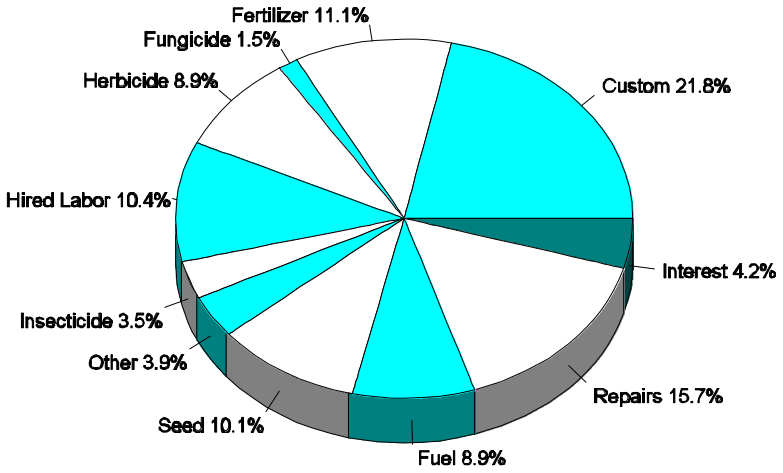


Figure 17

Cash Expenses and Accumulated Borrowing

Tenant Rice-Soybean Farm, Southwest Rice Area, Louisiana, 2001.

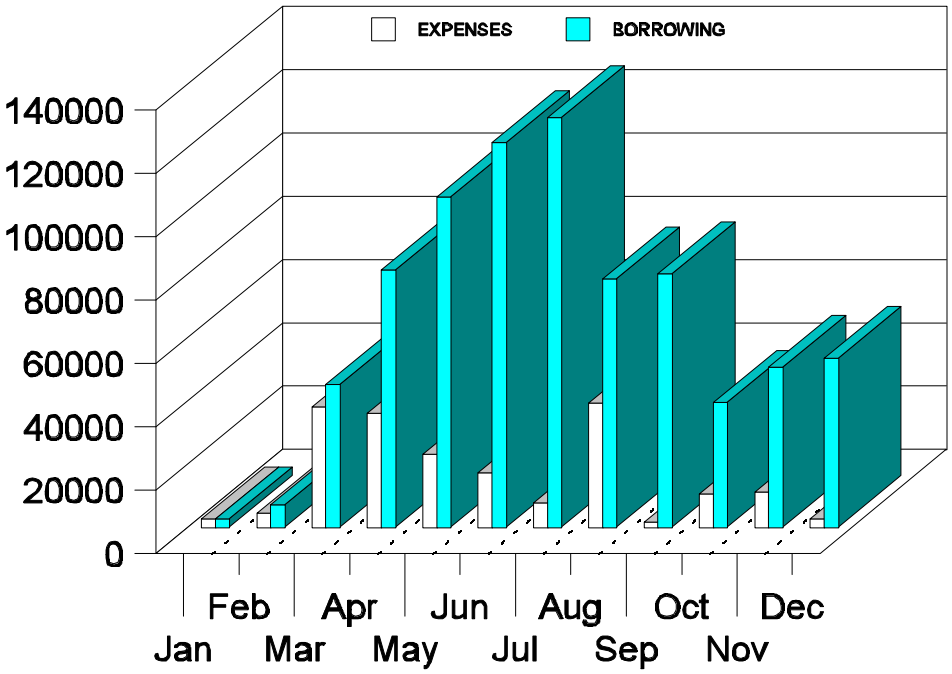


Figure 18

Distribution of Direct Expenses by Item

Owner Rice-Soybean Farm, Southwest Rice Area, Louisiana, 2001.

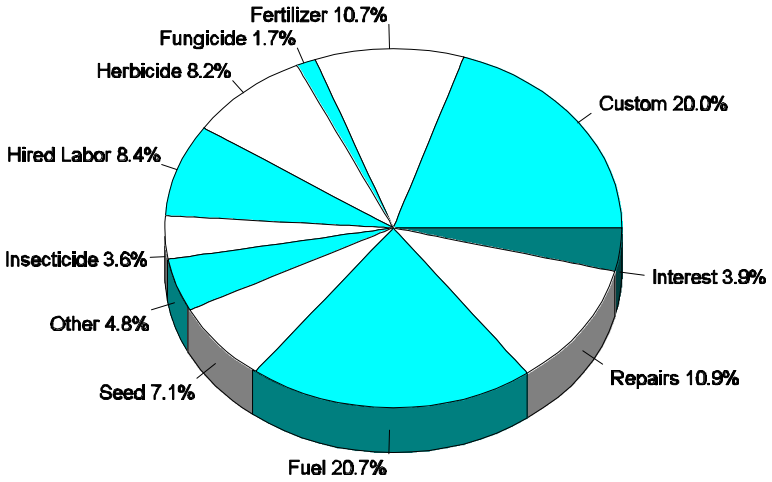
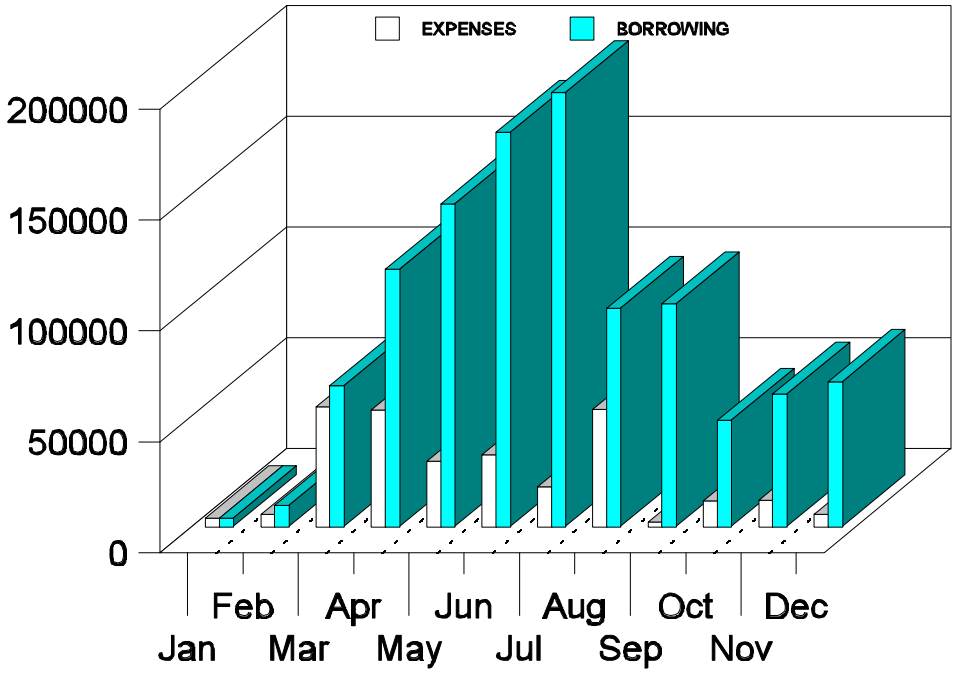


Figure 19

Cash Expenses and Accumulated Borrowing

Owner Rice-Soybean Farm, Southwest Rice Area, Louisiana, 2001.



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 $29,566.

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 -$16,659; however, this estimate makes no charge for the land resource. Similarly; a negative ending cash portion is indicated for the tenant farm. It should be noted that owner-operated farm 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, 2001.

ITEM	Tenant Operator a	Owner Operator
	---------- dollars	----------
INCOME		
Corn	133,500	133,500
Corn share rent	-26,700	
Soybean	64,890	64,890
Soybean share rent	-16,222	
TOTAL INCOME	155,468	198,390
DIRECT EXPENSES		
Custom	9,373	11,402
Fertilizer	34,576	34,576
Herbicides	10,438	10,438
Hired labor b	18,326	21,342
Insecticides	7,496	7,496
Other c	7,087	12,829
Seed	18,360	18,360
Diesel fuel	10,220	10,220
Gasoline	6,899	6,899
Repair & maintenance	27,733	27,733
Interest on op. cap.	7,088	7,529
TOTAL DIRECT EXPENSES	157,596	168,824
RETURNS ABOVE DIRECT EXPENSES	-2,128	29,566
TOTAL FIXED EXPENSES d	46,225	46,225
TOTAL SPECIFIED EXPENSES	203,821	215,049
NET FARM INCOME e	-48,353	-16,659

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, 2001.

ITEM	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	dollars											
TOTAL CASH INCOME	0	0	0	0	0	0	0	106801	0	48667	0	0
CASH OPERATING EXPENSES a												
Custom	0	0	0	0	0	0	0	9373	0	0	0	0
Fertilizer	3426	0	15575	15575	0	0	0	0	0	0	0	0
Herbicides	0	0	4846	2628	703	2261	0	0	0	0	0	0
Hired labor b	1242	1049	2221	1837	1433	1026	0	5494	0	3292	0	732
Insecticides	0	0	6029	0	0	0	0	1467	0	0	0	0
Other c	531	531	385	368	359	368	359	368	359	369	2419	671
Seed	0	0	11356	0	7004	0	0	0	0	0	0	0
Fuel	1117	852	2283	2164	1311	1537	403	4026	404	2184	404	434
Repair & maintenance	1521	1400	3379	3524	2067	2031	692	6818	754	4029	751	767
Interest on op. cap.	747	439	2473	1360	766	412	141	385	99	147	83	36
TOTAL	8584	4271	48547	27456	13643	7635	1595	27931	1616	10021	3657	2640
NET CASH INCOME d	-8584	-4271	-48547	-27456	-13643	-7635	-1595	78870	-1616	38646	-3657	-2640
CASH POSITION e	-8584	-12855	-61402	-88858	-102501	-110136	-111731	-32861	-34477	4169	512	-2128

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, 2001.

ITEM	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	dollars											
TOTAL CASH INCOME	0	0	0	0	0	0	0	133500	0	64890	0	0
CASH OPERATING EXPENSES a												
Custom	0	0	0	0	0	0	0	11402	0	0	0	0
Fertilizer	3426	0	15575	15575	0	0	0	0	0	0	0	0
Herbicides	0	0	4846	2628	703	2261	0	0	0	0	0	0
Hired labor b	1884	1691	2324	2004	1600	1192	44	5659	87	3457	28	1372
Insecticides	0	0	6029	0	0	0	0	1467	0	0	0	0
Other c	1011	1011	617	617	608	617	608	617	608	617	3162	2736
Seed	0	0	11356	0	7004	0	0	0	0	0	0	0
Fuel	1117	852	2283	2164	1311	1537	403	4026	404	2184	404	434
Repair & maintenance	1521	1400	3379	3524	2067	2031	695	6818	751	4029	751	767
Interest on op. cap.	859	542	2501	1392	793	436	161	419	111	156	98	61
TOTAL	9818	5496	48910	27904	14086	8074	1911	30408	1961	10443	4443	5370
NET CASH INCOME d	-9818	-5496	-48910	-27904	-14086	-8074	-1911	103092	-1961	54447	-4443	-5370
CASH POSITION e	-9818	-15314	-64224	-92128	-106214	-114288	-116199	-13107	-15068	39379	34936	29566

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, 2001.

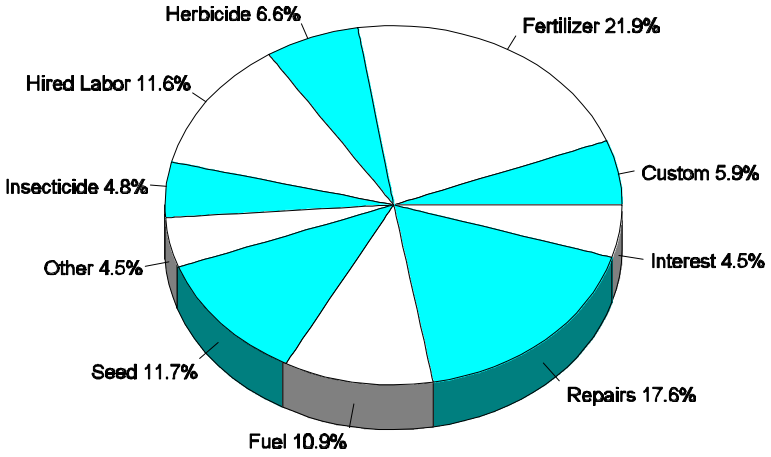


Figure 21

Cash Expenses and Accumulated Borrowing

Tenant Corn-Soybean Farm, Central Area, Louisiana, 2001.

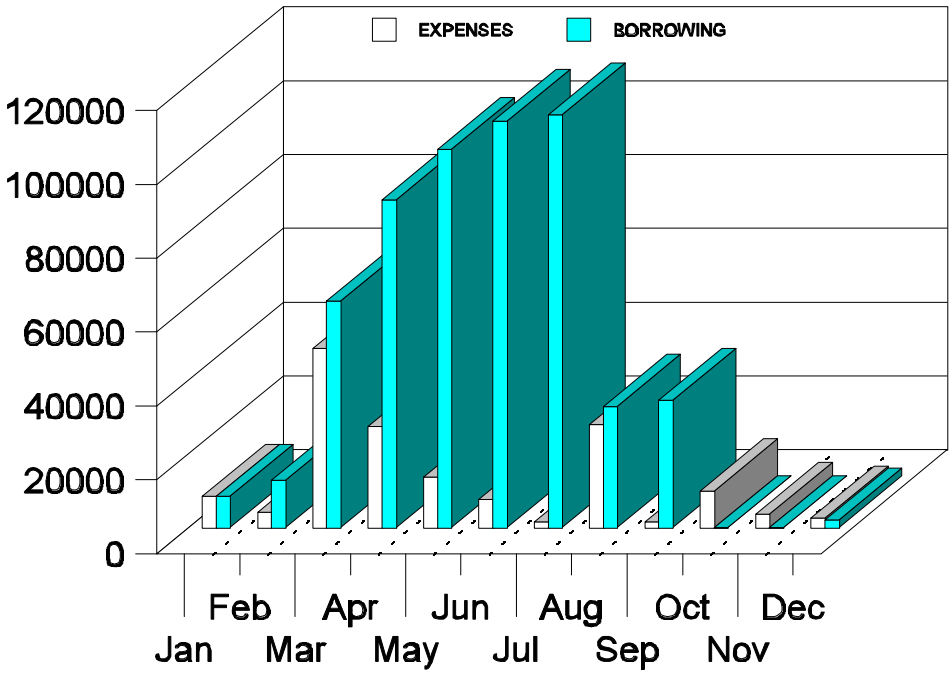


Figure 22

Distribution of Direct Expenses by Item

Owner Soybean-Corn Farm, Central Area, Louisiana, 2001.

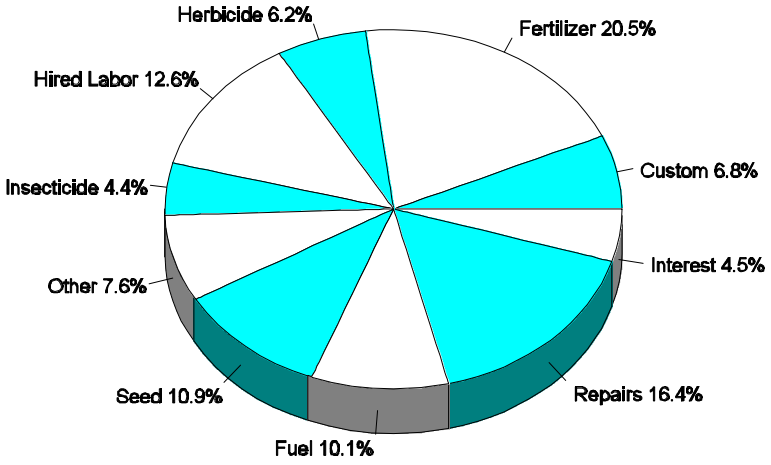
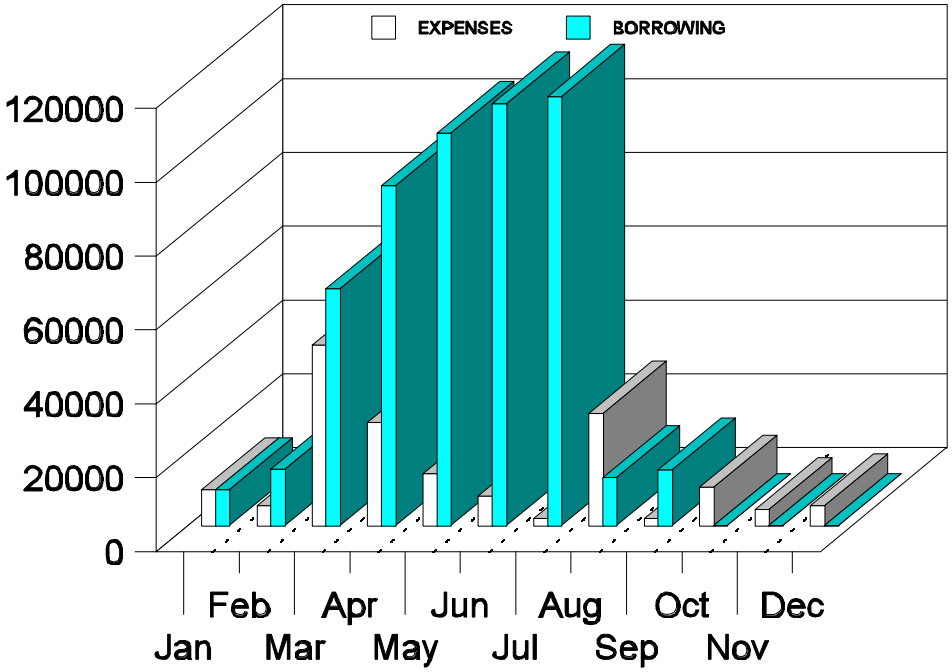


Figure 23

Cash Expenses and Accumulated Borrowing

Owner Corn-Soybean Farm, Central Area, Louisiana, 2001.



Sugar Cane Area

Projected income statements for 2001 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 2001 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 1000 acre tenant farm consisted of 761 acres harvested and sold for sugar, 39 acres of sugar cane harvested for seed and 200 acres fallowed and planted each year. Six and one-half 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 $561,252 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.[3] 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 $92,383 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 $202,979

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 35.2 percent of total operating expenses.

[3] 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, 2001.

ITEM	Tenant Operator a
	---- dollars ----
INCOME	
Sugar	1,119,176
Molasses Bonus	54,663
Mill sugar share	-436,479
Mill molasses share	-32,251
Land sugar share	-136,539
Land molasses share	-4,373
ASCL check off	-2,945
TOTAL INCOME	561,252
DIRECT EXPENSES	
Acct & farmstd	9,403
Custom	10,690
Fertilizer	57,580
Herbicides	66,716
Insecticides	7,350
Other b	3,341
Ripener	3,012
Seed	2,925
Hired labor c	42,125
Diesel fuel	40,736
Gasoline	6,006
Repair & maintenance	84,015
Interest on op. Cap.	24,374
TOTAL DIRECT EXPENSES	358,273
RETURNS ABOVE DIRECT EXPENSES	202,979
TOTAL FIXED EXPENSES d	110,596
TOTAL SPECIFIED EXPENSES	468,869
NET FARM INCOME e	92,383

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, 2001.

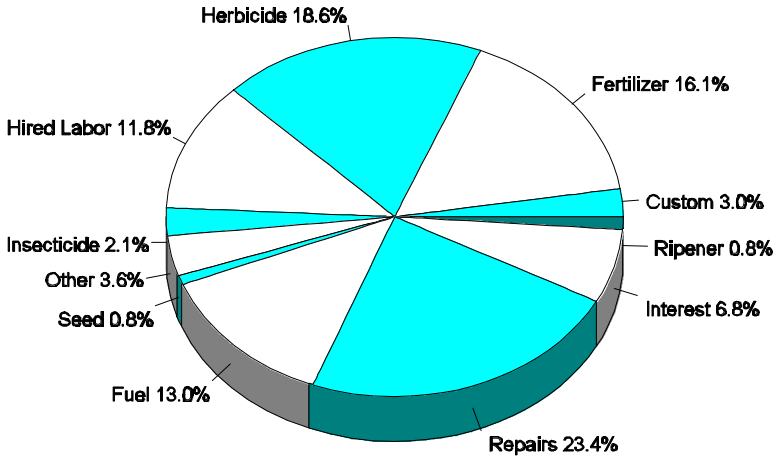


Figure 25

Cash Expenses and Accumulated Borrowing

Tenant Sugar Cane Farm, Sugar Cane Area, Louisiana, 2001.

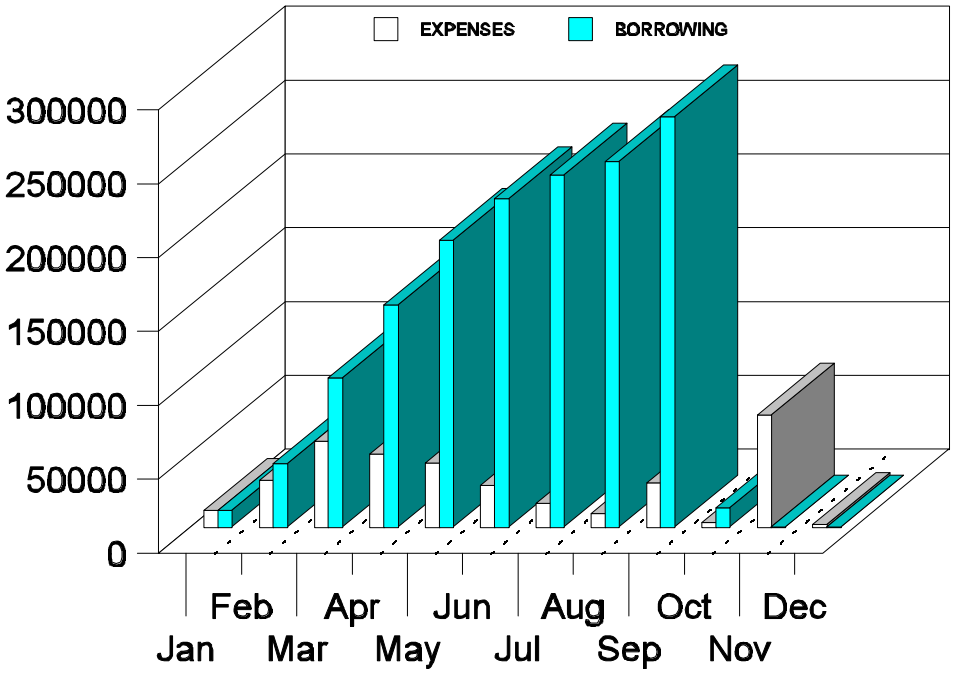


Table 18. Projected Monthly Cash Flow for a Representative Tenant-Operated Sugar Cane Farm, All Soils, Sugar Cane Area, Louisiana, 2001.

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	267782	160074	133396
CASH OPERATING EXPENSES a												
Acct & farmstd	6829	234	234	234	234	234	234	234	234	234	234	234
Custom	0	0	0	0	0	840	2100	2950	4800	0	0	0
Fertilizer	0	0	28580	29000	0	0	0	0	0	0	0	0
Herbicides	0	15962	6531	0	24539	13421	3967	0	1298	998	0	0
Insecticides	0	0	0	0	0	2100	5250	0	0	0	0	0
Other b	0	0	0	0	0	0	0	0	3341	0	0	0
Ripener	0	0	0	0	0	0	0	3012	0	0	0	0
Seed	0	0	0	0	0	0	0	0	2925	0	0	0
Hired labor c	663	3708	5423	4724	4626	2896	642	415	3955	36	15037	0
Fuel	1099	4080	5825	5470	4825	2916	1207	957	4489	615	14755	504
Repair & maintenance	1630	5082	7402	6874	7026	4610	1844	1405	6766	963	39593	820
Interest on op. cap.	1172	2442	4126	3053	2306	1390	684	339	2343	199	6291	29
TOTAL	11393	31508	58121	49355	43556	28407	15928	9312	30151	3045	75910	1587
NET CASH INCOME d	-11393	-31508	-58121	-49355	-43556	-28407	-15928	-9312	-30151	264737	84164	131809
CASH POSITION e	-11393	-42901	-101022	-150377	-193933	-222340	-238268	-247580	-277731	-12994	71170	202979

a Estimated from direct expenses from enterprise budgets. Estimates include cash overhead expenditures estimated in Appendix Table 1.
b Other expenditures include charges for non-machinery and non-labor overhead expenditure items presented in Appendix Table 1.
c Hired labor estimates do not include 200 monthly hours of family labor available at no charge.
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 (3.0 percent) include application of agricultural chemicals by airplane. Other expenditures include charges for non-machinery and non-labor overhead cash expenses. Interest expenses of 6.8 percent are less than the annual interest rate of 6.0 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 profit for the tenant-operated sugar cane farm. These estimates along with cash flow margins do not suggest financial problems for sugar cane farms in 2001; 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, 2001.

ITEM	Owner Operator
	-- dollars --
INCOME	
Milk	182,457
Cull cow	15,048
Cull heifer	9,576
Bull calves	1,744
TOTAL INCOME	208,825
DIRECT EXPENSES	
Custom	11,215
Feed	85,628
Fertilizer	15,389
Hired labor a	20,175
Other b	23,233
Seed	2,810
Diesel fuel	2,574
Gasoline	1,219
Repair & maintenance	10,463
Interest on op. cap.	4,020
TOTAL DIRECT EXPENSES	176,726
RETURNS ABOVE DIRECT EXPENSES	32,099
TOTAL FIXED EXPENSES c	27,144
TOTAL SPECIFIED EXPENSES	203,870
NET FARM INCOME d	4,955

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, 2001.

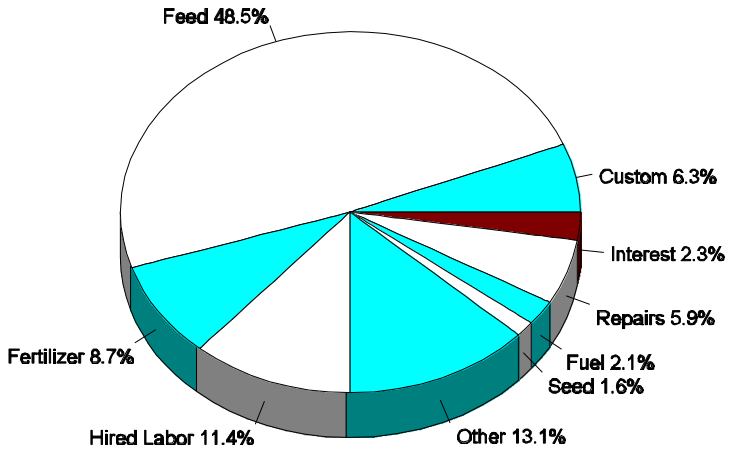


Figure 27

Cash Expenses and Accumulated Borrowing

Owner 114 Cow Dairy Farm, Avg. Production, Louisiana, 2001.

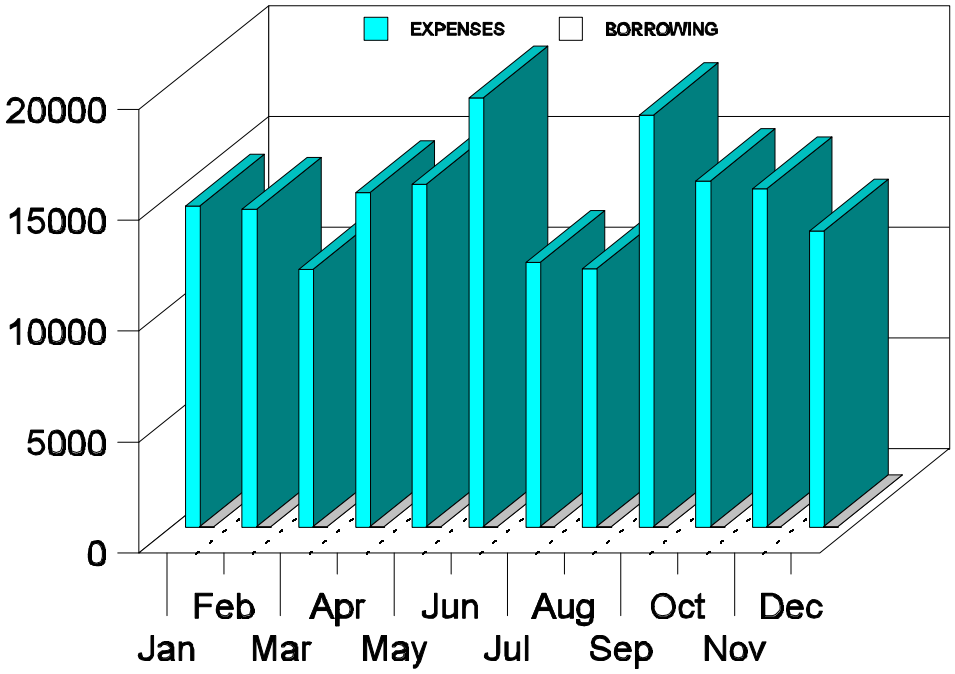


Table 20. Projected Monthly Cash Flow for a Representative Owner-Operated 114 Cow Dairy, Average Production, Pasture-Hay Feeding, Non-Alluvial Soils, Louisiana, 2001.

ITEM	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	dollars											
TOTAL CASH INCOME	17402	17402	17402	17402	17402	17402	17402	17402	17402	17402	17402	17403
CASH OPERATING EXPENSES a												
Custom	723	1094	723	1172	1173	1248	723	724	1094	1094	724	723
Feed	7136	7136	7136	7136	7136	7135	7135	7136	7135	7136	7135	7136
Fertilizer	0	1880	0	2751	3132	3050	0	0	2696	1880	0	0
Hired labor b	2720	1338	1088	1112	1132	2600	1241	1112	1962	1206	2621	2043
Other c	1956	1956	1882	1882	1882	2022	1882	1883	1882	1882	2355	1769
Seed	0	0	0	0	0	239	0	0	1288	1283	0	0
Fuel	74	80	74	80	87	882	158	79	583	131	983	582
Repair & maintenance	987	581	578	581	592	1690	649	581	1347	632	1266	979
Interest on op. cap.	871	264	153	363	337	500	146	130	610	367	174	105
TOTAL	14467	14329	11634	15077	15471	19366	11934	11645	18597	15611	15258	13337
NET CASH INCOME d	2935	3073	5768	2325	1931	-1964	5468	5757	-1195	1791	2144	4066
CASH POSITION e	2935	6008	11776	14101	16032	14068	19536	25293	24098	25889	28033	32099

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 $208,825 while total specified expenses are projected to be $203,870. The net farm income estimate of $4,955 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 48.5 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 13.1 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, a minimal amount of operating credit is required for the dairy operation because monthly cash receipts are generally sufficient to cover monthly cash expenses. In general, the relatively small ending cash flow estimate of $32,099 suggests that many dairy farmers in Louisiana may experience cash flow problems in 2001.

SUMMARY AND CONCLUSIONS

The purpose of this report was to present 2001 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 2001 production year. The general procedure used in the report was to develop projections for representative farm businesses from 2001 projected enterprise crop and livestock budgets (presented in companion publications) and 2001 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 2001 production year. If projected revenues for the 2001 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 $1.13 (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 $.91 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, 2001.

Representative Farm	Total Acres	Income Analysis a: Total Income	Total Specified Expenses	Net Farm Income	Cash Flow Analysis a: Gross Ratio b	Total Cash Income	Total Operating Expenses	Ending Cash Balance	Operating Cash Flow Ratio c
RED RIVER AREA									
Tenant-Operator Cotton-Soybean-Milo	1,149	267,322	361,200	-93,878	1.35	267,322	288,032	-20,710	1.08
Owner-Operator Cotton-Soybean-Milo	1,149	341,524	385,406	-43,882	1.13	341,524	311,297	30,227	0.91
Owner-Operator Cotton-Soybean-Milo-and livestock	1,359	375,695	429,156	-53,461	1.14	375,695	343,575	32,120	0.91
MACON RIDGE AREA									
Tenant-Operator Cotton-Soybean	554	153,936	229,341	-75,405	1.49	153,936	188,018	-34,082	1.22
Owner-Operator Cotton-Soybean	554	193,722	241,850	-48,128	1.25	193,722	200,527	-6,805	1.04
MISSISSIPPI DELTA AREA									
Tenant-Operator Cotton-Soybean	1,374	358,820	474,290	-115,470	1.32	358,820	390,174	-31,354	1.09
Owner-Operator Cotton-Soybean	1,374	455,697	504,018	-48,321	1.11	455,697	419,902	35,795	0.92
SOUTHWEST RICE AREA									
Tenant-Operator Rice-Soybean	879	141,404	242,440	-101,036	1.71	141,404	194,736	-53,332	1.38
Owner-Operator Rice-Soybean	879	214,305	341,686	-127,381	1.59	214,305	279,775	-65,470	1.31
CENTRAL AREA									
Tenant-Operator Corn-Soybean	857	155,468	203,821	-48,353	1.31	155,468	157,596	-2,128	1.01
Owner-Operator Corn-Soybean	857	198,390	215,049	-16,659	1.08	198,390	168,824	29,566	0.85
SUGAR CANE AREA									
Tenant-Operator Sugar Cane, 3-Row	1,000	561,252	468,869	92,383	0.84	561,252	358,273	202,979	0.64
DAIRY OPERATION									
114 Cow	159	208,825	203,870	4,955	0.98	208,825	176,726	32,099	0.85

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 1.38 for the tenant-operated farm in the Southwest Rice area. This means that it takes $1.38 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 1.22 which indicates that $1.22 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 2001. 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 .64 for the tenant-operated sugar cane farm to 1.38 for the tenant-operated rice-soybean in the Southwest area of Louisiana. Moreover, the ending cash balance for the Southwest tenant-operated rice-soybean is estimated to be -$53,332 while its corresponding operating cash flow ratio is estimated at 1.38. 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 representative farms were estimated to range from .84 for the Sugar Cane farm to 1.71 for the Southwest tenant rice-soybean farm. 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 2001. Furthermore, any of the farming situations may experience cash flow problems because of variable commodity prices and yields in 2001.

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 2001 production year.

Appendix Table 1. Summary of Estimated Overhead Costs per Acre, Tenant-Operators, Louisiana, 2001.

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	1.17	0.4050	0.47	_____
GASOLINE					
Self-Propelled Eq.	gal	1.43	3.7500	5.36	_____
REPAIR & MAINTENANCE					
Implements	acre	0.11	1.0000	0.11	_____
Tractors	acre	0.42	1.0000	0.42	_____
Self-Propelled Eq.	acre	2.87	1.0000	2.87	_____
Shop bld. & equip.	acre	6.66	1.0000	6.66	_____
INTEREST ON OP. CAP.	acre	2.45	1.0000	2.45	_____

TOTAL DIRECT EXPENSES				49.15	_____
FIXED EXPENSES					
Implements	acre	0.31	1.0000	0.31	_____
Tractors	acre	0.38	1.0000	0.38	_____
Self-Propelled Eq.	acre	6.86	1.0000	6.86	_____
Shop bld. & equip.	acre	5.66	1.0000	5.66	_____

TOTAL FIXED EXPENSES				13.22	_____

TOTAL SPECIFIED EXPENSES				62.37	_____

Appendix Table 2. Summary of Estimated Overhead Costs per Acre, Owner-Operators, Louisiana, 2001.

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	1.17	0.4050	0.47	_____
GASOLINE					
Self-Propelled Eq.	gal	1.43	3.7500	5.36	_____
REPAIR & MAINTENANCE					
Implements	acre	0.11	1.0000	0.11	_____
Tractors	acre	0.42	1.0000	0.42	_____
Self-Propelled Eq.	acre	2.87	1.0000	2.87	_____
Shop bld. & equip.	acre	6.66	1.0000	6.66	_____
INTEREST ON OP. CAP.	acre	2.95	1.0000	2.95	_____

TOTAL DIRECT EXPENSES				60.17	_____
FIXED EXPENSES					
Implements	acre	0.31	1.0000	0.31	_____
Tractors	acre	0.38	1.0000	0.38	_____
Self-Propelled Eq.	acre	6.86	1.0000	6.86	_____
Shop bld. & equip.	acre	5.66	1.0000	5.66	_____

TOTAL FIXED EXPENSES				13.22	_____

TOTAL SPECIFIED EXPENSES				73.39	_____