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The Implementation of a Financial Software into an Educational Farm

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The Implementation of a Financial Software into an Educational Farm



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INTRODUCTION

In today's world, education is essential for humanity to prosper. All human activities rely on education as a foundation. Education is an important factor in the development and dissemination of knowledge. Each aspect of educational practices in science, agriculture, and finance is very important to maintain and perpetuate continuing development. In today's educational programs, educational farms are often multifunctional and allow for students to learn about all aspects of agriculture whether it is in livestock, horticulture, urban agriculture such as food processing systems, meat packaging, vertical farming (hydroponic systems), and so on. However, for an educational farm to be more effective, the farm manager needs to be able to conduct rigorous financial analyses for all enterprises. The efficient use of financial software fills in the need for educational farms to organize and analyze their finances and even assist with everyday tasks.

PURPOSE OF STUDY

The study aimed to help an educational farm increase its financial managerial performance by implementing a financial software called FINPACK. This software facilitates financial analysis (financial statement and benchmarking analysis). Users are be able to compare themselves with producers from leading states to reduce their costs and increase their profits.

OBJECTIVES

The general objective of this study was to fully implement a financial software (FINPACK) within an educational farm. The specific objectives were to:

- Create financial statements (income statements, Balance sheets, Cash flows)
- Compare the benchmark of this farm's agriculture practices with the agricultural practices from the leading states.
- Assist the farm staff making financial and strategic decisions that would ultimately increase their profitability.

FARM DESCRIPTION

The educational Farm is approximately 1,300 acres and is located in Northeast Texas. Facilities on the Educational Farm include: Equine Center, Beef Cattle Center, Swine Center, Goat Center, and the Farm Shop.

The Equine Center provides students with a covered riding arena with 20 stalls for rent, two outdoor riding areas, a small arena with a round pen and large riding arenas. The vast amount of land accessible to the Equine classes gives them the opportunity to trail ride around the beautiful setting of the Farm. Horse boarding for student-owned horses has recently been made available.

METHODS

The Center for Farm Financial Management (CFFM) develops applications and educational programs that provide educators, lenders, other professionals, and farmers resources to successfully manage farms and the financial activities related to farms and small businesses. Products and training focus on farm financial planning, financial analysis, business planning, commodity marketing, and credit analysis. CFFM products are widely used by farmers, agricultural & commercial lenders and educators across the United States. FINPACK, the Center's flagship software product, provides a suite of tools that guide producers, lenders, and educators to sound financial decisions.

Table 1. Educational Farm 9/1/2020 Balance Sheet.

Current Assets			Value	Current Liabilities					Balan
Cash and checking (Schd A	s)		70,000	Accrued interest					
Prepaid expenses and supp	-		-	Accounts payable and other	accrued exp	enses			
Growing crops			-						
Accounts receivable			-		Int		P&I		Princip
Hedging accounts			-	Current loans (Schd U)	Rate		Due		Balan
Other current assets			-	University-Budget	0.00		-		70,0
Crop inventory			-						
				Principal due within 12 mont	hs on term lia	abilities			
Mkt lvst (Schd H)	No.	Value/Unit							
Str Calves	18	16.95/cwt.	14,394						
Hfr Calves	8	32.50/cwt.	5,005						
Total Current Assets			89,399	Total Current Liabilities					70,0
				a . a . a . a . a . a . a . a . a . a .					
Intermediate Assets		Cost	Market	Intermediate Liabiliti	es Int	Principal	P & I	Principal	Interm
Brdg lvst (Schd I)	No.	Value	Value	Loan	Rate	Balance	Γαι Due	Due	Balan
Hereford (Male) P6	1	5,000	5,500	Coult	1 VOICE	Durante	P.NE.	Duc	Dalail
Hereford (Male) P6	1	3,000	3,500						
Brangus (Male)P6	1	5,000	5,500						
Brangus (Male) P6	2	5,000	5,400						
Hereford (Female) P2	9	22,500	24,300						
Hereford (Male) P1	2	3,000	3,400						
Machinery (Schd J)		573,898	621,731						
Titled vehicles (Schd K)		82,000	89,200						
Other intermediate assets		-	-						
Total Intermediate Assets		699,398	758,531	Total Intermediate Liabilitie	5				
Long Term Assets				Long Term Liabilities	s				
Long Tom Ticoto		Cost	Market	Long rom Liabina	Int	Principal	P & I	Principal	Lg Te
		Value	Value	Loan	Rate	Balance	Due	Due	Balan
Land		10,800,000	11,000,000						
Buildings and improvement	5	-	-						
Other long term assets		-	-						
Total Long Term Assets		10,800,000	11,000,000	Total Long Term Liabilities					
T-4-1 F 04-		44 500 707	44 047 020	Takal Farm Linkilitian					70.0
Total Farm Assets		11,588,797	11,847,930	Total Farm Liabilities					70,0
								Cost	Mar
				Total Liabilities (d)(e)				70,000	70,0
				Retained Earnings/Contribut	ed Capital		[a-d]	11,518,797	
				Market valuation equity	•		[b-a]	-	259,1
				1 4					

- A \$70,000 budget allocated from the university.
- A detailed list of machinery & equipment, 100% ownership.
- Land per acre was valued at \$9,000.
- No intermediate and long-term long liabilities.
- **A** farm net worth of \$11,777,930.

Table 2. Educational Farm 8/31/2021 Balance Sheet.

Current Assets			Value	Current Liabilities					Baland
Cash and checking (Schd A)			14,088	Accrued interest					
Prepaid expenses and supplie	25		-	Accounts payable and other	accrued exp	enses			
Growing crops			-						
Accounts receivable			-		Int		P & I		Princip
Hedging accounts			-	Current loans (Schd U)	Rate		Due		Baland
Other current assets			-	University-Budget	0.00		-		50,0
Crop inventory			-						
Livestock held for sale			-	Principal due within 12 month	s on term lia	bilities			
Total Current Assets			14,088	Total Current Liabilities					50,0
Intermediate Assets				Intermediate Liabilitie	es				
		Cost	Market		Int	Principal	P & I	Principal	Interm
Brdg lvst (Schd I)	No.	Value	Value	Loan	Rate	Balance	Due	Due	Balland
Fall Herd	53	50,900	52,000						
Fall calves	41	20,500	22,000						
Spring Herd	81	72,900	73,500						
Replacement Hefers	34	32,000	33,000						
Bulls	7	21,000	22,000						
Machinery (Schd J)		516,508	559,558						
Titled vehicles (Schd K)		69,700	75,820						
Other intermediate assets		-	-						
Total Intermediate Assets		783,508	837,878	Total Intermediate Liabilities	i				
Long Term Assets				Long Term Liabilities					
_		Cost	Market	_	Int	Principal	P & I	Principal	Lg Te
		Value	Value	Loan	Rate	Balance	Due	Due	Balan
Land		12,000,000	12,200,000						
Buildings and improvements		-	-						
Other long term assets		-	-						
Total Long Term Assets		12,000,000	12,200,000	Total Long Term Liabilities					
Total Farm Assets		12,797,596	13,051,966	Total Farm Liabilities					50,0
								Cost	Mar
				Total Liabilities (d)(e)				50,000	50,0
				Retained Earnings/Contribute	d Capital		[a-d]	12,747,596	
				Market valuation equity			[b-a]		254,3
Total Assets (a)(b)		12,797,596	13,051,966	Net Worth			[b-e]		13,001,9

- Total current assets were \$14,088.
- Livestock held for sales were sold to reduce loan to \$50,000.
- No intermediate and long term liabilities.
- Machinery and title vehicles depreciated by 10% to 15%.
- An increase in intermediate assets from new livestock inventory.

Statement of Cash Flows

(g) Cash provided by operating activities

(h) Cash provided by investing activities

Cash provided by financing activities

Ending cash balance (farm and personal)

Gross cash farm income

Cash farm expenses

Sale of capital assets

Money borrowed

Personalincome

Principal payments

Owner withdrawals

Income taxes paid

Net change in cash

Purchase of capital assets

Beginning cash balance (farm & personal)

Table 4. Education Farm Statement of cash flow.

70,000

19,400

55,312

-35,912

20,000

-20,000

14,088

Table 3. Educational Farm Income Statement.

Income	Quantity	Price	Amount	Expens	se		Amount
Str Calves	4 head	124.50/cwt.	3,623	Purcha	sed feed		21,396
Str Calves	11 head	137.00/cwt.	8,686	Veterin	ary		1,189
Hfr Calves	3 head	177.53/cwt.	2,086	Supplie	s		364
Hfr Calves	4 head	130.00/cwt.	2,288	Fuel & c	oil		3,486
Hfr Calves	4 head	130.00/cwt.	2,717	Repairs	3		25,000
				Miscella	aneous		3,878
Gross cash income			19,400	Total cash expense		55,312	
				Net cash income		-35,912	
	Beginning				Ending	Inventory	
Inventory Changes	Inventory	Purchases		Sales	Inventory	Change	
Marketlivestock	19,399				-	-19,399	
Breeding livestock	43,500	-		-	197,300	153,800	
Total inventory change							134,401
Net operating profit							98,489
	Beginning				Ending		
Depreciation	Inventory	Purchases		Sales	Inventory	Depreciation	
Machinery and equipment	573,898	-		-	516,508	-57,390	
Titled vehicles	82,000	-		-	69,700	-12,300	
Buildings and improvement	-	-		-	-	-	
Total depreciation							-69,690
Net farm income							28,799

- A gross cash income of \$19,400 from auction sales throughout the year.
- Total expenses of \$55,312 for vet, supplies, fuel and oil, repairs, and miscellaneous.
- Detailed breeding livestock totaling \$197,000.
- Net farm income for the year \$28,799.

\$\$35,912 in operating activities.

- \$\$20,000 from financing with no investing.
- A net change in cash of \$55,912, from a beginning balance of \$70,000 to an ending balance of \$14,088.

CONCLUSIONS

- *FINPACK was fully implemented in the educational farm by:
- Providing financial statements.
- ❖ Performing a benchmarking analysis between the educational farm and the average of 12 farms in Minnesota.
- The educational farm operates differently from the typical or private for-profit farms as their main focus is on instructional purposes.

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