

THE IMPLEMENTATION OF A FINANCIAL SOFTWARE INTO AN EDUCATIONAL
FARM

A Thesis

by

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ABSTRACT

THE IMPLEMENTATION OF A FINANCIAL SOFTWARE INTO AN EDUCATIONAL FARM

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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 new knowledge dissemination (Poungsuk, 2020). Each aspect of educational practices in science, agriculture, and finance is very important to maintain and perpetuate continuing development. In today's educational program, 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. FINPACK is financial software that was created by financial experts at the University of Minnesota to help agricultural producers conduct financial analyses for their business. A financial statement and a benchmarking analysis are two key components to perform a good financial analysis. Financial statements such as the balance sheet, the income statement,

and the statement of cash flow, help ensure that businesses are on track. Benchmarking complements financial analyses by allowing companies to compare themselves with other businesses to evaluate their performance. The benchmarking analysis showed that the educational farm was less liquid and less profitable than the average for-profit farm. However, the educational farm was very solvent; and in general, the educational farm operates differently from the typical or private for-profit farms. This study aims to assist a 1300 acres educational farm located in Northeast Texas with financial managerial performance by implementing FINPACK.

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Chapter 1

INTRODUCTION

1.1 Importance of Educational Farm

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 new knowledge dissemination (Poungsuk, 2020). "Moreover, there is a creative and innovative function in which education is an important tool for social transformation and the progress of culture" (Poungsuk, 2020). Many generations have passed knowledge from one to the other to create, develop, and innovate many places around the world. Each aspect of educational practices in science, agriculture, and finance is very important to maintain and perpetuate a continuing development.

The agricultural industry is changing, especially within the 21st century. In the United States, the number of family farms is declining while the average farmer is 55 years old (Gilbert, 2013). The need to learn about agriculture is increasing as food becomes scarce and the population increase. The average American has little to no personal ties within the agricultural industry (Gilbert, 2013). Moreover, most people these days are several generations away from the farm, and they have no clue where their food originates from or the benefits of agriculture (Gilbert, 2013). As a result, when some of them decide to take a step forward in college to learn more about agriculture they found themselves with no background in agriculture. Ideally, to answer this issue, it is necessary to go back a couple of years ago when the Smith-Hughes Act was passed and signed into law in 1917, requiring that all students have a type of agricultural experience, either on a school farm or another farm every year (Gilbert, 2013).

Also, in today's educational program, Agriculture students must follow a three-circle model to learn as much as possible. Agricultural education programs utilize the three-circle model that includes: classroom instruction, supervised agricultural experience, and involvement of students in Future Farmers of America programs (FFA) (Gilbert, 2013). This model is a major component of educational farms as it allows students to learn efficiently and get prepared for their future careers. When schools began implementing agricultural education, especially with the use of land laboratories or school farms, students were able to have a unique experience learning about agriculture. This allowed students to "obtain instruction and experience" simultaneously (Gilbert, 2013). Educational farms have different areas where students can gain as much knowledge as possible. The school farm provides a wide variety of experiences "that a single farm cannot" (Gilbert, 2013). They can learn from all aspects of agriculture whether it is in livestock (beef, equine, swine, sheep), horticulture, urban agriculture such as food processing systems, meat packaging, vertical farming (hydroponic systems), and so on. Gilbert (2013) suggested that hands-on learning is beneficial because it increases active learning and real-life simulation. Hands-on activities "are more effective in transmitting information to the students".

1.2 The Importance of Financial Analysis

A good manager is a mix of a trainer, instructor, entrepreneur, and record keeper, all at the same time (Anderson, McCorkle, Schwart, Tomaszewski, and Delano, 1999). Being a good farm manager supposes that this person is also a good financial manager. Farm management is making good decisions with all the resources available such as finances, people, equipment, and land. (Anderson, McCorkle, Schwart, Tomaszewski, and Delano, 1999).

Whether someone is on a sole proprietorship, a limited liability company, a partnership, and a corporation, he or she should consider doing a financial analysis of his or her business

entity. Two key components to perform a good financial analysis could be attributed to a financial statement and a benchmarking analysis. A financial statement helps ensure that the business is on track. First, we have the balance sheet. The balance sheet is a list of all the assets and liabilities of a business at a certain point in time (Pena and Klinefelter, 2008). The second is the income statement. The income statement reflects the profitability of a farm/ranch business over some time, usually from the beginning to the end of the tax year (Pena and Klinefelter, 2008). Third, is the statement of cash flow. A statement of cash flow is a list of all the cash inflows and outflows that are expected for a certain time in the future (Pena and Klinefelter, 2008). These financial statements help a farmer look at their finances in a systematic way, plan for the next year, and show lenders that they are a good risk (Pena and Klinefelter, 2008). As a result, the information provided on the financial statements can help measure the performance of the business. To make it successful, many types of analyses can be performed.

Benchmarking is a powerful tool. Over the past 15 years benchmarking has increasingly become powerful and popular in terms of increasing business performance (Stephens, 1999) This effective tool helps a company compare itself with other businesses to evaluate its performance. Stephens (1999) believes businesses and other institutions use benchmarking when they sense they are behind the competition, or when they sense they are average and their goal is to become best in class, or when they are the leader in their field and need to maintain their leadership position.

1.3 Statement of the Problem

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. Farm producers have difficulties gathering information because these tasks demand discipline and organization. As the world is

developing, financial software is available to help producers accomplish this work. Financial software is a tool that enters all the financial activity within an organization. In addition, educational farms can compare how they are financially operating against their peers through financial benchmarking.

1.4 Purpose of the Study

The study aims to help an educational farm increase its financial managerial performance by implementing the financial software FINPACK. This software will provide them with the necessary tools they need to perform financial analysis (financial statements and benchmarking analysis). As a result, they will be able to compare themselves with producers from leading states to reduce their costs while increasing their profits.

1.5 Objectives

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

- 1- Create financial statements (income statements, Balance sheets, Cash flows).
- 2- Compare the benchmark of this educational farm's financial statements with the financial statements from the leading ag producers in the nation.

1.6 Definitions of Terms

Educational farms. In general, an educational farm is any type of land laboratory and/or feeding facility utilized by the agricultural science program; the laboratory or facilities could include but are not limited to greenhouses, livestock or small animal housing, crop fields, aquaculture tanks, orchards, soil pits, grass fields, and welding, woodworking, and mechanics shops (Gilbert, 2013). However, for the purpose of this study, only the facilities and resources associated with the cattle of the educational farm will be examined.

Financial analysis. is the method of analyzing companies, projects, cost estimates, as well as other finance-related operations to discover their performance and suitability. At a minimum, financial analysis requires information about two balance sheets (and one at the beginning and one at the end of the production year) as well as all revenues and expenses (an income statement) generated or incurred during the production year.

Financial statements. are written documents showing how a business is doing and how well it is running a business.

Benchmarking. is the process of comparing business procedures and performance measures to industry benchmarks and other firms' best practices.

1.7 Limitations

The following are some of the ways in which the study's findings are limited.

1. The data are secondary since they were collected by the educational farm staff.
2. A financial software, FINPACK, will be used to assist the farm with financial analysis and record keeping.

1.8 Delimitations

The study is also delimited in its findings in the following ways.

1. This study only works with cattle at the educational farm.
2. Data collected were collected from September 2020 and August 2021.

1.9 Organization of Thesis Chapters

Chapter 1 provides an introduction and discussion of the importance of educational farms and their financial analysis. Chapter 2 explores the literature review of similar studies and summarizes the major findings. Chapter 3 gives a description of the educational farm to be studied and the financial software, FINPACK, that will be used to create financial statements and

proceed with the financial benchmarking analysis. Chapter 4 presents the financial statements prepared by the software used. Finally, Chapter 5 provides the summary and conclusions, along with the recommendations for future research.

Chapter 2

REVIEW OF THE LITERATURE

There is extensive research on financial and economical tools to improve farms' profitability. Examining financial tools to improve farms' revenues is not new to agricultural studies and research. However, to provide a good foundation for this research, previous research must be examined. Therefore, the following discussion will summarize previous work related to the financial analysis of farms.

Forleo and Palmieri (2019) conducted a study analyzing the possibility of developing educational farms using a swot analysis. The goal was to understand the strengths, weaknesses, opportunities, and threats in this field while obtaining major information to create new approaches. Forleo and Palmieri (2019) explored a case study in Molise, Italy, highlighting the situation of educational farms. Despite the number of educational farms surrounding Italy, a lack of an efficient organization was observed throughout the nation. In addition, most of the educational farms examined by Forleo and Palmieri (2019) were part of agritourism businesses. Molise is a very small area truly in need to develop its agriculture.

Forleo and Palmieri (2019) collected data on educational and agritourism farms in Molise, Italy. Some farms were taken through local organizations and from other trusted sources. About 21 farms were part of the survey. The survey was conducted in April and May 2017, through direct interviews and explored different aspects of the farms, educational services provided, and the connections with outside institutions (Forleo and Palmieri, 2019).

The design of this study was based on a swot analysis which helped identify the internal strengths and weaknesses of these farms along with outside opportunities and threats preventing the development of educational farms in the region (Forleo and Palmieri, 2019). This analysis

found a lot of strengths displayed by these farms such as their strong motivation, and family farms. The farms were willing to implement new ideas in agricultural production (Forleo and Palmieri, 2019).

Forleo and Palmieri (2019) also highlighted the relevance of for farm tourism activities. In terms of opportunities, the region was rich in natural landscapes and natural resources (Forleo and Palmieri, 2019). Also, there is an increasing demand for educational tourism (Forleo and Palmieri, 2019). However, this analysis also showed many weaknesses such as their small farm size, and staff poorly qualified (Forleo and Palmieri, 2019). Poor dedication to marketing ideas and organized educational pathways were observed (Forleo and Palmieri, 2019). In addition, there were limited profitable educational activities since their farm was simple and very traditional. Many obstacles were found. There was difficult accessibility to farms such as the lack of a regional farming network of the farm (Forleo and Palmieri, 2019). The farm also had limited connections with regional and national education leaders (Forleo and Palmieri, 2019).

After this analysis, many key factors arose to help provide a good development strategy for educational farms. Public and private institutions should propose measures to ameliorate arising issues. Furthermore, educational farms could benefit from national strategists to help them recover social and economic status by creating jobs (Forleo and Palmieri, 2019). School projects in agriculture can increase the number of visitors to these farms (Forleo and Palmieri, 2019). Public and private institutions must provide farms with consultation related to managerial and financial issues (Forleo and Palmieri, 2019). Forleo and Palmieri (2019) believed the SWOT analysis proved to be extremely beneficial for identifying motivating and impeding variables, as well as for formulating policy recommendations for the future growth of educational farms in a regional rural setting. In the upcoming years, the educational farm sector should focus on

innovative educational, managerial, and financial approaches to be efficient and effective (Forleo and Palmieri, 2019).

Stephen (1999) provides an overview of benchmarking experiences and lessons learned. Setting realistic goals and working with small groups of study participants is critical to benchmarking success. Benchmarking is defined as a standard of excellence against which similar things are measured. Benchmarking informs people of their position in the competition. In the agricultural sector, various quantitative and qualitative indicators are used to monitor performance and identify performance gaps (Stephen, 1999). According to Stephen (1999), benchmarking is rooted in total quality management (TQM). Walter Shewhart, TQM pioneer, established the well-known Plan, Do, Check, Act cycle. Despite the proliferation of benchmarking models, the American Productivity and Quality Center in Houston distilled them into a TQM-like cycle of planning, collecting, analyzing, and adapting (Stephen, 1999). Benchmarking stages, like TQM, are adaptable and do not need to be documented (Stephen, 1999). It is intended to provide a logical, common-sense approach to identifying performance gaps and opportunities for improvement (Stephen, 1999).

Because of this inherent flexibility, benchmarking procedures can be simple or complex, depending on the performance gap that needs to be closed (Stephen, 1999). A hierarchy exists between Competitor Analysis, Strategic Competitor Analysis, and Process Benchmarking. "How did you?" ask the first two steps of the hierarchy. The third stage inquires: "How did you fare? Competitor analysis is the most common and least expensive method. It evaluates performance using data and statistics provided by corporations to trade groups, benchmarking consultancies, or each other (Stephen, 1999). Strategic Competitor Analysis expands on the preceding technique by incorporating anecdotal competitor information about policies, goals, and performance-

improvement strategies (Stephen,1999). Competitor and strategic competitor analysis are the most common and least expensive methodologies. A method for gathering comparative data is required. This level of analysis may reveal performance gaps and opportunities (Stephen,1999). There are numerous opportunities to conduct benchmarking studies, so choose wisely and avoid industrial tourism. Another major benchmarking mistake is inadequate preparation due to insufficient planning, time, resources, and training (Stephen,1999).

The National Farm Financial Database (FINBIN) contains a comprehensive cross-section of Minnesota production agriculture (Nordquist and Van Nurden, 2018). While there is no such thing as a "typical" Minnesota farm, these farms represent a diverse range of commercial farming in Minnesota. FINBIN data is provided by the Southwestern Minnesota Farm Business Management Association and the Minnesota State Farm Business Management Education. These farms account for 3% of all farms in the state and 14% of commercial farms with sales of more than \$250,000. Therefore, when proceeding with financial analyses in FINBIN, the following observations related to these farms need to be taken into consideration. For the fifth year in a row, Minnesota farms lost a lot of money in 2017. In 2017, it was \$28,620, down from \$36,159 in 2016 (Nordquist and Van Nurden, 2018). Working capital has recently become a major concern for farmers and agricultural lenders. It is the primary financial resource that farms require to survive a recession such as the one that is currently affecting Midwest farmers (Nordquist and Van Nurden,2018).

In 2017, the average farm net worth increased by more than \$66,000, meaning farm and non-farm earnings exceeded owner withdrawals for family living and taxes (Nordquist and Van Nurden, 2018). The year 2017 was not a good year for any of Minnesota's major farming enterprises, as it was 2016.

Although pork production was the most profitable, crop revenues fell dramatically. Profits from dairy and cattle farms increased but remained below the necessities of the average family (Nordquist and Van Nurden, 2018). The median net farm net income from the Minnesota farms may serve for benchmarking purposes for this study. After five years of low revenues, record crop yields in 2017 undoubtedly saved some agricultural growers from catastrophic financial losses (Nordquist and Van Nurden, 2018). Third, profits at dairy farms increased slightly in 2017, but only slightly. The 456 dairy farms that took part earned an average of \$42,260, up from \$27,666 in 2016. Despite an increase in income for Minnesota dairy farmers in 2017, it appears that dairy farms are more financially stressed than other farms (Nordquist and Van Nurden, 2018). In 2017, pork farms were the only agricultural type that made more money. The average participating pork producer earned \$101,307 in 2017, up from \$26,847 in 2016 (Nordquist and Van Nurden, 2018). Similarly, the profitability of beef operations in 2017 in Texas is expected to follow a similar pattern. While the profitability of beef operations increased modestly in 2017, their overall financial position improved significantly. Following two years of losses of over \$120,000, the average farm's operating capital increased by approximately \$20,000 (Nordquist and Van Nurden, 2018).

While large businesses have historically profited more than smaller businesses, the gap has recently narrowed (Nordquist and Van Nurden, 2018). Each group had several profitable farms (Nordquist and Van Nurden, 2018). However, a sizable proportion of each group suffered significant financial losses (Nordquist and Van Nurden, 2018). For the last five years, Nordquist and Van Nurden (2018) have been tracking the disparity between large successful farms and large suffering farms, particularly for crop farms throughout the use of FINPACK. According to studies, productive farms perform better in terms of output, capital investment, cost control, and

marketing (Nordquist and Van Nurden, 2018). The Minnesota data in FINBIN is provided by producers enrolled in agricultural business management education programs throughout the state (Nordquist and Van Nurden, 2018). In 2018, the majority of farms (2,148) are enrolled in the Farm Business Management Education programs at Minnesota State (Nordquist and Van Nurden, 2018). Data from FINBIN is not survey data. Producers conduct a full financial review of their enterprise each year, with the assistance of a farm management educator (Nordquist and Van Nurden, 2018). This suggests financial analyses are becoming increasingly important. The following discussion pertains to dairies but since they are also classified as cattle, therefore the information presented may provide insight to the study.

According to Mahnken and Hadrich (2018), revenue diversification methods impacted the economic success of Minnesota dairy farmers from 2007 to 2017. The Center for Farm Financial Management at the University of Minnesota and the Minnesota Farm Business Management Association collaborated to collect farm-level data (Mahnken and Hadrich, 2018). Minnesota farm managers collaborate with instructors from the Minnesota State College and University System, the Southwest Farm Business Management Association, and the University of Minnesota Extension to improve record-keeping throughout the farming year (Mahnken and Hadrich, 2018). Producers complete and evaluate accrual farm financial accounts and enterprise-level analysis with FBM instructors (Mahnken and Hadrich, 2018). In the FINBIN farm financial database, these farm-level accrual statistics are aggregated with data from other farms.

In 2017, nearly 2,300 farms from Minnesota, including 406 dairy farms, entered their data to the FINBIN database. FINBIN defines dairy farms as those that generate 70% or more of total income from dairy sales (Mahnken and Hadrich, 2018). A subset of dairy farms uses crop enterprises. Because dairy accounts for less than 70% of their overall earnings, these farmers

were included in the analysis. From 2007 to 2017, 84 Minnesota dairy farmers consistently reported data to FINBIN. The data utilized in this analysis come from these farms (Mahnken and Hadrich, 2018).

A dairy farm's income comes from milk, replacement heifers, bull calves, and crop sales. “Dairy sales accounted for roughly 78.5% of overall gross revenue for their sample of 84 farms” (Mahnken and Hadrich, 2018). Contrary to popular belief, over 75% of the farmers in this research recorded crop income. Crop acreage climbed from 432 acres in 2007 to 513 acres in 2017. 2018 Mahnken & Hadrich This translates to more area for homegrown dairy feed, more land for waste management, and possibly more cash from grain sales. & Hadrich (2018) Given the low milk prices, many dairy producers considered selling surplus crops to be viable (Mahnken and Hadrich, 2018). They could rely on various revenue streams because they had a diverse operation, which helped them (Mahnken and Hadrich, 2018). “Other income streams stated by dairy farms included market livestock income, custom work, contract income, patronage and dividends, cash from hedging accounts, and "other income" as defined by the farmer” (Mahnken and Hadrich, 2018). This number has stayed stable from 2007 to 2017, showing that the other income sources have not changed considerably (Mahnken and Hadrich, 2018).

Feed expenditures account for around 80% of overall operational expenses. The majority of dairy farms in Minnesota reported growing their own feed, which is included in the computation of feed costs (Mahnken and Hadrich, 2018). To be profitable, a dairy farm must be able to cover short-term expenses. In this sample, typical dairy farm revenue covers operating expenses and, in most years, also covers ownership expenses (Mahnken and Hadrich, 2018).

“Accrual net farm income (NFI) measures the monetary rewards of an operator's unpaid labor and management” (Mahnken and Hadrich, 2018).

Successful dairy farms take advantage of high commodity prices when they happened (Mahnken and Hadrich, 2018). Dairy producers who boosted crop land after 2009 were able to expand their dairy herds when dairy prices increased in 2014. Total farm running expenses connected with cropping systems have grown, according to Mahnken and Hadrich (2018). Diversified revenue sources help farms weather low prices by stabilizing agricultural revenue. Nonetheless, balancing the farm's limited resources requires flexibility in management decisions Mahnken and Hadrich (2018).

Participation of dairy farms in the State of Minnesota in the Farm Business Management (FBM) gave an outside perspective to these farmers to weigh the benefits and downsides of their revenue diversification approach (Mahnken and Hadrich, 2018). These farmers indicated that if it was not for the FBM program, they would have not been capable to make adjustments. Even in years of low milk prices, research reveals that the typical Minnesota dairy farm that participated in FBM profited in ten of the previous eleven years (Mahnken and Hadrich, 2018). The significance of FBM programs is incalculable (Mahnken and Hadrich, 2018). Nonetheless, Mahnken and Hadrich (2018) highlights the significance of getting a second opinion when making financial decisions. While farm prices remain unpredictable, state-level FBM programs and Extensions can help small to medium-sized dairy farms diversify to survive the predicted short-term margin squeeze (Mahnken and Hadrich, 2018).

Chapter 3

METHOD OF PROCEDURE

3.1 Farm Description

Before exploring the financial tools that will be used for the study, a brief description of the educational farm should be provided. The educational farm is approximately 1,300 acres and is located in Northeast Texas. The farm's major uses are education and research. Students learn how to work with farm equipment and machinery. Through research, the farm helps regional farmers and the agricultural industry to expand their knowledge on the topic they are not very familiar with. The beef cattle center is a major component of this farm. About 100 heads of cattle are produced each year and are used for different purposes. One of the main purposes is for the students to work with them when they enroll in courses such as livestock, cattle, or farm management. During these sessions, they have the opportunity to learn about vaccinations, deworming, implanting, animal identification, and pregnancy checking. This farm is well equipped which allows students to learn in a very innovative environment. Before each session, animals are handled with good care and are moved to secure pastures. Feeding is the most important part when having a cattle operation. Each month, the farm spends a lot of money to nourish its animals. Occasionally, the farm participates in auctions to sell some of their animals which helps them generate a source of revenue. This suggests makes financial analysis important for this farm.

3.2 FINPACK

Agriculture and small business financial management software and educational programs are being developed by the Center for Farm Financial Management (CFFM) teachers, bankers, and other professionals. Farmers can benefit from these software and instructional programs

because they offer them the tools, they need to properly manage farms, and the financial operations involved with farms and small enterprises (UNIVERSITY OF MINNESOTA, 2020). The themes covered in the products and training include farm financial planning, financial analysis, business planning, commodities marketing, and credit analysis (UNIVERSITY OF MINNESOTA, 2020). Many farmers, agricultural and commercial lenders, and educators all around the United States rely on CFFM solutions to get accurate financial and benchmarking analysis. The Center's main software product, FINPACK, provides financial decision-making tools that aid producers, lenders, and educators in making prudent financial decisions. This software will be implemented at the educational farm in order to assist them in making more informed financial decisions in the future.

3.3 FINBIN

FINBIN is the national farm financial database that is a part of the FINPACK software. Farm producers can use the site to obtain financial benchmark information (Maguire and Nurden, 2020). The database contains actual farm data from a large number of agricultural producers who use FINPACK for their agricultural business analysis. The database can be accessed online and has a variety of tools for farmers and ranchers (Maguire and Nurden, 2020). Everything is aggregated, and queries must be run on a minimum number of farms to generate a report (Maguire and Nurden, 2020). The information in FINBIN comes from farm management education programs that use FINPACK as their farm business analysis and summary program, which contributes to the database. FINBIN currently contains information from 13 programs in 12 different states. There are currently several additional farm business management groups in other states that are gathering data to submit to FINBIN (Maguire and Nurden, 2020).

Farmers can use FINBIN to create a variety of reports to assist them in conducting good financial analysis within their organization. First and foremost, summary reports present the average results for the farms or enterprises that have been selected (Maguire and Nurden, 2020). This type of report is a fantastic resource to have when examining the costs of producing a crop or even when preparing a budget for a business venture (Maguire and Nurden, 2020). Second, benchmark reports are intended to assist producers, or the professionals who work with them, in identifying areas where they are performing better than similar farms and areas where they may be able to improve their performance (Maguire and Nurden, 2020). Third, FINPACK and FINBIN allow to compute and compare financial ratios. The report enables anyone, including those who did not submit data to FINBIN, to compare their farm's financial ratios to those reported by FINBIN in the report (Maguire and Nurden, 2020). These ratios are used in this report to compare an educational farm to the farms that are included in FINBIN (Maguire and Nurden, 2020).

3.4 FINPACK Scorecard Items

To help with a very efficient and effective benchmarking analysis between the educational farm and the leading state producers in FINBIN, a farm financial scorecard provided by FINPACK will be used. A financial scorecard is comprised of financial measures along with their ratio. When doing a benchmark analysis, it is essential to first look at the financial position and the financial performance of the business (University of Minnesota, 2020). When it comes to financial position, the balance sheet is used along with its financial measures. These measures are liquidity and solvency.

In fact, “liquidity is the ability of a farm to meet financial obligations as they come due in order to pay the debt on time” (University of Minnesota, 2020). The current ratio, the working

capital, and the working capital to gross revenues evaluate liquidity (University of Minnesota, 2020). The current ratio is a measurement that determines the degree to which the current farm assets if sold tomorrow, would be sufficient to pay off the current farm liabilities. It is given by total current farm assets divided by total current farm liabilities (University of Minnesota, 2020). The working capital is a short-term business operating capital. It is provided by total current assets minus current farm liabilities. Working capital to gross revenues is a way to compare the size of a business to the amount of operating capital it has. It is given by working capital divided by gross farm income (University of Minnesota, 2020). Solvency means that if you sold your business tomorrow, you could pay off all of its debts. Solvency is essential when figuring out how financially risky a business is and how much it can borrow (University of Minnesota, 2020). The debt to asset ratio, the equity to asset ratio, and the debt-to-equity ratio measure solvency. The farm debt to asset ratio shows how much of the business belongs to the bank. It looks at the total debt of farms and the total assets of farms. It is given by total farm liabilities divided by total farm assets. “The equity to farm asset ratio compares farm equity to total farm assets” (University of Minnesota, 2020). It is given by farm net worth divided by total farm assets (University of Minnesota, 2020).

After looking at the measure of the financial position of the business in the balance sheet using liquidity and solvency measures, the next step will be to measure its financial performance in each income statement using the profitability measure (University of Minnesota, 2020). Profitability is the difference between how much the goods made are worth and how much it costs to make them. Its ratio is net farm income, rate of return on farm assets, rate of return on farm equity, and operating margin profit. “Net farm income represents the return on labor, management, and equity invested into the business” (University of Minnesota, 2020). The rate of

return on farm assets is the average interest rate being earned on all investments on the farm (University of Minnesota, 2020). “The operating profit margin shows the operating efficiency of the business” (University of Minnesota, 2020).

3.5 Design of the Study

Data in this study is based from September 2020 to August 2021. In fact, in the financial statement, two balance sheets for both years should be made in order to be able to conduct a financial analysis. The next chapter will give a deep understanding of how to proceed.

Chapter 4

PRESENTATION OF FINDINGS (or DATA)

After collecting the financial data for the fiscal year of 2020 and 2021 at the instructional farm, they were directly entered through FINPACK. As a result, two balance sheets were created, a beginning balance sheet as of September, 1st, 2020, and an ending balance sheet as of August, 31st, 2021. To recall, “a balance sheet is a snapshot of the assets and liabilities of a business at a specific point in time (University of Minnesota, 2020).

4.1 Beginning Balance Sheet Description

Table 1 presents the beginning balance sheet as of September, 1st 2020. The total current assets were \$89,399. Current assets are cash or things that are easy to turn into cash in less than a year. This total was first the result of \$70,000 in cash (\$30,000 was given to operation, \$24,000 to cattle, and \$16,000 to fuel) and 26 calves (heifers and steers) that were held for sale in the amount of \$19,399. The farm received at the beginning of each year a budget of \$70,000 borrowed from the state and to be reimbursed when the farm receives any outside revenues. As the result, a current loan of \$70,000 was also entered as current liabilities. Current liabilities are usually due within the next 12 months while intermediate assets are thought to last between one and ten years. Breeding livestock such as Hereford and Brangus were recorded as intermediate assets totaling \$43,500 in cost value and \$47,600 in market value. The instructional farm has a very detailed list of machinery and equipment with 100% ownership. As a result, the instructional farm can focus on other expenses and not rely on any liabilities. Plus, their title vehicles are fully owned and have \$82,000 in cost value and \$89,200 in market value. The total intermediate assets were about \$573,898 in cost value and \$621,731 in market value. The total cost value and market value of intermediate assets are \$699,398 and \$758,531 respectively. In

addition, there were no intermediate and long-term long liabilities recorded in the beginning balance sheet. Intermediate liabilities are debts that are due to be paid back between 13 months and 10 years from now. However, long-term liabilities are debts greater than 10 years. On the long-term assets section, 1200 acres of land was valued at \$ 10,800,000 and a market value of 11,000,000. Long-term assets are permanent items having a 10-year useful life. This brings the total of farm assets to \$11,588,797 in terms of cost value and \$11,857,930 in terms of market value. Thus, this beginning balance sheet showed a farm net worth of \$11,777,930 which is retaining earnings and the market valuation equity.

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

Resources	Cost Value /Value	Market Value
Cash and checking	70,000	
Market livestock	19,399	
Total current assets	89,399	
Breeding livestock	43,500	47,600
Machinery and equipment	573,898	621,731
Titled vehicles	82,000	89,200
Total intermediate assets	699,398	758,531
Land	10,800,000	11,000,000
Total long-term assets	10,800,000	11,000,000
Total Assets	11,588,797	11,847,930
Total current liabilities	70,000	
Total intermediate liabilities	0	
Total long-term liabilities	0	
Total liabilities	70,000	70,000
Retained earnings	11, 518,797	
Market Valuation equity		259,133
Net worth		11,777,930

4.2 Ending Balance Sheet Description

Similarly, Table 2 reports the ending balance sheet as of August, 31st, 2021. At the end of the year, the total current assets were \$14,088. This is the result of expenses made through the farm's checking account. Expenses are made through the budget allocated for operation, fuel, and livestock (cattle). All the livestock held for sale were sold during the year which helped reimbursed the loan from the state bringing the balance in total current liabilities down to \$50,000. There were no intermediate and long-term liabilities at the end of the fiscal year. However, the total intermediate assets had a cost value of \$783,508 and a market value of \$837,878. Even though, both machinery and title vehicles depreciated by 10% to 15% respectively, a percentage increase in total intermediate assets was recorded compared to the

beginning year. The reason is due to the new amount of breeding livestock: 53 fall herd, 41 fall calves, 81 spring herd, 34 replacement heifers, and 7 bulls were recorded and assigned a total cost value of \$197,300 and a total market value of \$202,500. In long-term assets, the land was valued at 12,000,000 at cost value and 12,200,000 at market value. As a result, the total farm assets went up to \$12,797,596 at cost value and \$13,051,966 at market value. The total farm liabilities went down to \$50,000 due to the auction sale happening during the year. The total net worth increased from \$11,777,930 to \$13,001,966 with a \$12,747,956 of retained earnings and a \$254,370 of market valuation equity.

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

Resources	Cost Value /Value	Market Value
Cash and checking	14,088	
Market livestock	0	
Total current assets	14,088	
Breeding livestock	197,300	202,500
Machinery and equipment	516,508	559,558
Titled vehicles	69,700	75,500
Total intermediate assets	783,508	837,878
Land	12,000,000	12,200,000
Total long-term assets	12,000,000	12,200,000
Total Assets	12,797,596	13,051,966
Total current liabilities	50,000	
Total intermediate liabilities	0	
Total long-term liabilities	0	
Total liabilities	50,000	50,000
Retained earnings	12, 747,596	
Market Valuation equity		254,370
Net worth		13,001,966

4.3 Income Statement

This section describes the income statement. The purpose of the income statement is to find out if the educational farm made a profit or a loss during the fiscal year. Table 3 reports the educational farm income statement for the fiscal year 2020-2021. The income statement of the instructional farm in Table 3 reports sources of income on the left-hand side and expenses on the right-hand side. A gross cash income of \$19,400 was generated. This was due to the auction sales that were made during the year and were then used to pay off the part of the loan. Also, the farm made about \$55,312 in total expenses such as vet, supplies, fuel and oil, repairs, and

miscellaneous. After the livestock held for sale was sold, its inventory was brought back to 0. Also, the breeding livestock had an ending of \$197,000. This is about 4 times more than what they had at the beginning of the year. This is because the educational farm has a better track record of breeding livestock inventory at the end of the year. Another change was the depreciation of machinery and equipment and titled vehicles. Machinery and equipment depreciated from \$573,898 at the beginning of the year to \$516,508 at the end of the year. Titles vehicles depreciated \$12,300, from \$82,000 at the beginning of the year to \$69,700 at the end of the year. As a result, net farm income for the year was \$28,799.

Table 3. *Educational Farm Income Statement*

Resources	Values
Income	
4 Str Calves	3,623
11 Str Calves	8,686
3 Hfr Calves	2,086
4 Hfr Calves	2,288
4 Hfr Calves	2,717
Gross cash income	19,400
Expense	
Purchase feed	21,396
Veterinary	1,189
Supplies	364
Fuel & oil	3,486
Repairs	25,000
Miscellaneous	3,878
Total cash expense	55,312
Net cash income	-35,912
Inventory changes	
Market livestock (beg)	19,399
Market livestock (end)	0
Breeding livestock (beg)	43,500
Breeding livestock (end)	197,300
Total inventory changes	134,401
Net operating profit	98,489
Depreciation	
Machinery and equipment (beg)	573,898
Machinery and equipment (end)	516,508
Titled vehicles (beg)	82,000
Titled vehicles (end)	69,700
Total depreciation	-69,690
Net farm income	28,799

4.4 Statement of Cash Flows

The educational farm cash flows statement is a reconciliation statement. It reconciles the beginning cash with the ending cash. The statement of cash flows consists of three sections: Cash from operations, cash from investing activities, and cash from financing activities. Table 4 reports the educational farm statement of cash flow for the fiscal year 2020-2021. The educational farm has used \$35,912 in operating activities. The main reason is that they had more expenses than the gross cash income generated within the year. They had no cash from any investing activities and they used \$20,000 from financing. They had a net change in cash of \$55,912, from a beginning balance of \$70,000 to an ending balance of \$14,088.

Table 4. *Educational Farm Statement of Cash Flow*

Resources	Values
Beginning cash balance	70,000
Gross cash farm income	19,400
Cash farm expenses	55,312
Cash provided by operating activities	-35,912
Sale of capital assets	0
Purchase of capital assets	0
Cash provided by investing activities	0
Money borrowed	0
Principal payments	20,000
Personal income	0
Owner withdrawals	0
Income taxes paid	0
Cash provided by financing activities	-20,000
Net change in cash	-55,912
Ending cash balance	14,088

4.5 Benchmark Analysis with the Average Leading Producers

After describing these two balance sheets, the income statement and the statement of cash flow, it would be important to compare the performance of the educational farm with the leading producers. A 2021 balance sheet and an income statement were retrieved from FINBIN for benchmarking purposes. These two statements are from the average of 12 farms mainly located in the state of Minnesota. The average farm is a beef cow-calf operation similar to the educational farm. The acreage is from 101 to 1500 acres (FINBIN, 2022). To compare the balance sheet and the income statement of the educational farm with these of the average leading producers, the FINPACK scorecard item (Appendix A) was used. Table 5 and Table 6 describe the financial measures and ratios of the educational farm and of the average of the 12 farms, respectively.

There are noticeable differences between the educational farm (Table 5) and the average of the 12 Minnesota farms retrieved from FINBIN (Table 6). The Minnesota farms had a higher working capital. This is because the Minnesota farms are for-profit farms while the educational farm is mostly considered non-for-profit and receives a budget to operate. As a result, the solvency ratios are smaller for the educational farm, which suggests the educational farm has the potential to increase its debts compared to for-profit farms. Similarly, the profitability ratios are smaller for the educational farms, suggesting the for-profit Minnesota farms are able to generate higher profits from their assets and equity.

Table 5. *Educational Farm Financial Measures and Ratios*

Financial Standards Measures	Values	Values
Liquidity	Beg	End
Current ratio	1.28	0.28
Working capital	19,399	-35,912
Working capital to gross revenues	12.6%	-23.3%
Solvency (market)	Beg	End
Debt to asset ratio	1%	0%
Debt to equity ratio	0.01	0.00
Profitability (cost)	Cost	Market
Net farm income	28,799	24,035
Rate of return on assets	0.2%	0.2%
Rate of return on equity	0.2%	0.2%
Operating profit margin	21.8%	18.2%

Table 6. *Average of 12 Farms Financial Measures and Ratios*

Financial Measure	Values
Liquidity	
Current ratio	1.35
Working capital	139,274
Working capital to gross revenues	22.7 %
Solvency (market)	
Debt to asset ratio	59 %
Equity to asset ratio	41 %
Debt to equity ratio	1.46
Profitability (cost)	
Rate of return on assets - mkt	6.2 %
Rate of return on assets - cst	3.5 %
Rate of return on equity - mkt	10.8 %
Rate of return on equity - cst	3.9 %
Operating profit margin - mkt	43.4 %
Operating profit margin - cst	20.9 %
Net farm income - mkt	98,409
Net farm income - cst	46,773

4.5.1 Liquidity

Table 7 describes the balance sheet average of the 12 Minnesota farms. The ending balance sheet of the educational farm (Table 2) reports total current assets of \$14,088 and total current liabilities of \$50,000 bringing the current ratio from 1.28% to 0.28% of the previous year. The working capital decreased from \$19,399 to -\$35,912. This resulted in working capital to gross revenues to be at -12.6%. This also shows that a lot of expenses were made during that year and a small percentage of their loan was paid after the educational farm sold some of their calves. However, the balance sheet of the average of the 12 Minnesota farms looked very different. The total current farm assets were \$532,904 and total current farm liabilities of \$393,875 resulting in 1.35 of the current ratio. Also, its working capital was \$139,274 with working capital to gross revenues of 22%. Based on these results, the ending balance sheet of the educational farm is very vulnerable in terms of liquidity while the average of 12 farms has a better liquidity advantage. Moreover, it is very important to mention that the vulnerable liquidity shown on the ending balance sheet of the educational farm was predictable. In the case the educational farm does not meet its financial obligations, the state will still borrow the necessary funds so that the educational farm would be current on its balance for the next fiscal year. That is, the university allocates a budget to the educational farm each year so that it can operate.

4.5.2 Solvency

The total intermediate assets of the educational farm were \$837,878 and there were no intermediate or long-term liabilities. This means that the educational farm has a lot of equity. Also, the educational farm has a lot of resources that are fully owned such as equipment, machinery, and title vehicles. In addition, the educational farm has breeding livestock for \$202,500. These 216 cattle are constantly held at the farm and are mainly used for laboratory

experiences such as parasites research, artificial insemination, and pregnancy check. Some of them are even selected to be show cattle. Long-term assets have land with a market value of \$12,200,000 which was valued at \$10,000 per acre in 2021. The land per acre increased by \$1,000 more than the previous year, but this seems to be normal given that the market price of real estate has been increasing from 2019 to 2022. The balance sheet of the average 12 Minnesota farms has \$471,931 in total intermediate assets and \$164,789 in total machinery and equipment. The latter is less than the educational farm has. The land of the average 12 Minnesota farms is valued at \$612,526, long term assets are valued at \$1,795,751. The total long-term liabilities are \$417,432. This means the educational farm has a strong solvency capacity.

Table 7. *Average of 12 Minnesota Farms Balance Sheet*

Resources	Market Values
Cash and checking	18,308
Prepaid expenses & supplies	10,653
Growing crops	200
Accounts receivable	20,127
Hedging accounts	5,040
Crops held for sale	107,285
Market livestock	369,379
Other current assets	1,613
Total current assets	532,904
Breeding livestock	199,873
Machinery and equipment	233,189
Titled vehicles	35,993
Other intermediate assets	2,876
Total intermediate assets	471,931
Land	612,526
Buildings and improvements	176,389
Other long-term assets	2,000
Total long-term assets	790,915
Total Assets	1,795,751
Accrued interest	7,137
Accounts payable	16,004
Current notes	320,875
Principal due on term debt	49,615
Total current liabilities	393,630
Total intermediate liabilities	164,789
Total long-term liabilities	417,432
Total liabilities	975,851
Retained earnings	787,192
Market Valuation equity	228,202
Net worth	1,015,393

Source: FINBIN (2022). Center for Farm Financial Management: University of Minnesota.

The next section discusses the financial performance of the business by comparing the educational farm income statement with the average of 12 farms provided by FINBIN using the profitability measure.

4.5.3 Profitability

Table 5 describes an average income statement for the 12 Minnesota farms. The educational farm has a net farm income of \$28,799. This amount is about 10% less than the average farm which has a net farm income of \$46,773. Looking at the educational farm income statement, there were \$55,312 in expenses and changes in inventory in the amount of \$153,800 due to the cattle sale that happened during the year. The total depreciation of machinery and title vehicles was \$69,690. However, the 12 Minnesota farms had an average total depreciation of \$30,776 and an average total inventory change of \$144,051 followed by an average of \$546,356 in cash expenses. The average rate of return on assets and equity of the 12 Minnesota farms were 6.2% and 10.8% respectively; both higher than the educational farm which was 0.2% for both (Table 5). The same assessment can also be made for the operating profit margin. The educational farm has an acceptable one (21.8%). Overall, the 12 Minnesota farms perform better on average than the educational farm when it comes to profitability. The profitability ratios of the 12 Minnesota farms are better than the educational farm (Tables 5 and 6). Similarly, net farm income of 12 Minnesota farm is \$46,773 (Table 8) is greater than \$28,799 (Table 3). In addition, the budget allocated for the instructional farm does not include the staff salary (manager, assistant managers, and student workers) and utilities. They are all funded by another department within the state and could be described as an opportunity cost at the farm. Thus, the outcome will be very efficient when it comes to managing the farm since they are mainly

focused on farming tasks. The farm will keep its stability as long as the available funds are treated for educational purposes.

Table 8. Average 12 Minnesota Farms Income Statement

Resources	Values
Income	
Corn and soybeans	13,620
Hay, mixed	632
Pulpwood	3,268
Miscellaneous crop income	2,344
Beef	402,853
Hogs	10,461
Cull Breeding livestock	5,607
Crop income	3,597
Other	37,364
Rental income	109
Gross cash income	479,853
Expense	
Seed	9,926
Fertilizer	12,911
Crop	7,074
supplies	4,649
Purchase feed	130,946
Breeding fees	379
Veterinary	7,668
Other	90,320
Fuel & oil	16,031
Repairs	8,549
Miscellaneous	4,666
Total cash expense	546,356
Net cash income	-66,502
Inventory changes	
Prepaid and supplies	7,258
Market livestock	107,415
Breeding livestock	-4,930
Other	34,304
Total inventory change	144,051
Net operating profit	77,549

Table 8 (continued)

Resources	Values
Depreciation	
Machinery and equipment	-21,674
Titled vehicles	-3,368
Budling and Improvements	-5,734
Total depreciation	-30,776
Net farm income	46,773

Source: FINBIN (2022). Center for Farm Financial Management: University of Minnesota.

Chapter 5

SUMMARY OF THE STUDY, THE FINDINGS, AND CONCLUSIONS

The financial software, FINPACK, was fully implemented in the educational farm. First, financial statements (balance sheet, income statement, and statement of cash flows) from 2020 to 2021 were generated after data were collected. The beginning and the ending balance sheet estimated the financial resources belonging to the educational farm. The balance sheets were also prepared at a cost value and at a market value. In addition, an income statement was prepared for the fiscal year along with details on inventory changes. The statement of cash flows helped reconciled the beginning and the ending cash, and showed how they were used in operating and financing activities. Second, the benchmarking analysis provides information about the financial position and the performance of the educational farm compared to the average of 12 Minnesota farms that were retrieved from the FINBIN database. In fact, the benchmarking analysis showed that the educational farm was less liquid and profitable than the average 12 Minnesota farms. However, the educational farm was very solvent. It had more assets at its disposal which could be sold and converted into cash. Thus, it can be concluded that the educational farm operates different from the typical or private for-profit farms. Their main focus is to run the farm for instructional purposes and not for making a profit. In fact, in a time of a financial crisis for instance the educational farm is likely to still be able to operate normally since it is owned by the state. Also, if it does not meet its financial obligations, it is likely that the university will still allocate a budget for next year to continue to operate for educational purposes. For further research at the educational farm, it would be better to file for open records which could be accessible outside of the educational farm. As a result, any researcher would have the ability to

collect any type of data to efficiently and effectively conduct the financial analysis of the farm.

The outcome would then make the research more rigorous with accurate results.

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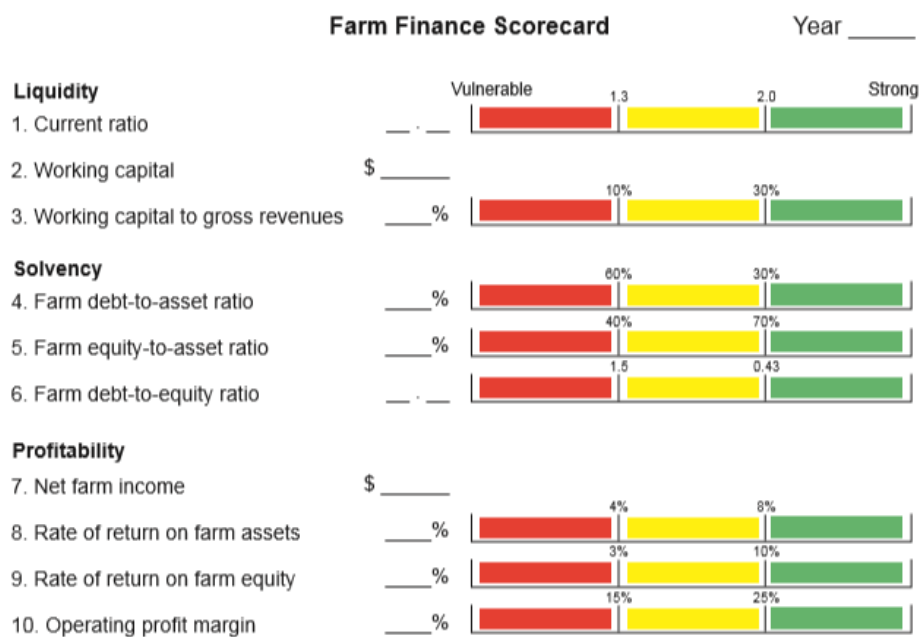
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APPENDICES

APPENDIX A
FARM FINANCE SCORECARD

FARM FINANCE SCORECARD



Source: FINPACK (2020). Center for Farm Financial Management: University of Minnesota.

APPENDIX B
LIST OF MACHINERY AND EQUIPMENT

LIST OF MACHINERY AND EQUIPMENT

Educational Farm : 9/1/2020 Balance Sheet

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Schedule J: Machinery and equipment

Make/Model	Model	Year	Purchase	Pct.	Cost	Market
Year	Serial No./VIN	Purchased	Price	Ownership	Value	Value
Plow	-	115319	-	100.00 %	6,703	9,000
Mover (Hay King)	-	TR223337	-	100.00 %	2,688	5,052
Tractor	-	11635	-	100.00 %	7,489	10,000
Trailer (W-W)	-	11WHS202	-	100.00 %	3,810	5,000
Trailer (Circle M)	-		-	100.00 %	6,435	9,000
Hay Rake (New Holl)	-		-	100.00 %	5,261	7,450
Trailer (Neckover Stock)	-		-	100.00 %	7,925	9,500
Tractor W/Loader (case)	-	ZDJR17390	-	100.00 %	66,250	68,000
Tractor (Kubota) MX5100HS	-	68629	-	100.00 %	26,700	27,900
Cutter Kuhn	-	N0647	-	100.00 %	10,850	12,000
Baler Vermeer	-	IVR316143	-	100.00 %	33,750	35,000
Mower Kubota Z725	-	22365	-	100.00 %	8,100	9,300
Skid Steer John Deer 329D*	-		-	100.00 %	22,970	23,500
Harvester Savage	-	8.26E+09	-	100.00 %	26,000	27,000
Shaker (Savage)	-	2.54E+08	-	100.00 %	10,250	11,000
Great Pla 1006	-	GP-4088XX	-	100.00 %	24,500	34,500
Shredder (Rhino)	-	40641	-	100.00 %	15,000	16,000
Mower (Kuhn)	-	D0150	-	100.00 %	29,275	40,835
Vermeer	-		-	100.00 %	8,000	8,500
Hay Baler(case) SB541	-	YGN30266	-	100.00 %	22,500	23,500
Hay Baler (Case)	-	5496	-	100.00 %	10,800	13,500
Grace TRE	-	1706223	-	100.00 %	9,150	10,000
RTV (Kubota)	-	49291	-	100.00 %	8,550	9,000
Gator (John Deer) 990DM	-	M0HPXDS1	-	100.00 %	11,269	13,800
Tractor (Kubota) M7060HD	-	74830	-	100.00 %	36,237	38,000
Tractor (Kubota) M5111HD	-	57518	-	100.00 %	50,281	52,500
Trailer-U(Shop)	-	F86051101	-	100.00 %	1	15
Trailer-(Big Tex) 355A	-	16VAX121	-	100.00 %	1	3,500
Aerator(Aerway)	-	196248	-	100.00 %	13,193	-
Trailer(Circle) M142	-	109HT4226	-	100.00 %	5,799	-
Rake (Vermeer) R2300	-	21080	-	100.00 %	17,243	18,500
Dart Gun (Pneu) 178B*	-		-	100.00 %	380	379
Trailer (Deloo)	-	5WWGB32	-	100.00 %	14,700	16,000
Trailer(Load) 32	-	4ZEGH302	-	100.00 %	9,200	11,000
Trailer(Load) 32	-	5PAHG242	-	100.00 %	36,408	38,000
Hay Tedder (Sitrex)	-		-	100.00 %	6,250	7,500
Total machinery and equipment					573,898	621,731

Source: FINPACK (2020). Center for Farm Financial Management: University of Minnesota.

APPENDIX C
FINANCIAL MEASURES AND FORMULAS

FINANCIAL MEASURES AND FORMULAS

Liquidity

1. Current ratio
= Total current farm assets
/ Total current farm liabilities
2. Working capital
= Total current farm assets
– Total current farm liabilities
3. Working capital to gross revenues
= Working capital / Gross farm income

Solvency (market)

4. Farm debt-to-asset ratio
= Total farm liabilities / Total farm assets
5. Farm equity-to-asset ratio
= Farm net worth / Total farm assets
6. Farm debt-to-equity ratio
= Total farm liabilities / Farm net worth

Profitability

7. Net farm income
= Gross cash farm income
– Total cash farm expense
+ / – Inventory changes
– Depreciation
8. Rate of return on farm assets
= Return on farm assets / Average farm assets
Return on farm assets
= Net farm income
+ Farm interest
– Value of operator labor & management
9. Rate of return on farm equity
= Return on farm equity / Average farm net worth
Return on farm equity
= Net farm income
– Value of operator labor & management
10. Operating profit margin
= Return on farm assets
/ Value of farm production
Value of farm production
= Gross cash farm income
+ / – Inv change of crops, mkt lvst,
brdg lvst & other income items
– Feeder livestock purchased
– Purchased feed

Source: FINPACK (2020). Center for Farm Financial Management: University of Minnesota.

VITA

Yves-Bernard Kacou completed his bachelor of science in Texas A&M University-Commerce in May 2021. In June 2021, at the same university, he started a master's degree in agricultural sciences with a focus on agribusiness under the supervision of his advisor Dr. Jose Lopez, Associate Professor of Agribusiness. He received his Master's degree in August 2022. His goal is to explore careers within global agriculture where he will be able to expand his current knowledge.

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