

Managing Your Dairy Business with BusinessSense

Bradley J. Hilty
Information Management Specialist
Penn State University - Dairy Alliance

Introduction

One key to operating a successful and competitive dairy business is to monitor business performance and make the necessary adjustments to correct any bottlenecks that may adversely affect profitability. Benchmarks can be useful tools in helping dairy producers evaluate their business. Producers should always have a **“Big Picture”** view of how their business is performing. Dairy producers can accomplish this by knowing **ten key performance indicators** for their businesses; **five financial ratios and five herd performance indicators**. These indicators are comparable to the warning lights on the dashboard of a car. They can signal that something is wrong, but will provide little detail as to what the specific cause of the problems might be. However, if any of these ten indicators are significantly different than recommendations or the goals established by the business owners, other indicators should be examined to determine the cause of substandard performance.

Conducting an annual business performance analysis is an essential process for all business owners. Although dairy producers are no exception, many fail to address this important matter. An annual business analysis provides the owner with a comprehensive view of how the business has performed in a number of key areas over the past year. The analysis will answer some important questions every business owner must answer and can help determine the strengths and weaknesses of the business. If properly conducted, an annual business performance analysis can pinpoint the bottlenecks that are reducing profits.

Many producers avoid this task because they lack the records needed to complete the process. Others have adequate records but are overwhelmed with the data their records contain. They lack a systematic approach to organizing and analyzing the information they have.

BusinessSense is a Penn State Dairy Alliance program that helps dairy producers organize the key pieces of information needed to conduct an annual analysis and provide them with a systematic approach for examining and analyzing that information.

The objective of the BusinessSense program is to teach producers best management practices in business and information management. Producers are brought together in small groups to facilitate the exchange of information and peer to peer learning. Topics include characteristics of successful businesses, standardization of data, improving accounting records and a systematic approach to analyzing a dairy business. All participants compile the information needed to complete a comprehensive business analysis. Penn State University collaborates with Cornell University in providing this analysis to participating producers.

Benchmarks for Analyzing Business Performance

Integrated business analysis is a process in which business performance is evaluated from various viewpoints. We start by evaluating the financial performance of the business and work

our way down through more detailed information to determine what management practices or other factors may be adversely affecting business performance. We can use a set of benchmarks to accomplish this task. A benchmark is simply a point of reference. This point of reference can relate to a previous point in time in the operation of a business, a goal or an industry standard. Averages should not be confused with benchmarks, although they often are. In conducting a business analysis, we should always compare our operations to the top performers within an industry. By participating in an annual business analysis program dairy producers can compare the performance of their businesses to that of the top performers within the group of farms participating in the analysis. Producers can also compare the performance of their business over time to evaluate the progress they are making toward achieving their goals.

In conducting a comprehensive business analysis dairy producers must be able to evaluate the financial performance of their business as well as production system performance. Producers must first evaluate the “Big Picture” view of both aspects of their business. This can be done with a set of ten key performance indicators, five addressing the financial criteria of the business and five assessing the production system or herd performance measures.

Five Key Financial Benchmarks

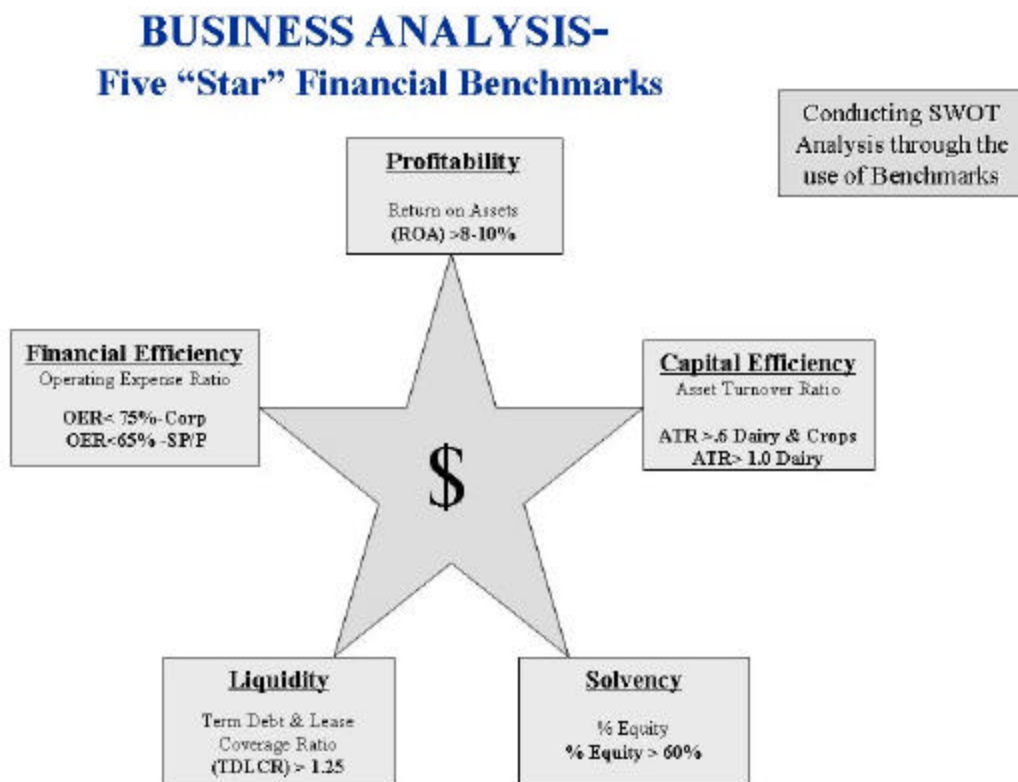
To begin the analysis producers must answer five basic questions that provide the “Big Picture” view of the financial performance of their dairy business. This is accomplished by examining five critical financial criteria. These five questions are:

- 1) Is the business profitable? (Does it generate adequate returns to its resources?)
? **Criteria - Profitability**
- 2) Is the business able to meet its financial obligations? Does it cash flow?
? **Criteria - Liquidity & debt repayment**
- 3) How financially secure is the business?
? **Criteria - Solvency**
- 4) Is the business efficient in spending money to make money?
? **Criteria - Financial efficiency**
- 5) Is the business utilizing capital efficiently?
? **Criteria - Capital efficiency**

The five key financial ratios that provide the answers to these questions, and some recommended benchmarks for each indicator are illustrated in Figure 1. Business owners should calculate these five ratios for their business annually and should be able to recall them from memory at any time.

Because these indicators are big picture measures of business performance they are insufficient to provide producers with the detailed information needed to determine the causes of sub-par performance. However, they can help to focus our efforts to analyze the appropriate aspects of the business. By starting with these Five Star Indicators and progressively working down through the systematic approach to analyzing a business that is presented later in this paper, business owners can pinpoint the bottlenecks in the business that are causing sub-standard performance.

Figure 1. Five Key Financial Benchmarks



Five Key Production Benchmarks

Financial performance is directly impacted by the production system efficiency of a dairy business. Therefore, producers should have a set of indicators that examine the key areas of the production system or their dairy herd. To get the “Big Picture” evaluation of the production system’s performance producers must monitor five keys area of herd performance. These areas include:

- ? **Production**
- ? **Herd lactation and reproductive status**
- ? **Reproductive performance**
- ? **Udder health**
- ? **Overall cow management**

The indicators for examining these areas are listed in Figure 2.

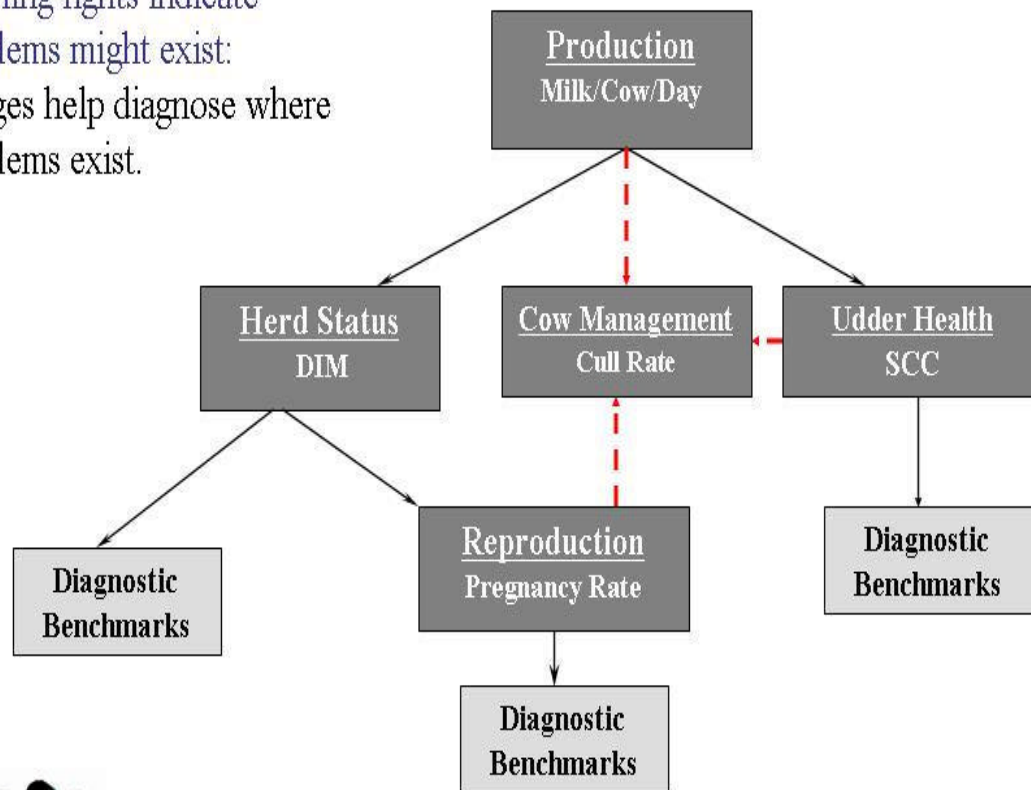
Once again the five indicators of production efficiency only provide a “Big Picture” view of herd performance. They tell us little about specific problems with herd performance, but can help focus the analysis in the right direction. However, under each management area, there are a number of more detailed indicators that can help pinpoint where the bottlenecks in the production system might exist. These indicators are similar to the gauges on the dash board of a car. They will provide more specific information as to where problems might exist and the specific management areas that should be examined.

Understanding the relationship between each of these indicators and how they impact the profitability of the dairy business is important in conducting an integrated business analysis. We will define and examine the five financial benchmarks and the five production benchmarks in this publication, as well as others for evaluating key management areas that impact the profitability of dairy businesses, such as feed, labor, investment management, debt management and cost of production. These benchmarks can be used as guidelines in conducting an integrated business analysis to help you identify the areas you need address to improve the profitability of you dairy business.

Figure 2. Production System Benchmarks

A Systematic Approach to Analyzing Herd Performance

Warning lights indicate problems might exist:
Gauges help diagnose where problems exist.



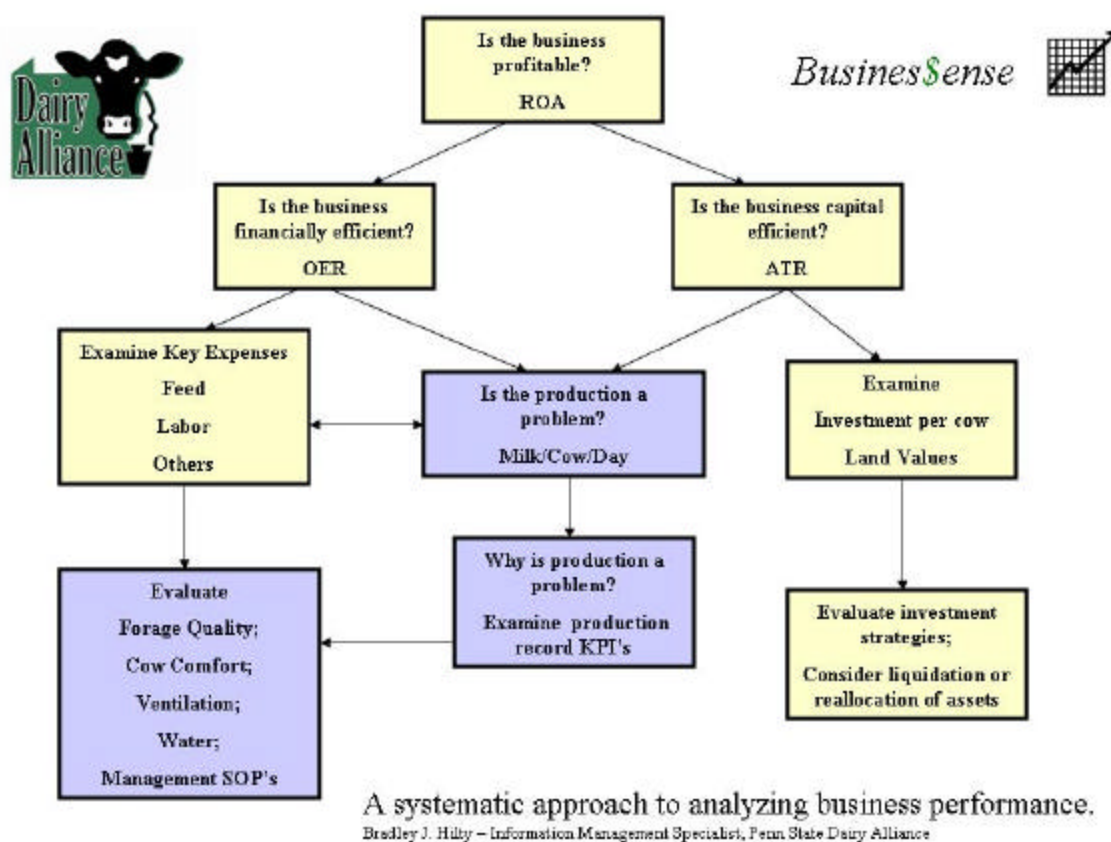
Bradley J. Hilty
Information Management Specialist
Penn State Dairy Alliance

A Systematic Approach to Business Analysis

Having a systematic approach to integrating this data will make the analysis process easier to complete and increases the probability that the correct bottlenecks are detected and fixed. A model for this systematic approach to conducting an integrated business analysis, addressing profitability, is presented in Figure 3.

We begin by examining the farm's level of profitability (return on assets). If that is not up to standards, we examine two measures of financial performance that directly affect profitability, financial efficiency (operating expense ratio) and capital efficiency (asset turnover ratio). If either or both of those indicators are below standards or the goals of the business, we look at a production to determine if is contributing to the problem. If production is a problem, we can examine other herd performance indicators to help us determine what management factors may be contributing to sub-standard production. If production is not a problem, we proceed down each side of the analysis model, evaluating financial efficiency on the left and capital efficiency on the right. As we work our way down through the process, the management factors that are contributing to sub-standard profitability begin to surface.

Figure 3. A systematic approach to integrated business analysis



During the last session of BusinessSense producers review the results of their business analysis and complete the above process. Upon completion of the integrated business analysis producers discuss the results in a small group setting. Producers are encouraged to openly discuss the key indicators mentioned in this article. Producers who operate profitable businesses share key management practices with those who are less profitable. Those who operate less profitable businesses are asked to share management practices they may change to help improve profitability of their business. One rule of BusinessSense is confidentiality within the group. Any producer that violates this rule is not invited back to subsequent programs. By conducting a comprehensive business analysis and participating in a program such as BusinessSense, dairy producers can take the first step to positioning their dairy business to be more competitive and profitable in the future.

Table 1. Key Benchmarks for Analyzing the Big Picture

Financial Benchmarks				
	Evaluation Criteria	Benchmark	Source	Goal
1	Profitability	Return on Assets	P&L; BS	>8.00%
2	Liquidity ¹	TDLCR ¹	P&L; CFS	>1.25
3	Solvency	Percent Equity	BS	50-60%
4	Financial Efficiency	Operating Exp Ratio	P&L	65% (70%) ²
5	Capital Efficiency	Asset Turnover Ratio	P&L;BS	.65
Production Benchmarks				
1	Production	Milk /cow / day	Bulk Tank Avg.	70 / 85 ³
2	Lactation Status	Days-in-milk	DHI records	175-185
3	Repro Efficiency	Pregnancy Rate	21-day PG Rate	.21-.24
4	Udder Health	Somatic Cell Count	Bulk Tank/DHI	<200,000
5	Total Cow Mngmt	Cull Rate	DHI Records	25-35 % ⁴

¹ Term Debt and Lease Coverage Ratio -This is not a true measure of liquidity as defined by the Farm Financial Standards Council, rather a measure of the debt repayment ability of the business and thus an indicator of cash flow.

² Recommendations for the operating expense ratio are 65% for smaller single dairy businesses; 70% for larger operations.

³ For Holsteins; Milking 2 X with No BST – 70 pounds; 3X with BST – 85 pounds

⁴ This recommendation is for herd in temperate climates. For herds in southern states the rate will be somewhat higher (30-40%)

Conducting any analysis is meaningless, unless strategies to address the problem areas are developed and corrective measures implemented to ensure that the bottlenecks will be removed, thus improving profitability. Once the corrective measures have been implemented, the business must be monitored to determine if adjustments are working. There are other indicators and benchmarks that can be monitored to determine if progress is being made in specific management areas. A publication, *Analyzing Your Dairy Business: A Systematic Approach to Using Benchmarks*, is available to help producers conduct a comprehensive business analysis. It can be obtained by contacting the Penn State Dairy Alliance office at 888-372-7232 or by sending an email to bhilty@psu.edu.