



DAIRY
Excel

15 Measures of Dairy Farm Competitiveness



15 Measures of Dairy Farm Competitiveness

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Our objective is to support and promote profitable, sustainable, and environmentally sound growth of Ohio's dairy industry through unbiased, research-based education.

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Dairy Excel is a multi-faceted management education program specifically designed to improve the competitiveness of the Ohio dairy industry.



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Contents

Introduction	4
Gaining Control of Your Business	6
The 15 Measures	8
Measure 1: Rate of Production — Pounds of Milk Sold Per Worker	10
Measure 2: Cost Control — Total Feed Cost Per Cwt of Milk Sold	12
Measure 3: Cost Control — Milking Herd Feed Cost Per Cwt of Milk Sold	14
Measure 4: Cost Control — Operating Expense Ratio	16
Measure 5: Capital Efficiency — Dairy Investment Per Cow	18
Measure 6: Capital Efficiency — Asset Turnover Ratio	20
Measure 7: Profitability — Net Farm Income	22
Measure 8: Profitability — Rate of Return on Farm Assets	24
Measure 9: Liquidity — Current Ratio and Working Capital	26
Measure 10: Repayment Schedule — Scheduled Debt Payment	28
Measure 11: Solvency — Debt to Asset Ratio	30
Measure 12: Solvency — Debt Per Cow	32
Measure 13: Mission Statement	34
Measure 14: Maintain Family's Standard of Living	36
Measure 15: Motivated Labor Force	38
The Fork in the Road for Dairy Farms	40
References	43
Appendix A: Feed Cost and Quantity Calculations	45
Appendix B: Projected Feed Costs Per Cwt of Milk Sold and Amount of Feed Needed for Dairy Cattle	48
Appendix C: Mission Statement Worksheet and Examples of Mission Statements	50

Introduction

These measures represent key characteristics of the most competitive dairy producers in the Midwest. Some dairy producers already exceed many of the measures. While a single dairy business is unlikely to meet all 15 measures, dairy producers who meet most of the measures are competitive with dairy producers anywhere in the world and enjoy a high standard of living.

First published in 1997, the 15 measures remain strong indicators of profitable, sustainable dairy businesses. As we reviewed and revised the measures, some competitive levels were adjusted to reflect current industry trends and realities. Overall, the measures continue to represent strong indicators of success in the dairy industry.

Some dairy businesses do not meet many of the measures. Without change, these producers will likely be exiting the dairy business within the next 10 years.

The 15 measures fall into 10 broad areas, which together provide a good view of the competitiveness of a dairy farm business. The 10 areas are:

1. Rate of production
2. Cost control
3. Capital efficiency
4. Profitability
5. Liquidity
6. Repayment schedule
7. Solvency
8. Mission
9. Maintain family's standard of living
10. Motivated labor force

Major problems in any one area can seriously limit the ability of a dairy farm to compete. We selected one or two measures in each area as indicators of how the farm is doing.





As a dairy producer, you should evaluate and analyze your farm from many viewpoints. Farms performing well in some areas may have serious weaknesses in others. Evaluating your farm from several different perspectives as you plan for the future ensures that your business is structured and managed for competitiveness and growth.

Following the complete listing of the 15 measures are pages describing each measure in detail. These pages explain each measure, tell how to compute and interpret it, and discuss the desirable range. We also suggest changes to help a dairy operation move into the desirable range.

Evaluating the profitability and sustainability of your dairy farm business based on only one or a few measures may or may not result in an accurate assessment. All of the areas represented by the measures are important to the long-term viability of a business — and are related to and influenced by each other. Look for those relationships in the discussion of each measure.

Many dairy producers do not have the desire or the resources to make the changes necessary to compete with the most competitive farms. Even when they have the desire, limited resources make some of these measures difficult for the average dairy producer to achieve. Producers who will not or cannot achieve the desired ranges may continue to operate and support a family for many years. However, primarily because of inflation, those who do not make changes to become or stay competitive in a constantly changing industry can expect a declining standard of living over time. They also run the risk of using up any equity they have built in their business over time.

Because competitiveness requires a commitment to constant improvement and change, these measures will continue to change over time. Dairy producers who want to stay competitive must continue to improve, modernize, and change.

Being competitive is more than having the right technology. For example, a dairy farm family with better-than-average management must increase the number of dairy cows on the farm by approximately 60% every 10 years to maintain the family's standard of living. Most of that increase is required to offset inflation. Short- and long-term decisions can greatly impact the ability of a dairy business to grow in the future.

Dairy farm income per cow has gone up slightly during the last 45 years, but the declining value of the dollar (inflation) has dramatically reduced what you can buy from the income from one cow. Historically, a dairy farm manager has needed to increase cow numbers by 50% every 10 years just to offset the impact of inflation. However, because more cows mean higher incomes and more income tax, farmers must increase cow numbers at least another 10% to pay the additional tax on the higher income.

Each farm, farm manager, and farm family is different. At the end of this publication in the section titled *The Fork in the Road for Dairy Farms*, we offer suggestions to dairy farm managers who:

1. Already are competitive
2. Want to become competitive
3. Would like to become competitive but cannot
4. Do not want to become competitive.

Gaining Control of Your Business

Business managers gain and retain control of their businesses one step at a time. Thinking that you can quickly change or improve all 15 areas at once is unrealistic. Frequently, it takes many little changes and perhaps several larger moves over months and even years to make a major change in a business. However, most dairy farmers should compare their operation with all 15 of these measures at least once per year. Farmers who want to maintain their operations in the long run must stay competitive.

Four broad steps for gaining control of your business are:

Step 1: Set a Goal

The first step in gaining control of any part of a business is to set a goal or a target. In some cases, one

or more of our 15 measures can serve as a target. In most cases, a manager will need to set a similar but different and more appropriate target for his or her specific business. Thinking you can quickly move to the level of the most competitive dairy farms in the country is unrealistic. However, setting goals higher than current performance and starting to improve your operation is both realistic and necessary.

Step 2: Collect Information

The second step in gaining control of a part of your business is collecting information to see how your farm compares with other dairy farms. Many producers would benefit from using a computerized year-end analysis program, such as the one used to compile the New York Dairy Farm Business Summary, the Northeast Dairy Farm Summary, or FINBIN





Summaries maintained by the Center for Farm Financial Management at the University of Minnesota.

The FINAN program, one of the FINPACK programs supported by the Center for Farm Financial Management, is used by Extension in Ohio and 30 other states to make such calculations. The FINAN will calculate most of the financial ratios listed in the 15 measures. The records needed to complete a FINAN are beginning-of-the-year and end-of-the-year balance sheets, performance information, and cash records with accrual adjustments. If you use FINAN for several years, you can easily see and evaluate business trends over time.

Step 3: Monitor Your Progress

The third step in gaining control of a part of your business is monitoring your progress — that is, comparing how you are doing with your goals. You should make this comparison while the information is still timely. Finding out today that the ration you were feeding six months ago caused a major drop in production is not very meaningful. However, you may need to calculate the debt to asset ratio only once per year if your operation does not undergo any major financial changes.

To see how monitoring works, consider this example:

The management team sets a goal of lowering the operating expense ratio (Measure 4) to no more than 70%. First, a budget should be developed to meet the goal. Next, someone should measure income and expenses regularly (probably monthly) throughout the year. If either factor changes, the team should take corrective action in time to keep the expense ratio in line. If the person collecting the information is not a manager, he or she should report the information to a designated member of the management team.

A key, yet often overlooked, management issue is: Who is responsible for setting the goals (Step 1), collecting the information (Step 2), and comparing progress against the set goals (Step 3)? Frequently, different people will set goals, collect information, and monitor different parts of the business. Important questions are: Does someone have the responsibility for performing each of these steps for the goals? How often is this person to do it? With whom are they to share the information? What is this person to do if they find a major problem? Management must ensure that someone is responsible and follows through!

Step 4: Take Corrective Action

The fourth and most important step is taking the appropriate corrective action, if needed. If the business is meeting a goal, no action is required unless the goal is too low. If the business is exceeding a goal, action may still be necessary. If the goal is exceeded because of desirable behavior by one or more people in the business, management may want to praise and reward those who helped exceed the goal. Management also may want to consider whether the goal is too low, but management must be careful not to discourage high performers by raising the goal and “rewarding” high performance with even higher expectations.

If the goal is not met, management should do one of two things — consider if the goal is too high and needs to be re-evaluated, or take corrective action based on why the goal was not met. Taking corrective action includes identifying problems and implementing the necessary steps to remedy the situation. Managers who make things happen are able to identify the cause of a problem, then solve it. They usually ask “Why?” until they fully understand a problem. Then they entrust someone to solve the problem.

The 15 Measures

Measure

Competitive Level

Rate of production

1. Pounds of milk sold per worker (p. 10)	Tie Stall	Free-stall parlor
Large Breed	≥ 600,000	≥ 1,000,000
Small Breed	≥ 450,000	≥ 750,000

Cost Control

2. Total feed cost per cwt of milk sold (p. 12)	≤ \$7.00 per cwt with replacements ≤ \$5.00 per cwt without replacements
3. Milking herd feed cost per cwt of milk sold (p. 14)	≤ \$4.75 per cwt
4. Operating expense ratio (OER) (p. 16)	≤ 70%

Capital Efficiency

5. Dairy investment per cow (p. 18)	≤ \$7,000 per cow
6. Asset turnover ratio (ATR) (p. 20)	≥ 0.60

Profitability

7. Net farm income (NFI) (p. 22)	≥ \$130,000 per owner/operator family
8. Rate of return on farm assets (ROA) (p. 24)	> loan interest rates

Liquidity

9. Current ratio (CR) and working capital (WC) (p. 26)	CR 1.5 to 2.5 WC Positive and stable
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Repayment Schedule

10. Scheduled debt payment (p. 28) (principal, interest, and capital lease)	≤ 15% of gross receipts ≤ \$500 per cow
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Measure	Competitive Level
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Solvency	
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- | | |
|---------------------------------------|--|
| 11. Debt to asset ratio (D/A) (p. 30) | ≤ 40% |
| 12. Debt per cow (p. 32) | ≤ \$2,500 if not expanding
≤ \$3,500 during expansion |

Mission	
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- | | |
|--|---------------------------|
| 13. The management team agrees on why they are in business (p. 34) | Written mission statement |
|--|---------------------------|

Maintain Family's Standard of Living	
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- | | |
|--|---------------------------------------|
| 14. Owner/operator(s) maintain or increase their standard of living by continual change to adopt proven technology, capture economies of size, or market opportunities so that the family(ies) supported by the business can maintain their standard(s) of living. (p. 36) | Maintain standard of living over time |
|--|---------------------------------------|

Motivated Labor Force	
-----------------------	--

- | | |
|--|--|
| 15. Managers use personnel management practices that lead to well-trained, enthusiastic, and empowered family members and employees who share a commitment to the mission and goals of the business. (p. 38) | |
|--|--|

Measure 1

Rate of Production

Pounds of Milk Sold per Worker

Competitive Level:

	Tie Stall or Stanchion	Free-Stall Parlor
Large breed	≥ 600,000 pounds per worker	≥ 1,000,000 pounds per worker
Small breed	≥ 450,000 pounds per worker	≥ 750,000 pounds per worker

Calculation:

Total pounds (lb) of milk sold
 ÷ full-time worker equivalents (FTE)

Example:

8,500,000 lb milk sold
 ÷ (20,000 hours/2,500 hr)
 = 1,062,500 pounds milk sold per worker

The increasing cost of labor, combined with its impact on the overall cost of production, means a dairy manager needs to measure, evaluate, and monitor labor efficiency. An excellent way to accomplish this is by calculating the pounds of milk sold per full-time worker. This efficiency factor combines labor efficiency and dairy herd productivity into a single indicator.

The calculation of this measure is significantly influenced by your definition of an FTE. In Ohio, an FTE is often defined as an adult who works 50 hours per week for 50 weeks (allowing for two weeks of vacation). This translates into 2,500 work hours for each FTE. It is vital that you include all paid and unpaid labor in this calculation. Smaller dairy farms are more likely to have at least some unpaid family labor from a spouse, children, or the operator who likely works more than 2,500 hours per year. *When analyzing and comparing your farm to other benchmark data, it is important to determine how the reporting agency defines a full-time worker.*

To calculate this measure:

1. Calculate total FTE on the farm per year. Divide total hours of paid and unpaid labor for producing your dairy's feed crops and for operating the dairy herd by 2,500.
2. Divide total pounds of milk sold by total FTE per year. Total pounds of milk sold should be taken from the milk checks. Herd average figures from dairy record systems are not an accurate reflection of milk sold because they include fresh cow milk, milk discarded from treated cows, and milk fed to calves. The pounds of salable milk fed to calves should be added to pounds of milk sold to reflect total potential milk sales.

Pounds of milk sold per worker is an important tool for evaluating the productivity of workers and cattle. It combines efficient labor utilization with good to excellent herd production. *If all feed is purchased, the general rule is to double these benchmarks.*



Because free-stall parlor systems can handle more cows, these systems allow more pounds of milk per year per worker than tie stall or stanchion systems. Tie stall or stanchion barns entail considerably higher costs per cow than large, modern free-stall facilities. The combination of lower investment per cow and more efficient labor utilization make free-stall parlor systems much more economical, because they generally result in lower costs for producing each unit of milk. However, existing tie stall or stanchion facilities may be able to compete with free-stall parlor systems if the operation carries little or no debt.

Fewer pounds of milk per worker will likely be sold per year for small vs. large breed herds, but the value of the milk sold per year may be similar under similar management systems. This can occur because of the higher value per cwt of milk for the small breeds of dairy cattle (milk is higher in concentration of fat and protein). However, because the value of milk sold is affected by milk price fluctuations, it is not very useful for measuring labor productivity trends over time.

If the pounds of milk sold per worker is below the competitive level:

1. **Evaluate herd productivity.** To achieve the desired level of pounds of milk sold per worker, cows will most likely need to be above average in production for their breed. Many competitive farmers implement strategies to increase herd productivity. Some strategies include feeding balanced rations, optimizing cow comfort, using proven milk production technologies, filling facilities to above 100% of capacity, and milking more than two times per day.
2. **Evaluate labor efficiency.** Antiquated facilities and uncomfortable working conditions reduce labor efficiency. Careful hiring also plays an important role in labor efficiency. Employee training, motivation, and pride in doing a job well help workers to be more efficient and effective, whether they are family members or unrelated employees. Workers in tie stall or stanchion systems should be able to handle 30 to 35 cows per FTE, including raising crops. Workers in free-stall systems should be able to handle 40 to 50 cows per worker.
3. **Apply the four steps in the *Gaining Control of Your Business* section in the *Introduction*.** Set a realistic goal, collect information for your own business, compare your business with the goal, and take appropriate corrective action, if needed.

Measure 2

Cost Control

Total Feed Cost per Cwt of Milk Sold

Competitive Level:

- A. Less than or equal to \$7.00 per cwt, if replacements are raised on the farm.
- B. Less than or equal to \$5.00 per cwt, if replacements are custom raised.

Note: Feed costs per cwt of milk sold can be quite variable among farms. See Appendix B for further illustration of this potential variability.

Calculation:	Example for A:
A. Total costs of feeds fed to all dairy cows (lactating and dry) and replacement heifers ÷ total cwt of milk sold (for the same time period)	$\begin{array}{r} \$ 308,000 \text{ purchased feed} \\ + \$ 270,000 \text{ homegrown feed} \\ \hline = \$ 578,000 \text{ total feed} \\ \div \frac{85,000 \text{ cwt of milk}}{= \$ 6.80 \text{ feed cost per cwt of milk sold}} \end{array}$
B. Total costs of feeds fed to all dairy cows ÷ total cwt of milk sold (for the same time period)	

Total feed costs per cwt of milk sold is a measure of the effectiveness of management in controlling the largest cost item in producing milk. This measure accounts for all of the feed provided to the lactating cows, dry cows, and heifers since the sale of milk is the primary revenue stream for paying for all feed expenses. Generally, 65% of the feed costs for a dairy herd that raises its own replacements will be for the lactating cows, 30% for the heifers, and 5% for the dry cows. We suggest using the market value for homegrown feeds fed to livestock. Feed harvested by the cows or heifers from pasture can be valued based on the value of hay. Using the market value will give you a clearer picture of the competitiveness of your dairy enterprise.

Many dairy farmers can purchase feed more cheaply than they can raise it. In Appendix A, we discuss

how to calculate the cost of producing your feed. Comparing feed production costs with market prices will help you evaluate the efficiency of your cropping program.

The New York Farm Business Summary uses cost of cash crop inputs to represent homegrown feed costs, but this calculation does not include machinery costs. For this analysis, calculate all machinery costs and allocate a portion to the crops used as dairy feed.

Reducing cash outlay for purchased feed is not necessarily a good way to reduce feed costs. Homegrown feed is sometimes more expensive than purchased feed. If purchased feed costs per cow are kept too low, milk production may be less than optimal, and total feed cost per cwt of milk sold may still be high.



When you use market price or purchase most of your feed, feed costs will fluctuate with market prices. Table A in Appendix B shows how feed costs vary with different corn and hay prices. Use this table to help set a more realistic feed-cost goal when feed prices are unusually high or low and a goal of \$7.00 per cwt of milk sold is not appropriate.

If feed cost is above \$7.00 per cwt of milk sold:

If you have followed the principles in the section on *Gaining Control of Your Business* in the *Introduction* and find you are not meeting your feed cost goals, consider these actions:

1. Produce or purchase quality forages for all cattle. You cannot afford to feed poor-quality forages. However, quality of feed should be appropriate to the animal's nutritional needs. High producing cows need the highest-quality forage. That same quality would be wasteful for gestating heifers or dry cows.
2. Frequently balance rations for all groups based on current feed analyses.
3. Keep crop production input costs low by using manure nutrients, testing soil, and purchasing carefully.
4. Keep purchased feed costs low by careful purchasing (*e.g.*, feed commodity contracting) and efficient use of feed.
5. Keep crop equipment costs per acre low by using custom operators, purchasing expensive machinery with neighbors, or purchasing feeds.
6. Feed for high production if cows have the genetic ability and you have adequate facilities.
7. Keep dry periods below 60 days.
8. Keep culling rates at 30% or less by managing reproduction and herd health to reduce replacement costs.
9. Keep age at first calving between 22 and 24 months to reduce costs per replacement animal.
10. Investigate for management areas other than feed that may be limiting milk yield such as housing, mammary health, disease, etc.
11. Reduce feed losses from storage, losses during mixing and delivery, and refusals at the feed bunk.

Farms can simultaneously have low feed costs per cow and extremely high feed costs per cwt of milk sold. This is frequently a result of feeding poor-quality forage and/or not balancing the ration for optimal production, resulting in low production. Also, errors in feed mixing and delivery can have adverse effects on milk production and feed costs. Feed tracking software for TMR mixers can help monitor accuracy of feed weighing and delivery.

Total feed costs will also be influenced by how calves and heifers are reared. Longer milk-feeding periods and feeding for higher rates of gain in the pre-weaned period will increase costs while restricted milk feeding and early weaning will decrease total costs. However, overall health and performance must be considered as well as the targeted age at first calving when calf-raising strategies are considered.

Measure 3

Cost Control

Milking Herd Feed Cost per Cwt of Milk Sold

Competitive Level:

Less than or equal to \$4.75 per cwt

Note: Feed costs per cwt of milk sold can be quite variable among farms. See Appendix B for further illustration of this potential variability.

Calculation:

Total costs of feed fed to lactating cows
÷ total cwt of milk sold (for the same time period)

Example for Annual Costs:

\$200,000 purchased feed
+ \$176,000 homegrown feed
= \$376,000 total feed cost

÷ 85,000 cwt of milk
= \$4.42 milking herd feed costs per cwt milk sold

To quickly evaluate feed cost control or to find out if a more detailed analysis of feed costs is necessary, calculate the milking herd feed cost per cwt of milk sold using current market prices for all feeds fed.

1. For a day, measure the quantities of each feed (including purchased and homegrown) fed to lactating cows. Include all vitamins, minerals, and supplements.
2. Multiply the feed quantities by current market prices to arrive at the cost of feed per day.
3. Divide the cost of feed per day by the cwt of milk sold per day.

Factors affecting feed costs per cwt:

1. Level of milk production
2. Current market prices of feeds
3. Quality of forages fed and the effect on purchased feed inputs

4. Whether or not the ration is balanced
5. Feed losses from storage, handling, and refusals at the feed bunk
6. Culling rate from the herd
7. Length of calving interval.

If feed costs are above the desired level, consider these actions:

1. Check forage quality and improve it if necessary.
2. Make sure the ration is balanced and cows are eating what you think they are eating.
3. Make sure the ration is balanced for a reasonable level of production.
4. Check the cost of ingredients and make changes to cut costs without lowering production.



5. Eliminate causes of low production, such as poor cow comfort, mastitis, and poor feed bunk management.

Feed costs fluctuate with the market price of the feeds. Table C in Appendix B shows how milking herd feed costs vary with different corn and hay prices. Use this table to help set a more realistic feed cost goal when feed prices are unusually high or low and a goal of \$4.75 per cwt of milk sold is not appropriate.

Additional Discussion on Calculating Feed Cost Measures

In addition to assessing feed costs per cwt of milk, additional methods for assessing feed costs are useful. Total feed costs for the herd as a percentage of milk income should be 30% or less. Feed costs for lactating cows usually range from \$0.06 to 0.08/lb of dietary dry matter (DM), and thus the cost per cow per day will then depend on DM intake. Feed cost per cwt of milk

does not take into account the value of the milk, which will depend on its protein and fat composition (plus some quality indicators), and the feeding program influences the fat and protein concentration in milk.

Therefore, monitoring income over feed costs (IOFC) is important. The goal for IOFC for the milking herd is to be > \$6.00/cow/day.

Feed efficiency on dairy farms affects IOFC. One common method to calculate feed efficiency is: 3.5% fat-corrected milk (FCM, lb) / DM intake (lb). The equation for calculating 3.5 FCM (lb) = (0.432 x lb milk) + (16.23 x lb milk fat). The desired range for this feed efficiency is 1.4 to 1.6. Our goal is usually to increase DM intake, but if the intake increases without a response in milk yield, then some other positive response (for example, improved body condition) should be occurring or the increase in feed costs is not making an economic return.

Measure 4

Cost Control

Operating Expense Ratio (OER)

Competitive Level:

Less than or equal to 70%

Calculation:

(Total cash operating expenses - farm interest expense)
 \div gross farm income \times 100

Example:

\$ 1,088,000 expenses
 - \$ 52,000 interest
 = \$ 1,036,000 total operating expenses

\div \$ 1,450,000 gross farm income
 = 0.71

\times 100
 = 71% operating expense ratio

This ratio indicates the percentage of the gross farm income used to pay operating expenses. Expenses, not including interest, should be less than 70% of the gross farm income of a dairy business. When the percentage is lower, more money is available for loan payments (principal and interest), family living, improvements, and savings.

Take total cash operating expenses directly from Form 1040, Schedule F for the year being analyzed. These represent cash expenses that may or may not include all of the expenses incurred for production of milk in the year being analyzed. Make these (accrual) adjustments as needed:

1. Subtract the depreciation expense from Form 1040.
2. Subtract expenses that were prepaid for future production.

3. Add expenses that were prepaid in the previous tax year for items that were used to produce milk in the year being analyzed.
4. Add expenses for items that were used to produce milk but were not included on the Form 1040. This would include unpaid bills.
5. Subtract any expenses that were paid in the year being analyzed for items used in previous production years.

Gross farm income includes cash farm income adjusted for changes in inventories from year to year. If for example, you have the same number of livestock in one year as the previous year, except for five additional springing heifers worth \$10,000, add this \$10,000 to gross farm income. If you have \$20,000 less feed on hand than in the previous year, reduce gross farm income by \$20,000.



Farm interest expense includes all interest expenses reported on Schedule F.

If the operating expense ratio is lower than 70%:

Low expenses are desirable only if production and income do not suffer. If expenses are below 70% and production per cow is above that for similar animals, great!

If expenses are low, income is low, and cash flow is tight, the business may not be large enough to generate sufficient income or debt may be high. Look first at other ratios that measure output and volume of business. The business also might have too much debt, since principal and interest payments are not included in operating expenses. Check the current ratio and the debt-to-asset ratio for clues about excessive debt.

If the operating expense ratio is higher than 70%:

An operating expense ratio above 70% may reflect high expenses, low income, or both. The largest single expense on most dairy farms is feed. Make sure that feed costs per cwt of milk sold are reasonable. Are other expenses out of line or reported in the wrong year?

Another reason for the operating expense ratio to exceed 70% is low gross farm income. Look at the asset turnover ratio, milk sold per worker, and perhaps the farm's investment per cow for clues as to whether gross farm income is too low or the farm is too small.

Measure 5

Capital Efficiency

Dairy Investment per Cow

Competitive Level:

Less than or equal to \$7,000 per cow

Calculation:

Total dairy investment ÷ number of cows (lactating and dry)

Example:

$$\begin{array}{r} \$2,500,000 \text{ total dairy investment} \\ \div \quad \quad \quad 340 \text{ cows} \\ \hline = \$ \quad 7,353 \text{ investment per cow} \end{array}$$

Total dairy investment is the total current market value of all dairy assets. These assets should only include land used for raising livestock feed, pasture, livestock buildings, feed storage, manure disposal, livestock machinery, milking equipment, cows and replacements, and other investments related to the dairy enterprise.

This ratio indicates how efficiently the money on a dairy farm is invested. Excessive investment per cow makes receiving a high return on the dollars invested difficult. If investment per cow is greater than \$7,000, also look at the asset turnover ratio (Measure 6), return on farm assets (Measure 8), and debt per cow (Measure 12). If the business is generating a high return on assets and is not carrying excessive debt per cow, a higher investment per cow is manageable. If this is not the case, when investment per cow is high, your dollars are not working hard enough to generate dairy income.

If dairy investment is more than \$7,000 per cow:

The first question to answer is: What is out of line? Is the investment too high? Is the number of cows too

low? Or both? High investment per cow may stem from a number of causes including:

1. High-priced land
2. Overbuilt facilities
3. Large number of owned acres per cow
4. New or overpriced machinery
5. New or overpriced facilities
6. Some combination of the above.

In Ohio, some farms have land that is now worth much more for non-agricultural uses than the agricultural value that the owners originally paid. If the farm is profitable and they wish to continue their dairy business on this land, we suggest assigning a reasonable agricultural value to the land for these calculations. If high-priced land was recently purchased at a nonagricultural value **and** the cows are expected to pay for the land, use the purchase price for the land for this calculation.



Lowering investment is difficult. Rationalizing why investment is more than \$7,000 per cow is easy; however, you should address the problem because your dollars are not working hard enough. The usual solutions to high investment per cow include:

1. Restraint on future investment
2. Increasing cow numbers without further increases in investment
3. Trading a farm in a high-value area for a larger farm in a lower-value area

4. Leasing assets instead of purchasing them
5. Selling unproductive assets

The number of cows is too low if the facilities are not full. Filling the barns with high-producing cows almost always pays. Many competitive farmers fill their buildings above 100% of capacity.

Sometimes it is possible to increase cow numbers by making alternate arrangements for the care and housing of dry cows and replacement heifers. What would it take to increase the number of cows on your farm by 10%?

Measure 6

Capital Efficiency

Asset Turnover Ratio (ATR)

Competitive Level:

Greater than or equal to 0.60

Calculation:

Gross farm income ÷ average total farm assets

Example:

$$\begin{aligned} & \$1,450,000 \text{ gross farm income} \\ \div & \underline{\$2,400,000 \text{ average total farm assets}} \\ = & 0.60 \text{ ATR} \end{aligned}$$

The ATR measures the efficiency by which all farm assets generate revenue. The higher the ATR, the more efficiently assets generate revenue.

Gross farm income includes cash farm income adjusted for changes in inventories from year to year. If for example, you have the same number of livestock in one year as the previous year, except for five additional springing heifers worth \$10,000, add this \$10,000 to gross farm income. If you have \$20,000 less feed on hand than in the previous year, reduce gross farm income by \$20,000. Average total farm assets is the average of the total farm assets at the beginning and at the end of the year.

Farms that should have a higher ATR are those that rent their facilities or that rent some or all of the land that they might use to grow crops. Farms with greater investments in land or very expensive land and/or facilities usually have a lower ATR. It is up to the individual dairy business to determine if the return the business is generating is acceptable relative to the investment in these assets.

If the asset turnover ratio is below 0.60:

The first question to answer is: What is out of line? Are the gross revenues too low, are average total farm assets too high, or are both causing problems? On dairy farms, the quantity of milk sold and the milk price impact gross revenues most significantly. If milk production per cow is normal, herd size is adequate, cull and other sales are normal, and milk prices are not depressed, then the problem may be with total farm assets

Many dairy farmers commonly tie up more money in their farms than is necessary to run them. For example, due to large investments in land and large equipment, grain farmers usually have a lower ATR than dairy farmers. Some dairy farmers could increase their net incomes and their ATR by reducing the acreage of crops they raise and better managing the dairy enterprise. Building new facilities, such as parlors larger than herd size dictates, can cause low ATR. Once built, only generating more income relative to the investment will change the ATR.



Another factor that can cause a low ATR is high-priced land. The value of some dairy farmers' land has increased significantly as a result of urban and other development pressures. Higher land values reduce ATR. If the cows are not being asked to pay for the high-priced land (the land was purchased before land prices increased), the dairy operator may be satisfied with a lower ATR as long as the farm is profitable and meeting other goals.

Most people do not like to move their businesses. This reluctance, along with the desire to hold on to the property until the price goes higher, causes some farm businesses to stay on high-value farms when perhaps they should not. If the farm family has adequate income to live on and the land is appreciating enough to justify continued ownership, then a low ATR may be acceptable. However, a business struggling to pay the bills and provide for family living should strongly consider cashing in or trading the farm.

If asset levels are reasonable (see Measure 5, dairy investment per cow), production issues may be causing a lower ATR. Many competitive farmers adopt new management practices, overfill their facilities, and milk more than two times per day to reap the most profit from their investments.

FINPACK uses a different method of computing ATR than the New York Farm Business Summary (NYFBS). Both methods are acceptable, but they give different results. The NYFBS uses the gross revenue approach based on gross farm income as shown in the previous example. FINPACK uses the value of farm production method, which results in lower ATR. FINPACK users who want to compare with this measure should calculate their ATR manually using the formula provided in this section.

Measure 7

Profitability

Net Farm Income (NFI)

Competitive Level:

At least \$130,000 per owner/operator family

Calculation:

(Cash receipts
± inventory change
- expenses
- depreciation)
÷ number of owner/operator families

Example:

\$ 1,390,000 cash receipts
+ \$ 60,000 inventory change
- \$ 1,088,000 expenses
- \$ 50,000 depreciation
= \$ 312,000 NFI

÷ 2 owner/operator families
= \$ 156,000 NFI per family

The NFI is one of the best measures of how a dairy farm is doing. It typically represents the return to labor and management for the owner/operator. The competitive level of \$130,000 per owner/operator family does not mean that the family will withdraw \$130,000 from the business for family living expenses. Part of the NFI will be withdrawn for reasonable family living and retirement savings. The NFI must also be used for making principal payments on loans, paying taxes, and reinvesting in the business.

Calculating NFI requires working with a year's receipts, expenses, inventories, and depreciation. Receipts, expenses, and depreciation can be obtained from the business's tax return. These cash-based figures must be adjusted to represent all the income generated and all of the expenses that were incurred for the production in the year being analyzed. If the farm uses an accrual accounting system, these adjustments are not necessary.

Inventory change requires comparing inventory at the beginning and end of the year. Inventory items include grain, feed, livestock, prepaid expenses, and accounts receivable and payable. An item's inventory change equals the item's ending inventory value minus its beginning inventory value.

Inventory increases for grain, feed, livestock, and prepaid expenses are added to income while inventory decreases are subtracted from income. If accounts payable increase, the amount of the increase is subtracted from income. If accounts payable decrease, the amount of the decrease is added to income. If accounts receivable increase, the increase is added to income, but a decrease is subtracted from income. Computer programs, such as FINAN, or paper systems, such as the Agricultural Financial Reporting and Analysis, are helpful for calculating NFI.



For a business to be competitive, its NFI must, in most years, considerably exceed the amount needed for a good family living. In years when it is not, only the most urgent obligations are met. Most competitive operators routinely reinvest in the business, maintaining and upgrading facilities to increase efficiency. However, diversifying into savings and off-farm investments are also good strategies to consider.

The NFI of the top 10% of farms in the New York Dairy Farm Business Summary in 2005 was \$648,814 per farm. However, these top farms had an average of 1.91 owner/operators, which leads to a NFI of \$339,693 per owner/operator (family). Average herd size was 730 cows. Personal withdrawals were approximately \$176,000 per farm or \$93,000 per owner/operator; thus, the remaining NFI for these top farms was approximately \$473,000 per farm or \$249,000 per owner/operator. Farms with that much surplus income have a tremendous advantage in positioning themselves to become even more competitive.

If net farm income is below the competitive level:

Having low farm income may be a result of:

1. Productivity problems — per cow returns are low
2. Size problems — the farm does not have enough cows
3. High debt per cow (Measure 12)
4. Expenses are too high (Measures 2, 3, and 4).

If you are not meeting your income goals, consider these actions:

1. Increase returns per cow. You can accomplish this by reducing costs per cow, especially feed costs, or increasing production per cow.
2. Sell off under-used assets and pay down debt.
3. Expand the number of cows, if you are in the financial and managerial position to do so.
4. Find lower-cost ways of running the business.

Off-Farm Income

Obtaining off-farm employment may increase family income, but it does not increase NFI. While it may provide a temporary fix, it does not address the underlying reasons NFI is not satisfactory.

Measure 8

Profitability

Rate of Return on Farm Assets (ROA)

Competitive Level:

Greater than loan interest rates

Calculation:

(Net farm income + farm interest expense
- value of operator's labor and management)
÷ average total farm assets x 100

Example:

\$	312,000	net farm income
+ \$	52,000	interest expense
- \$	150,000	value of operators' labor and management
= \$	214,000	return to assets
÷ \$	2,400,000	average total farm assets
=	0.089	
x	100	
=	8.9%	ROA

The ROA is useful for determining what the assets invested in your operation earned. The higher the ROA, the more profitable the farming operation. If you use current market values to determine the worth of your assets, you can use the ROA to compare your earnings to those of other businesses for the same time period. The ROA also represents the opportunity cost of having your assets invested in the dairy business as opposed to investing in another business or other investment opportunity that might generate a higher or lower return.

See Measure 7 for instructions on calculating net farm income and #3 on page 25 for calculating the value of the operator's labor and management.

Factors affecting rate of return on farm assets:

1. How assets are valued
2. Profitability of the farm business
3. Level of owner withdrawals for unpaid labor and management
4. Amount of unproductive or marginally productive assets
5. Whether assets are owned or leased.



Let's discuss these five factors in more detail:

1. You may use either a cost basis or market basis balance sheet to compare the performance of your business from year to year. Most farmers and lenders use a market value balance sheet. If you use a market value balance sheet, you should hold the values of your intermediate and long-term assets constant from year to year to eliminate the impact of simply changing asset values. Using a cost basis measures the performance of your farm, unaffected by changing asset values, as well as the return on dollars invested. However, a ROA calculated on a cost basis is difficult to compare with the ROA of other businesses.

Because farm interest expenses are added to net farm income, rate of return on farm assets is not affected by level of debt or how debt is structured in the farm business. Thus, you can fairly compare actual business performance of both high- and low-debt operations.

2. Return on assets will decline during years of declining profitability. If profitability is always low, then the farm manager must look at ways to increase profitability. The ROA should be higher than the interest rate on borrowed money. If interest rates are higher, then other parts of the business are subsidizing the interest payments for any new or existing debt. It is not unusual for other parts of the farm operation to subsidize land investments, as land typically has a low rate of return.

3. In Ohio State University enterprise budgets, the value of owner withdrawals for unpaid labor and management is budgeted at \$12.00/hour, plus 5% of the gross dairy income as a management charge. The ROA may be overstated if owner withdrawals are lower than this, perhaps supplemented by off-farm income. Farms set up as corporations would not subtract a labor and management charge because these are already deducted from net farm income as salaries.
4. If a business has a large investment in unnecessary and/or unproductive assets, ROA may be low. In these situations, the farm manager needs to inventory these assets carefully and determine if the business could be more profitable if the dollars those assets represent were reinvested in other ways.
5. Farms leasing/renting the farm and/or other major assets may show a higher ROA; however, they will have higher operating expense ratios.

The *New York Farm Business Summary* also deducts a charge for other unpaid labor from net farm income in addition to unpaid operator labor. However, unless a dairy operation has large amounts of unpaid labor, this deduction will not significantly affect the resulting ROA calculation.

Measure 9

Liquidity

Current Ratio and Working Capital

Competitive Level:

Current ratio (CR) = 1.5 to 2.5

Working capital (WC) is positive and stable

Calculation:

Current ratio

$$\begin{aligned} &= \text{current farm assets} \\ &\div \text{current farm liabilities} \end{aligned}$$

Working capital

$$\begin{aligned} &= \text{current farm assets} \\ &- \text{current farm liabilities} \end{aligned}$$

Example:

Current ratio:

$$\begin{aligned} &\$ 300,000 \text{ current assets} \\ &\div \underline{\$ 173,000 \text{ current liabilities}} \\ &= 1.73 \end{aligned}$$

Working capital:

$$\begin{aligned} &\$ 300,000 \text{ current assets} \\ &\underline{- \$ 173,000 \text{ current liabilities}} \\ &= \$ 127,000 \end{aligned}$$

Liquidity is a measure of the farm business' ability to pay obligations due in the coming year from the cash on hand and assets that can easily be turned into cash. Liquidity is often measured using the current ratio. This ratio is an indicator of the ability of the current farm assets, if liquidated, to cover current liabilities. A current ratio of 1.5 indicates that there are \$1.50 worth of current assets for every dollar of current liabilities. The higher the ratio, the greater the liquidity. The ratio is also an important indicator of short-term financial viability. Another measure of the farm's liquidity is working capital. Working capital is the difference between the value of the farm's current assets and current liabilities.

Current assets normally are converted to cash or can easily be converted to cash during the year (*e.g.*, cash, stocks, bonds, feeder livestock, accounts receivable, prepaid expenses, and inventories such as feed and supplies.)

Current liabilities are financial responsibilities that will fall due within one year of the date of the balance sheet (*e.g.*, accounts payable, operating loans, the principal portion of scheduled loan payments, and accrued expenses).

A farm business must be able to pay its current obligations and have a cushion for unexpected cash shortfalls. Cash shortfalls may occur because of disease outbreaks, lower than expected milk production, lower milk prices, higher input prices, or a combination of these factors. A current ratio above 1.0 indicates that a farm has more current assets than current liabilities. A competitive dairy farm must pay its bills and keep its bank obligations up-to-date.



If the current ratio is low:

A persistently low current ratio indicates a major cash flow problem. Strategies to improve the farm's current ratio include:

1. Refinancing existing debt with longer repayment terms
2. Selling nonessential intermediate or long-term assets (*e.g.*, machinery and investments). Use proceeds to reduce debt or improve the efficiency of the dairy business.
3. Increasing the farm's revenue or decreasing expenses, focusing on profitability

A low current ratio may be the result of a lender extending non-mortgage credit as a current liability. On some farms, large pieces of equipment, such as large balers, choppers, or combines, are financed for three years or less. This strategy results in ratios substantially lower than 1.0 for some farmers. Cash flow is typically very tight. This is not problematic as long as the farm is profitable enough to make the payments, meet their other financial obligations, and the lender continues to extend credit.

Extending non-mortgage credit gives the lender more control over the loan — and the farm. These loans usually are reviewed and renewed at least annually. This large line of credit causes some farmers problems when they have bad years, and their lenders will not extend additional credit. Also, other lenders may consider the farm a high risk because of its poor current ratio. A low current ratio is usually a minor problem when the farm is profitable and the debt-to-asset ratio is well below 40% (Measure 11). However, this is not a long-term answer but rather a short-term fix.

If the current ratio is high:

High current ratios indicate surplus cash. Current assets usually generate lower returns than other assets. If your current ratio is high, consider investing in assets with higher returns.

Working Capital

Working capital is another way to evaluate the farm's liquidity and is a measure of the margin of safety in dollars, rather than as a ratio, of the farm's ability to meet short-term liabilities. The amount of working capital that is adequate is dependent upon the size and scope of the farm business. However, a common recommendation for farms is 25% of expenses. To reach this figure, many farms combine both their working capital and access to a line of credit.

The farms combining their working capital and a line of credit may experience a low current ratio since non-mortgage credit is classified as a current liability. This will result in ratios substantially lower than 1.0 for some farmers when the line of credit is in use. This is not problematic as long as the business is profitable and the lender continues to extend credit.

Measure 10

Repayment Schedule

Scheduled Debt Payment

Competitive Level:

- A. Less than or equal to 15% of gross receipts
- B. Less than \$500 per cow

Calculation:	Example for A:
A. ((Total annual scheduled principal payments + total annual scheduled interest payments + total scheduled capital lease payments) ÷ gross farm receipts) x 100	\$ 158,250 scheduled principal payments + \$ 52,000 scheduled interest payments + -0- capital lease payments = \$ 210,250 total debt payments
B. (Total annual scheduled principal payments + total annual scheduled interest payments + total scheduled capital lease payments) ÷ number of cows (lactating and dry)	÷ \$ 1,450,000 gross farm income = 0.145 <u>x 100</u> = 14.5% of gross receipts

Almost all businesses manage debt. Scheduled annual debt payments as a percentage of gross farm receipts is a good measure of competitiveness. Some debt can allow a business to take advantage of opportunities that enhance profitability. Too many scheduled principal, interest, and capital lease payments seriously affect the ability of a business to meet cash obligations, have enough left to provide desired operator income, and reinvest in the business.

If the operating expense ratio (Measure 4) which measures how much of the gross farm income is committed to paying operating expenses is 70%, and the scheduled debt payment is 15%, then 85% of the farm's gross income is committed to paying operating expenses, principal, interest, and capital

lease payments. This leaves no more than 15% of gross income available to pay taxes and to provide operator income, operator retirement investment, and dollars for reinvestment back into the business or investment off the farm.

Total scheduled principal and interest payments used in this calculation do not typically include accounts payable within the next 30 days. Other open accounts that are kept current even if the payment is due in more than 30 days, such as an annual land rent payment, would also not be included. However, accounts payable must be considered if they are open and balances are building up because the business is unwilling or unable to pay them. How will the farm pay these balances?



One option is to commit to paying them over the next 12 months on a self-imposed payment plan. The other is to amortize the accounts payable into one or more longer-term notes with scheduled principal and interest payments. If the farm must follow this strategy, it can allow the farm to pay a lower interest rate than is typically charged on open accounts. However, this means the farm has incurred debt for operating expenses, not debt that helped the farm become more efficient or productive. The farm must carefully evaluate how/why it got into the position of accruing unpaid balances and determine how it should change the business to minimize the possibility of this happening again.

Factors affecting scheduled annual debt payment:

1. Total farm debt
2. How debt is structured (short, intermediate, or long term)
3. Interest rates
4. Gross farm receipts.

If the scheduled annual debt payment is too high:

When scheduled debt payments are too high and cause difficulties in the farm business, a manager must first determine why they are too high and causing difficulty. Once the cause or causes are determined, then a farm manager must explore options and finally take action. If the business has significant short-term debt, rescheduling some of that debt over a longer (but realistic) term will decrease annual payments. If currently available interest rates are lower than those you are paying, refinancing is also an alternative worth investigating.

Reducing total debt through sale of unused assets or carefully planning, controlling, and spreading debt over more cows are also options. However, any alternative will only be successful if the business is profitable.

In some cases, when money is borrowed for an expansion, annual debt payments as a percentage of gross receipts decreases even though total debt increases.

Measure 11

Solvency

Debt to Asset (D/A) Ratio

Competitive Level:

Less than or equal to 40%

Calculation:

$(\text{Total farm debts} \div \text{total farm assets}) \times 100$

Example:

$$\begin{array}{r} \$ 850,000 \text{ debt} \\ \div \$ 2,500,000 \text{ assets} \\ = 0.34 \\ \times 100 \\ = 34\% \text{ D/A} \end{array}$$

Solvency is a measure of the ability of a business, at a point in time, to meet all debt obligations following the sale of all assets. This is measured by the D/A ratio. The D/A ratio increases as the business incurs greater levels of debt and decreases as debt is paid off. A business with little debt has a D/A ratio close to zero.

The D/A ratios will vary through the normal life of a business. Higher ratios are common in new and expanding businesses — and often approach financially stressful levels. Debt levels may reach 60% or more during some expansions — if and when a lender is willing to accept that level of risk and work with the farm. High D/A ratios are acceptable for limited periods of time when plans and projections indicate that the profitable business will quickly generate funds to pay down debt and bring the ratio below the competitive level.

A low D/A ratio is only one indication of the financial condition of a business. When evaluating the D/A ratio of a business, a good business manager must also look at the liquidity of the business, its ability to meet cash obligations (Measure 9), and its profitability (Measures 7 and 8).

The D/A ratio looks at the total debt of the operation. It does not evaluate whether it is short, intermediate, or long-term debt. The type and mix of loans as well as interest rates will influence profitability and cash flow. Shorter-term loans will have higher payments compared to the same amount of dollars financed over longer repayment terms. Trying to repay debt too quickly can put a farm into severe cash flow difficulties.



Financing over long repayment periods causes the farm to pay more in interest charges. Also look at repayment schedule (Measure 10) and debt per cow (Measure 12) when evaluating a farm's debt.

A business may have little debt but be unprofitable and unable to generate the cash to meet all obligations. If that is the case, the other 14 measures may help determine why the business is not profitable.

D/A ratio	Financial position of business
< 40%	Strong
40 to 70%	Possibly stressed
> 70%	Very stressed

Measure 12

Solvency

Debt per Cow

Competitive Level:

Less than \$2,500 per cow

Less than \$3,500 per cow during an expansion

Calculation:

$$\frac{\text{Total farm debt}}{\div (\text{lactating cows} + \text{dry cows})}$$

Example:

$$\begin{aligned} & \$850,000 \text{ debt} \\ & \div \underline{340 \text{ cows (280 lactating + 60 dry)}} \\ & = \$ 2,500 \text{ debt per cow} \end{aligned}$$

Another way of looking at the ability of a dairy farm to meet its debt obligations is by looking at the total level of debt per cow. While the debt to asset ratio measures the overall debt position of the business, the debt per cow indicates how a manager would repay the debt. As the profit center of a dairy operation, cows generate the money needed to make both the principal and interest payments.

If debt per cow is too high:

When a business has debt per cow levels significantly higher than \$2,500, it may experience difficulty meeting all principal and interest payments. Solutions to this problem could include:

1. Selling any unproductive assets and paying down debt
2. Increasing the number of cows with little additional debt

3. Increasing net income per cow and paying down debt
4. Withdrawing less from the farm business for family living and paying down debt, if family withdrawals were unreasonably high.

If debt per cow is too low:

If a business has a very low debt per cow and is not highly profitable, the management team should carefully assess the operation and consider if moderate investments could increase efficiency and profitability.



Debt per cow as a planning tool:

A manager can quickly estimate the amount of additional debt possible to take on to finance an expansion and stay around \$3,500 debt per cow. Further profitability and cash flow analyses must be done to verify that the business can profitably operate at this level of debt and reduce total debt per cow following the expansion.

Example:

Cliff Farms Dairy currently has 200 cows, milking and dry, with a debt load of \$1,800 debt per cow. The dairy plans to expand to 500 cows and wants to keep total debt less than \$3,000 per cow.

Original 200 cows x (\$3,000 - \$1,800)	\$ 240,000
Additional 300 cows x \$3,000	+ \$ <u>900,000</u>
Total maximum new debt	= \$1,140,000

This calculation does not indicate if the dairy could expand profitably and pay back principal and interest at this level of debt. Further projections must be completed.

Measure 13

Mission Statement

Competitive Level:

Management team members agree on why they are in business.

Example:

“Our mission is to produce and market high-quality milk in sufficient quantity to provide a good standard of living for our family and our employees. The business should be profitable enough to provide above-average compensation for employees and long-term financial security for our families.”

The mission statement is an important tool for all dairy farms. Farms that are able to clearly communicate who they are and what they stand for are often more successful than those that don't have a true understanding of their focus. One way to develop strong communication lines and a clear understanding of what the business does is through the process of writing a mission statement. It does not matter whether the farm business consists of two people or 50, all involved must have a clear understanding of what the business does and why they do it in order to move the business in the desired direction.

A mission statement is a short and concise action plan based on the things you do each day. It explains why you are in business and what you want to accomplish. It provides direction to develop goals and future plans. This statement is a reflection of the underlying values, goals, and purposes of the farm and of the management team. The mission statement should be communicated and remembered.

Steps in Developing a Mission Statement

When developing a mission statement, give attention to what is important to the business now and in the future. Start by thinking about the following questions:

- What is the basic reason for the dairy farm's existence?
- How does it serve the family and the community?
- Why is it unique?
- What are the farm's strengths?

Think about the future of the farm business, family, standard of living, leisure time with family, duration of farm business, passing the farm to the next generation, and retirement. Be sure to involve family members and employees in the process.



It is important that others involved in the farm operation have opportunity to provide input. This will provide a more truthful statement of what the farm business does and what it values. This approach also provides for greater buy-in and acceptance by those involved in the business. Refer to Appendix C for a worksheet to help you and your employees start the brainstorming process and for additional examples of mission statements.

Second, think broadly and write down ideas as they come to you and do not limit or prioritize your ideas. Share your ideas with others involved in the farm.

Third, start thinking more specifically, maybe adding more notes, and begin to develop draft forms of the mission statement. Do not rush the process. Finally, compile the notes and drafts to write the mission statement. Once the mission statement is completed,

type it, frame it, and hang it in the office, milking parlor, employee break room, or where it can be viewed by managers, employees, and family members.

The value of a mission statement comes from its active use. Use it to guide the goal-setting process and when making decisions. Successful businesses are built on strong foundations. Taking the time to develop a meaningful mission statement will provide your farm business with the foundation it needs to be successful today and into the future. Periodically review your mission statement as your business grows and changes.

For more information and background for developing a mission statement, see the Ohio State University Extension fact sheet *Develop a Useful Mission Statement for Your Agricultural Business* at [ohioline.osu.edu /anr-fact/pdf/3609.pdf](http://ohioline.osu.edu/anr-fact/pdf/3609.pdf).

Measure 14

Maintain Family's Standard of Living

Competitive Level:

- A. Expand herd 60% every 10 years
- B. Family living costs equal 10 to 15% of gross farm income

Example:

A. 340 cows in 2008
 \div 200 cows in 1998
= 1.70, a 70% increase in herd size

B. \$ 300,000 gross farm income
 \times 0.15
= \$ 45,000 family living

Families usually wish to maintain or increase their standard of living over time. Because of inflation, farm income must increase or the standard of living falls. Above-average dairy farmers who have improved management, adopted technology, and increased production per cow have only maintained or slightly increased income per dairy cow over time. Farm families should estimate what their desired standard of living is for each year and then develop a plan to make sure that farm revenue increases at a rate to meet these goals.

Determine How Much Family Income Is Needed

Farm families often underestimate requirements for family living expenses. As additional operators are brought into the farm business, a realistic estimate must be considered for additional family living expenses. Family living expense requirements are driving the size requirements of commodity agriculture. Commodity production assumes smaller

profit margins. To meet future family living demands, farms will continue to grow in size and scale.

David Kohl, Virginia Cooperative Extension, lists some rules of thumb for family living costs: Family living costs generally account for between 10 to 15% of gross farm revenue. Farm couples over the age of 65 may require a higher percentage to meet medical costs and retirement obligations. Generally, it takes at least \$300,000 of gross revenue to generate \$50,000 of family living income.

Assume it takes 70% of revenue (operating expense ratio, Measure 4) to cover out-of-pocket costs. This leaves 30% for debt service, capital replacement, growth, and family living costs. The \$300,000 gross revenue example would net \$90,000. If \$50,000 is used for family living, \$40,000 would remain for debt payments and investment/reinvestment. Also, note that farm businesses will need to grow 5 to 7% per year just to maintain that level of income.



Increasing Income Through Herd Size

Based on the experience of the last 40 years, a dairy farm family with better-than-average management must increase the number of dairy cows on the farm by approximately 60% every 10 years to maintain their standard of living. Families should increase herd size more rapidly if increasing their standard of living is a high priority. If current trends continue, a dairy farm family with 100 cows in 2007 will need 160 cows by the year 2017 to enjoy an equivalent standard of living.

Many dairy producers have neither the desire nor the resources to grow 60% every 10 years. Even when they have the desire, limited resources make a 60% growth rate every 10 years difficult for an average dairy producer to achieve. Producers who will not or cannot achieve a 60% growth rate may operate as dairy producers and support a family for many years. However, because of inflation, they should expect a declining standard of living over time.

Other Options to Increase Income

Farm families who have neither the desire nor the resources to expand their herds have several alternatives. First, family members should conduct a benchmark analysis on their farm's financial records to determine if there are ways to increase the farm's efficiencies when compared to established benchmarks. Increasing efficiency can increase revenue.

The family can diversify the operation to include more than dairy cattle or look at ways of direct marketing to consumers through value-added products. The family may also retire existing debt and/or invest in financial assets, such as stocks, bonds, and mutual funds. Retiring debt will reduce the interest expenses of the farm in the future. Investments in financial assets will provide returns, which can provide money for family living in future years. Another alternative is to seek off-farm employment. Cash flow projections will indicate whether or not these options will provide enough funds for family living.

Measure 15

Motivated Labor Force

As measured by:

Managers use personnel management practices that lead to well-trained, enthusiastic, empowered family members and employees who share a commitment to the mission and goals of the business.

Operating a highly competitive dairy farm requires the talents of many people. The owners, managers, and employees of the dairy operation all possess individual strengths and weaknesses. Each member should take time to analyze his or her own skills to determine how he or she can best fit into the farm operation. A key to success is being able to identify and to capitalize on the individual strengths of employees.

Personnel managers should take time to examine the five functions of management — planning, organizing, staffing, directing, and controlling. They also need to develop a human resource plan that is consistent with the farm's mission and goals. This plan will serve as a guide as employees are hired, managed, and trained.

Motivated employees are often more productive. Dr. Bernie Erven, Ohio State University professor emeritus, cited an employee paradigm that states: "You can buy people's time: you can buy their physical presence at a given place, you can even buy a measured number of their skilled muscular motions per hour. But you cannot buy the devotion of their hearts, minds, or souls. You must earn these."

Competitive operations understand that personnel management is a major key to profitability. An employee handbook is an excellent way to communicate job descriptions, expectations, and compensation. The manager should develop strategies to reward and motivate employees. Some of these strategies could include verbal praise, annual salary increases, bonuses, and extra vacation days. Farm business and staff meetings are also good avenues to keep communication channels open with employees.

Dairy managers should look for opportunities to improve their management skills. A variety of management information resources and courses are provided by Extension. Resources are also available for managers hiring and managing Hispanic labor. Managers should contact their local county Extension office to learn how Extension can help them manage their employees more effectively.



Examples of Ways to Improve Personnel Management:

- Assess your personnel needs, supervisory skills, and working conditions.
- Improve your communication skills.
- Take a conversational Spanish speaking course if employing Hispanic workers.
- Develop job descriptions.
- Match workers with job descriptions.
- Hire employees who fit job descriptions.
- Develop and distribute an employee handbook.
- Develop an employee training and orientation program.
- Develop and conduct advanced training programs for current employees.
- Conduct farm business meetings for employees.
- Train and reward employees.
- Schedule work effectively.
- Coach your employees.
- Evaluate employee performance and provide feedback.

The Fork in the Road for Dairy Farms

Dairy managers who desire to stay in the dairy business for more than 20 years must be competitive. Competitive dairy producers should plan on exceeding most of the 15 measures in five years. Unprofitability, as a result of not meeting these measures, may force a dairy operation out of business. The strategies you use to increase your competitiveness will depend on your current situation.

Managers Who Already Are Competitive

Managers of most dairy farms are already doing many things right. **However, to remain competitive, you will have to continue to improve your management skills, adopt new technology, and grow.**

As you determine the course of your business, carefully consider your alternatives. Becoming overly complacent or attempting to implement change too rapidly are two pitfalls to avoid as you make important business decisions.

If you become complacent, the industry will pass you by, and you will lose your competitive advantage. If you are winding down the dairy enterprise and planning to retire, however, this may be an acceptable course.

On the other hand, a taste of success may leave you hungering for more and more — and right away! Be careful not to move too quickly, stretch yourself too thin, or rashly adopt a new and unproven technology. Unexpected setbacks may cause you to lose everything.

Dairy farming is a dynamic business. To stay competitive over the long haul, you have to continue to change and grow as a manager. Continue to learn about management and how to apply the five functions of management — planning, organizing, staffing, directing, and controlling. You also will need to become an expert at creative problem-solving, which cuts across all five management functions.





Managers Who Want to Become Competitive

If your dairy farm currently is not as competitive as you would like, we suggest following the five steps outlined in this section. You may be in a position where income is modest, resources are available, you have good management skills, you possess a desire to improve, and you want to continue operating a dairy farm long term. If this is the case, it is time for you to make some changes.

Step 1: Prepare a Written Mission Statement

Before you do anything, you (and your management team and employees) need to prepare a written mission statement for your farm. You must know why you are in business and what you want to accomplish to become competitive. Discuss your mission statement at length and revise it until it clearly states why you run a dairy farm.

Step 2: Prepare a Written List of Long-Term Goals

Next, your management team should prepare a preliminary list of goals that you believe will make your operation more competitive. Include more long-term goals on your list than you can possibly accomplish. Make sure you write the goals down. Unwritten goals are like uncaught fish — just dreams. If you are better at coming up with good ideas than writing them down, ask your spouse, a key employee, or a member of the family to do the writing.

Step 3: Share Your Goals and Revise Them

Share this preliminary list with members of your family and others involved in the management of the business. Involve everyone. This process will require all involved to listen to each other and compromise. Others will likely suggest different goals. Be open to their suggestions and expect them to expand and help improve your preliminary list. Encourage others to suggest additional goals or to modify those initially suggested.

Addressing the following questions may help you evaluate your list:

- Does each goal fit with the reason you are in business?
- Is the goal realistic?
- Does the goal take advantage of your strengths and opportunities?
- Does the goal address your weaknesses and any factors threatening your business?

Step 4: Prioritize Your Goals

Select one or two goals from your final list as top priorities. Most small business managers cannot attack more than one or two goals at a time. Pick one that most of the management team agrees to start working on. Consider delegating responsibility for some goals to others on the farm.

Step 5: Identify Short-Term Goals

Identify short-term goals to support the top-priority long-term goal you have chosen. A series of short-term goals lays the foundation for long-term success.

For example, assume that the first long-range goal for attention is to:

“Increase net farm income from the dairy enterprise by 20% in the next fiscal year.”

Here are some short-term goals that would help achieve the long-term goal:

- The management team will develop a budget by January 1 to increase net farm income with the accountant taking leadership responsibilities.
- The management team will review performance against budget at the first meeting of each month.

- The manager will find benchmark production and business performance data from similar dairy farms to compare performance at monthly meetings.

Well-written goals are “SMART” goals:

S — specific

M — measurable

A — attainable

R — rewarding

T — timed

It is clear what is to be done and who will do it, progress towards the goal can be measured, it is possible to accomplish the goal, it is beneficial to the business that the goal be accomplished, and there is an ending point to the goal. SMART goals are more likely to be accomplished and help move the business in the direction determined by the Mission Statement.

Managers Who Want to Become Competitive But Cannot

Some farms cannot be competitive because managerial expertise is low, managers do not have the interest or ability to improve, the farm has few financial resources, and/or the operation is labor intensive. If the farm is not and cannot be profitable, the family should exit the dairy business before they compromise the equity they have in the business. Other producers in this situation may desire to continue dairying but will have to support the family from non-dairy enterprises.

Managers Who Do Not Want to Become Competitive

Some dairy managers have no plans for making the operation competitive and, in fact, can afford to be noncompetitive. Many of these managers are in their fifties and sixties and carry little debt. The dairy operation may provide livable wages given the circumstances. Moreover, the manager does not have children, other relatives, or employees with a desire to take over the operation. Costs of being noncompetitive may be low as long as the manager is satisfied with the income generated by the operation. Managers in this position should plan on setting funds aside for their retirement. Most other managers cannot afford to remain noncompetitive when means exist for making the operation more competitive. Younger farmers and struggling farmers who do not become more competitive eventually will find themselves in the previous group as “Managers Who Want to Become Competitive But Cannot.”

References

Building Your Reputation as an Employer. Bernard L. Erven, Department of Agricultural, Environmental, and Development Economics, The Ohio State University, Columbus.

Accessed at: <http://www.agecon.purdue.edu/extension/sbpcp/resources/reputation.pdf>

Business Summary: New York State. Cornell University, Ithaca, 2005.

Table 10, page 16. Average ROA = 6.7%; top 10% = 14% (without appreciation).

Table 12, page 17, average CR = 1.85.

Table 13, page 18, average D/A = 0.37, top 10% = 0.38.

Table 13, page 18, average debt per cow = \$2,818; top 10% = \$2,568.

Calculated from Table 17, page 21, average capital OER = 75%; top 10% = 71%.

Tables 17 and 18, pages 20 and 21, average scheduled debt payment = approximately 12%; top 10% = approximately 10%.

Table 41, page 42, average investment per cow = \$7,508; top 10% = \$6,424.

Table 41, page 42, average ATR = 0.60 (including asset appreciation); top 10% = 0.74 (not including asset appreciation).

Table 43, page 42, average pounds of milk sold per worker = 956,698; top 10% = 1,132,532. Full-time worker defined as 230 hours of labor per month (2,760 hours/year).

Business Summary: New York State. Cornell University, Ithaca, 1995.

Table 11, page 13, average CR = 1.64.

Table 39, page 36, average ATR = 0.49; top 10% = 0.60.

Dairy Excel's 15 Measures of Dairy Farm Competitiveness. Polson, Jim; Shoemaker, Dianne; Oelker, Ernie; Schnitkey, Gary. Extension Bulletin 864, 1997. The Ohio State University, Columbus.

Develop a Useful Mission Statement for Your Agricultural Business. Woodruff, J. N. 2007. Extension Fact Sheet 3609. The Ohio State University, Columbus.

Accessed at: [ohioline.osu.edu /anr-fact/pdf/3609.pdf](http://ohioline.osu.edu/anr-fact/pdf/3609.pdf).

Family Business Meetings. Chris Zoller, 2007. Extension Fact Sheet 3612. The Ohio State University, Columbus.

Accessed at: <http://ohioagmanager.osu.edu/resources/documents/3612FamilyBusinessMtgs.pdf>

Farm Family Living Cost Update. Dr. David Kohl, Virginia Tech, Blacksburg. August 1999.

Farm Personnel Management. North Central Regional Extension Publication 329, 1989.

Farm Planning Process Model. David Marrison, 2007. Extension Fact Sheet 3608. The Ohio State University, Columbus.

Accessed at: <http://ohioagmanager.osu.edu/resources/documents/3608WholeFarm.pdf>

Farm Size Requirement to Meet Family Living Expenses. Dr. Donald Breece, The Ohio State University. Article printed in the *Ohio Ag Manager Newsletter*, February 2007.

Accessed at: <http://ohioagmanager.osu.edu/news/archive/2007/2-2007.php>

Financial Ratios Used in Financial Management. Langemeier, M. 2005. Fact Sheet MF-270, Kansas State University, Manhattan.

FINBIN Summary of Minnesota Dairy Farms. Center for Financial Management, University of Minnesota, St. Paul.

2002-2006 average ROA = 7.2%; top 20% of farms = 12.2%.

FINPACK User's Manual. Center for Farm Financial Management, University of Minnesota, St. Paul.

Improving Dairy Farm Profitability. David B. Fischer, University of Illinois, Urbana.

Accessed at <http://www.livestocktrail.uiuc.edu/dairynet/paperDisplay.cfm?ContentID=254>

Increasing the Number of Dairy Cows Needed to Support a Farm Family. Department of Agricultural Economics, The Ohio State University, Columbus. April 1995. E.S.O. 2214.

Interpreting Financial Performance Measures. Edwards, W. 2005. Extension Fact Sheet C3-56. Iowa State University, Ames.

Labor Management in Agriculture. Gregory Billikopf. Encina: Regents of the University of California, 2003.

Large Herd Business Summary: New York State. Cornell University, Ithaca. 2005.

Page 18, average debt per cow = \$2,901; top 20% = \$2,286. Calculated from data on pages 23 and 24, average OER = 77%, top 20% = 71%.

Page 34, average investment per cow of 74 farms = \$7,040; top 20% = \$6,335.

Leading, Motivating, and Evaluating Employees. Bernie Erven, Department of Agricultural, Environmental, and Development Economics, The Ohio State University, Columbus.

Accessed at: <http://www.agecon.purdue.edu/extension/sbpcp/resources/Leadingmotivatingevaluating.pdf>

Managing for Success Workbook. 1995-96. Dairy Excel. Ohio State University Extension, Columbus.

Northeast Dairy Farm Summary, 2005. Published May 2006. Northeast Farm Credit, Enfield, Connecticut.

Table D-1, page 39, top 25% farms, \$262, 235 NFI; \$55,963 family living and income taxes withdrawn; average herd size of 293 cows.

Table D-2, page 40, average debt per cow = \$2,543; top 25% = \$2,604.

Figure 12, page 18, average ROA = 5.4%; top 25% of farms = 10.3% ROA. 2001-05 = 4.8%.

Ohio Dairy Enterprise Budgets, 2003. Ohio State University Extension, Columbus.

Ohio Dairy Enterprise Budgets, 1996. Ohio State University Extension, Columbus.

Ohio Farm Business Summary, 2005. Ohio State University Extension, Columbus.

Penn State University Dairy Farm Business Analysis, 2000.

Table 3, page 8. Average pounds of milk sold per worker = 688,776. One worker equivalent equals 60 hours per week.

Positioning Your Dairy Farm Business for a Profitable Future — A U.S. Perspective. Terry Smith, University of Wisconsin, Madison.

Accessed at: <http://www.wcds.afns.ualberta.ca/proceedings/1996/wcd96135.htm>

Recommendations of the Farm Financial Standards Council: Financial Guidelines for Agricultural Producers. July 1995.

References for Managing Hispanic Workers. USDA Forest Service.

Accessed at: http://www.na.fs.fed.us/wihispanic/references_for_managing_hispanic.htm

Appendix A: Feed Cost and Quantity Calculations

Calculating Total Homegrown Feed Cost

To arrive at total feed cost per hundredweight (cwt) of milk, add the cost of purchased feeds fed to the cost of producing homegrown feeds. Costs of producing homegrown feeds include direct costs, such as seed, fertilizer, crop chemicals, fuel, and labor, and indirect costs, such as interest, depreciation, taxes, insurance, land rent, etc. Use the worksheet in this appendix to help calculate total feed costs.

Comparing Your Cost of Producing Feed to Market Price

Divide the total cost of producing each feed fed by the number of tons or bushels produced to arrive at total costs per unit produced. Compare this average cost to the average market price of the same feed. Can you produce the feed as cheaply as you can purchase it?

Estimating Quantities of Homegrown Feeds Fed

Name of Feed	Beginning Inventory	+ Produced	+ Purchased	- Sold	- Ending Inventory	= Fed

To calculate quantities of homegrown feeds fed, start with the beginning inventory in bushels or tons, add quantities produced and purchased, subtract quantities sold and ending inventories to arrive at bushels or tons fed. Keep accurate inventories of feeds on hand at the end of each year. Take a few minutes each day during harvest to keep track of bushels and tons harvested. Monitor quantities in storage monthly. Use these methods to calculate quantities fed daily and to calculate the total fed for the year.

Dairy Feed Costs Per Hundredweight of Milk Sold¹

Feed Cost Category (including cows, heifers, and calves)	Corn	Corn Silage	Hay	Haycrop Silage	Grazing	Other Feeds
A. Purchase Price (\$/ton) ²						
B. Total cost of purchased feeds (\$)						
Feed crop production costs ³						
C. Seed (pro-rated) ⁴						
D. Fertilizer						
E. Crop chemicals						
F. Drying costs						
G. Fuel and oil						
H. Repairs						
I. Custom hire						
J. Hired labor						
K. Utilities						
L. Interest						
M. Leases, machinery, buildings						
N. Land rent						
O. Taxes						
P. Insurance						
Q. Depreciation of machinery and buildings						
R. Miscellaneous costs						
S. Total cost of feed produced (sum of C through R)						
T. Total amount harvested for feed (tons) ³						
U. Feed Crop Production Costs (\$/ton) (S/T) ³						
Comparison of Purchase Price vs. Feed Crop Production Costs (A/U) ^{3,5}						
V. Total feed costs all feeds (sum of totals in rows B and S above)						
W. Average number of cows in herd (milking and dry) for the year						
Y. Hundredweights of milk sold						
Total feed costs (all feeds) divided by average number of cows in herd (V÷W) ⁶						
Total feed costs (all feeds) divided by cwt of milk sold (V÷Y) ⁶						

- ¹ Include all types of feed fed (purchased and raised), including minerals, vitamins, and additives. Use extra sheets if necessary.
- ² Include the purchase price per ton regardless of whether the feed is purchased or grown on the farm.
- ³ Include only the feed grown on the farm and the costs of producing the feed fed; do not include costs of feed sold.
- ⁴ Pro-rate establishment costs and annual costs of perennial crops over the average life (years) of such crops on your farm.
- ⁵ If this ratio is < 1 , then it is more profitable to purchase the feed; if the ratio is > 1 , then it is more profitable to produce it on your farm. This should be generally evaluated over a year rather than within a season due to seasonal variations. Even with a yearly comparison, growing conditions in a given year can have a large impact on the comparison. Because of the potential for these variations, decisions about growing vs. purchasing should be made when the ratio is outside 0.95 to 1.05 for more than one year.
- ⁶ These costs per unit need to be evaluated relative to the benchmark based on whether heifers are raised on the farm or custom raised.

Appendix B: Projected Feed Costs Per Cwt of Milk Sold and Amount of Feed Needed for Dairy Cattle

Table A. Change in Feed Cost Per Cwt of Milk Based on Changes in Prices for Corn and Hay.¹

Total Feed Cost Per Cwt of Milk				
Corn Price Per Bushel	Hay Price Per Ton			
	\$100	\$130	\$160	\$190
\$2.50	6.10	6.52	6.94	7.36
\$3.00	6.24	6.66	7.08	7.50
\$3.50	6.39	6.81	7.22	7.64
\$4.00	6.53	6.95	7.37	7.79

¹ Calculated primarily using numbers in the Ohio Dairy Enterprise Budgets, 2003, Ohio State University Extension; large breed dairy cow producing 24,000 pounds of milk. Appendix B, Table B, shows feeds and quantities fed.

Table B. Feed Requirements for a Dairy Cow and Replacements (24,000 lb production; 80% corn silage and 20% hay).¹

Item	Unit	For Cows and Replacements
Corn	lb	3864
Soybean oil meal	lb	3344
Limestone	lb	171
Dicalcium phosphate	lb	138
Salt	lb	145
Bicarbonate	lb	50
Magnesium oxide	lb	14
Vitamin supplements	lb	21
Feed additives	lb	174
Hay equivalent ²	ton	3.35
Corn silage	ton	13.09
Milk replacer	lb	15

¹ Source: Ohio Dairy Enterprise Budgets, 2003. Ohio State University Extension.

² Hay equivalent composed of hay and/or haylage.

Table C. Changes in Milking Herd Feed Costs Per Cwt of Milk Sold Based on Changes in Prices for Corn and Hay.¹

Milking Herd Feed Cost Per Cwt				
Corn Price Per Bushel	Hay Price Per Ton			
	\$100	\$130	\$160	\$190
\$2.50	4.39	4.53	4.66	4.79
\$3.00	4.51	4.64	4.77	4.91
\$3.50	4.63	4.76	4.89	5.02
\$4.00	4.75	4.88	5.01	5.14

¹ Based on a balanced ration for a cow producing 80 lb/day of milk. Appendix B, Table D, shows the individual feed ingredients in the ration.

Table D. Feed Required Each Day for a Cow Producing 80 lb/day of Milk.¹

Item	Amount (lb/day; as-fed basis)
Corn	10.5
Soybean oil meal	10.5
Limestone	0.45
Dicalcium phosphate	0.40
Salt	0.25
Bicarbonate	0.15
Magnesium oxide	0.05
Vitamin supplements	0.05
Feed additives	0.60
Hay equivalent ²	7.0
Corn silage	68.0

¹ Taken partially from: Ohio Dairy Enterprise Budgets, 2003. Ohio State University Extension.

² Hay equivalent composed of hay and/or haylage.

Appendix C: Mission Statement Worksheet and Examples of Mission Statements

Mission Statement Worksheet

The questions listed here should be answered individually and then those involved in the business should be brought together to answer them collectively. Your answers don't have to be confined to one page. A mission statement can be developed from the group's answers.

1. Why do I farm?

2. What do we do? What is our purpose?

3. Who are our customers? What do they want?

4. How do we accomplish our purpose? What practices do we use and who is responsible for what?

5. What beliefs and values do we hold?

Sample Mission Statements

Produce high-quality milk at the most economical cost. Provide good animal care and protect our environment. Offer a rewarding career, competitive wages, and a comfortable quality of life for our family.

Produce and market a high volume of quality milk for the consumer which will provide a good standard of living and a comfortable retirement, ample time for recreation and personal growth, family member involvement, and recognition for accomplishments. The farm will be labor efficient, have a good work environment, and express a high degree of pride.

We are a family-owned and -operated dairy farm and plan to ensure that opportunity to the next generation. We value rural life and are committed to keeping our rural community vital. We strive to:

- Make efficient use of inputs.*
- Produce a high-quality commodity for the end user.*
- Utilize good animal care practices.*
- Maintain sound environmental stewardship practices.*



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