# Farms for the Future

## Sattazahn Family
## Zahncroft Dairy
## Transformation Team Case Study

USDA *Farms for the Future Project*
*Funded Through a USDA Grant*

CENTER FOR DairyEXCELLENCE

# Sattazahn Family
# Zahncroft Dairy

## Table of Contents:



# Farm History and Executive Summary

The Sattazahn Family farms in Womelsdorf, Berks County. After graduation from Penn State, brothers David and Doug Sattazahn and their wives decided to join their two herds on the home farm, Zahncroft Dairy.

Initially, David and Doug planned to form a partnership, but on the advice of their Transformation Team, and lawyer, opted for an limited liability company (LLC). By completing a feasibility study during the grant, the Sattazahns also evaluated their options for building a new facility or retrofitting the existing facility. The feasibility study revealed that it would take several years for the business to become profitable with an expansion plan; coupled with a higher debt load in a new facility too, they decided to make changes to the existing dairy.

David and wife Katie's cows moved to a retro-fitted home farm (with Doug and wife Raechel's cows) on October 26, 2010. They began improvement projects for the next 5 – 7 years for this new business, including purchasing a much larger bulk tank. They also worked on the cropping side of the business, by partnering with Natural Resources Conservation Service (NRCS) to help minimize costs, and now rent two additional farms.

During the Transformation Team process, the Sattazahns also considered direct marketing through a local Community Supported Agriculture (CSA), but decided to wait on this project.

# Feasibility Plan

## Situation Overview:

A. *Why did the farm need a feasibility study?* A feasibility study would help us determine if we could successfully move forward with a new business entity.

B. *Where did the farm turn for help in developing the plan?* Family accountant, Larry Smeltz, and the Center for Dairy Excellence helped us develop our plan.

C. *What peripheral resource people did the team use to build the plan?* We looked at the production history of the farmers we rented land from for potential costs. We also received some input from other beginning farmers to predict operating costs.

## Challenges and Opportunities:

D. *What challenges, if any, developed during the feasibility study process?* One of the original studies was completed with higher cow numbers. We realized that this option would not work for our family financially, in order to achieve our long term plan.

E. *How did the team overcome those challenges?* We had to develop another plan to combine herds, without incurring such a large debt load. This led us to the idea that we ultimately implemented – retrofitting an existing barn, rather than building a new barn.

## Actions:

F. *What are the key components to the feasibility study?*

- Overview
- Cash-flow projections
- Recommendations
- Appendixes, with supporting information

G. *Approximately how much did the feasibility study cost?* $1,500

# Feasibility Plan...*continued*

## Results:

I. *How did the feasibility study help the farm move forward and make better decisions?* The feasibility study helped us develop a realistic option for farm expansion. This allowed us to determine our capital needs and move forward with an operating plan.

J. *Did the feasibility study reveal any surprising information about various scenarios?* We learned that little fluctuations in milk price and production levels could have a big impact on our farm's profitability.

K. *What might you have done differently in regards to the feasibility study?* We might have included more sensitivity analysis regarding changes in other price and production input costs.

The farm's feasibility study is attached in the Resources and Contact Information Section. Click here to view the study.

# Business Plan

## Situation Overview:

A. *Why did the farm need a business plan?* One of the goals of the Transformation Team project was combining two herds and creating a new business entity. The plan required all of our thoughts on strategy and how to run the business successfully to create a road map for the future.

B. *What resource people did the team use to build the plan?*

- The Center for Dairy Excellence website, www.centerfordairyexcellence.com
- AgChoice Farm Credit AgBiz Masters program
- Hartman Shurr P.C.

C. *Does the farm have a mission statement?* Zahncroft Dairy LLC will provide high-quality products to consumers, lifestyle to our family members, and environment for our animals, while remaining committed to our families, faith, finances, and well-being of our animals.

## Challenges and Opportunities:

D. *What challenges, if any, developed during the business plan process?* It was more difficult to write a plan because we were creating a new business; we didn't have any financial history as a foundation for the plan.

E. *How did the team overcome those challenges?* We used financial projections based on herd performance and industry benchmarks to create goals and form business analyses with financial expectations.

## Actions:

F. *What are the key components to the final plan?* Click here for a PDF of the Zahncroft Business Plan.
Key components include:

- Summary
- Vision
- Goals and objectives
- Farm and financial analysis
- Projected financing needs

# Business Plan...*continued*

G. *Approximately how much did the business plan cost?* We paid $120 for the AgBiz Masters program. Legal fees totaled $3,000. That sum included various operating and rental agreements, in addition to input on the business plan. We have a Lease and Farm Agreement with Dennis Sattazahn, our father, that covers the dairy buildings and land that we rent from him. We also have an Operating Agreement for the LLC.

**The Lease and Farm Agreement** begins by defining which buildings and acres are rented by the LLC. It also lays out our permitted uses, payments, and the length of the lease. Next, the agreement states what insurance we, the lessee, will carry, including personal property and liability policies. It also says who will be responsible for repairs and maintenance of the premises. The lessor will take care of the buildings while the lessees will see to the milking and feeding equipment and any other improvements that we add over time.

This Lease Agreement further covers responsibilities in a variety of loss events, including loss by fire, taking by eminent domain, loss by casualty, and default on a loan.

Finally, the lease explains the terms of purchasing feed from Dennis and also his employment by the LLC.

The Lease and Farm Agreement totals 13 pages, ensuring total and complete understanding of responsibilities. It includes more information and outlines more circumstances than we could have generated on our own without a lawyer. Even though the agreement is between our family, we felt it was the best and safest route to have the law firm involved to cover all our bases.

**The Operating Agreement** states the name of the company, tax ID number, registered address, terms, purpose and member interests. David and Katie as tenants by entirety have 50% interest, and Doug and Raechel as tenants by entirety have 50% interest.

Next, the agreement notes that there will be an annual meeting of all partners, however, there is no requirement for routine meetings. David and Katie have one vote and Doug and Raechel have one vote. The agreement also states that David and Doug will devote their full time and energy to work on the farm. It also creates the offices of President, Vice President, Secretary and Treasurer and assigns those positions.

The agreement sets the salary paid to the members and also includes what our initial financial contributions or other capital contributions are to the business.

We included some Buy/Sell Provisions too. Those basically create terms in the event a member decides to leave the LLC. After one year, the member would be bought out for 25% of their initial interest, 50% after five years, and 100% after eight years.

H. *Approximately how long did it take to develop the plan?* One to two months.

# Business Plan...*continued*

## Results:

I. *What benefits, if any, has your dairy farm operation derived from engaging in a business planning process?* It helped us think through and create our goals and objectives for our business. Those became central to identifying the areas in the operation that we needed to improve within the new business venture.

J. *How did the business planning process help the family make better decisions?* We would not have made the decision to form an LLC and combine both our herds without first determining if the plan would work financially, and lead us to our goals.

K. *How often will the farm update the business plan, in the future?* Annually.

L. *As a result of engaging in developing a business plan, what has your family learned that is unique to your dairy operation?* Without our spouses (Raechel and Katie) working off the farm, we would definitely need to expand our operation and incur more debt in order to support three families.

M. *Was there anything uncovered during the business planning process that helped family members to better understand other members of the family?* Yes. We learned about each other's personal goals and goals for the business. This was helpful in determining time off schedules and how to handle holidays.

N. *Is there anything you would have done differently with your business plan?* We would have had someone with more business expertise review the plan and offer suggestions. We are considering having our Center for Dairy Excellence Profit Team review the plan. Our Profit Team has different members than our Transformation Team. The document can be updated and expanded, and will hopefully become more of a "living" plan that we can annually update.

# Modernization and Technology

## Situation Overview:

A. *Detail the farm's reasoning behind the decision to pursue a modernization plan.* We realized that modernizing key areas of our facilities would provide better cow comfort and greater efficiency. Optimizing cow comfort would ultimately help us achieve our comfort goals and lead to a more profitable business.

B. *List the key variables that impacted the decision to move ahead with the plan.* Working with consultants, such as Dan McFarland, Penn State Cooperative Extension Engineer, we identified key improvement areas. Our decision making process was further helped by researching online and in dairy publications. Dan did not perform a formal assessment, but affirmed our concerns about ventilation and overcrowding.

C. *The following modernization areas apply to our farm and describe the incorporation of technology:*

- Young stock facilities – Curtains added for improved ventilation.
- Milking cow facilities – Plate cooler was added to the milk house to cool the milk faster and lower the electricity bill by allowing the compressors to run less often; curtains also added to improve ventilation.
- Other facilities – Pole barn retrofitted with 30 sand bedded free stalls.
- Feed storage – We added concrete center wall panels to an existing bunker silo at the heifer farm to create two smaller bunkers that could be fed out quickly enough to dry cows and heifers.
- Sand bedding - Skid loader sand shooter was purchased to bed the stalls more evenly and often.
- Ventilation – 24-inch circulating fans were added to our tie stall barn and dry cow barns; curtains added for the young stock and milking cow facilities.

## Challenges and Opportunities:

D. *What were the different options the Transformation Team considered as they worked together to pursue this plan? Please describe.* We considered having our heifers custom raised, but ultimately elected to raise our own heifers, on a rented farm. We added milker units rather than immediately pursuing a parlor. A shale pad was constructed for corn-silage bags which provided higher-quality feed than the existing steel silo. During the planning process, the team also discussed deep bedding with manure solids, but it was deemed not feasible.

# Modernization and Technology...*continued*

## Actions:

E *How did the work done on a business plan or feasibility study impact the farm's final decisions?* Because of the feasibility study and business plan, a large scale expansion was ruled out in favor of smaller changes to the existing facility. The feasibility study did not show profitability for the first several years following a large scale expansion. There was also a lot of uncertainty regarding milk prices following the downturn of 2009.

Additionally, our business plan did not call for hiring full time employees. We also did not want to take on a large amount of debt to finance capital, and be faced with operating loans to keep the larger scale dairy afloat.

F. *How long did the project take, start to finish?* One year.

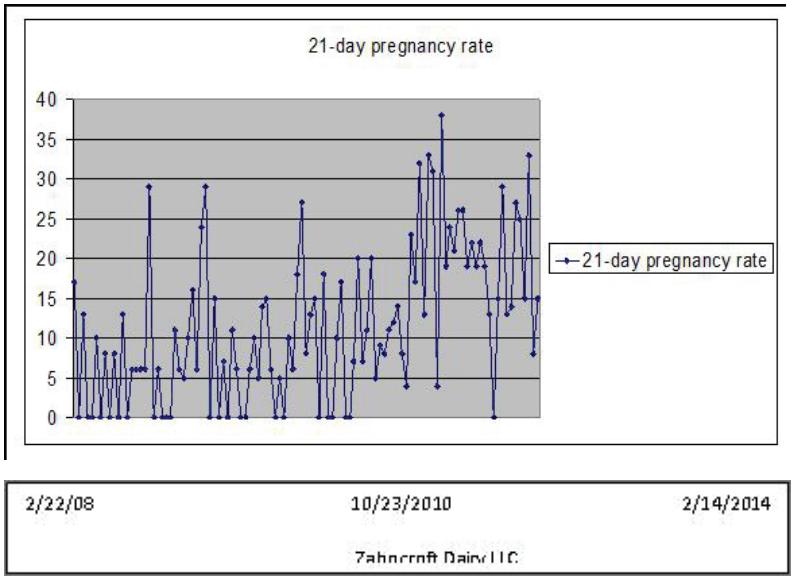
## Results:

G. *How did the modernization and new technology change the business as it relates to profitability?* We made smaller capital investments that allowed us to double the herd size at a rental location, without taking on a large debt load.

H. *Can the farm quantify labor savings, energy savings or environmental impact?*

- Labor Savings: $30,000
- Energy Savings: $4,200
- Environmental Impact: Less erosion because of no-till practice

I. *Did the modernization and new technology change management practices on the farm? If yes, how?* Yes. The modernization project allowed us to implement some changes like running a foot bath, since cows are moving in and out of the milking barn daily. We have also been able to detect heats more accurately because cows are in loose housing and it is easy to observe them in the holding area before milking. This has led to much better heat detection and improved pregnancy rates, as illustrated in the 21-day pregnancy rate chart, at right:



# Modernization and Technology...*continued*

J. *What have you learned that has influenced future decision making about technology or given you new enthusiasm for some aspect of modernization?* The cows adapted to the free stalls very well. The cows definitely preferred the sand bedding, which will influence any future barn design. Refer to the attached graphs illustrating rolling herd average and high SCC cows before and after the project changes.

K. *Has the farm shared the new facilities or technology (milking facilities, manure management, etc.) with others in the dairy community?* We have shown our project work to other farmers who were considering similar projects. The response has been positive to the point that they would probably retrofit buildings in the same manner as us, understanding that switching a lot of cows out of a tie stall barn is labor-intensive but certainly cost-saving.

Our five year plan aims at further expansion of the dairy. This includes a new free stall barn and manure pit for approximately 200 cows. We are still considering a retrofitted parlor in the existing stall barn, although we are looking at robots as a viable alternative. The main reason for this would be labor, as hiring even a part-time worker has been a challenge. Family time and time off are also concerns that we would like to address.

An ideal headline in five years would read "Zahncroft Dairy has expanded while maintaining profitability and increasing production." Although the LLC has been profitable in recent years, we understand supporting the families involved will take more cows.

# Conservation and Environmental Stewardship

## Situation Overview:

A. *How does this farm view their environmental responsibilities for both the farm and land? Please describe.* We view the land as our most valuable asset, even though we are renters and not owners. We strive to protect and maintain soil and water quality for our animals and the environment. We work with consultants on crops, nutrient management and feeding to ensure we are profitably maintaining the farm and land.

B. *What conservation and environmental best management practices (BMPs) have been incorporated into the farm plan during the last 5-10 years?*

- Crop residue management
- No-till planting
- Crop rotations
- Cover crops
- Grassed waterways
- Pasture and hayland plantings
- Stream bank protection
- Stream crossings
- Watering facility
- Barnyard runoff controls / Heavy use area protection (i.e. Animal concentration areas)
- Water (manure) storages / Manure stacking
- Milk house waste diversion
- Roof runoff management
- Precision feeding / Feed management

C. *Does the farm have a Nutrient Management Plan (NMP) or Manure Management Plan?* Yes. *Did this project change the way the farm handles animal manure? Please describe.* No.

D. *Are phosphorus levels in your soils rising to excessive levels [200 ppm of P] due to the application of manure generated on the farm? Please describe.* We have several fields that have very high phosphorus levels. Although we have not pushed any fields above the P-index, we are working with crop rotation and cover crops to limit levels from increasing in the future.

E. *Is manure applied in the winter months (generally December – February)? Is the manure applied in winter due to not enough storage or for other reasons such as timing, field conditions in spring, etc.?* Yes. Most solid (pen-pack) manure is applied in winter time to give an ample amount of time for degradation and natural incorporation into the soil. Liquid manure is occasionally applied if storage is getting full and ground conditions allow.

F. *Does the farm have a conservation plan or an agricultural erosion and sedimentation control plan? If yes, what are the key components?* Yes. The key components include crop rotation, cover crops, riparian buffer and no-till practices.

# Conservation and Environmental Stewardship...*continued*

G. *If this project included new conservation or environmental changes, how did they impact farm profitability? Please describe.* No-till planting practices reduced fuel costs and equipment use on the farm. Cover crops created additional feed for animals.

H. *Can the farm quantify the environmental impact of the project? Please describe.* Manure analysis has shown a reduction in phosphorus after adjusting ration for less dietary phosphorus. Milk urea nitrogens (MUNs) are trending downward after reaching higher than desired levels.

I. *What is the most significant environmental/conservation improvement made on this operation within the last 5 years, and what improvement(s) did it result in?* Adopting no-till has been a significant improvement. We use less fuel and labor, conserve soil and water and build soil organic matter.

# Animal Care and Comfort

## Situation Overview:

A. *Can you determine if cow comfort or care was limiting the productivity or profitability of your dairy operation?* Yes. *If yes, please list animal factor(s) that needed to be improved.* Mattresses were worn out in the tie-stall barn and there was not enough room for additional cattle in the existing pole building, which also had poor ventilation. Air flow restrictions also limited hot-weather cooling in the tie-stall barn.

B. *If you determined that cow comfort or care was a limiting factor, did you make structural and/or management changes to address the deficiencies? Please list structural and/or management changes.* We replaced mattresses in our tie-stall barn and added 24-inch circulating fans over stalls. We also retro-fitted the pole barn with 30 sand-bedded free stalls and a sidewall curtain, as part of the Transformation Team project. We also grooved smooth concrete areas to improve cattle footing in the barn.

C. *What did you learn that would be of interest to the broader dairy community?* We learned to talk to fellow dairy farmers and industry people to gather a wide range of ideas before beginning a project. If a project requires hiring a contractor, be sure to review the plans in detail before the project begins, making sure there are no assumptions and you've explained everything you want in the finished project.

D. *What is your farm's approach to administration and documentation around the use of standard operating procedures (SOPs) for animal care?* All workers know how to groom stalls. Bedding of sand is done weekly, while shavings are added daily in the tie stall barn. Everyone works together to provide a calm and relaxing atmosphere for the cattle.

E. *Have you enrolled in a formal animal care program? If so, what have you learned that's been beneficial to your operation?* No. Our milk buyer has not required a formal program, as our management practices represent optimum animal care standards.

F. *What is your vision for animal care?* Our vision is that cows have a clean, comfortable place for laying available to them at all times (certainly at least the 20 hours recommended by experts). Also, that there is abundant bunk space and water is less than 50 feet from all stalls. We seek to maximize natural ventilation with curtains while providing fans to move air as necessary. The younger animals are penned so they are not crowded and can grow properly. All animals over one year of age have pasture access at least eight months of the year. We feel it is important to move cows off of the concrete, allowing them exercise for their feet and legs and to promote longevity.

# Risk Management

## Situation Overview:

A. *What new dairy risk management tools did the farm pursue during, and after, the project? Please describe.* In both our first and second year of business, we took out an Livestock Gross Margin (LGM) for dairy policy. LGM provided a tool to insure a margin that was useful since our milk buyer does not offer milk price contracting. Although we did not receive any payments, we had peace of mind that we could cover our financial obligations in case of a major milk price collapse.

B. *Does the farm have a marketing plan? Please describe.* We have limited options contracting milk, so the LGM policy is a good fit for our farm. We are able to sell some excess corn and soybeans, as we work to find competitive prices for those commodities at harvest, and also in future months.

## Challenges and Opportunities:

C. *If the farm incorporated new risk management plans into your business model, did you overcome any challenges to implementation? Please describe. What did you learn, and based on that, what will you do in the future?* The only challenge with the LGM was determining our feed costs, which ultimately we calculated.

## Actions:

D. *What communication was necessary with the farm's ag lender and what were their requirements for additional ag protection through risk management to move the project forward? Please describe. What did you do, what did you learn, and based on what you learned what will you do the same or differently in the future? (Peripheral considerations – lender, land lord, etc.)* We told our lender about our LGM policy when applying for credit.

## Results:

E. *Can the farm quantify the change in business profitability attributed to implementation of new risk management tools? Please describe.* Although we have not had an indemnity to this point, we know the LGM policy has created a safety net for our farm profitability.

# Resources and Contact Information

Feasibility Study:

## Feasibility Study

for

## Zahncroft Dairy

3982 Smaltz Road
Womelsdorf, PA 19567

September 20, 2010

**Larry Smeltz**
164 Chestnut Hill Road
Fredericksburg, PA 17026

# Resources and Contact Information...*continued*

## Feasibility Study:

### Table of Contents

# Resources and Contact Information...*continued*

## Feasibility Study:



### Part I: Introduction

#### Part 1.1 Consultation Objectives

The objectives of this consult consist of:

1. Examine the feasibility of adding 30 cows to the current operation.
2. Examine the feasibility of adding 30 cows and renting additional land.

#### Part 1.2 Overview of Farm

David and Douglas Sattazahn are brothers in a farming partnership located in Womelsdorf, PA on a farm owned by their parents, Dennis and Betsy Sattazahn. David currently rents a dairy farm in the Fleetwood area of Berks County, Pa. He owns 35 mature cows. Douglas is presently employed by his parents on the home farm, performing all the daily tasks needed to run a dairy operation.

#### Part 1.3 Present Situation

David is renting a farm in Fleetwood, PA sharing the farm with two other farmers. The cows are fed by feed purchased from the owner of the farm at current market prices. His rolling herd average is 21,500 pounds of milk per cow per year. He has been milking cows since the spring of 2008 and will have 20-25 head of young stock by the end of summer, 2010.

Douglas is employed by his parents. He owns several head of cattle of various ages that are kept on his parent's farm. The cows are housed and milked in a tie-stall barn. The cows are fed feed grown on the farm.

The feasibility study that follows uses the assumption that David and Douglas will operate as a business partnership and take over the dairy operation on their parent's farm beginning in October 2010.

Option 1 of this study was part of an earlier analysis in July of 2010. It is being included in this study to show what affect Option 2 and renting the additional land will have on the net cash flow of the operation.

### Part II: Option 1 – Adding 30 Cows to the Current Operation

#### Part 2.1 Objectives

The first objective of the consult is to examine the feasibility of adding 30 cows to the current operation, bringing the total milking herd to 100 head. Again, these numbers were included in the feasibility study done in July of 2010.

# Resources and Contact Information...*continued*

## Feasibility Study:



breakeven milk price for Year 2 is $15.80 and Year 3 is $15.77. Debt per cow is very good at $1,474. The total return would not allow for any future expansion until the loans are paid off. Careful budgeting should be done yearly to predict cash flow needs for the year.

The following recommendations are made for Option 1, adding 30 additional cows:

1. Consider raising own heifers, instead of having them custom raised
2. Pursue multiple loan offers to get best rate
3. Explore additional sources of revenue
4. Reduce expenses
5. Aggressive debt repayment with cash surplus will allow for future expansion to occur sooner rather than later.

### Part III: Option 2 – Adding 30 cows and renting additional land.

#### Part 3.1 Objective

The objective of Option 2 is to add 30 cows to the present herd and rent two neighboring farms from their uncle. The tillable acreage to be rented would be around 230. In addition to the additional acreage, they would also have housing available to raise their heifers. Zahncroft Dairy would also have the opportunity to continue the heifer raising business that their uncle is currently operating.

#### Part 3.2 Feasibility of adding 30 cows and renting additional land

Table 2 shows the projected yearly cash flow for the first three years with this option. The following assumptions were used in making the projections. Milk income is based on cows milking each month assuming a 20,000-pound herd average the first year with a 5% increase in milk each year after. The net milk price remains constant at $15.50.

1. Average production yields will be used for all crops.
    a. Crop Needs Worksheet is located in Appendix
2. Custom operators will be used for chopping the forages.
3. New building and equipment loans will total $110,000 (mostly building)
4. Loan terms are 15 years at 7%.
5. A crop consultant will be used to maximize the potential of the land.
6. Rent will be paid on a monthly basis.
7. Land base is adequate enough to produce all forages.
8. Average yields will produce excess corn to be sold.

# Resources and Contact Information...*continued*

## Feasibility Study:



### Part 3.3 Recommendations for Option 2

The combination of raising their own heifers, growing their own crops and taking over the heifer raising business will benefit Zahncroft Dairy in a positive manner financially. The net cash flow for Option 2 is much better than Option 1, with all years showing a positive cash flow. In addition, the prior loan will be paid off in year 3 which will generate additional cash flow for future years. Based on the above chart Option 2 is the best option for Zahncroft Dairy. Also, on an above-average crop year, there will be additional crops to sell, beyond what was used for this study, improving cash flow. In contrast, in a poor crop year, there should be adequate acreage to produce all of the farms forage needs. This will limit the negative impact to cash flow. Planning should be done to predict cash flow needs for each month.

The following recommendations are made for Option 2:

1. Pursue multiple loan offers to get best terms
2. Increasing yields will produce additional crops to sell
3. Use yearly excess cash flow to pay down debt and/or create a cash reserve fund
4. Explore volume discounts on crop and livestock inputs

### Part IV: Summary and Recommendations

### Part 4.1 Summary and Recommendations

Option 1 yielded a positive cash flow in Year 1 and is small cash deficit in Years 2 and 3. Option 1 could be pursued with some minor adjustments to the planned operation. Option 2 yielded a positive cash flow each year. Option 2 is the most feasible option examined in this analysis and should be pursued.

In conclusion, Option 2, adding 30 additional cows to the current operation and renting additional land is the most feasible option of those analyzed. Implementing the changes recommended in Section 3.3 will yield higher returns than projected and allow for future expansion goals.

# APPENDIX

## Crop Needs Worksheet

| Cows | Lbs/Day | Lbs/yr | Tons/yr |
|---|---|---|---|
| Corn Silage | 2700 | 985500 | 493 |
| Haylage | 3600 | 1314000 | 657 |
| Corn, shelled | 1500 | 547500 | 9777 Bu |
| Hay, dry | 400 | 146000 | 73 |
| Roasted Soybeans | 400 | 146000 | 2433 Bu |
| | | | |
| **Heifers** | | | |
| Corn Silage | 2100 | 766500 | 383 |
| Haylage | 600 | 219000 | 110 |
| Hay, dry | 1000 | 365000 | 183 |

| Total Crop Needs | Tons/yr-needed | Produced/Yr | Extra Crops | Additional Acres Needed | Acres Needed | Est Custom Cost |
|---|---|---|---|---|---|---|
| Corn Silage | 876 | 615 | -261 T | 12 short | 40 | 3800 |
| Haylage | 767 | 498 | -269 T | 22 short | 64 | 9100 |
| Corn, shelled | 9777 Bu | 23985 Bu | 14208 Bu | -84 extra | 58 | 2460 |
| Hay, dry | 256 | 304 | 49 T | 10 short | 51 | |
| Roasted Soybeans | 2433 Bu | 2350 Bu | -83 Bu | 2 short | 58 | 1740 |
| Wheat | 0 | 1937 | 1937 Bu | -30 extra | 0 | |
| | | | | -68 Total extra acerage | 270 | 17100 |

**Recommendations**

1) Consider not growing wheat, either buy straw or use corn fodder to bed
2) Raise more Haylage
3) Look at replacing some haylage by using ryelage or wheatlage, then double crop corn or beans
4) Sell extra corn or use corn acres for rye/wheat

Important to have corn silage and haylage needs met!

# Resources and Contact Information...*continued*

## Business Plan:

**Zahncroft Dairy LLC**
**Business Plan**
**3993 Smaltz Road**
**Womelsdorf, PA 19567**
**(610)-698-1950**
**zahncroftdairy@gmail.com**

### Mission Statement

The mission of Zahncroft Dairy LLC is to provide high-quality products to consumers, lifestyles for ourselves, and environment for our animals, while remaining committed to our families, faith, finances, and the well-being of our animals.

### Company Summary & Farm Description

The dairy will be an LLC formed between two brothers, David and Douglas Sattazahn, and their wives, Katie and Raechel. The dairy will be located in Womelsdorf, Pennsylvania. Their father, Dennis Sattazahn, owns the 140-acre farm where the cows are housed. The LLC owns 24 of those cows. Douglas is employed of the farm, in addition to a part-time position with Accelerated Genetics. His wife, Raechel, works full-time for AgChoice Farm Credit. David and Katie brought an additional 29 Holstein and Brown Swiss cows, which were being milked at a rented facility. Katie works full-time for Fleetwood Bank. A total of 62 young-stock are housed between the two locations, of which 40 are owned by the LLC.

### Vision

Zahncroft Dairy LLC retrofitted 29 sand-bedded freestalls into the farm's loafing barn, while continuing to milk and housing the remainder of the cows in the current tie-stall barn. This allowed for the two herds to be combined at one location for better efficiency of labor and management. Two neighboring farms will be rented starting in April 2011 for additional crop acreage and heifer-raising facilities. Prior to this, feed is being purchased from Dennis Sattazahn and heifers are being raised by Clarence Sattazahn. The dairy will begin using the crops from 2011 when they are ready. The improvements the dairy is making will be building the foundation for its long-term goal of expanding to 150 cows.

# Resources and Contact Information...*continued*

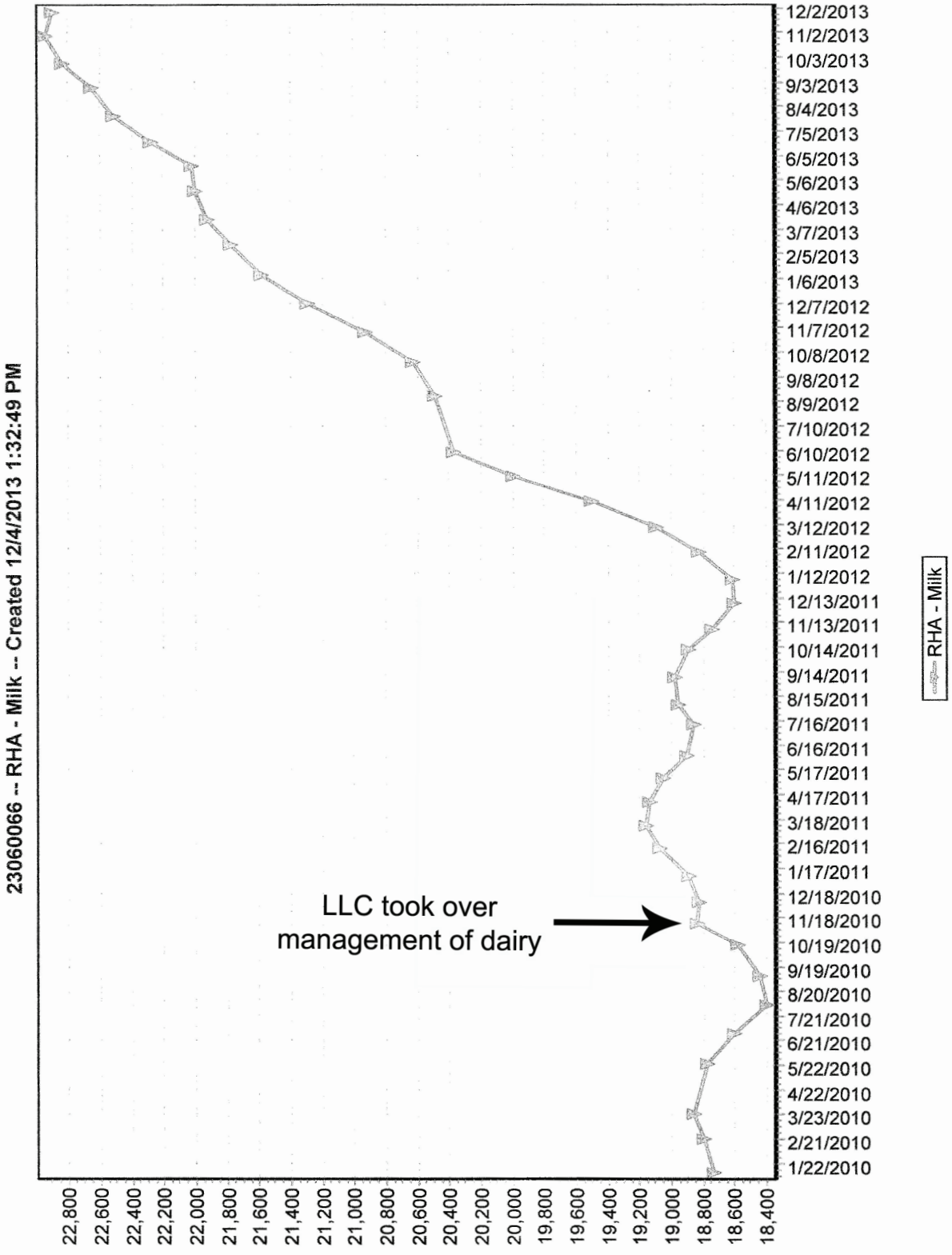
## Business Plan:

**Objectives and Goals**

1. Retrofitted 29 sand-bedded freestalls into the farm's loafing barn. Add curtains to sidewalls and several other small improvements for housing cattle.
    a. Goal: Completed project by October 26 2010
    b. We used Farmer Boy Ag to provide the necessary renovations.
    c. The bottleneck to this goal was to complete the project on time. We worked with the builder to have the renovations completed efficiently and are incorporating the features that can be added while cows are in the facility at a later date.
2. Increase milk production of the herd
. Goal: Profitable increase production to 75 pounds/cow/day
    a. We will improve cow comfort, forage quality, and reproduction.
    b. The major bottleneck to this goal will be achieving these results during the transition period that will take place for the two herds to merge. We will overcome this by:
        i. Upgrading mattresses and air flow in the tie-stall barn (new mattress installed 8-23-10)
        ii. Working with a crop consultant and harvesting forages in a timely manner (Currently working with Agri-Services LLC)
        iii. Aggressively breeding cows after 60 days fresh and intensively managing fresh cows
3. Reduce purchased-feed expenses
. Goal: Farm additional acreage to grow more feed
    a. We will rent adjoining farms, owned by family members, which also include facilities for housing heifers.
    b. This goal's bottleneck is being able to manage cash-flow around paying rent each month for additional farms and paying crop inputs. However, these additional expenses will be offset by lowered purchased feed costs and resulting lowered heifer-raising costs. Renting these facilities will present a separate enterprise of custom-raising heifers for other farmers.
4. Improve calf and heifer health
. Goal: Decrease mortality rate under five percent and morbidity rate under twenty-five percent for newborn calves (Dairy Calf & Heifer Association Goal Standards)
    a. We will improve the current calf facilities by widening the pens and creating an opening to improve air flow.
    b. The bottleneck for this goal is that calves at the home farm are currently exceeding the mortality and morbidity rates due to poor ventilation and inadequate space per calf. Providing adequate ventilation and sanitary housing in addition to the proper nutrition will allow us to overcome this bottleneck.

# Resources and Contact Information...*continued*

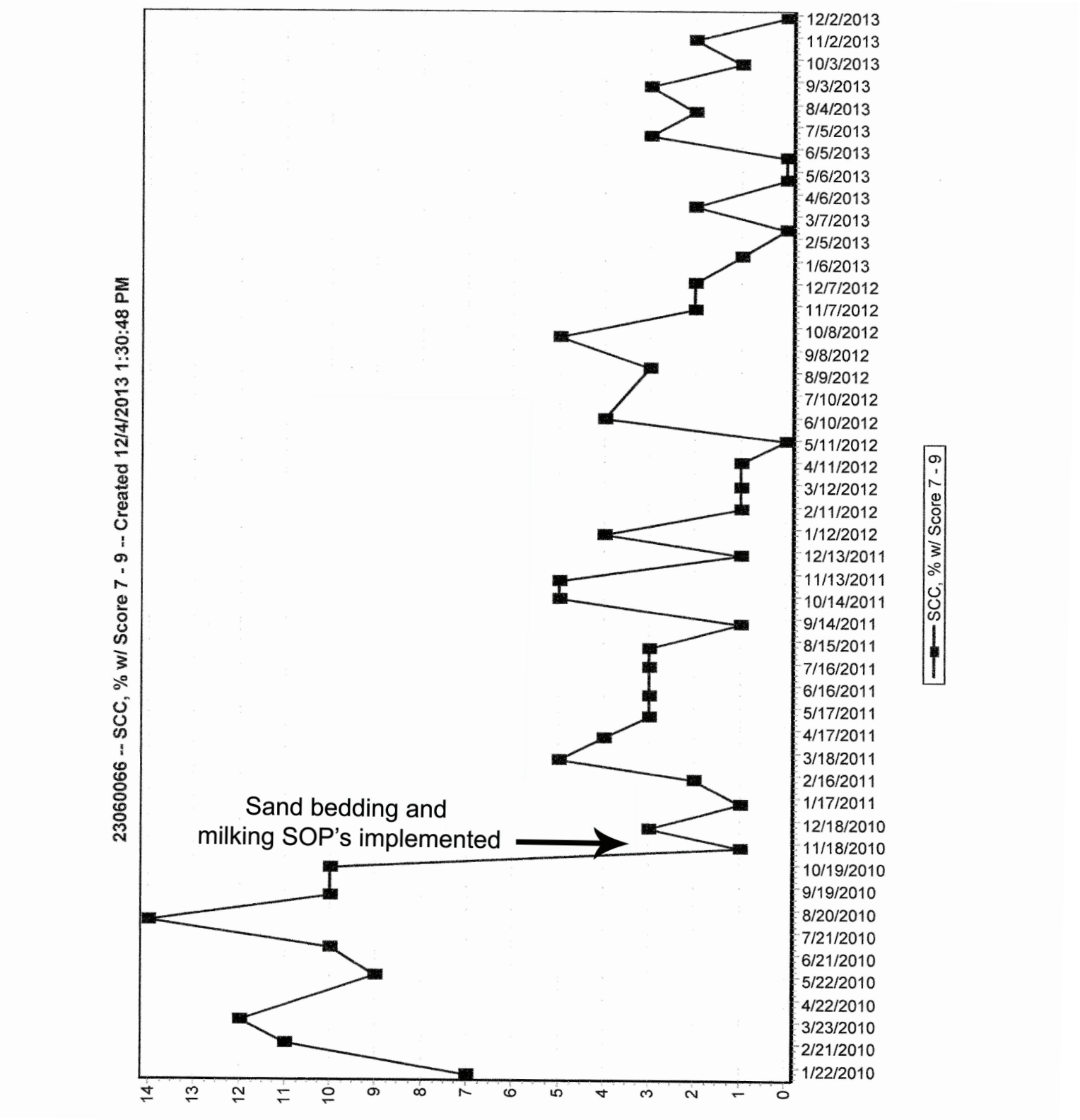
## Rolling Herd Average:




Prior to October 26, 2010, the data shown is for the family farm before the LLC was formed. Data after October 26, 2010, is from the LLC formed by David and Doug Sattazahn.

# Resources and Contact Information...*continued*

## Rolling Herd Average:




Prior to October 26, 2010, the data shown is for the family farm before the LLC was formed. Data after October 26, 2010, is from the LLC formed by David and Doug Sattazahn.

# Resources and Contact Information*...continued*

## Contacts:

Please call the Center for Dairy Excellence to make contact with any of these individuals or organizations to learn more about their role in successfully completing this project.

Dan McFarland, Penn State University

AgChoice Farm Credit AgBiz Masters program

Hartman Shurr P.C.


CENTER FOR
Dairy EXCELLENCE

**To learn more, contact the Center for Dairy Excellence**

**2301 North Cameron St., Harrisburg, PA 17110**

**Phone: 717-346-0849 ◆ Fax: 717-705-2342**

**info@centerfordairyexcellence.org ◆ www.centerfordairyexcellence.org**

**Follow Us on Facebook**