## Business Plan

## Dairyman Farm



November 29, 2007

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## I. Executive Summary

## Narrative Summary:

Bill Dairyman currently owns and operates, with his son, an expanding 85 Holstein cow dairy farm located in Anywhere, VT. Our mission is to produce high quality milk in a way that provides an adequate income for our family.

The purpose of this business plan is three-fold:

1. It is intended to serve as a farm operating and asset transfer guide during a period of transferring ownership of my cattle and machinery to my son Mike and also to guide us operationally during the period of expanding the farm's herd size over the next 3 years.
2. It is also intended to support any requests for financing by Bill in 2008 and by Mike in 2009 and subsequent years.
3. It is further intended to outline specific goals, benchmarks for success, and action step timelines which will guide us with our planned imprevements to fadilities, implementation of improved management practices, increased herd production and net income goals over the plan period.

The key issues facing our operation are:


- Need to increase net farm income to a sustainable level for Mike' future in dairying
- Need to increase our dairy herd size and overall herdproduction
- Need to provide affordable, short term improvements to milking efficiencies and herd housing
- Need to secure financing for Bill's capital improvements in 2008
- Need to secure financing for Mike'capital acquisitions in 2009
- Need for legal guidance to finalize Mike' acquisition of cattle/machinery in 2009

We have developed farm net cash flow projections that we will use as benchmarks for tracking our progress in meeting our financial goals. We will continue to expand our herd on a planned basis by raising our own replacements. We will begin using Dairy Herd Improvement Association and PC dart herd management software in the summer of 2008 to better manage our growing herd. We will install a step-4p parlor in our present dairy barn and construct a $45^{\prime}$ X $96^{\prime \prime}$ hoop style barn over the existing barnyard at the south end of the main barn. We will work closely with VACC and /or Yankee Farm Credit to secure financing needs for Bill in 2008. Mike will work closely with FSA in 2008 in order to obtain financing to purchase Bill's cattle and machinery in 2009. He will also pursue enrollment in Farm Service Agency's farm financial record keeping training and take on a more active role with Bill in maintaining the farm's financial records in 2008. We will further consult with Annette Higby later in 2008 for the needed legal assistance required to finalize the transfer of cattle and machinery to Mike.

## Financial Summary:

Net worth of the farm operation is $\$ 908,245$, an increase of $\$ 90,305$ from 2006. Gross cash sales increased marginally from $\$ 208,849$ in ' 05 to $\$ 210,444$ in 2006. Net farm income for 2006 was $\$ 45,817$, an increase of $\$ 31,792$ over 2005.The farm's rate of return on assets for 2006 was $5.21 \%$, rate of return on equity $5.6 \%$, and operating profit margin ratio was $24.04 \%$. Net cash flow has steadily increased and
reached $\$ 47,529$ in 2006. The farm's current ratio has increased modestly from 1.29\% in 2005 to $1.46 \%$ in 2006. Working capital has fluctuated from to $\$ 8,434$ in 2005, to $\$ 19,151$ in 2006.

A summary of our farm's recent key financial indicators/ratios is presented below:


## II. Descriptions

## Mission Statement

Our mission is to produce high quality milk in a way that provides an adequate income for our family.

## Farm location:

Bill owns and operates, with his son Mike, an 85 cow, grade Holstein, conventional dairy operation in Anywhere, VT as a sole proprietor. The farm is located in the northeast sector of Anywhere, VT. It is 2 miles off State Rt. 333 on Foliage Hill Rd. (See Appendix. A. Maps to farm and soils map).

## Acres owned and/or rented:

The farm consists of 425 acres, 130 tillable acres, 45 acres open pastare, 250 acres of woodland. 100 acres and a barn are rented on the Norma Smith farm, which is on the south border of the home farm. An additional 30 acres of cropland is rent free in trust of proper care and conservation. 14 acres of hay land- not to be tilled - is also, rented.
A summary of our owned and rented farmland is:


| Land Description | Total <br> Acres | Crop <br> Acres | Pasture <br> Acres | Woodlot/ <br> Other <br> Acres | Tenure/Lease terms |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Dairyman Home <br> farm | 425 | 130 | 45 | 250 | Owned (Bill Dairyman) |
| Norma Smith farm | 100 | 100 |  |  | Yr-to-yr/Verbal/\$9600 |
| Various/other | 44 | 44 |  |  | Verbal/Year-to- <br> Year/Free |

## Cattle, and Farm Machinery/Equipment:

I own mycomplete dairy herd as well as a complete line of our hay and corn equipment (See Appendix B: Listing of Livestock \& Farm Machinery/Equipment)

## Farm history:

Dairyman farm history began in 1942 when 215 acres were bought by Bill's parents Ralph \& Irene Dairyman. They bought their first tractor in 1944. In 1952 a 50 -cow barn was moved from S. Granville and erected on the farm. They increased the size of the farm when they bought the Beamon Dairyman farm (220 acres) in 1954. Ralph \& Irene bought the first bulk tank for the farm in1960. The farm was expanded again in 1962 when 160 acres of the Mars farm was
bought. This purchase created a solid block of the property. In 1968180 acres of the Beamon farm were sold, the tillable acres were retained. In 1968 the first concrete silo with an unloader was erected. In 1970 a steel machinery shed was built. The pipeline milking system was installed in 1972. In 1979 Bill Dairyman buys 50 milking cows and 45 head of young stock from Ralph and Irene for $\$ 50,000$ and rents the farm real estate from his parents. In 1981 a second concrete silo was added as well as updating the forage equipment to allow for more haylage. The pipeline milking system and vacuum pump was upgraded for increased capacity in 1983. Milking cows "in shifts" began in 1989. That same year the milk house was built larger to allow for larger bulk tank. Bill bought the farm real estate in 1990 for $\$ 100,000$. In 1991 Bill begins renting the Norma Smith farm (land and heifer barn). In 1993 a concrete barnyard was built with the help of a government cost share program.

## Building Descriptions:



We milk our dairy herd in a 50 -cow tie stall barn using a pipeline milking system. We have a 1250 -gallon Mueller bulk tank, which is located in an attached milk house, Our heifers are housed in the 46 -cow tie stall barn at the Norma Smith farm. We raise our calves in calf hutches until weaned, and then move them to a 15 -stall calf barn on our home farm. We have a tool/machinery shed on the farm for storage. Bill's mother, Irene, has a "life estate" interest in the main house on the farm. Bill lives in a mobile home next door. Bill's son Mike lives in a small ranch house, owned by Bill, located $1 / 4$ mile from the farm. (See Appendix C: Building Descriptions \& Photos)

## Key Management People and Responsibilities:

Bill oversees the total dairy business operation, with daily responsibilities for managing milking, milk house work, bookkeeping, and fieldwork. Mike assists with all farm responsibilities, with daily responsibilities for maintaining herd health records, heifer raising, and fieldwork. No other employees work on the farm at this time

## Production practices:

Dairy operation - Our dairy operation is a conventional 85 Holstein cow dairy farm producing approximately 1.3 million pounds of milk for an average per animal production of $15,300 \mathrm{lbs}$ of milk per year. We manage our herd's production/reproduction performance with the use of our own breeding/production record keeping system. We do our milking in 52 tie stalls, rotating groups of cows in/out of our barn and use a pipeline milking system. We raise all of own replacements, and currently are not selling any heifers for dairy purposes due to our current expansion plans. We attempt to breed all of our cows by artificial insemination and use a bull for "cleanup" and for heifers.

Crops - We currently plant/harvest 103 acres of corn annually and raise hay/haylage on the balance of the land we crop. We pasture approximately 45 acres of land. Baled hay is stored in overhead hay mows. Corn silage and haylage are stored in covered piles. Purchased grain is stored in upright bins.

## Risk management/Environmental considerations/Quality controls:

We strive to produce high quality milk while using farming practices that have low impact on our natural resources. We consult regularly with our farm insurance agent to insure that we have adequate business liability and property loss insurance coverage. We have developed and use a list of long-time advisors for our business and consult with them regularly to maintain low level financial risk and a quality milk product.. We work with Natural Resource Conservation Service to insure continued compliance with federal highly erodible land and wetland cultivation regulations, as well as to insure acceptable use of our land.

## Key Advisors/Consultants:

Phil Sweeny- Dairy Farm feeds - grain and feed
Butch Gilcrest - Agri Mark
Jeff Irwin - Caravail - corn seed/ crops
John McDermott/ Kurt - Vermont Vet - herd health Jeff Proudy - Vermont Farm Supply - equipment repairs
Richard Wright - attorney
Joel Carpenter - Accountant /taxes
Patty Duffy - VACC
Jeffery Temple - Yankee Farm Credit, White River Jct., VT
Country Way insurance S. Royalton - Insurance

## Products and Markets Description:

Our farm produces milk, dairy replacements, corn silage and hay. We market our fluid milk production through Agri-Mark. We sell our bull calves locally, and usually have a modest amount of hay sales tolocal horse owners. We also sometimes trade hay for sawdust bedding with Tony Jones. Milk production/sales for the past 2 years (2005/2006) has averaged 1.3MM poundsofmilk.


## III. Analyses

## SWOT Analysis:

With the assistance of Betsy Miller we completed a Strengths/Weaknesses/Opportunities/ Threats analysis of our farm operation. The following summarizes the results of our analysis.

## Strengths

- Strong family desire to continue farming and a commitment to keep farm family
- Willingness to learn and change farm practices, and to adapt to improve farm operations
- Proven track record of consistently raising quality herd replacements in numbers sufficient to increase overall herd size.


## Weaknesses

- Undersized and inefficient cow barn for current herd size and increasing cow numbers
- Need to improve current herd production record system
- Lack of knowledge on legal issues relating to cow/equipment transfer
- Lack of experience working with farmfinancial records (Mike)


## Opportunities

- Strong local dairy communty with business support infrastructure in place.
- Strong area demand for residential building lots; potential for land sales income
- Potential exists for sale of development rights to generate revenue.
- Currently high fluida milk prices offer opportunity for capital improvements and purchases.

- Ayalability of good rental crop land is decreasing due to area development pressures
- Good/dependable farm labor is difficult to find and keep
- Property taxes are continually increasing and becoming a financial burden
- Farm operating costs are increasing at a faster level than milk prices.
- Historical low prices and volatility of milk market makes it difficult to maintain (and plan for) a viable dairy operation.


## Management Analyses:

Collectively, we feel that we possess adequate farm management skills (financial, livestock, crops, and equipment/ building management) to succeed in the dairy business. We currently split the management responsibilities on the farm. Bill manages the milking of the cows, the book keeping. Mike manages herd health records and heifer raising. We share the crop management responsibilities. We feel that enrollment in the DHIA herd management program (with the use of PC dart) is a needed improvement to our present herd management program. Mike will be taking the lead on setting up our herd on this program in 2008, and will be in charge its management there after. We also recognize that Mike will need to become more familiar with all aspects of managing the finances of dairy operation prior to him taking ove in January of 2009. For this reason Mike will plan to work with Bill more closely in managing the farm's financial record keeping and will also take advantage of the Farm Service Agency financial management training course, if available in 2008.

## Market Analysis:

We will continue to ship our milk to Agri- Mark until the transfer of cows to Mike. At that time Mike will reevaluate the options and decide whether to continue with Agri-Mark.



## IV. Planning

## Proposed Business Ideas and Strategies

The key issues facing our operation are:

- Need to increase net farm income to a sustainable level for Mike' future in dairying
- Need to increase our dairy herd size and overall herd production
- Need to provide affordable, short term improvements to milking efficiencies and herd housing
- Need to secure financing for Bill's capital improvements in 2008
- Need to secure financing for Mike' capital acquisitions in 2009
- Need for legal guidance to finalize Mike' acquisition of cattle/machinery in 2009

In order for us to continue farming we need to update the facilities wherewe milk and house the cattle. We are currently milking the cows "in shifts." This is very time consuming and labor intensive. We believe that by creating a better milking facility (step- up parlor), we will be more efficient. We hope to be able to milk more cows without increasing our labor requirements.
We also need to provide an affordable solution to our current lack of housing for part of the milking herd. After weighing all options, it has been decided that the best short term solution is to construct a $45^{\prime}$ X $96^{\prime}$ hoop barn structure to cover the existing barn yard and the feed bunks. It is anticipated that the capital improvements will adequately improve milking efficiencies and cow comfort for our dairy herd during this expansion period.
We have a proven record for being able to increase our herd size with our own replacement heifers. This will allow us to gradually increase our herd size as we improve our facilities and Mike develops the skills needed to manage the farm operation.

We recognize that inadequate production records on our cows hinder our ability to increase our milk production. In 2008 we will begin enrollment in DHIA and will use PC Dart herd management software. By using these tools we hope to better monitor our herd's performance and make decisions thet will increase our productivity.
We will be buying a feed mixer wagon and will begin feeding a TMR in early '08. We will have our forage crops analyzed and will work closely with our grain sales representative to ensure that our cows are-getting a balanced ration to maintain herd health and increase productivity.
As Mike plans to take over the operation in ' 09 he has to learn about the financial records that are required. Mike will learn by doing as we work together to keep the books in ' 08 . We both will be educating ourselves on what the implications of Mike buying the cattle and machinery from Bill will be. As our farm passes from one generation to the next it is important to us that we keep it simple and don't create undue burdens for either party. To ensure this we will consult further with Annette Higby on the legal aspects of this transfer.

We will both work closely with VACC and/or Yankee farm credit to ensure that we have the best possible financing options available.

The current milk price allows us to make some improvements to our facilities and to make purchases that we have needed (mixer wagon). We know from the past that the price of milk
will go down thus we have made the decision to expand our facilities in stages. This allows us to make the improvements that we need while keeping our debt load manageable.

Our long term goals for facilities include building a modern $120+$ cow free stall barn with a milking parlor. In order to have the net cash flow to finance this we need to increase our herd size and production. We hope to be in a position to do this in 5-7 years.
The eventual goal is for the farm in its entirety to be passed from Bill to Mike. This must be done in a way that allows Mike to maintain a manageable debt load while ensuring that Bill has adequate funds to see him through his retirement years. We feel that we have two options open to us that we could utilize if it becomes necessary. The first would be sales of building lots from the farm. We could potentially sell non crop land acres that would generate income without decreasing the needed crop growing acres from the farm. The second option would be to sell the farms development rights. We have not fully explored this option and what the implications would be but hold it as option to possibly generate some revenue if it became necessary.

We have developed farm net cash flow projections, which we will use as benchmarks for tracking our progress in meeting our financial goals.

Goals - 3-4 years:


- Increase milking herd to 95 cows
- Purchase mixer wagon and begin feeding a TMR
- Increase herd production to 16,000 pounds/cow
- Achieve gross farm income of $\$ 296,400$
- Begins using DHIAPC Dart herd management program
- Mike to become involved/ eventually taking over financial records
- Complete step up parloy renovations to main barn
- Complete construction of hoop barn facility


## 2009



- Mike to acquire cattle and machinery early $1 / 09$ and rent real estate from Bill Increase milking herd to 110 cows
ncrease herd production to 17,000 pounds/cow
- Achieve gross farm income of $\$ 364,600$
- Achieve farm cash net income from operations of \$61,700
- Continue using DHIA/PC Dart herd management program
- Mike to take full responsibility of farm financial records in 1/09

2010

- Increase milking herd to 120 cows
- Increase herd production to 18,000 pounds/cow
- Achieve gross farm income of $\$ 421,200$
- Achieve farm cash net income from operations of \$93,200
- Continue using DHIA/PC Dart herd management program


## 2011

- Maintain milking herd of 120 cows
- Increase herd production to 20,000 pounds/cow
- Achieve gross farm income of $\$ 468,000$
- Achieve farm cash net income from operations of $\$ 122,900$
- Continue using DHIA/PC Dart herd management program


Goals - long term (2012 and/or later):

- Mike to purchase farm real estate
- Mike to be in a financial position to be able to update facilities and equipment to meet the needs of an increased herd size- including 120+ cow free stall and milking parlor.

Implementation Plan Summary: The following refleets our plans for implementing selected, improved management practices, and outlines our anticipated timelines for completion.

| What | When | Lead Person | Cost / Source \$ | Advisors |
| :---: | :---: | :---: | :---: | :---: |
| DHIA / PC dart records | 2008 | Mike | \$500/farm | Brett Denny |
| Mike takes lead on farm financial records | Jan . 2008 | Mike | NA | Lenders |
| Consult with tax adviso about capital gains implications with sale of cattle and equipment | Winter 07-08 | Bill | NA | Tax advisor \&Jeff Temple YFC |
| Purchase mixer wagon | Winter 07-08 | Bill \& Mike | \$35,000 | Lender |
| Begin feeding TMR | Winter 07-08 | Bill \& Mike | NA | Nutrition advisor |
| Finalize design/get contractor bids on step-up parlor | Winter 07-08 | Bill \& Mike | NA | J. Porter |
| Finalize design/ get contractor bids on hoop barn | Winter 07/-08 | Bill \& Mike | NA | J. Porter |
| Build step- up parlor | Summer 08 | Bill \& Mike | \$70,000/new loan | J. Porter/lenders |
| Build hoop barn | Summer 08 | Bill \& Mike | \$45,000/new loan | J. Porter/ lenders |
| Assess progress in meeting herd production, cash income goals | July 08 (every 6 months) | Mike \& Bill | NA | Lenders \& Brett Denny(DHIA rep) <br> Herd nutrition |


|  |  |  |  | advisor |
| :---: | :---: | :---: | :---: | :---: |
| Contact FSA and enroll in financial record keeping classes | April 08 | Mike | NA | FSA |
| Apply to FSA for loan to purchase cattle and equipment from Bill (Mike) | April 08 | Mike | NA | lenders |
| Contact Annette Higby regarding transfer documents | Fall 08 | Bill | TBD/farm | Annette Higby |
| Investigate alternative milk markets under Mike ownership | Fall 08 | Mike | NA | denders |
| Mike buys cattle and equipment from Bill | Jan 09 | Mike \& Bill | Est. <br> \$150,000(final cost TBD) /nev loan | Lenders \& A. Higby |
| Mike to take full responsibility of financial record keeping | Jan 09 | Mike | NA | Lenders, tax advisor, Bill |
| Assess progress in meeting herd production, cash income goals | Jan '09 and every 6 months | Mike | NA | Lenders, DHIA rep, herd nutrition advisor |

## Planned Credit Needs (estimated) - Sources \& Uses of Funds

| Uses of Funds | Sources of Funds |  |  |
| :--- | :---: | :--- | :---: |
| Mixer wagon (winter 07-08) | $\$ 35,000$ | VACC | 35000 |
| Step up parlor (summer 08) | $\$ 70,000$ | Yankee Farm Credit | $\$ 70,000$ |
| Hoop barn (summer 08) | $\$ 45,000$ | Yankee Farm Credit | $\$ 45,000$ |
| Mike purchase <br> cattle/machinery (early 09) | $\$ 150000$ | FSA | $\$ 150,000$ |
| Total | $\mathbf{\$ 3 0 0 , 0 0 0}$ | Total | $\mathbf{\$ 3 0 0 , 0 0 0}$ |

## v. Financial Information

(See Appendix D- Financial Statements)

Key Farm Financial Indicators/Ratios (NOTE Comment *)

|  | 2004 | 2005 * | 2006 * | 2007 * | Change |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Consolidated Net Worth |  | \$1,021,940\$991,571 \$1,096,445 |  |  | \$104,874 |
| Farm Net Worth |  | \$871,940\$817,571 |  | \$908,245 | \$90,674 |
| Gross Cash Sales - Farm | \$200,902 | \$208,849 \$210,444 |  |  | \$1,595 |
| Net Farm Income - (Accrual adjusted for 2006) | \$6,750 | \$14,025 | \$45,817 |  | \$31,792 |
| Return on Assets - Farm (Accrual adjusted, net withdrawals + interest) |  | 1.94\% | 5.21\% |  | 3.28\% |
| Return on Equity - Farm (Accrual adjusted, net withdrawals) |  | 1.61\% | 1.61\% 5.60\% |  | 4.00\% |
| Operating Profit Margin Ratio - Farm (Accrua/(adjstd,net withdrawals+int. |  | 10.79\% | 24.04\% |  | 13.25\% |
| Net Operating Cash Flow - Farm | \$26,273 | \$29,593 | \$47,529 |  | \$17,936 |
| Current Ratio - Farm |  | 1.18 | 1.29 | 1.46 | 0.17 |
| Working Capital - Farm |  | \$56,781 | \$8,434 | \$19,151 | \$10,717 |

* Comment: Balance sheots were only made available for the dates of $5 / 1 / 107,5 / 10 / 06, \&$
8/23/05. Therefore, all resultant solyency, ligucuidity \& profitability indicators/ratios have been
Expressed based on this "best information available, and may not expressly conform to
generally accepted financial indicatorratio calculation methodologies


## Balance Sheet - historical

Discussion/analysis: Historical balance sheets for Dairyman farm were completed on 8/23/2005, $5 / 10 / 2006$ and $5 / 1 / 2007$. These historical balance sheets are not consistent with conventional end of the year reporting. There are also inconsistencies with the reporting of some of the assets. Agri-mark equity was not reported in '06 and no farm cash/checking/savings were reported in '07. However, we can note that there was not a significant change in the assets or liabilities. The intermediate and long-term liabilities have both declined as no new debts were incurred from May ' 06 to May '07.

## Income Statement - historical

Discussion/analysis: Historical Income Statements were created for the Dairyman farm for 2005 and 2006. Accrual adjustments were made to the 2006 Income Statement. These two statements both reflect a fairly stable operation with expenses and income showing minimal variation. Total income from the sale of milk was down by $\$ 11,000$ in 2006, even though milk production increased by100,000 pounds. This was due to the low milk prices seen in 2006.

## Cash Flow Projections

Discussion: A consolidated cash flow statement was prepared for the Dairyman farm for the years 2007, 2008, 2009, 2010, and 2011. Income was projected based on the farmgoalg of increased herd size and increased milk production. An effort was made to keep these increased numbers realistic and reasonable based on the historical performance of the farm. Expenses were calculated based on the historical numbers of the farm and prevailing market conditions. A conservative income/high expense model was employed. Projections for expenses of the planned facility updates were based on information provided by John Porter of Farm Planning Services, LLC.

It should be noted that projections for the years of 2007 and 2008 assume Bill continuing to own the cattle, machinery and real estate, with Mike continuing to participate in the operation as a farm employee. In very early 2009, the projections assume Mike will acquire the farm's cattle and machinery, and continue the farming operation while leasing the farm real estate from Bill through at least 2011. This change in ownership and future lease relationship is the main reason that the reader will note substantial reduction in interestand principal payments in the cash flow for 2009 and later. This is also the reason that projected farm lease expenses for 2009 and later increase substantially. Under Mike' ownership in/2009, Bill will participate in the operation as a farm employee (and landlord)earning $\$ 400 /$ week, which is included in the labor expense projections.

All assumption footnotes relevant to the projections are contained after the Consolidated Cash Flow statement with "cell reference" for each projected income/expense item where the need for explanation was deemedreeded/ Many projected income/expense items were developed based on the farm's actual historicahincome/expense performance and, in these cases, assumption footnotes were not provided.

Projections for all years 2007 - 2011) assume that management will successfully implement all planned management and facilities improvements outlined in the plan, and that these practices/improvements will result in the desired increases in milk production, operating efficiencies, and net cash flows. Milk prices for future years were projected at the current 2007 average price (per Agrimark 2007 projections). Absent the availability of any truly reliable long term source to more accurately project future years' milk prices, this was determined to be the most practical method to use for long term planning purposes. The reader may logically conclude that such long term projections are arguably suspect, considering the industry's history of widely fluctuating, and at times depressed milk prices. To address this potential argument, we have provided Cash Breakeven Analysis (with the Per Cow Production Scenarios). In that analysis, the reader will note that "breakevens" have been developed (before and after family living/taxes/debt payments) for Number of Cows, Production per Cow, Total Milk Production per Year, and Milk Price.

A summary of those breakevens $\underline{\text { after }}$ family living/taxes/debt payments is:

| Break Even <br> $\underline{(M i n i m u m s)}$ | $\underline{\mathbf{2 0 0 8}}$ | $\underline{\mathbf{2 0 0 9}}$ | $\underline{\mathbf{2 0 1 0}}$ | $\underline{\mathbf{2 0 1 1}}$ |
| :--- | :---: | :---: | :---: | :---: |
| Number of Cows | 91 | 100 | 102 | 96 |
| Production/Cow (lbs) | 15,300 | 15,300 | 15,100 | 15,800 |
| Total Milk Prod/Yr (lbs) | $1,454,900$ | $1,187,100$ | $1,815,300$ | $1,903,000$ |
| Milk Price (\$) | 18.67 | 17.59 | 16.39 | 15.46 |

While it is felt that all resultant cash flow projections are realistic and supported by the farm's historic financial performance and capabilities, the reader is invited to review the breakeven analysis and draw his/her own conclusions as to the attainability of all projected eash floty assumptions.


## VI. Appendices

Appendix A: Map to Farm \& Farm Soils Maps

Appendix B: Listing of Farm Machinery/Equipment

Appendix C: Building Descriptions \& Photos


Appendix D: Financial Statements


Appendix E: Technical Assistance Report "Dairyman Farm Free-stall Expansion", by Farm Planning Services, LLC, 11/2/07


## Appendix A:

Location Map

Bill \& Mike Dairyman Farm


## Appendix B. - Listing of livestock \& farm machinery/equipment

 Bill \& Mike Dairyman
## Livestock (9/07)

95 Holstein dairy cows
20 Bred heifers
50 Open heifers/Yearlings/Weaned calves
9 Calves
2 Bulls


Farm Machinery/Equipment


## Appendix C: Description of Buildings \& Photos





Main Dairy Barn - Some of the herd



Bill Dairyman's Residence


Rented Heifer Barn - N. Smith farm

## Appendix D: Financial Statements, etc.



| BALANCE SHEET |  |  |  |
| :---: | :---: | :---: | :---: |
| Vermont Farm Viability Enhancement Program |  |  |  |
| Farmer/Farm Name: Bill Dairyman |  |  |  |
| As of: 5/10/06 |  |  |  |
| FARM ASSETS |  | FARM LIABILITIES |  |
| Current Assets (liquid within 12 months) |  | Current Liabilities (due within 12 months) |  |
| Farm cash/checking/savings (Est) | 1,600 | *Accounts payable \& Case | 4,810 |
| Accounts rc'ble(Est) (Agrimark) | 15,200 | *Accrued (unpaid) interest not included above |  |
| Grain |  | *Income taxes and Social Security taxes payâble |  |
| Hay |  | $\rightarrow \square$ |  |
| Haylage | 3,400 | Principal due within 12 mos. on long-term debt | 5,878 |
| Corn Silage | 17,500 | Operating loan principal balance |  |
| Mkt livestock (raised \& pr'chsd inventory |  | Operating loan principal balance |  |
| Farm supplies on hand |  | Short-term loan principal balance |  |
| Prepaid expenses |  | Short-term loan principal balance |  |
| Other farm products on hand for sale |  | Current principal due on intermediate debt | 18,578 |
| Farm products stored for personal use |  | Other current liabilities (describe) |  |
| Other current assets (describe) |  | $\xrightarrow{\sim}$ |  |
| Total Current Assets | \$37,700 | Total Current Liabilities | \$29,266 |
| $\rightarrow$ |  |  |  |
| Intermediate Assets |  | Intermediate Liabilities (due 1 to 10 yrs. avg.) |  |
| Dairy Cows | 98,400 | VACC | 71,113 |
| Bred Heifers | 16,900 | , |  |
| Open Heifers/Yearlings | 17,600 | Intermediate loan principal balance |  |
| Calves | 19,200 | Intermediate loan principal balance |  |
| Machinery \& equipment | 92,750 | Intermediate loan principal balance |  |
| Farm vehicles |  | Capital lease payments due (discount for interest) |  |
| Book value of capital lease(s) |  | Other intermediate liabilities (describe) |  |
| Other intermediate assets (describe) |  |  |  |
| Total Intermediate Assets | \$244,850 | Total Intermediate Liabilities | \$71,113 |
|  |  |  |  |
| Long-term Assets |  | Long-term Liabilities |  |
| Home Farm/415 Acres | 800,000 | VACC | \$76,968 |
|  |  | YFC | \$87,632 |
| , |  | Long-term loan principal balance |  |
| Otherlong-term assets (describe) |  | Other long-term liabilities (describe) |  |
| C |  |  |  |
| Total Long-term Assets | \$800,000 | Total Long-term Liabilities | \$164,600 |
| // \$1/ |  |  |  |
| TOTAL FARM ASSETS | \$1,082,550 | TOTAL FARM LIABILITIES | \$264,979 |
|  |  |  |  |
| FARM NET WORTH: TOTAL FARM ASSETS MINUS TOTAL FARM LIABILITIES = |  |  | \$817,571 |
|  |  |  |  |
| Nonfarm Assets |  | Nonfarm Liabilities |  |
|  | 174,000 |  |  |
| Total Assets Adjusted for Nonfarm | \$1,256,550 | Total Liabilities Adjusted for Nonfarm | \$264,979 |
| Total Assets Adjusted for Nonfarm $\$ 1,256,550$ Total Liabilies Adjusted for Nonfarm |  |  |  |
| CONSOLIDATED NET WORTH: ADJUSTED ASSETS MINUS ADJUSTED LIABILITIES = |  |  | \$991,571 |


| BALANCE SHEET |  |  |  |
| :---: | :---: | :---: | :---: |
| Vermont Farm Viability Enhancement Program |  |  |  |
| Farmer/Farm Name: Bill Dairyman |  |  |  |
| As of: 5/1/07 |  |  |  |
|  |  |  |  |
| FARM ASSETS |  | FARM LIABILITIES |  |
|  |  |  |  |
| Current Assets (liquid within 12 months) |  | Current Liabilities (due within 12 months) |  |
| Farm cash/checking/savings |  | *Accounts payable \& Case | 13,750 |
| *Accounts receivable (Agrimark) | 15,500 | *Accrued (unpaid) interest not included above |  |
| Grain |  | *Income taxes and Social Security taxes payable |  |
| Hay |  | Principal due within 12 mos. on long-term debt | 7,318 |
| Haylage | 3,000 |  |  |
| Corn Silage | 42,000 |  |  |
| Mkt. livestock (raised \& pr'chsd inventory |  | Operating loan principal balance |  |
| Farm supplies on hand |  | Short-term loan principal balance |  |
| Prepaid expenses |  | Short-term loan principal balance |  |
| Other farm products on hand for sale |  | Current principal due on intermediate debt | 20,281 |
| Farm products stored for personal use |  | Other current liabilities (describe) |  |
| Other current assets (describe) |  | - |  |
| Total Current Assets $\$ 60,500$ |  | Total Current Liabilities | \$41,349 |
|  |  | 7 |  |
| Intermediate Assets |  | Intermediate Liabilities (due 1 to 10 yrs. avg.) |  |
| Dairy Cows | 109,200 | VACC (2 loans) | 53,439 |
| Bred Heifers | 21,000 |  |  |
| Open Heifers/Yearlings | 36,000 | Intermediate loan principal balance |  |
| Calves | 8,000 | Intermediate loan principal balance |  |
| Machinery \& equipment 98,000 <br> Farm vehicles  |  | Intermediate loan principal balance |  |
|  |  | Capital lease payments due (discount for interest) |  |
| Farm vehicles |  | Other intermediate liabilities (describe) |  |
| AgriMark Equity 25,000 |  |  |  |
| Total Intermediate Assets | \$297,200 | Total Intermediate Liabilities | \$53,439 |
| $\bigcirc$ |  |  |  |
| Long-term Assets <br> Home Farm/415 Acres |  | Long-term Liabilities |  |
|  | 800,000 | VACC | 73,966 |
|  |  | YFC | 80,701 |
|  |  | Long-term loan principal balance |  |
| Other long-term assets (describe) |  | Other long-term liabilities (describe) |  |
|  |  |  |  |
|  | \$800,000 | Total Long-term Liabilities | \$154,667 |
| $1$ |  |  |  |
| TOTAL FARM ASSETS | \$1,157,700 | TOTAL FARM LIABILITIES | \$249,455 |
|  |  |  |  |
| FARM NET WORTH: TOTAL FARM ASSETS MINUS TOTAL FARM LIABILITIES = |  |  | \$908,245 |
| Nonfarm Assets |  |  |  |
|  |  | Nonfarm Liabilities | 800 |
|  | 189,000 | Total Liabilities Adjusted for Nonfarm |  |
| Total Assets Adjusted for Nonfarm | \$1,346,700 |  | \$250,255 |
| CONSOLIDATED NET WORTH: ADJUSTED ASSETS MINUS ADJUSTED LIABILITIES =1 |  |  |  |
|  |  |  | \$1,096,445 |








Appendix E: Technical Assistance Report - Farm Planning Services, LLC


## Dear

I enjoyed visiting your farm and seeing the enthusiasm you have for the dairy industry. I apologize for being late and appreciated your patience. I saw parts of Vermont I never knew existed.

I can empathize with your desire to make some changes to make your operation run more efficiently. Unfortunately you have a lot of things that need to be changed at once. There are three main areas: milking center, milking herd housing and silage storage. It may be a challenge to the cash flow to address all of them at once, so I would say the priority would be the cattle housing and silage storage first and then the milking center. Although milking is a tough chore, you do have a way to get it done.

## Milking Center

- We discussed putting a step-up parlor in one end of the tie-stall barn along with a holding area. A double-6 will use up about 24 ' of the barn, which will probably leave about $75^{\prime}$ for the holding area, which would hold about 50 cows ( 9 ' alley x $75^{\prime}$ long divided by 15 square feet per cow and allowing for the first 12 to go straight into the parlor). The holding area could be defined by putting gates or a plank fence along the posts by the gutter and then clean by pushing the manure into the gutter cleaner.
- The ceiling height was the main issue. I would suggest getting a contractor's opinion on supporting the vertical barn beams with an " P " beam supported on each end with a vertical post and then raising the ceiling 2-3'
- You need to work with a milking equipment installer to figure out the specific dimensions needed. I would suggest a raised platform along with recessed pits with drains to get the maximum cow height. You'll need to work out the details of the front exits and steps down. You may need to have the gutter cleaner cross over prior to the parlor for good cow flow onto the elevated steps. See the attached general fact-sheet on step-up parlors.


## Cattle Housing

- We discussed building a 4-row, drive-through free-stall barn. This could be behind the present barn, about where the silage is now stored. We need to also plan for the future
barm on the center. I had been thinking that the milking center would go parallel to the about $160^{\prime}$ ( $96^{\prime}$ for the barn, $25^{\prime}$ good idea of putting it on the left. It will need a width of doable by making an earth cut into the bank. I would rend a $40^{\prime}$ wide parlor). This is building site at the beginning and then use the extra width for your excavating the entire silos. Putting the future milking center on the left makes it line your temporary bunker driveway. (See rough master plan sketch.)
- The 4-row free-stall would be the standard design. This could be traditional construction
or a hoop building (see attachment.)


## Bunker Silos

- The temporary bunker silos could go on the pad with the barn, but in the future plan for them to be on the level, past the end of the barn. Calculate the width to take off a 6 "slice per day. In a silo $45^{\prime} \times 10^{\prime}$, a $6^{\prime \prime}$ slice would be about $9,000 \mathrm{lbs}$. ( $45^{\prime} \times 10^{\prime} \times .5^{\prime} \times 40 \mathrm{lbs} / \mathrm{cu} . \mathrm{ft}$.). See bunker silo attachment for calculating sizes. An upper road may have to be planned add a center divider to separate corn and haylage. Pre-cast pane one large silo and plan to


## Cost

- Rough estimates are: $\$ 2,000$ /stall for the cow barn; milking parlor $\$ 5,000$ per stall for equipment and $\$ 10,000 /$ stall for the building. I would hope that you could build a low
Steps
- Contact NRCS about location of the future parlor and barn by the ditch area and provisions for milk room waste handling, manure storage, and earth cuts and grades. - Talk to an excavator person about the earth moving.
- Get step-up parlor designs from milking equipment company.
- Wet some rough bids from a contractor and hoop company for building a barn.
- flow with Mike and Betsy.

Feel free to contact me if you have questions.
cc: Betsy Miller
Michael Dolce
Sincerely,


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