<u>Case Study #1</u>: The Kattel Farm, Michael and Martha Kattel

Following is the first in a series of fictitious Case Studies prepared to illustrate the process involved, and benefits of completing a financial review to analyze options that might be available for a farm operation. Everything about this Case Study is made up, although the situation presented is common in the industry across the province. This Case Study illustrates how a review such as this could be conducted, the type of analysis that would result, and how the work done can assist participating farmers in making decisions about their business. The purpose of this Case Study is not to recommend a particular course of action. Individual results may vary.

<u>Overview</u>

Michael and Martha Kattel operate a farm in the Plainview area in central Alberta. Operations focus on the production of beef calves, although typically some surplus crops are sold into the feeder market. They have 250 cows, and normally sell the calves directly off the cows when they are weaned in late September. They own 4 quarters of land themselves, rent an additional 2, and control a 4 section grazing lease. They have all the buildings and equipment necessary for their operation. Facilities and equipment are adequate, but they will need to replace their baler before the next haying season

Michael and Martha provide most of the labour required to operate. They have 2 children, Alex (aged 20) and Andrea (aged 17), who help out on the farm when able. In addition, they hire some part time help during the summer months. Alex is in University, and hopes to become an engineer. He has no real interest in farming. Andrea is in Grade 12, and lives at home. Andrea loves farming and hopes to take over the farm some day. Michael works on the farm full time. Martha has a part time job in nearby Plainview as a bookkeeper. Michael is 48 years old. Martha is 46.

Financially, the Kattels fit the profile of many cow calf producers in the province. They have significant equity in their operation, and while cash flow has always seemed somewhat tight, have always paid their bills, and enjoyed a reasonable standard of living. In 2015, however, their neighbor, Bill Smith offered to sell them an adjoining quarter of land, and even offered to carry the financing at 4% interest, over 10 years, which they decided to do. They knew they couldn't afford the payments from present income, so also purchased an additional 50 cows to generate extra income, financed over 5 years as well.

Over the 2015 Christmas holidays Michael and Martha had some time to sit down with Alex and Andrea to do some planning for 2016. They did some income, expense and cash flow projections for the upcoming year, and came to the conclusion that their operation may have difficulty meeting all their financial commitments with this new debt and expanded operation, especially if cattle prices were to soften at all. They concluded that they would need to make some changes to either the operational side of their business, or the financial side, or possibly even both. Before considering options, however, they decided they should look at what they wanted to accomplish for both their business and for themselves personally.

Goals

Between themselves, Michael and Martha discussed what they want to achieve for themselves personally and for their farm business, then met with their children Alex and Andrea and agreed on what they would like to have in their list of goals. They came up with the following:

For them personally:

General statement: the Kattels like their farm life, and feel it has been a great place to raise their family. Now that the children are in early adulthood, their priorities are changing. Michael and Martha want to be able to spend more time and money on personal interests including travel.

Individual goals:

- Michael: wants to continue to farm until he is about 60, then would like to slow down. He would be really pleased if one of their children would take over the farm
- Martha: enjoys her non farm work, and as less time is required now in the home, would like to continue with her job for a few more years.
- Alex: is in his 3rd year of University, and only wants to complete his education, and establish himself in his profession. Michael and Martha have been helping with his University costs, and when that is done, hope to be able to assist with a down payment on a house.
- Andrea: wants to be a farmer. After finishing Grade 12, she hopes to attend Ag. College, then return to the farm, possibly work off the farm part time to earn extra income

Retirement/succession:

The family agreed that the first priority is to meet the retirement needs of Michael and Martha. This will consist of a retirement home and sufficient income for them to have a suitable standard of living. They also agreed that they should work toward Andrea being able to take over an operation that is viable, without excessive debt. Alex appreciates that his parents assisted him in getting his University training, and feels that if he is able to purchase a house after he is done schooling, he won't have any other financial needs in the near future. They agreed that any inheritance he would receive from his parents would come from their estate.

For their business:

General statement: the Kattels want to have a farm business that will provide them with sufficient income to meet their financial requirements, provide for growth into the future so it can remain competitive in the industry, and be sufficiently profitable that Andrea will be able to take it over, and be able to carry enough debt to allow her to at some point, buy it from her parents.

Specific goals:

1. within the next year – to resolve the financial challenges they are currently facing, and to purchase a new baler

2. within the next 3 years – to improve profitability to provide surplus funds for expansion
3. within 5 years – expand further, and update equipment, and to start putting away money in another investment for retirement purposes for Michael and Martha

The Status Quo assessment (statement and projections assuming no changes)
Using the Ag Business Analyzer financial analysis tool available on the Alberta Agriculture and Forestry website, the Kattels firstly completed a Status Quo assessment of their operation. The purpose of this part of the review is to gain information about their current operation and financial situation, and what they can expect financially if no changes are made. The results are summarized below:

Before Change Statement of Assets and Debts

Kattel Farm Asset/ Debt Summary

Assets (Jan 1, 2016)		Liabilities (Jan 1, 2016)	
Current Assets		**Current Liabilities**	
Cash in bank	25,680	Operating loan	0
Cash saved	10,000	Feeder loans	0
Crops for sale	5,600	Acc. payable	9,976
Feed & sup.	94,050	Acc. interest	1,843
Market livestock	39,600	Cur. port. term debt	90,485
Total	174,930	Total	102,304
Intermediate Assets		**Intermediate Debt**	
Mach & equip	377,300	Tractor loan	32,628
Breeding l/s	644,000	Cow loan	80,000
Total	1,021,300	Total	112,628
Long Term Assets		**Long Term Debt**	
Land	1,375,000	Land loan	356,189
Grazing lease	250,000	Private mortgage	360,000
Buildings	250,000		
Total	1,875,000	Total	716,189
Total Assets	3,071,230	**Total Debt**	931,121
		Net Worth	2,140,109

Financial Ratios (Jan 1, 2016)	
Current Ratio	1.71
Debt to Equity Ratio	0.44
Equity Ratio	0.70

Definitions

* Current Portion Term Debt - is the portion of the Intermediate and Long Term Debt that is due within the next 12 months. This amount is in addition to the Intermediate and Long Term Debt shown. In this case, it includes 15,372 of the Tractor loan, 20,000 of the Cow loan, 15,113 of the Land loan and 40,000 of the Private Mortgage.

Current Liabilities - is debt that is normally due within the upcoming 12 months

Intermediate Debt - is the portion of the debt that is due beyond 12 months and within 10 years

Long Term Debt - is the portion of the debt that is due beyond 10 years

Discussing these numbers with their financial consultant, they were told that the financial ratios and indicators all seemed to be in an acceptable range for the enterprise they are involved with. They decided to look at projected revenues and expenses to see if net revenues and cash flow would be sufficient to cover their financial demands. These follow:

Before Change Income and Expense Summary

Kattel Farm Income/Expense Summary

Income (Jan 1 - Dec 31, 2016)

Income				
Livestock sales				
calves	180	x	1,500	270,000
cull cows	33	x	1,400	46,200
repl. hfrs	15	x	2,000	30,000
bulls	4		2,500	10,000
Total				356,200
Crop sales				
oats	4000	x	2.80	11,200
				0
Total				11,200
Other income				
Gov't programs				2,000
Custom work				3,000
Other				6,800
Total				11,800
Total Cash Income				379,200
Inc. side accrual adjustments				4,200
Total Accrued Income				383,400

Expenses (Jan 1 - Dec 31, 2016)

Expense	
Livestock expense	71,750
Cropping expense	90,040
Overhead expense	13,655
Operating interest	2,777
Term interest	35,613
Total Cash Expense	213,835
Non Cash Expense	
Depreciation	37,684
Exp. side acc. adj.	748
Total Non Cash Expense	38,432
Total Accrued Expense	252,266
Net Accrued Farm Income	131,134
Net wages	10,000
Living costs	60,000
Income tax	15,000
Debt Service Capacity	139,431
(Net acc. farm inc. + depreciation + term interest + non farm income - living costs - income tax)	

Profitability Ratios:	
Debt Service Ratio:	1.04
Return on Assets:	3.47%
Return on Equity:	3.22%
Max. operating loan required:	123,320

Payments	
Principal	98,224
Interest	35,613
Total	133,837

Closing Financial Ratios:	
Current Ratio	1.75
Debt to Equity Ratio	0.39
Equity Ratio	0.72

This statement provided further insight to the challenges the Kattels were facing:

1. the operation is projected to be profitable with present livestock prices, and costs anticipated.
2. with the debt being carried, at the terms presently in place, ability to service debt from earnings would be marginal

3. cash flow projections completed indicated that the present operating loan of $50,000 would be insufficient to fund operations over the projected year. An operating loan requirement of at least $125,000 was indicated. The projections also indicated that continuing to operate as at present would result in a slight decrease in cash reserves over time.

While the review indicated that the Kattels should generally be able to meet their financial demands, if cattle prices were to decline from present high levels, or costs increase significantly, that situation could quickly change. If, for example, the sale price of their calves was to drop by 10%, their ability to service debt would drop to $25,000 below their ability to repay, assuming all other numbers in their projections remain the same.

The Action Plan:

With the better understanding they now have about the financial aspects of their business, and what to expect if they were to continue the operation as at present, the Kattels decided to look at some alternatives for change that were available to them. In doing so, they continually checked the options against their stated goals to ensure the alternative chosen would take them in the direction they want to go.

The alternative they decided to pursue was:

- to refinance the new land loan over longer terms. For this loan, they feel 20 years would be an appropriate term
- to background their calves prior to sale. They have been selling the calves in late September, but felt that if they could keep them an extra 2-3 months and precondition/background them they could add extra value to create additional income and profit. They have the corrals and equipment necessary to do this
- to generate the extra feed for the calves, they will silage the 50 acres of grain they normally harvest for sale. The crop will be custom harvested, and will generate the extra feed necessary for this change in operations
- to request an increase in the operating loan to $150,000 to accommodate the extra operating funding required by this change in operations

Operations were projected for 2 years based on this change. The results follow:

After Change Projection (Year 1)

Income (Jan 1 - Dec 31, 2016)				
Income				
Livestock sales				
calves	180	x	1,700	306,000
cull cows	33	x	1,400	46,200
repl. hfrs	15	x	2,000	30,000
bulls	4		2,500	10,000
Total				392,200
Crop sales				
oats	2000	x	2.80	5,600
				0
Total				5,600
Other income				
Gov't programs				2,000
Custom work				3,000
Other				6,800
Total				11,800
Total Cash Income				409,600
Inc. side accrual adjustments				-5,600
Total Accrued Income				404,000

Expenses (Jan 1 - Dec 31, 2016)	
Expense	
Livestock expense	77,330
Cropping expense	92,340
Overhead expense	13,655
Operating interest	4,056
Term interest	35,613
Total Cash Expense	222,994
Non Cash Expense	
Depreciation	37,684
Exp. side acc. adj.	753
Total Non Cash Expense	38,437
Total Accrued Expense	261,431
Net Accrued Farm Income	142,569
Net wages	10,000
Living costs	60,000
Income tax	15,000
Debt Service Capacity	150,865
(Net acc. farm inc. + depreciation + term interest + non farm income - living costs - income tax)	

Profitability Ratios:	
Debt Service Ratio:	1.40
Return on Assets:	3.86%
Return on Equity:	3.72%
Max. operating loan required:	128,114

Payments	
Principal	72,194
Interest	35,613
Total	107,807

Closing Financial Ratios:	
Current Ratio	2.66
Debt to Equity Ratio	0.41
Equity Ratio	0.71

After Change Projection (Year 2)

Income (Jan 1 - Dec 31, 2017)				
Income				
Livestock sales				
calves	180	x	1,700	306,000
cull cows	33	x	1,400	46,200
repl. hfrs	15	x	2,000	30,000
bulls	4		2,500	10,000
Total				392,200
Crop sales				
oats	0	x	0.00	0
				0
Total				0
Other income				
Gov't programs				2,000
Custom work				3,000
Other				6,800
Total				11,800
Total Cash Income				404,000
Inc. side accrual adjustments				0
Total Accrued Income				404,000

Expenses (Jan 1 - Dec 31, 2017)	
Expense	
Livestock expense	79,330
Cropping expense	92,340
Overhead expense	13,655
Operating interest	2,424
Term interest	33,621
Total Cash Expense	221,371
Non Cash Expense	
Depreciation	37,844
Exp. side acc. adj.	621
Total Non Cash Expense	38,465
Total Accrued Expense	259,836
Net Accrued Farm Income	144,164
Net wages	10,000
Living costs	60,000
Income tax	15,000
Debt Service Capacity	150,630
(Net acc. farm inc. + depreciation + term interest + non farm income - living costs - income tax)	

Profitability Ratios:	
Debt Service Ratio:	1.40
Return on Assets:	3.53%
Return on Equity:	3.24%
Max. operating loan required:	87,561

Payments	
Principal	74,216
Interest	33,621
Total	107,837

Closing Financial Ratios:	
Current Ratio	2.60
Debt to Equity Ratio	0.36
Equity Ratio	0.73

Some comments about these results are as follows:

1. The additional productivity and income results in an improvement in projected Net Accrued Income from $131,134 in the projection before the change to $144,164 in the second year of the plan
2. With the refinancing proposed, payments should drop from the $133,837 at present, which they will only marginally have the ability to service, to $107,837/yr. in Year 2. The relationship of payment capacity to payment requirement (Debt Service Ratio) improves from 1.04 to 1.40, a ratio generally considered to be acceptable
3. With the changes proposed, the Kattels will have acceptable margins to sustain them should livestock prices fall, or they need to borrow money in the near future. As well, they anticipate that they will want to contribute funds to Alex to purchase a home in the next few years – these changes should result in a positive cash flow allowing them to do that
4. With these improvements, the amount of operating loan required for the first year of the plan is expected to increase slightly, as marketing will be delayed, then is expected to drop in year 2 and beyond as surplus funds are available to cover operating costs

Summary

Michael and Martha decided to implement these changes as they appear to be feasible and will allow them to work toward their stated goals. Some additional things they will work into their plan are:

- ✓ If, after the first year the plan appears to be working as expected, they will use part of their surplus funds each year to build a non farm retirement fund for themselves

- ✓ If Andrea is still interested in taking over the farm operation in 5 more years, they will access Growing Forward funding, if available, to develop a Succession Plan to detail how this might take place
- ✓ They will look into using life insurance policies in the shorter term to ensure that the farm will be able to remain intact for Andrea in the event of their deaths

Working through the financial review, and doing forward looking projections based on possible options available, Michael and Martha were able to make informed decisions about changes they need to make to meet their goals and maintain a viable farming operation.