<u>Case Study #2</u>: The Wheat Farm, Tyler and Chrystal Wheat

Following is the second 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>The Wheat Farm (Beginning Farmers)</u>

Tyler and Chrystal Wheat are young farmers working with Tyler's family in their cash crop operation in the Prosperity area in central Alberta. Tyler and Chrystal own 1 quarter of land, and cash rent another. Tyler's parents (Bill and Edna) are well established operators in their 60's. They presently own 10 quarters of land of which 1,400 acres are cultivated, and rent an additional 2 quarters with 300 acres cultivated. The farm is presently a 3rd generation operation. Tyler and Chrystal hope to carry it into the 4th generation. Bill and Edna would like to see that happen as well, and are willing to do whatever they can to help.

The 2 families operate the 14 quarters involved as one unit. Bill and Edna own most of the farm equipment necessary (Tyler and Chrystal own 1 tractor). The operation is based out of Bill and Edna's yard where all the buildings are located. Tyler and Chrystal live in nearby Prosperity. Tyler works full time there as a chemical rep. for a farm supply company where he earns about $65,000/year. Chrystal works part time in a bank and earns about $20,000/year. After taxes and deductions, they take home about $60,000 together. They have 2 preschool age children. They rent a house in Prosperity for $850/mo,. Tyler takes time off work spring and fall to help his parents on the farm, trading his labour for the use of their equipment on his part of the operation. Tyler and Chrystal are both 32 years old. Bill and Edna have 2 other adult children who have careers away from the farm.

It has always been Tyler's dream to one day take over the farm. Bill and Edna have hoped as well that one of their children would want to farm. To that end, Tyler and Chrystal have been getting more involved in the operations since they married 4 years ago. 3 years ago they purchased their present quarter, then 2 years ago bought the tractor and rented an additional quarter. As Bill and Edna have been finding they need to slow down a bit, Tyler and Chrystal have been taking up the slack. Both families feel that the time is now right for them to make serious plans for the transition.

Thinking about options for this change, Bill, Edna, Tyler and Chrystal met with their accountant to discuss some tax aspects, and their accountant told them about the Business Opportunity Grant available through Growing Forward that might assist in the cost of hiring a Consultant to assist in the preparation of a Succession Plan. On this advice, the families decided to apply to the program and arranged meetings with a Consultant.

(Note: in this Case Study Tyler and Chrystal's side of the transition will be examined. Bill and Edna's side will be the subject of Case Study #3.)

<u>Goals</u>

Prior to his first meeting with them, their Consultant, Joe Analyst asked Tyler and Chrystal to provide him with information about their operation, their goals, financial challenges and other basic financial information including their assets and debts. In his first meeting with them on the farm, he collected additional information necessary to complete the financial review.   A significant amount of time was spent discussing what they want to achieve for themselves personally, and for their farm business.   Following is a list of what they came up with:

Personal Goals

Tyler and Chrystal have wanted to make farming their career for several years now. Both were raised on farms, love the life and the work, and feel that it is an excellent place to raise their children. Specific personal goals are as follows:

- both want to live on the farm and raise their children in the rural environment
- Tyler would like eventually to just farm, but realizes that while he is young, will need to work some in the off season to generate extra income to meet financial demands
- Chrystal wants to be a stay at home Mom, and farming partner mainly, but does enjoy her work, and the social contact her job provides, so for at least 5 years, and possibly longer would like to continue on with her part time job. While she is working, her mother-in –law, Edna cares for her 2 small children
- both Tyler and Chrystal want to be the best producers and business people they can be, and plan to take training as available to help them in that regard
- both want their children to have career options when they reach adulthood. They have started RESPs for both children to assist with post secondary education. With respect to the farm, they hope to have a financially stable operation when they reach retirement age that their children can take over if that is their choice
- at present, they have no specific plans for retirement or other personal endeavors. They realize that for the next 5 years at least, they will need to concentrate on establishing themselves in their farming business. They plan to address those issues again in another 5 years

Goals for their business

As Tyler and Chrystal are beginning farmers, their overall business goal is to establish themselves in a viable farming business that will be able to provide them with an adequate standard of living and meet their financial demands. Within that general goal they have some shorter term things they want to accomplish:

- within the next year – to finalize arrangements to take over farm operations from Tyler's parents

- within the next 3 years – to refine operations and management practices to maximize profitability
- within 5 years – to build equity, improve financial ratios and indicators, possibly consider expansion

Tyler and Chrystal will be taking over an established farming operation, so little will be required in the first years in terms of additional equipment and facilities. A swather needs to be replaced within 2 years, but nothing else in the near future. The biggest issue for them will be profitability and risk, as they will be carrying a large amount of debt, and as such will be vulnerable to financial setbacks

The Status Quo assessment (statement and projections assuming no changes)
Working from the information the Wheats provided, Joe Analyst completed a Status Quo assessment for them. 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

T. & C. Wheat Farm Asset/ Debt Summary

Assets (Jan 1, 2016)		Liabilities (Jan 1, 2016)	
Current Assets		**Current Liabilities**	
Cash in bank	4,600	Operating loan	25,000
Cash saved	0	Canola Advance	10,000
Crops for sale	59,500	Acc. interest	1,072
Feed & sup.	0	Cur. port. term debt	23,490
Total	64,100	Total	59,563
Intermediate Assets		**Intermediate Debt**	
Mach & equip	85,000	Tractor loan	24,000
RRSPs	12,600	Truck loan	5,550
Total	97,600	Total	29,550
Long Term Assets		**Long Term Debt**	
Land	400,000	Land loan	224,038
Buildings	0		
Total	400,000	Total	224,038
Total Assets	561,700	**Total Debt**	313,150
		Net Worth	248,550

Financial Ratios (Jan 1, 2016)

Current Ratio	1.08
Debt to Equity Ratio	1.26
Equity Ratio	0.44

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 8,000 of the Tractor loan, 6,486 of the truck loan and 9,004 of the Land loan

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

Joe explained that the ratios and financial indicators for the present Asset/Debt Summary are marginal, but within acceptable limits for Tyler and Chrystal in their present situation. The Current Ratio of 1.08 suggests that there should be sufficient resources to meet financial obligations within the next 12 months, given that there is non farm income available to help cover ongoing financial demands. Their Debt to Equity and Equity ratios are weak for a farm operation, but, again, adequate in a situation where some other source provides the majority of the income. Projections for the upcoming year show the following:

Before Change Income and Expense Summary

T. & C. Wheat Farm Income/Expense Summary

Income (Jan 1 - Dec 31, 2016)

Income				
Crop sales				
wheat	7,000	x	5.50	38,500
canola	4,500	x	10.00	45,000
barley	8,500	x	4.10	34,850
Total				118,350
Other income				
Gov't programs				1,500
Custom work				0
Other				1,000
Total				2,500
Total Cash Income				120,850
Inc. side accrual adjustments				3,850
Total Accrued Income				124,700

Expenses (Jan 1 - Dec 31, 2016)

Expense	
Cropping expense	86,425
Overhead expense	3,200
Operating interest	939
Term interest	11,213
Total Cash Expense	101,777
Non Cash Expense	
Depreciation	6,800
Exp. side acc. adj.	-96
Total Non Cash Expense	6,704
Total Accrued Expense	108,481
Net Accrued Farm Inc.	16,219
Net wages	60,000
Living costs	45,000
Income tax	3,000
Debt Service Capacity	46,232
(Net acc. farm inc. + depreciation + term interest + non farm income - living costs - income tax)	

Profitability Ratios:	
Debt Service Ratio:	1.33
Return on Assets: (see Note)	-3.02%
Return on Equity: (see Note)	-10.40%
Max. operating loan required:	42,754

Payments:	
Principal	23,490
Interest	11,213
Total	34,704

Closing Financial Ratios:	
Current Ratio	1.36
Debt to Equity Ratio	1.00
Equity Ratio	0.50

Note: Return on Assets and Equity as shown assume returns after Living Costs and Income Tax. Before those items, returns would be higher.

The Income Expense Summary provided further insight about what Tyler and Chrystal could expect financially if they were to continue on as at present:

1. farm operations should continue to be profitable and provide supplementary income for them in addition to their non farm income

2. they should be able to continue to service their debt, and build equity, as they pay down the debt on their land and tractor
3. although positive, returns would not likely be sufficient to allow them to gain sufficient equity to establish themselves in their own farming operation independent of their parents

The Action Plan:
Both families would like to see the transition to Tyler and Chrystal take place. Joe Analyst took some time exploring alternatives with them to determine the best way in which this could be done. In addition to Tyler and Chrystals goals, Bill and Edna had to make sure they would have enough to meet their financial needs, and that the plan would be fair to their other 2 adult children.

The plan they decided on involves Tyler and Chrystal taking over the operation, but for Bill and Edna to continue to be involved for the next few years providing additional labour during busy seasons, and management advice as required. Some of the features of the plan are as follows:

- Tyler and Chrystal will purchase the home quarter for $600,000, using bank financing. Bill and Edna will use the money to build a new home on an adjoining quarter they will keep
- Tyler and Chrystal will rent the remaining 9 quarters of land Bill and Edna own, however, 3 of the quarters (the land they will inherit eventually) will be rent free. The rent on the remaining 6 1quarters will be slightly reduced
- Tyler and Chrystal will rent Bill and Edna's equipment line for $60,000 per year. As items need to be replaced, Tyler and Chrystal will purchase the new items, and the trade in/sale amount will return to Bill and Edna. The amount of machinery rent will decrease annually as items are replaced
- Bill and Edna will continue to farm the ½ section they rent. They will pay Tyler and Chrystal $20,000 per year back for equipment usage as long as they continue to do so
- Tyler will reduce his non farm employment to part time and will earn about $10,000 per year after taxes and deductions. Chrystal will continue on with her employment as at present

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					
Crop sales					
wheat	30,000	x	5.50	165,000
canola	16,000	x	10.00	160,000
barley	30,000	x	4.10	123,000
Total				448,000
Other income					
Gov't programs				5,000
Custom work				20,000
Other				5,000
Total				30,000
Total Cash Income				478,000
Inc. side accrual adjustments				226,595
Total Accrued Income				704,595

Expenses (Jan 1 - Dec 31, 2016)	
Expense	
Cropping expense	561,930
Overhead expense	12,100
Operating interest	6,782
Term interest	28,342
Total Cash Expense	609,154
Non Cash Expense	
Depreciation	6,800
Exp. side acc. adj.	1,844
Total Non Cash Expense	8,644
Total Accrued Expense	617,798
Net Acc. Farm Income	86,797
Net wages	30,000
Living costs	45,000
Income tax	5,000
Debt Service Capacity	101,939
(Net acc. farm inc. + depreciation + term interest + non farm income - living costs - income tax)	

Profitability Ratios:	
Debt Service Ratio:	1.65
Return on Assets:	5.96%
Return on Equity:	13.25%
Max. operating loan required:	280,861

Payments	
Principal	33,424
Interest	28,342
Total	61,766

Closing Financial Ratios:	
Current Ratio	1.09
Debt to Equity Ratio	3.37
Equity Ratio	0.23

After Change Projection (Year 2)

Income (Jan 1 - Dec 31, 2017)					
Income					
Crop sales					
wheat	39,900	x	5.50	219,450
canola	25,650	x	10.00	256,500
barley	48,450	x	4.10	198,645
Total				674,595
Other income					
Gov't programs				5,000
Custom work				20,000
Other				5,000
Total				30,000
Total Cash Income				704,595
Inc. side accrual adjustments				0
Total Accrued Income				704,595

Expenses (Jan 1 - Dec 31, 2017)	
Expense	
Cropping expense	561,930
Overhead expense	12,100
Operating interest	7,881
Term interest	33,539
Total Cash Expense	615,450
Non Cash Expense	
Depreciation	11,256
Exp. side acc. adj.	-168
Total Non Cash Expense	11,088
Total Accrued Expense	626,539
Net Acc. Farm Income	78,056
Net wages	30,000
Living costs	45,000
Income tax	5,000
Debt Service Capacity	102,851
(Net acc. farm inc. + depreciation + term interest + non farm income - living costs - income tax)	

Profitability Ratios:	
Debt Service Ratio:	1.34
Return on Assets:	5.44%
Return on Equity:	8.86%
Max. operating loan required:	289,972

Payments	
Principal	43,390
Interest	33,539
Total	76,929

Closing Financial Ratios:	
Current Ratio	1.24
Debt to Equity Ratio	2.66
Equity Ratio	0.27

Some comments about these results are as follows:

1. Year 1 is the transition year, so expenses and payments do not include 1 full year of interest and principal payments on the new mortgage. Year 2 shows a typical year after transition and shows all expected revenues and expenses for a full year.
2. The Current Ratio is projected to be marginal in the initial years, but should improve over time as cash reserves are built up
3. The business will be highly leveraged as indicated by the Debt to Equity Ratio and Equity Ratio. One of Tyler and Chrystal's goals is to work toward building equity to gain financial stability
4. The farm is projected to be profitable going forward. Tyler and Chrystal feel comfortable with the projected income numbers in that they are consistent with what Bill and Edna have been experiencing in the past number of years
5. Cash flow projections indicate that the farm should be able to operate within it's operating loan of $300,000, however to do that, they will need to defer payment on some input costs until fall for the first few years
6. The Debt Service Ratio in Year 2 (the typical After Change Year) is projected to be 1.34, an amount that is normally considered to be adequate, but not excessive. This ratio is calculated after non farm income, living costs and income tax, and provides evidence to the fact that they will need to continue to earn income off the farm until either net farm income improves, or payment requirement decreases. It also indicates that they will need to be careful about incurring additional debt as they do not have a significant ability to handle additional payments

Summary

Tyler and Chrystal were satisfied with what the projections showed them, and decided to proceed with the plan to take over the farm from Bill and Edna. While the plan appears to be feasible, they do realize that there are some significant risks involved. They feel they can manage them, now that they have some awareness of them. Some additional things they will work into their plan are:

- ✓ They will now get professional advice from their accountant and lawyer on how to set up the farm transition to best serve the interests of them, and their parents, Bill and Edna. They have already received some general advice in these areas, so believe they should be able to implement this plan, however, are prepared to revisit any aspect of it should the need arise after they get this professional advice
- ✓ Within the first year, develop a Risk Management Plan, and take actions as required to mitigate the risks as much as possible
- ✓ Access other sections of Growing Forward 2 if possible for additional training in farm management skills.
- ✓ Develop an Environmental Farm Plan to identify environmental issues present on the farm, and access funds available to address those issues

Working through this financial review provided Tyler and Chrystal with the numbers they needed to decide if they would like to continue to develop the plan to take over the farm, and areas where they and Bill and Edna need more information. They will now move to the next steps in the process in the development of a detailed Succession Plan.