

# **Sunrise Cattle Corporation Business Plan 2004**

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## **Executive Summary**

### **Introduction**

The following is a proposed business plan and financial projections for Sunrise Cattle Corporation (SCC). SCC is a community owned cow/calf herd based in Langenburg, SK. SCC consists of 10 members, made up of 6 cattle producers, 3 grain farmers, and 1 insurance broker. SCC currently has a herd size of 143 cows and the goal is to reach a herd size of 2000 cows by the year 2013.

The SCC will be producing an all natural product that contains no growth promoting hormones or antibiotics and will consist of uniform genetics. With a herd size of 2000 head, the SCC will be able to command a greater market share and have more supply stability than producers with smaller numbers.

By starting this new business venture the members of the SCC are hoping to create a stronger community. The SCC has been driven by the desire to try something new and is looking for a way to improve the income of local producers.

### **Operations Plan**

The SCC will contract out the care of the animals to local producers. The contractors will be responsible for all costs associated with taking care of the animals and will be compensated accordingly.

SCC will expand the herd from 143 cows to 2000 cows by 2013. In total 15% of the cattle will be culled from the natural beef herd, including 5% death loss during calving, 5% removed due to sickness or treatments prior to weaning, and another 5% will be removed due treatments required in the feedlot. Approximate culling rates for cows and bulls in the business plan are 12% and 20% respectively per year.

The cows will be bred to calve during a sixty day period in May and June. Therefore, the breeding period will take place from September 1 to October 31 of the previous year. Weaning of the calf crop will occur in late October or early November. At this point some of the calves will be shipped to market because they have been

eliminated from the all natural herd, and the remainder of the calves will be taken to a feedlot where the SCC will pay to have the calves raised to slaughter weight.

The cost to contract the care per cow will be \$580. This value includes pasture grazing, winter feed and bedding, machinery, labor, and all other costs associated with taking care of a cow year round. Once the calves are put into a feedlot, it will cost \$0.65 per pound of gain to raise the calves to a finished weight.

## **Human Resources Plan**

Currently each member of the SCC has been involved in taking care of the herd of 143 cows. Once the herd begins to expand the SCC plans to hire some labor to help with the additional work load. In 2005 the SCC will hire a secretary for a part time position and he/she will work 10-15 hours per week. In 2008 a manager will be hired when the herd reaches 1000 head and approximately four contractors are required. The manager will be a full time position and his/her salary will increase as the size of the herd increases. Once the manager is hired the secretary's position will be scaled back, as the manger will take over these duties. The SCC also has a board of directors that is currently established at six elected officials. These elected officials consist of 6 of the groups founding members. Figure 1 illustrates the chain of command for the SCC.

## **Marketing Plan**

SCC will be able to charge a price that is above market price for beef, because natural beef is a premium product. The estimated premium for natural beef is approximately 10% above the market price (McNinch, 2004).

The opportunity for natural beef is continuing to grow as consumers in Canada and overseas become more concerned about food safety. There are several natural beef herds within the province, and the ease of entry into the market could create increased competition for SCC. Most of the herds in Saskatchewan are only marketing their products within the province. Since the SCC has made a strategic alliance with NVF they will be able to gain a greater market share in order to be successful.

Selling and advertising by the SCC will be limited because they are working closely with NVF and are not retaining ownership of the product until it reaches the store shelf.

## Financial Plan

In order for SCC to meet initial capital expenditures, and maintain a positive cash flow, a total of 5.8 million dollars is the equity required over the 10 year plan. The long term debt will be financed using the Saskatchewan Breeder Association and the owner's equity will be obtained through investment from the 10 founding members of the SCC. Table 1 summarizes the long term debt and equity required for SCC.

**Table 1 Financial Budget**

	<b>2005</b>		<b>2006</b>		<b>2007</b>		<b>2008</b>		<b>2009</b>	
<b>Long Term Debt</b>	\$	13,316	\$	357,382	\$	47,801	\$	551,181	\$	99,465
<b>New Common Shares</b>	\$	5,800,000	\$	-	\$	-	\$	-	\$	-
<b>Total</b>	\$	5,813,316	\$	357,382	\$	47,801	\$	551,181	\$	99,465
	<b>2010</b>		<b>2011</b>		<b>2012</b>		<b>2013</b>		<b>2014</b>	
<b>Long Term Debt</b>	\$	624,176	\$	155,225	\$	158,329	\$	716,212	\$	219,634
<b>New Common Shares</b>	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Total</b>	\$	624,176	\$	155,225	\$	158,329	\$	716,212	\$	219,634

SCC will obtain a new loan every year that a capital outlay is required for replacing culled animals or increasing the size of the herd. These expenditures will be financed through the breeder association that allows them to finance 95% of this capital outlay.

## Critical Variables

The critical variables for SCC are displayed for Table 2. The most significant variable to SCC is the slaughter cattle price. This represents the price that will be obtained for cattle after they have been finished to a weight of approximately 1250 pounds. This is very important to the business because the largest portion of sales will come from this category. Another variable that was examined was the contractor cost per cow. This variable is also very important because the cost to take care of the animals represents a large portion of the cost of goods manufactured. Feedlot costs were also

identified to be a critical variable, because the cost to raise the calves from a weaning weight to a finished weight is also a substantial cost to the operation.

**Table 2 Critical Variables**

	Base Case	IRR = 0	Change (IRR=0)	Equity Required (Break Even)	Base Equity Required
<b>Cattle Slaughter Price</b>	\$ 0.74	\$ 0.89	20%	\$ 3,650,000	\$ 5,800,000
<b>Contractor Cost Per Cow</b>	\$ 580.94	\$ 427.93	-26%	\$ 3,700,000	
<b>Feed Lot Cost</b>	\$ 0.65	\$ 0.39	-40%	\$ 3,700,000	

### Sensitivity Analysis

The sensitivity analysis shows how sensitive the IRR is to changes in the various critical variables. Table 3 shows the critical variables that have been identified for SCC, and the percentage that each variable will change in order to represent the different scenarios.

**Table 3 Sensitivity Analysis**

	Change	Break Even (IRR=0)	Best Case
<b>Slaughter Cattle Price</b>	5%	\$ 0.89	\$ 0.93
<b>Contractor Cost Per Cow</b>	-5%	\$ 427.93	\$ 406.53

The feedlot cost is not included in the best case scenario because this value of \$0.65 per pound of gain seems to be a standard cost for this activity. It is unrealistic that a feedlot would deviate from this value by a substantial amount.

The base case scenario was calculated during the financial projections of the business plan, and is summarized in Table 4.

**Table 4 Base Case**

<b>Critical Variables</b>					
<b>Slaughter Cattle Price</b>	\$	0.74		<b>Net Present Value</b>	(\$2,227,184)
<b>Contractor Cost Per Cow</b>	\$	580.94		<b>IRR</b>	#DIV/0!

	Year	2005	2006	2007	2008	2009
<b>Gross Margin</b>	\$	(21,046)	\$ (49,033)	\$ (46,165)	\$ (98,508)	\$ (96,791)
<b>Net Income</b>	\$	(30,831)	\$ (76,609)	\$ (72,814)	\$ (195,569)	\$ (189,277)
<b>Net Cash From Operations</b>	\$	(23,798)	\$ (352,770)	\$ (63,975)	\$ (480,368)	\$ (184,660)
<b>End of Year Cash</b>	\$	5,773,091	\$ 5,334,305	\$ 5,188,595	\$ 4,492,228	\$ 4,092,257
	Year	2010	2011	2012	2013	2014
<b>Gross Margin</b>	\$	(151,640)	\$ (150,379)	\$ (153,283)	\$ (212,590)	\$ (212,355)
<b>Net Income</b>	\$	(271,033)	\$ (253,393)	\$ (251,139)	\$ (338,243)	\$ (329,058)
<b>Net Cash From Operations</b>	\$	(572,592)	\$ (254,406)	\$ (267,669)	\$ (664,328)	\$ (336,253)
<b>End of Year Cash</b>	\$	3,156,348	\$ 2,601,239	\$ 2,000,463	\$ 955,120	\$ 156,868

## Best Case Results

After adjusting the critical variables to represent the best case scenario as shown in Table 5, the IRR increased to 17.36%. The business shows a profit in all years, when the critical variables have been adjusted, except for 2005. The reason that a profit is not made in 2005 is because the calves are sold at weaning which would represent lower revenue per calf.

**Table 5 Best Case Scenario**

<b>Best Case Results</b>					
<b>Critical Variables</b>					
<b>Slaughter Cattle Price</b>	\$	0.93		<b>Net Present Value</b>	(\$125,449)
<b>Contractor Cost Per Cow</b>	\$	406.53		<b>IRR</b>	17.36%

## Conclusion

The business plan for SCC shows that the business venture would be infeasible under the base case. This business has an IRR that is negative infinity. The SCC could possibly become feasible if the contractor cost is reduced and the slaughter cattle prices were to increase. This project requires 5.8 million dollars of equity under the base case, but under the best case the equity required reduces substantially to 1.2 million dollars, and the IRR reaches a value that is close to the required rate of return of 20%.

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## **1.0 Introduction**

### **1.1 Background Information**

The proposed business plan is for Sunrise Cattle Corporation (SCC). SCC is a Saskatchewan community owned cow/calf herd based in Langenburg. The cattle will all be located within RM#211 (Churchbridge) in Saskatchewan. However, once contractors are hired to maintain the herds, the location may widen. The SCC was incorporated under Saskatchewan law in 2003. The business will operate as a partnership for the first few years, and once it begins to earn profits, it will be rolled into the Sunrise Cattle Corporation.

Currently the SCC consists of 10 members, made up of 6 cattle producers, 3 grain farmers and 1 insurance broker. An initial herd has been developed from the investors and consists of 143 Angus cows/heifers bred to Simmental bulls. The target herd size is 2000 head which will be reached in the year 2013.

The SCC will have a product that is unique from other beef. The SCC will produce a natural product because it will contain no growth promoting hormones or antibiotics. SCC will produce high quality, natural beef with uniform genetics. Any animal that requires treatment for an illness will be removed from the program and marketed as regular beef. The SCC will have a better ability to track these substances than a feedlot that buys animals from various locations. Since the SCC will have uniform genetics throughout the herd, it will allow the group for an ease in market share. With 2000 head, the group will be able to create a greater market share and have more supply stability than producers with smaller numbers.

The main reason that the SCC is interested in this project is the desire to try something new, while creating an opportunity to bring young people back to the community. They will provide employment opportunities to these people by contracting the care of the animals.

## **1.2 Mission Statement**

*The vision of the Sunrise Cattle Corporation is to produce a high quality, finished animal of a uniform breed from start to finish, capturing all of the production profit and in turn stimulating the local economy in terms of providing an alternate market for feed grains, generating construction revenues, creating employment, and retaining youth in rural communities.*

## **1.3 Goals and Objectives**

- Create an economically efficient cow/calf herd
- Develop an attractive operation for young people within the community.
- Improve the income of local grain and cattle producers
- Reduce the individual risk
- Develop high quality genetics in cattle herds
- Stimulate rural repopulation

## **1.4 Project Benefits**

- Employment opportunities within the community
- Retaining the young population in the community
- Helping to build and strengthen the local economy
- Provide environmental sustainability, through pastureland which supplies carbon sequestration.

## **1.5 Industry Overview**

The cattle industry in the past has proven to be quite profitable. However, since the occurrence of Bovine Spongiform Encephalopathy (BSE) in Canada this has changed. When BSE was discovered in Alberta the United States border closed to Canadian cattle almost instantly. This caused a problem because a large number of Canadian cattle are sent to the United States to either be fed or to be slaughtered. The closure of the United States border caused the price that Canadian producers receive to be significantly lower than before BSE was found in Canada.

The lower price producers receive gives rise to some producers attempting to differentiate their product in order to get a price premium. One of the easiest, lowest cost methods of differentiating beef is to produce natural beef. There are no regulations on the production of natural beef and therefore this can be done at a very minimal expense to the producer. If the producer is successful at marketing natural beef they would be able to achieve a 10% premium over normal beef (McNinch, 2004).

## **2.0 Operations**

The Sunrise Cattle Corporation is a community owned cattle herd, which currently has 10 shareholders. The SCC will be based around the Langenburg area. SCC will be raising natural beef calves. The SCC will contract out the care of the animals to local producers. The contractors will be responsible for all costs associated with taking care of the animals and will be compensated accordingly.

### **2.1 Business Cycle**

With the current herd size of 143 cows and 5 bulls, the business cycle will be smaller scaled compared to when the herd size grows to the goal of 2000 head. More bulls will be purchased at a 30 cows to 1 mature bull ratio, as the herd size increases.

The current calf crop will be sold at the time of weaning, but as revenue increases, SCC will hold the 2006 calf crop back until slaughter. None of the calves will be used as replacements within the herd. All the calves will be sold and any replacements needed to expand the herd are going to be purchased. This will increase revenue for SCC and increase efficiency for expansion of the herd. Efficiency will increase because there will be a bred cow rather than having a heifer to breed and feed for a year before calving.

#### **2.1.1 Herd Expansion**

Currently SCC retains 143 cows and will be expanding the herd over the next 10 years to reach the number of 2000 head. This will be completed by expanding the herd to 500 cows by 2006, 1000 cows by 2008, 1500 cows by 2010, and 2000 cows by 2013. Cows will be purchased by the board of directors until 2008, and then the herd manager will be responsible for purchasing the additional cows with the board overseeing his/her decisions.

Young, good producing cows will be purchased over the next 10 years. Not only will the additional cows need to be purchased but also culled cows will need to be replaced. Angus cows will remain to be the genetics base. These cows will be purchased locally, or where good quality cows can be found.

**Table 2.1.1 Expansion Path**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Bulls</b>	5	5	16	16	32	32	48	48	48	64	64
<b>cull rate</b>	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
<b>culled bulls</b>	1	1	3	3	6	6	10	10	10	13	13
<b>Number of bull purchased</b>		1	12	3	19	6	22	10	10	26	13
<b>Cows</b>	143	143	500	500	1000	1000	1500	1500	1500	2000	2000
<b>cull rate</b>	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%
<b>culled cows</b>	17	17	60	60	120	120	180	180	180	240	240
<b>number of cows purchased</b>		17	374	60	560	120	620	180	180	680	240

Approximately 10% of the calf crop will be eliminated from the all “natural beef” program up to 2006. This means, 5% of the calves will be lost due to calf deaths, and 5% of the calves will be removed and sold at market because they do not qualify as all “natural beef”. In 2007 there will be an additional 5% of the calves which will be sold as unnatural beef due to treatment for sickness in the feedlot, totaling 15%. Approximately 12% of the cows will be culled. These cows will be eliminated for reasons such as ageing, poor production, bad feet, etc. Bulls will be culled at a rate of 20% per year. This will reduce old bulls, and bulls with poor performance.

### 2.1.2 Average Business Day

An average business day will consist of feeding and checking the cattle regardless of the season. In the winter, the cattle will be fed grain and hay daily. A balanced ration of grain will be fed once a day with the required supplements. High quality hay will be available for the cattle every day, as well bedding will be spread for adequate comfort and warmth to the cattle. A good source of water will be available to the cattle at all times. The cattle will be monitored daily for sick animals and treated promptly with the cows being recorded for future culling to keep the herd as an all “natural beef” herd.

During the summer, at pasture, the cows and their newborn calves will have access to sufficient grass, water, and minerals. The cattle will be monitored and treated for any sickness such as foot rot or pink eye, then marked and recorded so they can be removed from the natural beef herd at a later date. Any treated calves will be recorded and shipped at a later date to market.

During calving time the bred cows will need to be monitored every three to four hours. This is critical to reduce calf deaths at birth. When the calf is 2-3 weeks old it will be tagged, castrated, and branded before entering the pasture. As the herd grows, the herd manager ensures that the cattle are managed to the SCC standards. Until the herd reaches a size where a herd manger will be needed, the board of directors will oversee the management of the cattle.

### **2.1.3 Average Business Month**

Every month will involve feeding and monitoring the cattle. Any sick cattle will be treated and recorded so that the contaminated beef will not enter the herd. Some months will be more labor intensive with calving, weaning, and shipping. The future herd manager will need to pay any outstanding bills, and report to the board of directors. A monthly meeting will be held to report the progress of the cattle and payment of bills.

### **2.1.4 Average Business Year**

The first two years will be important to build uniform herd and to gather customer support. This will be completed by using the original 143 cows and expanding them to a herd of 500 by 2006, and eventually have a cow herd base of 2000 head by 2013.

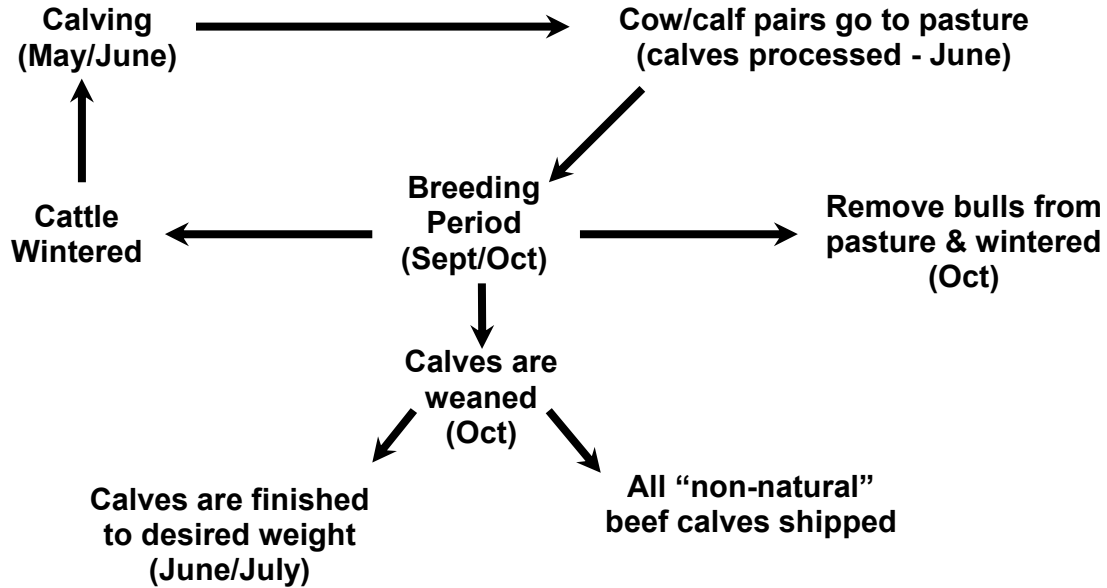
The herd will be synchronized to calve in a sixty day period during May and June in order to reduce the care required during calving. Therefore, the breeding period will take place from Sept 1 to Oct 31. The bulls will be removed from the herd and fed until the next breeding season at the contractor's farm. The cost to SCC for contracting the bulls will be \$500/year (SAFRR, 2000).

The cows will be monitored regularly during calving to reduce losses. When the calves are 2-3 weeks old they will be processed and the cow/calf pairs will be transported to pasture in groups by the contractor. Any cows that are not mothering a calf will be shipped to market eliminating any unproductive cows.

Weaning of the calf crop will occur in October or November. The time will be determined pending the weather, calf performance, and the cow's condition. Some of the calves will be shipped to market, due to being eliminated from the all "natural beef" program, because of a treatment for a sickness. The contractors will continue to feed the

calves until the SCC board of directors, or after 2008 when the herd manager is hired, feel it is appropriate to ship the calves to market.

**Figure 2.1.1 Average Business Year Cycle**



## 2.2 Capital Budget

It is assumed that the all cows will be purchased for a price of \$950 (Werle, 2004). It is also assumed that there will be a cull rate of 12% between years. Bulls will be purchased for \$2500 and will be culled at a 20% rate (Werle, 2004). Culled Cows will be sold for \$260 and cull bulls sold for \$324 per animal (SAFRR, 2004).

There will be no office until the manager is hired in 2008; this is the year office expenses occur. The inventories are the value of the calves at the year end. The calves are valued at \$0.95 per pound and are approximately 683lbs (Heartland Livestock Services, 2004). It is assumed that there is a loss of 5% of the calves from birth up to this point. The numbers of calves per year are in Table 2.2.1.

**Table 2.2.1 Calves at Weaning**

Year	Calves
2005	136
2006	475
2008	950
2010	1425
2013	1900

The contractor cost is the cost that is paid to have the cows looked after year round as well as the calves up to weaning. The cost is broken down as follows:

**Table 2.2.2 Cost to Contract Care per Cow**

Winter Feed & Bedding	\$208.25
Pasture Grazing	\$119.48
Aftermath Grazing	\$6.88
Swath/Corn Grazing	\$27.91
Veterinary & Medicine	\$23.98
Fuel	\$11.69
Repairs- Building/Machine	\$17.95
Utilities & Miscellaneous	\$18.43
Custom Work & Specialized Labor	\$10.19
Paid Labor	\$37.02
Unpaid Labor	\$51.12
Operating Interest	\$2.24
Capital Interest	\$14.85
Taxes & Insurance	\$6.24
Depreciation	\$23.91
Machine Lease Payments	<u>\$0.80</u>
<b>Total</b>	<b>\$580.94</b>

Source: Highmoor and Monchuck, 2003.

The bulls will be purchased on a 30 cows to 1 bull ratio. The cost to contract a bull is \$500/year (SAFRR, 2000)

**Table 2.2.3 Capital Budget**

Schedule 5: Capital Budget	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Price Cows	\$ 950	\$ 969	\$ 988	\$ 1,008	\$ 1,028	\$ 1,049	\$ 1,070	\$ 1,091	\$ 1,113	\$ 1,135
Number of Cows	143	500	500	1000	1000	1500	1500	1500	2000	2000
Number Cull Cows sold	17	60	60	120	120	180	180	180	240	240
Cull Cows Price	\$260	\$265	\$ 271	\$276	\$ 281	\$287	\$ 293	\$299	\$ 305	\$311
Revenue From cull cows	(\$4,462)	(\$15,912)	(\$16,230)	(\$33,110)	(\$33,772)	(\$51,671)	(\$52,704)	(\$53,758)	(\$73,112)	(\$74,574)
Number Cows Purchased	17	374	60	560	120	620	180	180	680	240
Total Cost to Purchase Cows	\$16,302	\$362,561	\$ 59,303	\$ 564,563	\$ 123,397	\$ 650,304	\$ 192,574	\$ 196,425	\$ 756,892	\$272,481
Price Bulls	\$ 2,500	\$ 2,550	\$ 2,601	\$ 2,653	\$ 2,706	\$ 2,760	\$ 2,815	\$ 2,872	\$ 2,929	\$ 2,988
Number of Bulls	5	16	16	32	32	48	48	48	64	64
Number Cull Bulls sold	1	3	3	6	6	10	10	10	13	13
Cull Bull Price	\$ 324	\$ 330	\$ 337	\$ 344	\$ 351	\$ 358	\$ 365	\$ 372	\$ 380	\$ 387
Revenue From Cull Bulls	\$ (324)	\$ (1,058)	\$ (1,079)	\$ (2,201)	\$ (2,245)	\$ (3,434)	\$ (3,503)	\$ (3,573)	\$ (4,859)	\$ (4,956)
Number Bulls Purchased	1	12	3.2	19.2	6.4	22.4	9.6	9.6	25.6	12.8
Total Cost to Purchase Bulls	\$ 2,500	\$ 30,600	\$ 8,323	\$ 50,938	\$ 17,319	\$ 61,829	\$ 27,028	\$ 27,568	\$ 74,986	\$ 38,243
Office Equipment	\$ -	\$ -	\$ -	\$ 4,060	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Capital Outlay</b>	\$14,016	\$376,192	\$ 50,317	\$ 584,250	\$ 104,700	\$ 657,027	\$ 163,394	\$ 166,662	\$ 753,908	\$231,194

**Table 2.2.4 Operating Expenses**

Schedule 4: Expenses	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Office Rental	\$ -	\$ -	\$ -	\$ 3,600	\$ 3,672	\$ 3,745	\$ 3,820	\$ 3,897	\$ 3,975	\$ 4,054
Utilities	\$ -	\$ -	\$ -	\$ 1,110	\$ 1,132	\$ 1,155	\$ 1,178	\$ 1,201	\$ 1,226	\$ 1,250
Wages	\$ 7,020	\$ 7,020	\$ 7,020	\$ 41,080	\$ 40,540	\$ 45,000	\$ 45,000	\$ 45,000	\$ 50,000	\$ 50,000
Mileage	\$ -	\$ -	\$ -	\$ 8,000	\$ 8,000	\$ 9,600	\$ 9,600	\$ 9,600	\$ 11,200	\$ 11,200
Marketing	\$ 600	\$ 612	\$ 624	\$ 637	\$ 649	\$ 662	\$ 676	\$ 689	\$ 703	\$ 717
Administration	\$ 1,500	\$ 1,530	\$ 1,561	\$ 1,592	\$ 1,624	\$ 1,656	\$ 1,689	\$ 1,723	\$ 1,757	\$ 1,793
Interest on Long term Debt	\$ 666	\$ 18,414	\$ 17,444	\$ 41,042	\$ 36,869	\$ 57,574	\$ 41,051	\$ 35,745	\$ 56,792	\$ 47,689
<b>Total Expenses</b>	\$ 9,786	\$ 27,576	\$ 26,649	\$ 97,061	\$ 92,486	\$ 119,393	\$ 103,014	\$ 97,856	\$ 125,653	\$ 116,703

## 2.3 Cost of Goods Sold

The Cost of Goods Sold is calculated:

Beginning Inventory + Cost of Goods Manufactured = Cost of Goods Available for Sale  
 – Ending Inventory = Cost of Goods Sold. The beginning goods inventory is the amount of calves that are on hand at the beginning of the year and the ending year inventory is the amount of calves at the year end. The cost of goods manufactured can be broken

down into two groups, direct materials and manufacturing overhead. Direct materials are the amount paid to contractors and feedlots to produce the calves. The only manufacturing overhead is the amount of depreciation on the office equipment.

The feedlot cost is the cost of putting the calves in the feedlot after weaning until they reach slaughter weight. The cost of the feedlot is \$0.65 per pound of gain (Pound Maker Ag Ventures Ltd. 2004) with an inflation of 2% for each year after 2005. It is assumed the calves go into the feedlot after weaning and weigh 500 pounds. The calves are then ready to slaughter once they reach the weight of 1250lbs. The calf numbers are the same as in Table 2.2.1. The inventory is the value of the calves at that point in time. It is assumed that the calves weigh 683 at the end of the year and are valued at \$0.95 in 2005 and inflated at 2% per year. The cost of goods manufactured is the cost of the feed lot and contractor cost for both bulls and cows and can be seen in the appendix for the financial section.

**Table 2.3.1 Cost of Goods Sold**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Beg Finished Goods Inventory:										
Calves on Hand at Year End	0	0	451	451	903	903	1354	1354	1354	1805
Each Calf Weighs at the Beg of Year	683	683	683	683	683	683	683	683	683	683
Total Weight of Calves at Beg Year	-	-	308,204	308,204	616,408	616,408	924,611	924,611	924,611	1,232,815
Total Beg Finished Goods Inventory	-	-	298,649	304,622	621,430	633,858	969,803	989,199	1,008,983	1,372,217
Cost of Goods Manufactured	\$ 60,634	\$ 270,240	\$ 448,672	\$ 739,209	\$ 934,327	\$ 1,245,369	\$ 1,457,438	\$ 1,486,484	\$ 1,826,552	\$ 2,061,771
Cost of Goods Available for Sale	\$ 60,634	\$ 270,240	\$ 747,321	\$ 1,043,831	\$ 1,555,757	\$ 1,879,228	\$ 2,427,241	\$ 2,475,683	\$ 2,835,536	\$ 3,433,988
Calves on Hand at Year End	0	451	451	903	903	1354	1354	1354	1805	1805
Each Calf Weighs at the End of Year	683	683	683	683	683	683	683	683	683	683
Total Weight of Calves at Year End	-	308,204	308,204	616,408	616,408	924,611	924,611	924,611	1,232,815	1,232,815
Total Ending Finished Goods Inventory	-	298,649	304,622	621,430	633,858	969,803	989,199	1,008,983	1,372,217	1,399,662
<b>Cost of Goods Sold</b>	<b>\$ 60,634</b>	<b>\$ (28,409)</b>	<b>\$ 442,699</b>	<b>\$ 422,402</b>	<b>\$ 921,899</b>	<b>\$ 909,425</b>	<b>\$ 1,438,042</b>	<b>\$ 1,466,700</b>	<b>\$ 1,463,318</b>	<b>\$ 2,034,327</b>

## 2.4 Cash Conversion Cycle

The Cash Conversion Cycle (CCC) will allow the SCC to determine how long cash will be tied up between the births of their calves until they are raised to a finished weight. Figure 2.4.1 represents these calculations. For the first two years SCC will sell their calves at the time of weaning in order to reduce the financial risks. The calves will

be on farms from May until early November when they are sold. This will represent a CCC of 157 days. In year three of the program when SCC starts to retain ownership of the calves through the finishing process the results will be much different. Now the calves will be held for approximately 14 months, which is from the start of calving in May until July the following year when they will be ready for slaughter. The CCC now is a 425 day period.

The SCC obviously has very long time periods that cash is tied up in the production of their finished product. The SCC intends to pay contactors on a monthly basis, this schedule may have to be altered in order to improve cash flow situations. Careful planning and budgeting will be needed in order to ensure that all bills are paid on time.

**Table 2.4.1 Cash Conversion Cycle**

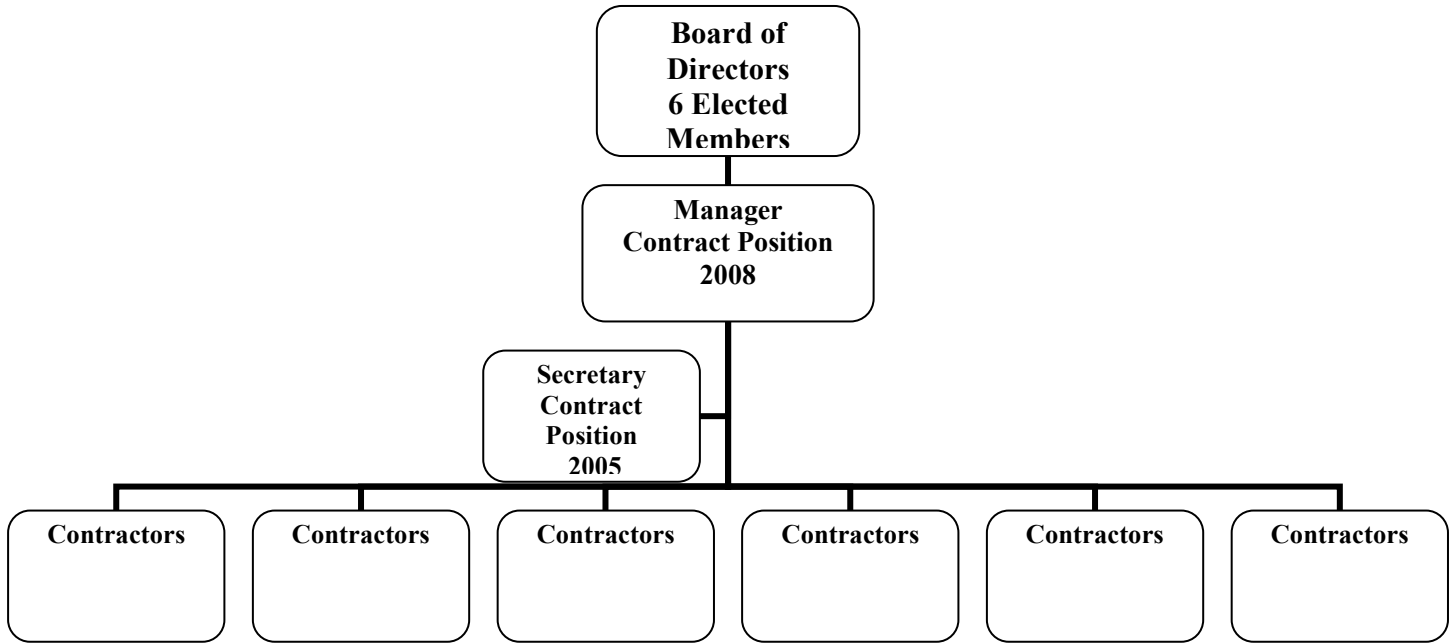
CCC = Average Days Inventory + Average Collection Period – Average Days Payable

Calves                                    180    +        7        -        30        =        **157 days**  
(Sold at weaning)

Calves                                    425    +        30        -        30        =        **425 days**  
(Raised until finished weight)

### 3.0 Human Resource Plan

Figure 3.1 Organizational Structure



### 3.1 Employee Overview

Currently the SCC is operating at 143 cows and the herd is pastured, so there is no intensive care required. Each of the members has been looking after them on their own time, although one member has been designated the "pasture manager" for this summer.

In the year 2005 the SCC will contract a secretary for a part-time position. This position will likely be run out of the secretary's home because it is not a full-time position and does not require the rental of office space. The position will be paid \$9 an hour and will require 10-15 hours a week for the years 2005 to the end of 2007. In 2008 a manager will be contracted when the herd reaches 1000 head and four contractors are required to take care of the cattle.

The secretary's position will be scaled back as the manager overtakes the bookkeeping responsibilities. The manager's position will be a contracted position and pay \$40,000 a year with the wage increasing relative to the increase in cattle (\$40,000 at

1000 head; \$45,000 at 1500 head; \$50,000 at 2000 head). The manager will also be compensated for mileage on his vehicle (\$0.31/km). SCC plans to contract the secretary locally and may try to hire the spouse of one of the investors. This will make it easier to obtain a secretary at a reasonably inexpensive wage as well as explain that the position may be phased out. Although the secretary's position will be scaled back after the manager is hired, SCC will still benefit from a secretary. The corporation will require someone at all the meetings to take notes, especially the meetings that are held to evaluate the performance of the manager. It is expected that the secretary will probably work about 10 hours a month in 2008 helping the manager and then 5 hours a month should be all SCC requires, until her position is completely eliminated.

The group members have provided all of the labour thus far, but in the future once the herd has been established and BSE dealt with, most of the labour requirements will be hired out. The idea is to have several contractors looking after groups of 200 – 300 cows. Contractors may take on winter or summer care, and in some cases, both. The herd manager will oversee all operations by the contractor and ensure the animals are being taken care of properly. Contractors can use a variety of feeds for the cattle, as long as a balanced ration is fed. The group will manage this initially; however beginning in 2008 it will be the duty of the herd manager to ensure that the cattle are fed properly. The SCC will not supply feed, and contractors can buy from whomever they choose. It is in their best interest to source the cheapest feed they can.

### **3.1.1 Board of Directors**

The Board of Directors is currently established at six elected officials. The SCC sees no reason to change the Board at the current time. Every member serving on the board is an investor. This ensures that the board will put forth every effort to make the SCC profitable.

### **3.1.2 Manager**

The manager will be contracted after completion of an agriculture or business program from a post-secondary institution. The ideal candidate will be a hands-on type of manager with a broad knowledge in cattle production. The manager must ensure that the contractors have the corporations goals aligned with their own.

### **3.1.3 Secretary**

This position will be very important during the first four years of SCC's existence. The secretary will be doing the book-keeping as well as acting as a liaison for the SCC. The secretary must be computer efficient and able to work with numbers. The secretary will be representing the company and must be friendly and professional. The secretary also needs to understand that the position is not secure and when the manager is hired it is the secretary's responsibility to train the manager on how to manage the books.

### **3.1.4 Contractors**

The contractors need to ensure that they are meeting the requirements set out by the manager. If they are not, it is the manager's duty to report the contractor to the Board of Directors. The Board of Directors may then decide to move the cattle to a new contractor. Contractors will be members of the community, such as neighbors and friends. SCC should hire loyal and trustworthy contractors to ensure their investment is secure. Since the contractor's performance is tied to their pay they have incentive to perform well for SCC.

### 3.2 Total Salaries and Benefits

Table 3.2.1 Salaries

<u>Total Annual Salaries</u>	<u>Operations Manager</u>	<u>Secretary</u>	<u>Total Salaries</u>
2005	\$0	\$7020	<b>\$7020</b>
2006	\$0	\$7020	<b>\$7020</b>
2007	\$0	\$7020	<b>\$1080</b>
2008	\$40 000	\$1080	<b>\$41 080</b>
2009	\$40 000	\$540	<b>\$40 540</b>
2010	\$45 000	\$0	<b>\$45 000</b>
2011	\$45 000	\$0	<b>\$45 000</b>
2012	\$45 000	\$0	<b>\$45 000</b>
2013	\$50 000	\$0	<b>\$50 000</b>
2014	\$50 000	\$0	<b>\$50 000</b>

## **4.0 Marketing**

### **4.1 Marketing Mix**

#### **4.1.1 Product**

Sunrise Cattle Corporation will be producing an all-natural beef product. The product will be free of antibiotics and growth promoting hormones, and contain superior quality to other beef that is produced with lower quality guidelines in mind. Natural beef gives consumers the choice that they desire, and helps to eliminate fears of possible harmful products that could be in the beef they are eating. The SCC will probably see a higher demand for their steaks, roasts, and other top quality cuts of meat, while a lower demand is expected for ground beef.

#### **4.1.2 Price**

The SCC will be able to charge a price that is above market price for beef, because natural beef is a premium product. It is hard to predict the premium that natural beef can obtain because there are so many factors that affect the value of the animal. The estimated premium for natural beef is approximately 10% above the market price if the animals are high quality (McNinch, 2004).

#### **4.1.3 Promotion**

The SCC will portray the product to customers as a high-end alternative to normal beef. The strict protocol used to raise the animals will be used to demonstrate to consumers that the animals have been well taken care of and have not consumed anything that could be detrimental to human health.

#### **4.1.4 Place**

In order to effectively market and distribute the natural beef produced by SCC a strategic alliance will be made with Natural Valley Farms (NVF). NVF will be able to slaughter and process animals with locations in Neudorf and Wolsley respectively. Both of these locations are in close proximity to Langenburg, which will allow the SCC to

have short shipping distances and inexpensive transportation costs. By building a strong relationship with NVF the SCC will have increased access to Canadian retail, food services, and industrial markets for their cattle.

#### **4.2 Segmentation, Targeting, and Positioning**

The SCC will be producing products for the group of consumers who are health conscious. This group of individuals is willing to pay a premium for food products as long as they know it will not cause any potential health problems. When a consumer is making the decision to purchase beef from the SCC they will think of excellent quality meat that contains no harmful products, and can be bought at a price that will give excellent value for their dollar. NVF will use their distribution channels to promote and sell products to customers in all parts of Canada.

#### **4.3 SWOT Analysis**

The SWOT Analysis is a table outlining the internal strengths and weaknesses of the SCC, along with the external opportunities and threats.

**Table 4.3.1 SWOT Analysis**

<b>Internal Strengths</b>	<b>Internal Weaknesses</b>
<p><b>Human Resources:</b> -Manager will have excellent interpersonal and communication skills</p> <p><b>Physical:</b> -Large herd size to deliver uniform quality -Located in close proximity to NVF for low transportation costs</p> <p><b>Financial:</b> -Multiple shareholders to reduce financial obligations -Strict guidelines to ensure the highest quality on the market</p>	<p><b>Human Resources:</b> -A large number of investors may result in confrontations among shareholders and investors</p> <p><b>Physical:</b> -Lack of contractors</p> <p><b>Financial:</b> -High cost of production, including contractor and feedlot costs -Very long cash conversion cycle High amounts of debt or equity required for expansion -Securing financial support from any institution could be difficult with current uncertainty in the beef market. -Sickness within the herd could affect profitability</p>
<b>External Opportunities</b>	<b>External Threats</b>
<p><b>Human Resources:</b> -More potential investors, if border opens and company grows</p> <p><b>Physical:</b> -Currently no government regulations to meet in order to be classified as natural beef -Marketing through NVF will provide increased awareness -Natural beef is perceived as healthier product -Ability to capitalize on consumer skepticism after BSE scare</p> <p><b>Financial:</b> -opening of US border could improve economic situation</p>	<p><b>Human Resources:</b> -The manager may leave the company for a higher paying position</p> <p><b>Physical:</b> -Numerous other natural beef herds are already established in the province -Ease of entry for other producers into the market -Beef is in a 3-way race with pork and poultry for the consumer's meat budget. -The introduction of strict government protocol for natural beef could affect business operations -There is an increasing level of branded beef products which is an attempt to attract customers to certain desirable characteristics</p> <p><b>Financial:</b> -Long term BSE crisis will hurt profits -Consumer demand doesn't meet supply causing lower revenues</p>

## **4.4 Market Analysis**

### **4.4.1 Customers**

The direct customer of the S.C.C. will be NVF. The S.C.C. will sell finished calves to NVF when the calves are ready for slaughter, approximately in the month of July beginning in 2007. As well, customers will include all processors buying our normal beef and culled cows.

The customers of NVF are the consumers of natural beef. The consumers of natural beef will affect the amount of beef that the packing plants will want to supply, which in turn will affect the amount of animals that the packing plants will need to buy and slaughter to meet consumer demand. The consumers of natural beef are looking for a great tasting product that will not cause any health problems immediately or in the future. Natural beef can fill this demand because there are no hormones or antibiotics given to the animals. Many consumers fear the unknown side effects of consuming beef that contains antibiotics or hormones.

### **4.4.2 Target Market**

There is an increasing concern over food safety and what implications there will be in the future with consumption of certain foods or foods containing certain products. Some consumers worry that by consuming products such as genetically modified canola or beef that is injected with hormones or antibiotics to be unsafe and could possibly cause future health problems. This seems to be an increasing trend and there is a large potential for growth in this market. By producing natural beef one can target this market because natural beef does not contain any hormones or antibiotics. There are no restrictions for natural beef production, but there are very stringent production, animal welfare, and processing requirements for organic beef (Singh, 2004). Singh also states that for the average consumer there is little difference between natural beef and organic beef and therefore is very little of a price premium for organic beef over natural beef (2004). As a result of natural beef being unregulated and priced similar to organic beef it makes it simple to enter the market for consumers concerned with health and receive a premium for beef.

#### 4.4.3 Opportunity

The opportunity for natural beef is continuing to grow. There are an increasing amount of consumers in Canada and overseas markets that are concerned with food safety. If the U.S. border were to open for live cattle, there would be great potential to promote natural beef there, because the U.S. is a very large consumer of beef. The market share for the S.C.C. will be minimal because there are many producers of natural beef and there is the ability for any producer of beef to begin producing natural beef because there are no regulations.

#### 4.4.4 The Market

“The Canadian cattle herd jumped 6.5% to a record 16.8 million head as of July 1, 2004, a little over a year after the ban on Canadian cattle and beef.” (Statistics Canada, 2004)

**Table 4.4.1 Livestock Inventories**

Inventories as of July 1

<b>Cattle</b>		
‘000 Head		
	2003	2004
<b>Canada</b>	<b>15,738</b>	<b>16,760</b>
Atlantic	293	297
Quebec	1,420	1,515
Ontario	2,230	2,308
Manitoba	1,590	1,750
Saskatchewan	3,220	3,540
Alberta	6,100	6,400
British Columbia	885	950

Source: Statistics Canada

As shown in Figure 4.4.1 Ontario is showing the slowest rate of growth at 3.4% while Quebec is the third slowest at 6.3%. Ontario and Quebec are both excellent markets to sell natural beef because of the slow growth rate and they are Canada's two most populous provinces. SCC plans to sell their beef to NVF and not retain ownership after that point. However, it is still important that the SCC understands the market beyond that point, because if NVF cannot sell the beef they will not continue to buy from the SCC.

#### 4.4.5 Competitors

The competitors for SCC are, potentially any beef producer. Since SCC is marketing their beef to a meat processing plant, they are competing against all other producers trying to sell to that same plant. However, because SCC is marketing a premium beef that is targeting a niche market, they may be able to develop a demand for their beef from the consumer. This "pull" demand will result in the consumer actually requesting natural beef resulting in NVF purchasing more natural beef.

**Table 4.4.2 Competitors of the SCC**

Competitors	Information	Sales	Price of Beef
Bennett Beef Meacham, SK	Pasture finished beef Practice "management intensive grazing" 100 head of Angus	25-30 head a year	\$2.00/lbs
Daleview Farm Meacham, SK	Produce grass fed beef A few head, some dairy	14 head a year	\$2.00/lbs
Etomamie Organics, Ltd Hudson Bay, SK	Produce organic beef 75 Piedmontese Crosses	20-30 head a year	\$2.85/lbs
Whole Beef Ranch Dysart, SK	Cattle are raised as naturally as environment will allow. 200 head of Angus	10 head a year	\$2.90/lbs
AA Ranching Swift Current, SK	Natural grass finished beef 200 head of Angus	10 head a year	\$2.50/lbs
Tee Creek Richard, SK	Natural Angus beef 1500 head in company	300 head a year	N/A

The above table is a list of all the competitors from Saskatchewan that SCC will need to focus most of its attention. The table shows that all competitors are very close in market share, and price. However, these competitors are primarily marketing their beef to just Saskatchewan. Only three competitors have websites, Etomamie Organics, which is an organic producer and much higher priced. The second website belongs to Whole Beef Ranch where they are probably the highest priced in the natural market. The last website is for Tee Creek, they are not set-up for E-commerce (marketing over internet) yet, but hope to be in the future. Tee Creek is a company of four producers and they own 1500 head, they do not have a set price since they sell to restaurants and wholesalers. However, they still sell about 300 carcasses a year and project a market of 600 – 1000 in the future. These are direct competitors to SCC because although they target their natural beef to the end consumer, they still compete with the SCC when selling their beef to processors such as NVF. Tee Creek will be the SCC's biggest and strongest competitor.

## **4.5 Marketing Strategy**

### **4.5.1 Sales and Profit Objectives**

The current calf crop, owned by SCC, will be sold in 2004 at market price. Profits will be lower since the herd numbers are smaller and there will be no premium on the calf sales until 2007 when SCC will ship the calves to an all natural beef market as finished beef. One objective of SCC is to eliminate the smallest number of the calves from the all natural beef market as possible. SCC's goal is to eliminate a maximum of 5% of the calves from the all natural beef program because of antibiotics used for treating sick calves. Any culled calves will be sold at presort calf sales or satellite sales offered by local auction marts.

SCC will market their calves to NVF in 2007. They will sell the calves directly the NVF as finished, natural beef. SCC will be expecting to receive a premium of 10% for the calves for the first few years. By 2013 the profit objective is to possibly receive a premium of 15-20% for the natural beef. The increased premium will be affected by the market demand and the competitor's price.

SCC will be culling approximately 12% of the cow herd because of illness and aging of the cows. Revenue will be very low until live Canadian beef can be shipped

across the border or overseas. If the cull cows are pregnant they will be sold as bred cows to maximize profit.

#### **4.5.2 Channels of Distribution**

SCC will sell all calves at weaning for the first two years. The calves will be shipped directly from the contractor's farm to auction marts by local custom truckers. After 2006, all culled calves will also be shipped to auction marts, and the natural beef calves will be shipped to feedlots to be finished. When the calves reach finished weight they will be shipped to NVF.

#### **4.5.3 Pricing Policy**

SCC will be a price taker, but will contract the finished beef to capitalize and stabilize its revenues. They will need to set the price with NVF to be competitive with the market place, and the estimated premium will be 10%. The price premium will increase as the ability for the SCC to provide consistent uniform groups of calves increases. SCC will have more control on the price they receive for their finished beef, in comparison to the price they will receive for their culled calves. The cull calve market price will remain relatively low until Canadian beef is allowed to be shipped to other countries.

#### **4.5.4 Selling and Advertising**

Selling and advertising will be limited due to working with contractors and not retaining ownership of the calves after they are finished. One of SCC's primary objectives is to keep the community involved. SCC will advertise with signs within the community, for example the local arena, to promote the natural beef within the community. SCC will also hold an annual BBQ that will promote natural beef. The BBQ will be a fundraiser that will donate part of the profits back to the community. SCC will also donate meat for banquets within the communities. With the communities support, SCC will be more recognized and the demand for their beef will increase.

**Table 4.5.1 Marketing Plan Budget**

<b>Local Promotion:</b>	
- Sign	\$200
- BBQ/fundraiser	\$400
<b>Total</b>	<b>\$600</b>

## 5.0 Financial Plan

In order for SCC to meet initial capital expenditures, and maintain a positive cash flow, a total of 5.8 million dollars is the equity required over the 10 year plan. The long term debt will be financed using the Saskatchewan Breeder Association and the owner's equity will be obtained through investment from the 10 founding members of the SCC. Table 5.0.1 summarizes the long term debt and equity required for SCC.

**Table 5.0.1 Financial Budget**

	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Long Term Debt</b>	\$ 13,316	\$ 357,382	\$ 47,801	\$ 551,181	\$ 99,465
<b>New Common Shares</b>	\$ 5,800,000	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	\$ 5,813,316	\$ 357,382	\$ 47,801	\$ 551,181	\$ 99,465
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>Long Term Debt</b>	\$ 624,176	\$ 155,225	\$ 158,329	\$ 716,212	\$ 219,634
<b>New Common Shares</b>	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	\$ 624,176	\$ 155,225	\$ 158,329	\$ 716,212	\$ 219,634

SCC will obtain a new loan every year that a capital outlay is required for replacing culled animals or increasing the size of the herd. These expenditures will be financed through the breeder association that allows them to finance 95% of this capital outlay. The interest rate for the financing obtained by SCC will be 5% (which is prime + .75%), and the term of each loan is 5 years.

The reason that such a substantial amount of equity is needed for the plan is because in many years there is a negative cash flow as a result of the operations of the business. The equity is added to the plan in order to ensure that a positive cash balance remains at each fiscal year end.

## 5.1 Dividend Policy

Dividends are not paid by SCC because at no time during the plan is there money for retained earnings.

## 5.2 Economic Forecast

For the 10 year projection an inflation rate of 2% has been used. The inflation rate was used to derive revenue, expenses, and the cost of breeding stock.

### 5.3 Ratio Analysis

The projected performance ratios for SCC are summarized in Table 5.3.1. The current ratio measures the company's ability to meet short term obligations by comparing short term assets and short term liabilities. This ratio consists of current assets over current liabilities. The company average is a ratio 135.26. This shows that the company would have no problems meeting short term obligations.

The solvency ratios measure the risk associated with the debt financing, and the ability of the company to make the fixed debt payments. The debt ratio is the total liabilities over total assets and the company average is 12%. This indicates that 88% of the business is financed with equity. The reason that the company finances a large portion with equity is because they need a substantial initial equity investment to cover the operating losses in each year.

The profitability ratios for the SCC show negative values for gross profit margin, net profit margin, return on assets, and return on equity. SCC could become more profitable if the contractor cost was lower or the cattle prices were higher.

**Table 5.3.1 Summary of Financial Ratios**

		2005	2007	2009	2011	2013	2014
	Company Average						
1. Liquidity Ratios							
Current Ratio	135.26	820.80	123.90	51.23	24.94	12.67	7.64
Quick Ratio	135.26	820.80	123.90	51.23	24.94	12.67	7.64
2. Solvency Ratios							
Debt Ratio	12%	0.00	0.05	0.11	0.15	0.21	0.19
Debt/Equity	0.14	0.00	0.06	0.12	0.18	0.26	0.23
Interest Coverage	-10.54	-47.31	-5.17	-6.15	-7.18	-6.96	-7.91
3. Profitability Ratios							
Gross Profit Margin	-55%	-33%	-9%	-10%	-10%	-13%	-9%
Net Profit Margin	-88%	-48%	-15%	-19%	-16%	-20%	-15%
Return on Assets	-4%	-1%	-1%	-3%	-5%	-7%	-7%
Return on Equity	-4%	-1%	-1%	-4%	-5%	-8%	-9%
4. Investment Utilization Ratios							
Total Asset Turnover	0.19	0.01	0.08	0.17	0.29	0.32	0.48

### 5.4 Critical Variables

The critical variables for SCC are displayed for Table 5.4.1. The most significant variable to SCC is the slaughter cattle price. This represents the price that will be

obtained for cattle after they have been finished to a weight of approximately 1250 pounds. This is very important to the business because the largest portion of sales will come from this category. The slaughter cattle price only has to increase by 20% to \$0.89 per pound in order to make the IRR equal to zero, instead of an IRR that is negative infinity in the base case. If the slaughter cattle price were 20% higher the amount of equity that would be required would be reduced to 3.65 million dollars from the base case where 5.8 million dollars, while holding the other critical variables at the base case values.

The next variable that was examined was the contractor cost per cow. This variable is also very important because the cost to take care of the animals represents a large portion of the cost of goods manufactured. The contractor cost per cow has to decrease by 26% to \$427.93 per cow in order to make the IRR for the project equal to zero. With the contractor cost at this level the required equity would be 3.7 million dollars, while holding the other critical variables at the base case values.

When evaluating the cost of production data from the Western Beef Development Center, it is important to note that the total production cost per animal decreases substantially as the size of the cow herd increases. The current production costs are estimated at a value of \$580 per cow. The study shows that larger herd sizes with an average of 396 cows would allow the total production cost to decrease \$450 per cow (WBDC, 2004). SCC will have a herd size of 2000 cows, but they are currently planning to contract the care of the herd in group sizes of about 200 head. If the SCC could find individuals willing to take on larger groups of cattle, it is evident that they could decrease contract cost per animal. It must be recognized that this may not be possible because the average individual may not have the land base, facilities, machinery, and time required to care for a herd of approximately 400 cows year round.

Feed lot cost was also identified to be a critical variable for the project. The amount that is paid to take the calves from a weaned weight to a finished weight also contributes a substantial portion of the cost of goods manufactured. If the feed lot cost was to decrease by 40% to \$0.39 per pound of gain the IRR for the project would become zero and the required equity would be 3.7 million dollars, while holding the other critical variables at the base case values.

**Table 5.4.1 Critical Variables**

Critical Variable	Base Case	IRR = 0	Change (IRR=0)	Equity Required (Break Even)	Base Equity Required
<b>Cattle Slaughter Price</b>	\$ 0.74	\$ 0.89	20%	\$ 3,650,000	\$ 5,800,000
<b>Contractor Cost Per Cow</b>	\$ 580.94	\$ 427.93	-26%	\$ 3,700,000	
<b>Feed Lot Cost</b>	\$ 0.65	\$ 0.39	-40%	\$ 3,700,000	

## 5.5 Sensitivity Analysis

The sensitivity analysis shows how sensitive the IRR is to changes in the various critical variables. Table 5.5.1 shows the critical variables that have been identified for SCC, and the percentage that each variable will change in order to represent the different scenarios.

**Table 5.5.1 Sensitivity Analysis**

	Change	Break Even (IRR=0)	Best Case
<b>Slaughter Cattle Price</b>	5%	\$ 0.89	\$ 0.93
<b>Contractor Cost Per Cow</b>	-5%	\$ 427.93	\$ 406.53

The feedlot cost is not included in the best case scenario because this value of \$0.65 per pound of gain seems to be a standard cost for this activity. It is unrealistic that a feedlot would deviate from this value by a substantial amount. This value was obtained from Pound Maker Ag Ventures Ltd., which is the largest feedlot in Saskatchewan.

The base case scenario was calculated during the financial projections of the business plan, and is summarized in Table 5.5.2.

Table 5.5.2 Base Case

<b>Critical Variables</b>					
<b>Slaughter Cattle Price</b>	\$	0.74		<b>Net Present Value</b>	(\$2,227,184)
<b>Contractor Cost Per Cow</b>	\$	580.94		<b>IRR</b>	#DIV/0!

	Year	2005	2006	2007	2008	2009
<b>Gross Margin</b>	\$	(21,046)	\$ (49,033)	\$ (46,165)	\$ (98,508)	\$ (96,791)
<b>Net Income</b>	\$	(30,831)	\$ (76,609)	\$ (72,814)	\$ (195,569)	\$ (189,277)
<b>Net Cash From Operations</b>	\$	(23,798)	\$ (352,770)	\$ (63,975)	\$ (480,368)	\$ (184,660)
<b>End of Year Cash</b>	\$	5,773,091	\$ 5,334,305	\$ 5,188,595	\$ 4,492,228	\$ 4,092,257
	Year	2010	2011	2012	2013	2014
<b>Gross Margin</b>	\$	(151,640)	\$ (150,379)	\$ (153,283)	\$ (212,590)	\$ (212,355)
<b>Net Income</b>	\$	(271,033)	\$ (253,393)	\$ (251,139)	\$ (338,243)	\$ (329,058)
<b>Net Cash From Operations</b>	\$	(572,592)	\$ (254,406)	\$ (267,669)	\$ (664,328)	\$ (336,253)
<b>End of Year Cash</b>	\$	3,156,348	\$ 2,601,239	\$ 2,000,463	\$ 955,120	\$ 156,868

## 5.6 Best Case Results

After adjusting the critical variables to represent the best case scenario as shown in Table 5.6.1, the IRR increased to 17.36%. The business shows a profit in all years, when the critical variables have been adjusted, except for 2005. The reason that a profit is not made in 2005 is because the calves are sold at weaning which would represent lower revenue per calf.

Table 5.6.1 Best Case Scenario

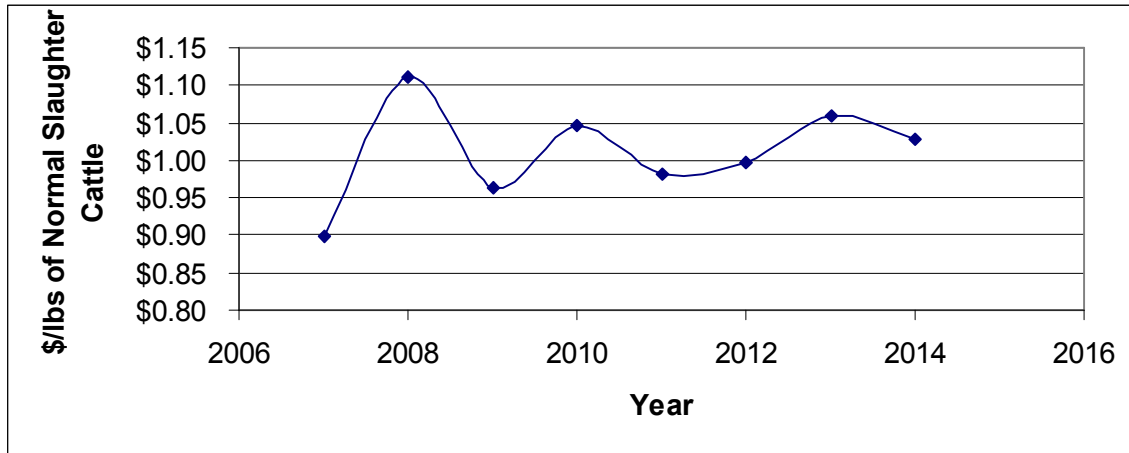
<b>Critical Variables</b>					
<b>Slaughter Cattle Price</b>	\$	0.93		<b>Net Present Value</b>	(\$125,449)
<b>Contractor Cost Per Cow</b>	\$	406.53		<b>IRR</b>	17.36%

	Year	2005	2006	2007	2008	2009
<b>Gross Margin</b>	\$	3,895	\$ 39,916	\$ 166,657	\$ 211,114	\$ 346,050
<b>Net Income</b>	\$	(5,891)	\$ 12,340	\$ 140,009	\$ 114,053	\$ 253,564
<b>Net Cash From Operations</b>	\$	(907)	\$ (269,082)	\$ 148,701	\$ (178,502)	\$ 257,876
<b>End of Year Cash</b>	\$	1,195,982	\$ 840,884	\$ 907,850	\$ 513,349	\$ 555,914
	Year	2010	2011	2012	2013	2014
<b>Gross Margin</b>	\$	396,339	\$ 540,719	\$ 551,636	\$ 608,602	\$ 765,509
<b>Net Income</b>	\$	276,946	\$ 387,406	\$ 392,685	\$ 462,275	\$ 559,108
<b>Net Cash From Operations</b>	\$	(32,837)	\$ 385,918	\$ 375,671	\$ 127,298	\$ 551,241
<b>End of Year Cash</b>	\$	159,761	\$ 244,975	\$ 287,540	\$ 33,823	\$ 123,064

### 5.7 Break Even Analysis

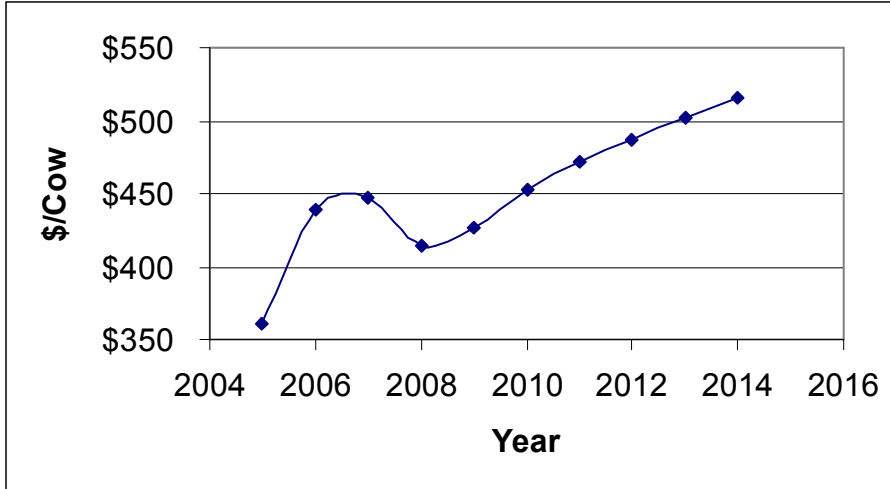
The break even analysis was calculated for the project by setting the net income to zero. The break even contractor cost per cow was calculated for all ten years. The break even cattle slaughter price and feedlot cost was calculated starting in 2007 when the first groups of calves will be slaughtered.

**Figure 5.7.1 Breakeven Analysis of Cattle Slaughter Price on Net Income**



The average cattle slaughter price must be \$1.01 per pound, as summarized in Figure 5.7.1, in order for the net income to be at break even levels. The breakeven price fluctuates around this point form year to year as is shown in figure.

**Figure 5.7.2 Breakeven Analysis of Contractor Cost per Cow on Net Income**



The breakeven results were also calculated for the contractor cost per cow. The contractor cost per cow must average \$464.70 in order for net income to be equal to zero. These results are shown in Figure 5.7.2 and show that the contractor costs for SCC must decrease if they want to have a profitable business.

**Figure 5.7.3 Breakeven Analysis of Feed Lot Cost on Net Income**

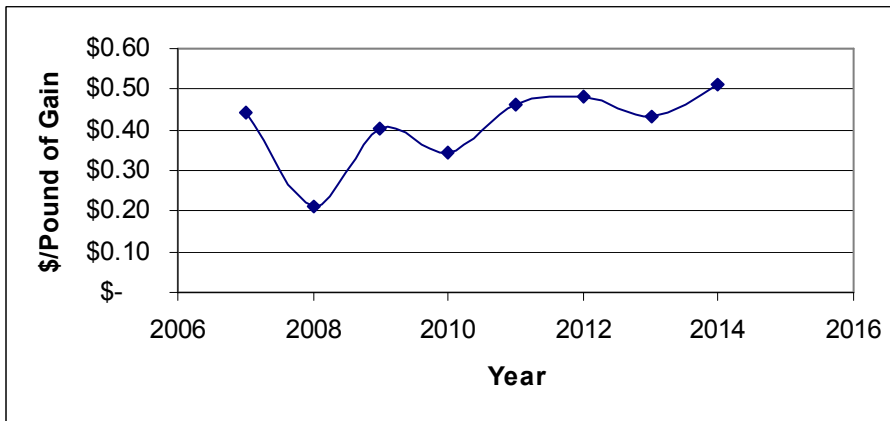


Figure 5.7.3 shows the analysis of the feed lot cost for SCC. The average cost per pound of gain is \$0.41 to breakeven on net income.

## **6.0 Conclusion**

After completing the business plan for SCC it has been concluded that this business venture would be infeasible under the base case. This business has an IRR that is negative infinity. This business could possibly become feasible if the contractor cost is reduced and the slaughter cattle prices were to increase. The projections of this plan were prepared under the current market conditions caused by the BSE crisis, in the years to come the market conditions could possibly improve. The best case scenario where an IRR of 17.36% is obtained could be a result of the improved market conditions and a lower contract cost. This project requires 5.8 million dollars of equity under the base case, but under the best case the equity required reduces substantially to 1.2 million dollars. The proposed business plan will stimulate the local economy by providing numerous employment opportunities, and retaining youth in the rural community.

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**Appendix A:**  
**Sunrise Cattle Corporation**  
**Base Case**

<b>Sunrise Cattle Corporation</b>											
<b>Financial Projections</b>		<b>Base Case</b>									
<b>Statement of Income and Retained Earnings</b>											
<b>For the Year ended Dec. 31</b>		<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>Sales Revenue:</b>											
Natural cattle (slaughter)		\$ -	\$ -	\$ 453,812	\$ 462,888	\$ 944,291	\$ 963,177	\$ 1,473,661	\$ 1,503,134	\$ 1,533,197	\$ 2,085,147
Normal cattle (slaughter)		\$ -	\$ -	\$ 21,713	\$ 22,148	\$ 45,181	\$ 46,085	\$ 70,510	\$ 71,920	\$ 73,359	\$ 99,768
Natural calves (weaning)		\$ 61,302.31	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Normal calves (weaning)		\$ 3,226	\$ 11,507	\$ 11,737	\$ 23,944	\$ 24,422	\$ 37,366	\$ 38,114	\$ 38,876	\$ 52,871	\$ 53,929
<b>Total Revenue</b>		\$ 64,529	\$ 11,507	\$ 487,262	\$ 508,979	\$ 1,013,895	\$ 1,046,628	\$ 1,582,284	\$ 1,613,930	\$ 1,659,426	\$ 2,238,844
<b>Cost of Goods Sold</b>		\$ 85,574	\$ 60,540	\$ 533,427	\$ 607,487	\$ 1,110,686	\$ 1,198,269	\$ 1,732,663	\$ 1,767,214	\$ 1,872,017	\$ 2,451,199
<b>Gross Margin</b>		\$ (21,046)	\$ (49,033)	\$ (46,165)	\$ (98,508)	\$ (96,791)	\$ (151,640)	\$ (150,379)	\$ (153,283)	\$ (212,590)	\$ (212,355)
<b>Expenses:</b>											
Office rental		\$ -	\$ -	\$ -	\$ 3,600	\$ 3,672	\$ 3,745	\$ 3,820	\$ 3,897	\$ 3,975	\$ 4,054
Utilities		\$ -	\$ -	\$ -	\$ 1,110	\$ 1,132	\$ 1,155	\$ 1,178	\$ 1,201	\$ 1,226	\$ 1,250
Wages		\$ 7,020	\$ 7,020	\$ 7,020	\$ 41,080	\$ 40,540	\$ 45,000	\$ 45,000	\$ 45,000	\$ 50,000	\$ 50,000
Milage		\$ -	\$ -	\$ -	\$ 8,000	\$ 8,000	\$ 9,600	\$ 9,600	\$ 9,600	\$ 11,200	\$ 11,200
Administration		\$ 1,500	\$ 1,530	\$ 1,561	\$ 1,592	\$ 1,624	\$ 1,656	\$ 1,689	\$ 1,723	\$ 1,757	\$ 1,793
Marketing		\$ 600	\$ 612	\$ 624	\$ 637	\$ 649	\$ 662	\$ 676	\$ 689	\$ 703	\$ 717
Interest on Long Term Debt		\$ 666	\$ 18,414	\$ 17,444	\$ 41,042	\$ 36,869	\$ 57,574	\$ 41,051	\$ 35,745	\$ 56,792	\$ 47,689
<b>Total Expenses</b>		\$ 9,786	\$ 27,576	\$ 26,649	\$ 97,061	\$ 92,486	\$ 119,393	\$ 103,014	\$ 97,856	\$ 125,653	\$ 116,703
<b>Income Before Taxes</b>		\$ (30,831)	\$ (76,609)	\$ (72,814)	\$ (195,569)	\$ (189,277)	\$ (271,033)	\$ (253,393)	\$ (251,139)	\$ (338,243)	\$ (329,058)

Sunrise Cattle Corporation

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Income Taxes		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Income (Loss)</b>		\$ (30,831)	\$ (76,609)	\$ (72,814)	\$ (195,569)	\$ (189,277)	\$ (271,033)	\$ (253,393)	\$ (251,139)	\$ (338,243)	\$ (329,058)
Beg Retained Earnings		0	\$ (30,831)	\$ (107,441)	\$ (180,254)	\$ (375,823)	\$ (565,100)	\$ (836,133)	\$ (1,089,526)	\$ (1,340,665)	\$ (1,678,907)
Net Income (Loss)		\$ (30,831)	\$ (76,609)	\$ (72,814)	\$ (195,569)	\$ (189,277)	\$ (271,033)	\$ (253,393)	\$ (251,139)	\$ (338,243)	\$ (329,058)
Dividends		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
End Retained Earnings		\$ (30,831)	\$ (107,441)	\$ (180,254)	\$ (375,823)	\$ (565,100)	\$ (836,133)	\$ (1,089,526)	\$ (1,340,665)	\$ (1,678,907)	\$ (2,007,965)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Bulls</b>	5	5	16	16	32	32	48	48	48	64	64
<b>cull rate</b>	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
<b>culled bulls</b>	1	1	3	3	6	6	10	10	10	13	13
<b>Number of bull purchased</b>		1	12	3	19	6	22	10	10	26	13
<b>Cows</b>	143	143	500	500	1000	1000	1500	1500	1500	2000	2000
<b>cull rate</b>	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%
<b>culled cows</b>	17	17	60	60	120	120	180	180	180	240	240
<b>number of cows purchased</b>		17	374	60	560	120	620	180	180	680	240
<b>Number of Calves:</b>											
<b>Total Cows</b>		143	500	500	1000	1000	1500	1500	1500	2000	2000
<b>Death Loss Calving</b>		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
<b>Calves at Weaning</b>		136	475	475	950	950	1425	1425	1425	1900	1900
<b>Natural Beef Loss Weaning</b>		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
<b>Natural Calves Sold at Weaning</b>		129	0	0	0	0	0	0	0	0	0
<b>Normal Calves Sold at Weaning</b>		7	24	24	48	48	71	71	71	95	95
<b>Number of Calves put in Feedlot</b>			451	451	903	903	1354	1354	1354	1805	1805
<b>Natural Beef Loss Feedlot</b>		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
<b>Natural Cattle Sold at Slaughter</b>		0	0	429	429	857	857	1286	1286	1286	1715
<b>Normal Cattle Sold at Slaughter</b>		0	0	23	23	45	45	68	68	68	90

Critical Variable	Base Case	IRR = 0	Change (IRR=0)	Equity Required (Break Even)	Base Equity Required					
<b>Cattle Slaughter</b>					\$ 5,800,000					
<b>Price</b>	\$ 0.74	\$ 0.89	20%	\$ 3,650,000						
<b>Contractor Cost Per</b>										
<b>Cow</b>	\$ 580.94	\$ 427.93	-26%	\$ 3,700,000						
<b>Feed Lot Cost</b>	\$ 0.65	\$ 0.39	-40%	\$ 3,700,000						
<b>Break Even Net Income</b>										
	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>Cattle Slaughter Price</b>			\$ 0.90	\$ 1.11	\$ 0.96	\$ 1.05	\$ 0.98	\$ 1.00	\$ 1.06	\$ 1.03
<b>Contractor Cost Per</b>										
<b>Cow</b>	\$ 360	\$ 439	\$ 447	\$ 415	\$ 427	\$ 452	\$ 472	\$ 487	\$ 501	\$ 516
<b>Feed Lot Cost</b>			\$ 0.44	\$ 0.21	\$ 0.41	\$ 0.34	\$ 0.46	\$ 0.48	\$ 0.44	\$ 0.51

Critical Variables	Change	Break Even (IRR=0)	Best Case									
Slaughter Cattle Price	5%	\$ 0.89	\$ 0.93									
Contractor Cost												
Per Cow	-5%	\$ 427.93	\$ 406.53									
Base Case												
Net Present Value	(\$2,227,184)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
IRR	#DIV/0!											
Gross Margin		\$ (21,046)	\$ (49,033)	\$ (46,165)	\$ (98,508)	\$ (96,791)	\$ (151,640)	\$ (150,379)	\$ (153,283)	\$ (212,590)	\$ (212,355)	
Net Income		\$ (30,831)	\$ (76,609)	\$ (72,814)	\$ (195,569)	\$ (189,277)	\$ (271,033)	\$ (253,393)	\$ (251,139)	\$ (338,243)	\$ (329,058)	
Net Cash From Operations		\$ (23,798)	\$ (352,770)	\$ (63,975)	\$ (480,368)	\$ (184,660)	\$ (572,592)	\$ (254,406)	\$ (267,669)	\$ (664,328)	\$ (336,253)	
End of Year Cash		\$ 5,773,091	\$ 5,334,305	\$ 5,188,595	\$ 4,492,228	\$ 4,092,257	\$ 3,156,348	\$ 2,601,239	\$ 2,000,463	\$ 955,120	\$ 156,868	
Equity Required		\$ 5,800,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Best Case												
Net Present Value	(\$125,449)											
IRR	17.36%	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Gross Margin		\$ 3,895	\$ 39,916	\$ 166,657	\$ 211,114	\$ 346,050	\$ 396,339	\$ 540,719	\$ 551,636	\$ 608,602	\$ 765,509	
Net Income		\$ (5,891)	\$ 12,340	\$ 140,009	\$ 114,053	\$ 253,564	\$ 276,946	\$ 387,406	\$ 392,685	\$ 462,275	\$ 559,108	
Net Cash From Operations		\$ (907)	\$ (269,082)	\$ 148,701	\$ (178,502)	\$ 257,876	\$ (32,837)	\$ 385,918	\$ 375,671	\$ 127,298	\$ 551,241	
End of Year Cash		\$ 1,195,982	\$ 840,884	\$ 907,850	\$ 513,349	\$ 555,914	\$ 159,761	\$ 244,975	\$ 287,540	\$ 33,823	\$ 123,064	
Equity Required		\$ 1,200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

