Business Fundamentals for Better Cattle Feeding Agreements

With Tips to Create a Business Plan, Calculate Yardage, Forecast Cost of Gain, and Reduce Risk

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February 2017
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EXECUTIVE SUMMARY

Custom cattle feeding is a very competitive segment of the Canadian cattle industry. Since feedlots compete with each other for cattle investor clients, benchmark yardage and cost of gain information is difficult to obtain. Margins on the investment side of the business tend to be small, and along with added risk; cattle owners are motivated to negotiate the lowest possible cost, and lowest possible risk feeding arrangements. Unfortunately, sometimes cattle feeders tend to feed cattle for much less than their true cost of production.

This discussion paper examines the traits that make agribusinesses successful, and then applies those principles to the custom feedlot business. Time is spent discussing the need for a basic business plan, complete with a financial analysis section. The financial analysis is then taken one step further to describe how feedlots can use their own expense statements to calculate a realistic yardage cost. The discussion goes on to describe how custom feedlots can do a better job of forecasting gain costs and managing risk. The final section of this paper highlights some of the areas that potential long term cattle owner clients look at when making their decisions.

This discussion paper is written with an underlying objective of developing better financial risk management culture for custom feedlots. When custom feedlots have a better understanding of their own financial risk and their own production costs, it is more likely that future cattle feeding agreements will achieve business objectives.
SECTION 1. BACKGROUND

Cattle feeding agreements have been used in the custom feeding industry for many years to protect the interests of both the custom feedlot and the cattle owner. The most common types are ‘cost per pound of gain’ (COG) and ‘cost plus’. Both of these systems have unique features and risks that need to be assessed prior to entering into an agreement.

In cost per pound of gain arrangements, the feedlot operator is paid for the weight gain on the cattle while in the feedlot. Typically, the owner specifies a target average daily gain for the cattle, depending on the future sale date, and grazing or finishing program that the cattle will be entering after they leave the feedlot. COG arrangements have been very common in the backgrounding sector, and have been widely used by large cattle owners when dealing with smaller backgrounders and newer cattle feeders.

Cost plus systems have been more common in finishing feedlots where there has traditionally been a good knowledge of all production costs. In this system, the cattle owners pay yardage fees, in addition to the cost of feed, medicine, and other specified fees to the feedlot.

Regardless of the system used, a formal written agreement should be in place between cattle owners and the custom feedlot. A written agreement is even more important when establishing new relationships because it will clarify the agreed details, and minimize the chances of having misunderstandings during the feeding process. After a positive relationship is built, signed written agreements are rarely used, but the example of previous feeding activities is used as the model. Nevertheless, a written agreement is just good business risk management.

While recognizing that written agreements are important, this document focusses more on the feedlot business management practices that will help form the basis of an agreement. It will also deal with the process of calculating yardage and establishing appropriate rates for COG agreements. The document will address risks and rewards with the intent of finding a fair balance that will create and sustain long term relationships.

A strong understanding of business management fundamentals is necessary to establish mutually profitable cattle feeding arrangements. To that end, the following definitions are included for clarity.

A cattle feeding agreement is typically a negotiated understanding between two or more people or companies. It documents the “give-and-take” of a negotiated settlement, and specifies the minimum acceptable performance levels, on both sides. As long as simple agreements are understood by all parties, they are generally considered legally binding. For the purposes of this discussion, an agreement will be considered a plain language list of terms and conditions that are mutually agreed upon in writing or verbally.

Also for the purposes of this discussion, a cattle feeding contract will be considered a legally binding, formal, and all-encompassing agreement between a feedlot and a cattle owner. Contracts are typically prepared by one party’s legal counsel to protect that party from various risks.
Objective of This Paper

Based on the assumption that there is very little, or no relevant benchmark feedlot cost data, the primary objective of this paper is to assist readers with:

1. Identifying feeding agreement areas that may need attention,
2. Understanding the business side of the feedlot,
3. Calculating true yardage, and
4. Making better cost of gain forecasts.

Introduction to a Simple cattle Feeding Agreement

Sometimes cattle feeders enter into feeding agreements where all of the details are agreed to prior to the cattle arriving. While it is very difficult to foresee every possible scenario, the list below identifies some of the major points and questions that need to be considered, agreed to, and written down.

1. General Information
   - Contact information for all parties
     - Cattle location
     - Movement plan and notification requirements
   - Date and expected length of feeding term

2a. Terms and Conditions - Cost Per Pound of Gain Agreements
   - Type of cattle to feed
     - Heifers vs. steers
     - Type and quality of cattle - i.e. medium flesh, large frame exotic vs. fleshy small frame British
   - Beginning weights with specified shrink conditions
   - Cost per pound of gain to be invoiced
     - Induction fees
     - Implanting protocol and fees
     - Professional veterinary fees
     - Bedding
   - Discounts or penalties for excess weight gain
   - Discounts or premiums for under-gaining
   - Death loss consideration
     - Incoming weight adjustments
     - Maximum allowable percentage
     - Percent of incoming value credited to owner
     - Postmortem requirements
   - Ending weight
     - Shrink conditions
     - Scale locations with freight adjustments
2b. Terms and Conditions – Fee Structure for Cost Plus

- Yardage cost per head per day
- Induction fees – detail
- Implanting protocol and fees
- Professional veterinary fees
- Feed commodity costs
  - Projected or locked in?
- Bedding – cost per day or cost plus
- Other costs
  - Unsuitable animal disposal
  - Other
- Death loss protocol
  - Owner notification
  - Postmortem requirements

3. Billing and Payment
   a. Monthly by the 15th of the next month?
   b. Final shipment pre-payment for new customers
      i. Estimated final payment on account before loading?

4. Removal Terms
   a. Cattle to be left in the lot for a minimum of ___ days
   b. Cattle to be removed after a maximum of ___ days
   c. Special removal conditions for poor performance, or extenuating circumstances at the feedlot.

5. Inspection Terms
   a. Anytime during normal business hours?
   b. Notice on weekends?
   c. Custom feedlot notification to the owner upon arrival of loads?
   d. Other

6. Agreement Amending Conditions
   a. Mutual verbal or written amending agreement?

7. Independent Third Party Dispute Resolution System

8. Signatures and Dates
9. Other Attachments

1. Feed rations to be used
2. Feed test results with dry matter contents
3. Cost per pound gain forecasts
4. Dry Matter (DM) conversion forecast
5. Average Daily Gain (ADG) forecast

This general cattle feeding agreement framework is fairly straightforward and logical. While it captures most of the agreement details, it is far from the be-all-to-end-all. Individual feedlots and cattle owners may require specific terms and conditions that are not captured here. In drafting an agreement like this, it is important to keep everything simple and easy to understand.

The Challenge

The biggest challenge in drafting and executing an effective cattle feeding agreement comes down to determining the right fee structure. Whether it is cost per pound of gain, or cost plus, the fees charged to the cattle owner must be both competitive for the cattle owner, and provide sustainable returns to the feedlot.

Far too often, cattle feeders look to neighbors and other industry contacts to determine the right prices to charge. It would be so simple if there was a central database or some benchmarking system where one could quickly research the appropriate rates to charge. Unfortunately, there is not central benchmarking information database for cost of gain, yardage, or other feedlot costs. There has been some survey work done by the Western Beef Development Center (WBDC), but those publicly available results tend to be out of date.

In 2002, the WBDC suggested that backgrounder operations surveyed had yardage costs of 44 to 45 cents per head per day. As reported in the Alberta Express newspaper for January 31, 2011, it was suggested that, “Although yardage costs may vary, they are typically comprised of 36 per cent for labour, 18 per cent for custom work, 12 per cent for depreciation, 10 per cent for machinery repair, and nine per cent each for utilities and fuel. Taxes, leases, insurance, building and corral repairs account for the remainder (WBDC). In both cow-calf and feeding operations, the largest share of yardage cost is labour.”

Alberta Agriculture reported in 2003 that the yardage cost for wintering cows was in a range from 75 cents to one dollar per head per day. This is consistent with a 2003 WBDC study that showed an average of 92 cents per head per day. Sean Magrath stated in his February 25, 2015 Grainews article that, “realistically many operations have yardage costs that are well over $1, without even paying the operator for their time.”

In a 2006 study, the WBDC reported that the lowest cost producers, representing 25% of the survey, incurred yardage costs of 75 cents per head per day. In contrast, the other respondents had well over double the yardage costs.
While most of the previous survey information is for cow-calf operations, the WBDC work highlights the extreme cost variance between operations, and the need for producers to calculate their own production costs.

CanFax is another source of market price and general costing information. However, that costing information has typically been of the hearsay variety. Cattle buyers and auction markets are another source of hearsay cost and feeding agreement information. While all of this information is useful, it is important to remember the ultimate source, and understand the financial motivation behind that source. Astute cattle owners will always try their very best to keep yardage and gain costs low.

The reality is that cattle feeding is a very competitive business, and there is a reluctance to share all of the information among feedlots. Cost of gain rates do trend with commodity prices but all too often, some cattle feeders end up working under some highly restrictive rate structures, with very little to show for it in the end. Occasionally over the years, feedlots have been known to provide services that do not cover their cash production costs, or make any contribution to management and capital costs.

With limited upside for feedlots under some agreement structures, every effort must be taken to insure that every agreement supports the feedlot’s business plan objectives. This implies the critical need to insure that variable costs are covered, and there is a reasonable chance of experiencing positive contributions to fixed costs, and to feedlot management.

SECTION 2. BEST MANAGEMENT PRACTICES

Developing a successful long term cattle feeding arrangement is far more than just writing down some terms and conditions on a sheet of paper. Sound business practice requires the achievement of short and long term objectives of both parties. If the feedlot is not achieving adequate long term profitability, then downsizing or other cessation actions will eventually happen. At the same time, cattle owners need to achieve profitable long-run average returns to stay in business.

Long term profitability for cattle owners is largely determined by three things: cattle purchase price or home raised production cost, selling price, and feedlot production cost. It is the cattle owner’s job to find and negotiate the best and most competitive production cost available. While getting the lowest possible price is important, astute cattle owners also know there is tremendous value in receiving the best production risk management available.

Production risk management is discussed later in this paper but for now we can consider it to be captured by:

1. Achieving production results that are close to initial forecasts,
2. Acceptable death loss,
3. Highest valued cattle.

Cattle owners find value in these traits, and as such, best does not necessarily mean the cheapest. Total feedlot management is important. One way to improve overall management is to look at what top producers in other sectors are doing.
What Successful Farm Managers Do

In 2015, a ‘Dollars and Sense’ study was completed for Farm Management Canada by Ipsos-Reid. This was a very large study that looked at all sectors of Canadian agriculture using many different categories. The study found seven key things that successful managers do:

1. Never stop learning,
2. Seek the help of advisors/consultants,
3. Write down their business plan, follow it, and review it annually,
4. Know their cost of production, and what it means for their profits,
5. Conduct a risk assessment and manage risks,
6. Develop a budget and financial plan,
7. Keep finances up to date to help make business decisions.

This list of seven things may seem daunting at first glance, but we can use some farmer logic to the reorganize and simplify them into a process to help feedlots make better custom feeding agreements. These seven things can be viewed as a combination of activities that can all be rolled into an over-arching business plan, or comprehensive management plan. Thus, the remainder of this section will incorporate these seven key activities into a useful business plan that will add a tremendous amount of power and confidence to business decisions; and ultimately cattle feeding agreements.

How does business planning information help in creating better cattle feeding agreements? The answer is threefold:

1. It helps to ensure that the potential results from an agreement will actually serve to move your business toward your objectives,
2. A complete business analysis and understanding of your financial position helps you make future capital investments that do not add excessive financial risk.
3. An in depth knowledge of your production costs allows you to avoid unprofitable cattle agreements that other feedlots may be using.

A written business plan is just good business.

Developing the Business Plan

Contrary to many opinions, a business plan does not need to be a complex or sophisticated document. It is commonly thought that creating a business plan is just another aggravation that is required to convince the bank manager to lend money. However, a detailed business plan with a realistic financial forecast gives a manager a clear road map, and provides more confidence in the operation’s ability to meet financial obligations.

In practical terms, one useful strategy would be to take a three ring binder and divide it up into various sections that contain specific operational and management plans. A business plan binder such as this will allow you to continually pull out old pages and sections without the need to re-do the entire thing.

At first glance, business plans seem intimidating and costly. The reality is that they do not cost much money. If you hire someone else to do it, then yes, it does cost some money. But, building a business plan is something that you should do yourself. It does not need to be elaborate, but it does need to come
from your own head, and represent your business as only you and your team can see it. While it may be good to hire professional accounting help with the financial analysis, the more you can do yourself, the better your business will be. Below is an outline for a business plan that may work for some businesses:

**THE BUSINESS PLAN BINDER**

1. **Strategic Section**
   - Vision, Goals, Objectives
   - Opportunities, Expected Marketplace
   - Strategies
   - Human Resources

2. **Financial**
   - Historical financial statements
   - Pro forma or forward looking forecast statements

3. **Risk Management**
   - Financial Risk Management
     i. Sensitivity analysis on projected financial statements
     ii. Downside risk management strategies
   - Strategic Risk Management
     i. Identification of possible events that can affect the business
     ii. Strategies for dealing with uncertainty

4. **Cost of Production**
   - A further break down and analysis of information contained in the financial section
   - Cost minimization strategies

5. **Learning Opportunities**
   - Professional Resources
     i. Vets, accountants, lawyers
     ii. Market Analysis
   - Plan for courses and seminars

6. **Other Sections**
   - Farm Safety Plan
   - Environmental Plan
   - Sustainability Plan
   - Animal Care Plan
   - Succession Plan

Not every section in this outline is essential, but they all add confidence to business decisions and assist in making better cattle feeding agreements. While completing a business plan like this can be a lot of work, the hardest part is just getting started. Once started, the process will become an ongoing part of managing your business.
General Business Plan Sections

1. **Strategic Planning Section**
   This can be a very small portion of the binder that addresses goals, objectives, and strategies. It should only be written by the management team, and not a consultant. Simply writing down goals, objectives, and strategies can be very important for communication within your family and staff. It also helps with long term business consistency and clarity. The strategic part of a business plan essentially addresses:
   - What is your long term vision? (Motherhood and apple pie idiom – basic principles or values which everyone agrees upon.)
   - Short and long term goals and objectives? This is essentially where you want to be at different time periods in the future.
   - List of team members; identifying everyone’s particular strengths and expected contributions to the business objectives.
   - List of opportunities that will contribute to the achievement of goals.
     - Include business impact and likelihood assessments using qualitative measures.
   - List of strategies designed to exploit the opportunities.
   - List of strategies required to achieve objectives. Essentially, how you are going to get there.

   As for developing a specific custom feeding agreement, if the agreement does not help achieve the stated goals, then the strategy should be abandoned immediately. Chances are that further analysis will need to happen before making too drastic of decisions.

   The strategic section should be open and transparent to everyone in the organization from family members, to staff members, and even lenders. This is in slight contrast the financial section, which may need to have some viewing limitations.

2. **Financial Section**
   This section does not always need to be accessible to all employees, and outside stakeholders. However, transparency and outside input can be useful in identifying strengths and weaknesses. In general terms, this section is about creating comparative financial statements done on accrual basis. This can be done using computer accounting packages or by a professional bookkeeper. Regardless, of how the entry work is done, it is a good idea to engage the services of a trained accountant right from the start. The key statements include comparative annual:
   - Balance Sheet, and Market Value Net Worth Statement
   - Income Statement
   - Cash Flow Statement

   It is important to include as much detail as possible in the statements so that capital and expense items can be allocated to various enterprises. This will ultimately assist in competing budget forecasts, and cost of production calculations. A detailed list of capital and equipment at market value will also help with calculating depreciation, and forecasting future operating costs.
Financial Section Continued: Budgeting and Planning
This section takes the historical financials and converts them into forward looking, or pro forma statements. These statements may include:

- Three year income statement forecast
- Three year forecast balance sheet and net worth statements
- A monthly cash flow forecast which can be very useful to most businesses, especially when operating loans and monthly minimum margin requirements must be met for borrowing purposes.

A simple spreadsheet model can be an extremely powerful tool for experimenting with different price and production assumptions that impact the bottom line. As more experience is gained with spreadsheets, sensitivity analysis can be important for analyzing your future business and planning decisions.

3. Risk Management

Risk is defined as ‘uncertainty that matters to the achievement of objectives’. Both cattle owners and custom feedlot owners have their own unique down-side risks, and have a corresponding opportunity for compensation when things go better than expected. Appropriate risk and reward tradeoffs form the basis of most cattle feeding arrangements.

Stated in terms of the cattle feeding business, risk is essentially the difference between the forecasted price or production parameter, compared to the actual observed result. That could be a lower than expected market price, higher than expected death loss, or higher than expected cost per pound of gain. It is really all about meeting or exceeding expectations.

When looking at your own business with the intent of making good cattle feeding agreements, it is often useful to break risk down a little bit further. We want to make sure that we are doing the right things, and we want to make sure we are doing things right. As such, the following definitions come in handy:

**Strategic Risk - the risk of a loss or gain arising from strategic business decisions**
This essentially means that we are doing the right things to achieve our objectives.

**Strategic Risk Management**
Strategic risk management is usually a qualitative or ‘Enterprise Risk Management’ (ERM) exercise on the whole farm. It has three general steps that typically do not involve numbers:

1. **IDENTIFY** risks using brainstorming techniques with team members working in all levels, and in all areas of the business. Have everyone in the business write down things that they see that have the possibility of doing harm to the business.
   - At the same time, identify uncertain things that could have a positive impact on the operation and create opportunities.
   - Take the identified opportunities back up to the strategic part of the business plan so that plans can be made to exploit those opportunities.
2. **ASSESS** the risks in terms of how likely they are to occur, and how large could the impact be. This is done using qualitative words like: Very High, High, Medium, or Low.

3. **MANAGE** the risks by applying the most appropriate strategies such as:
   - Transfer to someone else with insurance or derivatives.
   - Avoid the risk all together.
   - Minimize the risk through management strategies.
   - Accept the risk.

**Operational Risk**
This concept is all about *doing things right*. It is further broken down into two major categories which are:

- **Business Risk** which is risk that arises from variability in a firm’s production and marketing efforts (usually caused by uncertain prices and yields) and,

- **Financial Risk** which is simply business risk compounded by leverage – (Debt)

Every person or business has its own unique level of financial risk; simply based on the overall level of debt in relation to the amount of equity. Two businesses that have the same production systems will chose different marketing and risk management systems simply due to their distinctly different abilities to handle price and production setbacks. The business with higher debt must choose more conservative management strategies just to ride out the negative events, and stay in business.

**Financial Risk Management**
Financial risk management is a process that starts by assessing the risk using numbers that were generated from the financial statements. In a spreadsheet model of operation, different cost, production, and price assumptions are entered in order to determine what happens to net income and equity with unforeseen shocks to the system. It is also important to calculate the impact on equity from using different debt levels. This will help to show much debt and stress the operation can handle.

4. **Cost of Production**

Every feedlot has its own unique cost structure that must be considered when making business decisions. Entering into a sustainable cattle feeding contract absolutely requires that a feedlot knows and understands its cost of production. This is one of the most critical pieces. All too often, feedlots enter into cost per pound of gain arrangement based on what the neighbors are doing, rather than what they should be doing. Coffee shop talk should not be taken as gospel, especially if the price is being promoted by a potential client.

Some potential cattle feeding clients will use “low-balling” techniques to get the lowest possible rates. You cannot blame them. They are taking on a lot of risk, and they need the lowest costs available. Unfortunately, history has shown that financially struggling, or financially naive feedlot owners will accept arrangements that only serve to keep their doors open and create problems for the future. Cost of production is so critical that it will be dealt with in its own section later on in this discussion paper.
5. Learning Opportunities

These are points #1 and #2 from the Ipsos-Reid poll. The reality is, feedlots need their consultants and advisors to do more than just the task they were hired to do. We want them to teach us and advance our own knowledge in all aspects of the operation. Cattle feeding has become a highly technical activity that requires specialized knowledge in the areas not limited to the following:

**Animal Health** – this has become even more critical as the industry begins to address possible antibiotic resistance, and public trust issues. This area is typically addressed through a veterinarian consultancy arrangement.

**Feed and Nutrition** – this is a highly technical area that requires specialized expertise to achieve the desired results. Qualified nutritionists also prove a valuable production risk management function in conjunction with your animal health team.

**Business Management** – this is an area that some people love, and other people hate. If it is not your forte, hire the best accountant and business advisor you can, and learn the best ways to manage your own business. Many producers employ a large team of business advisors that are specialists in their own fields.

Outside business expertise typically consists of:

- **Accountants**
  - Basic accounting, bookkeeping, and business analysis
  - Tax accounting and long term tax planning
  - Business transition

- **Lawyers**
  - Legal risk management and contract execution
  - Business transition
  - Wills and Powers of Attorney

- **Transition Experts**
  - Designing appropriate and effective succession, and transition plans that deal with the human side of the business
  - Identify appropriate long term strategies

- **Business Management Specialists**
  - Assistance in interpreting financial accounting information
  - Interpreting production information, and calculating enterprise returns
  - Financial forecasts and business planning

- **Market Analysts**
  - Identifying short and long term risks in the commodity and financial markets that have the potential of impacting your business
  - Identifying opportunities to take advantage of
While not everyone will require the services of all of these business management professionals all the time, it is important to have a good, trustworthy team at the ready for when the need arises. It is also important to seek out learning events where you can get varied opinions on the key things that matter to your business. The cattle feeding business has evolved into a dynamic business that requires a very large knowledge set in or to survive. Having a trusted team of experts to bring specific expertise to the table will help improve the likelihood of being successful.

6. Other Potential Business Plan Sections

In addition to the previously described sections, it is important to include a few more brief sections that will help with ongoing management, and increase transparency for all of your staff, partners and stakeholders. A few of those sections may include:

- **Environmental Farm Plan**
  - Official documentation
  - Environmental challenges and solutions
  - Farm management and mitigation protocols

- **Farm Safety Plan**
  - Identified threats
  - Safety solutions and long term solutions
  - Procedures and protocols

- **Animal Care Plan**
  - Programs and certifications
  - Protocols for:
    - Shipping and receiving
    - Induction
    - Animal health
    - Chronics and cripples
    - Dead stock management

- **Sustainability**
  With recent concerns about public trust and the industry's social license to operate, outside expertise in the area of current production protocols may be important. Some areas may include things like:
    - Verified Beef Production
    - On-Farm Food Safety Program
    - Code of Practice for the care and handling of farm animals
    - Certified Canadian Feedlot Animal Care Assessment Program

- **Succession Plan**
  It is always good to start working on a transition, or succession plan for your operation. These plans can be complex and involve sensitive matters that may seem overwhelming at the start. The important point is that you start the process by writing down a few things, then further develop your plan over time with your business advisors.
Best Management Practices Summary

The previous discussion around best management practices has identified a lot of content that could be included in any feedlot’s business plan to help guide operations and lay the groundwork for good cattle feeding agreements. While each individual piece of the binder is not essential, history has shown that successful managers use many of these concepts. A complete understanding of the plan helps create confidence and also helps sell your business to cattle feeding clients, lenders, and staff. Most of all, it helps the business owner sell the business and its services to itself.

SECTION 3. COST OF PRODUCTION

3.1 Calculating Yardage Costs

Because there is very little relevant benchmark yardage information, it is critical that all feeders calculate their own yardage costs and fully understand their fee requirements. Everyone will have different costs that may, or may not be transparent when talking to other feedlots or industry contacts.

Through recent personal experience, I can report that a full service feedlot that fed my own cattle charged 70 cents per head per day. Another feedlot that wintered my friend’s calves charged 45 cents per head per day. Both of those feedlots covered their costs and achieved their business objectives. The feedlot with the lesser yardage cost had the objectives of getting fair market price for feed, adequate revenue to cover wages for labour, and adequate revenue to cover machinery operating and depreciation costs. Albeit, the feedlot with lesser yardage costs did not have ultra-modern equipment.

Some feedlots find ways to disguise their yardage in ration mark-ups or other fees. This hidden yardage can give the impression of a lower yardage fees for prospective clients. However, this approach only works for a little while. Ultimately, the cattle owner must see competitive gain costs and returns on investment.

The ultimate goal of the yardage calculation process is to create a summary table that contains your feedlot’s actual cost information. An example of this summary is shown below in Table 1. This example table is copied from the Feeding Budget page located in the Alberta Agriculture and Forestry’s (AF) downloadable Rancher’s Risk and Return calculator tool. This tool is free, and is available from the AF website by following the underlined link. Alternatively, users can simply search using the key word ‘Ranchers Return’ with Google, or with AF’s website search box. The numbers in the Table 1 are not benchmarks, or industry averages. They are presented only as an example of the calculation process.
The categories and format used in Table 1 are consistent with typical enterprise analysis budgets.

**Table 1 - Feedlot Per-Head Yardage Calculations**

<table>
<thead>
<tr>
<th>Yardage</th>
<th>Days On Feed</th>
<th>Head</th>
<th>Total dollars</th>
<th>Per Hd.</th>
<th>$/head/day</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel</td>
<td>$ 25,000.00</td>
<td></td>
<td></td>
<td>8.33</td>
<td>0.033</td>
<td>7.1%</td>
</tr>
<tr>
<td>Repairs - Machinery</td>
<td>$ 25,000.00</td>
<td></td>
<td></td>
<td>8.33</td>
<td>0.033</td>
<td>7.1%</td>
</tr>
<tr>
<td>Repairs - Buildings /Corr</td>
<td>$ 10,000.00</td>
<td></td>
<td></td>
<td>3.33</td>
<td>0.013</td>
<td>2.9%</td>
</tr>
<tr>
<td>Utilities &amp; Miscellaneous</td>
<td>$  5,000.00</td>
<td></td>
<td></td>
<td>1.67</td>
<td>0.007</td>
<td>1.4%</td>
</tr>
<tr>
<td>Custom work</td>
<td>$  60,000.00</td>
<td></td>
<td></td>
<td>20.00</td>
<td>0.080</td>
<td>17.1%</td>
</tr>
<tr>
<td>Paid labour &amp; benefits</td>
<td>$ 110,000.00</td>
<td></td>
<td></td>
<td>36.67</td>
<td>0.147</td>
<td>31.4%</td>
</tr>
<tr>
<td>Interest on Operating and</td>
<td>$  3,500.00</td>
<td></td>
<td></td>
<td>1.17</td>
<td>0.005</td>
<td>1.0%</td>
</tr>
<tr>
<td>Taxes, Lic. &amp; Insurance</td>
<td>$   1,500.00</td>
<td></td>
<td></td>
<td>0.50</td>
<td>0.002</td>
<td>0.4%</td>
</tr>
<tr>
<td>Non-Paid Management and</td>
<td>$  75,000.00</td>
<td></td>
<td></td>
<td>25.00</td>
<td>0.100</td>
<td>21.4%</td>
</tr>
<tr>
<td>Equipment and Building Depreciation</td>
<td>$  35,000.00</td>
<td></td>
<td></td>
<td>11.67</td>
<td>0.047</td>
<td>10.0%</td>
</tr>
<tr>
<td>Yardage Cost</td>
<td>$ 350,000.00</td>
<td></td>
<td></td>
<td>116.67</td>
<td>0.467</td>
<td>100%</td>
</tr>
<tr>
<td>Bedding</td>
<td>$  45,000.00</td>
<td></td>
<td></td>
<td>15.00</td>
<td>0.060</td>
<td></td>
</tr>
<tr>
<td>Veterinary Medical</td>
<td>-</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Before you can get your own numbers into this format, there are few simple steps that need to occur first. Some of these steps may require basic spreadsheet knowledge, and other pieces may require a bit of help from your accountant or bookkeeper.

1. **Export Income Statement**
   - The first thing to do is to export your income statement from your accounting program into a spreadsheet file. Most modern programs can do this quite easily, but you may want to confer with your bookkeeper. A real world example of this can be found in *Yardage Example* work sheet that is also contained from the AF Rancher’s Risk and Return calculator.

   The Rancher’s Risk and Return example is for a farm that has both a crop enterprise, and custom cow-calf operation. The principles for cow-calf yardage calculations are the same as for a custom feedlot. In this example farm, all feed production and pasture grazing activities are considered cropping enterprise activities. While everything seems strait forward, there is actually a lot of subjective analysis and opinion required to effectively allocate costs to the various enterprises.

2. **Define Enterprises and Split Costs**
   - Once the Income Statement has been exported, the next step is to allocate the various line items to your individual enterprises and activities. This is where some basic spreadsheet knowledge is important because we want to build a model to allocate the cost, yet allow for some experimentation and easy changes. A simple table like the one shown below in Table 2 can be useful. This is an excerpt of a real farm analysis example that can also be found in the Rancher’s Risk and Return spreadsheet ([See Appendix A](#)).
In the example (Table 2), individual line item amounts are split between the crop enterprise and custom feeding enterprise on a percentage basis for each line item. The lines are then allocated to a specific category in the yardage calculation that is shown in Table 3 below. This cost allocation can be quite a revelation for some people. Often you can be quite surprised by how big some of the line items really are. A common thought is: how is everyone else feeding for that little amount? The reality is, few farmers and ranchers actually know their own true cost of production.

Once all of your expenses are allocated across your farm enterprises, the next step is to summarize them into an enterprise analysis budget similar that shown in Table 3. This is an actual farm example for a custom cow-calf operation.

The example below uses real world expense numbers which are allocated across the enterprises as accurately as possible. While accuracy is the goal, it is nearly impossible to achieve due to the very subjective nature of the splits. The key is to be as realistic as possible, and split the expenses to the best of your ability. This is especially important with the larger items such as paid labour and benefits. Labour is sometimes difficult because of tasks like haying and feed delivery which should be accrued to the crop production enterprise.
Table 3 - Cow-Calf Yardage Example

<table>
<thead>
<tr>
<th></th>
<th>Head of cows</th>
<th>Fuel</th>
<th>Repairs - Machinery</th>
<th>Repairs - Buildings /Corrals</th>
<th>Utilities &amp; Miscellaneous</th>
<th>Custom work</th>
<th>Paid labour &amp; benefits</th>
<th>Interest and lease payments</th>
<th>Rent and Lease Payments</th>
<th>Taxes, Lic. &amp; Insurance</th>
<th>Non-Paid Management and Labor</th>
<th>Equipment and Building Depreciation</th>
<th>Yardage Cost</th>
<th>Bedding</th>
<th>Veterinary Medical</th>
<th>Yardage with Medical and Bedding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>650</td>
<td>5,700</td>
<td>9,642</td>
<td>1,852</td>
<td>21,107</td>
<td>-</td>
<td>60,959</td>
<td>10,892</td>
<td>15,015</td>
<td>6,217</td>
<td>-</td>
<td>7,256</td>
<td>138,639</td>
<td>19,892</td>
<td>24,189</td>
<td>182,720</td>
</tr>
<tr>
<td></td>
<td>Average Days On Feed</td>
<td>210</td>
<td>14.83</td>
<td>2.85</td>
<td>32.47</td>
<td>-</td>
<td>93.78</td>
<td>16.76</td>
<td>23.10</td>
<td>9.56</td>
<td>-</td>
<td>11.16</td>
<td>213.29</td>
<td>30.60</td>
<td>37.21</td>
<td>0.43</td>
</tr>
<tr>
<td></td>
<td>Total head-days</td>
<td>136500</td>
<td>0.042</td>
<td>0.071</td>
<td>0.155</td>
<td>-</td>
<td>0.447</td>
<td>0.080</td>
<td>0.110</td>
<td>0.046</td>
<td>-</td>
<td>0.053</td>
<td>1.016</td>
<td>0.146</td>
<td>0.177</td>
<td>1.34</td>
</tr>
<tr>
<td></td>
<td>Total dollars</td>
<td>Per Hdt</td>
<td>$/head/day</td>
<td>% of total</td>
<td>Per Hdt</td>
<td>$/head/day</td>
<td>% of total</td>
<td>Per Hdt</td>
<td>$/head/day</td>
<td>% of total</td>
<td>Per Hdt</td>
<td>$/head/day</td>
<td>% of total</td>
<td>Per Hdt</td>
<td>$/head/day</td>
<td>% of total</td>
</tr>
</tbody>
</table>

The Table 3 example does not include bedding or medical expenses in the yardage calculations. However, some custom operators do include these items. Including them is not wrong, but does require a very good knowledge of the expected costs. Risk averse managers may not want to take on any extra risk, thus, may want to charge clients for all of the additional services provided.

Labour provided by the business owners and their family members should also be included in the calculations, even though cash payments may not be made. In Table 3, the owners and family members drew wages from the company, and all costs were accounted for. If you do not draw wages, or take set withdrawals, it is important to value your labour at a fair market rate, and then enter it into the unpaid labour category. While calculating yardage may seem like a daunting task at first, it is a simple procedure once you get set up. Of course, it is very important to have a good set of books to start with. As the saying goes, garbage in, garbage out.

3.2 Estimating Cost per Pound of Gain

Estimating cost per pound of gain is a relatively simple process after yardage costs are determined. In addition to yardage, costs need to be estimated for feed, medical, bedding, and death loss. When these costs are determined, the calculations are straightforward and can be done on almost any breakeven spreadsheet, or just a calculator.

For the purposes of the discussions in this section, I will refer to another important computer application tool that can greatly assist with forecasting cost per pound of gain. The first program is the CowBytes (See Appendix A) ration balancing program which is available to purchase from the Alberta Agriculture and Forestry (AF) website.

Once rations are formulated, the next step is to enter the ration information into the ‘Feedlot Budget’ worksheet in the Rancher’s Risk and Return breakeven calculator as described earlier in Table 1.
Calculating Feed Costs

Calculating feed costs is both an art and a science that involves producer experience and nutritionist expertise. Producer experience alongside of historical production data helps in forecasting animal performance. Producers need to forecast average daily gain (ADG), and dry matter conversion (DM) for the specific type and quality of animal to be fed. Alternatively, and in the absence of good DM conversion forecasting confidence, producers must forecast ADG based on the expected consumption of an average feed ration for the feeding period. The preferred method is to use the ADG and DM method, but if you download the Rancher’s Risk and Return spreadsheet, calculations can be made using both methods in the feedlot budget worksheet. The value in using a spreadsheet such as Rancher’s Risk and Return is that you can easily change commodity prices, or animal performance to immediately see the changes in cost of gain.

Once the cattle type and quality is determined, the next step is create a feed ration that will achieve the feeding program objectives. I strongly suggest that you use a ration balancing program such as Cow Bytes to begin this process. With some practice, most producers will be able define rations that will be really close to the final rations required. When an approximate ration is formulated, the ration can be entered into a spreadsheet for initial cost per pound of gain estimates.

IMPORTANT MESSAGE #1 - Always consult with a trained and experienced nutritionist to adjust and fine-tune all feed rations before use.

Qualified nutritionists may be able to help reduce some of the cost from your initial estimates. This is especially important given your own feed inventory constraints, and marketing plans. To this end, it is also critically important to have complete knowledge of the quality and quantity of your feed inventory. Conservative accounting for shrinkage and dry matter contents will help minimize the likelihood of surprises in the spring. It is not good for a backgrounding feedlot to run out of silage a few weeks before the cattle are due to go out to grass, or a finishing lot.

IMPORTANT MESSAGE #2 - Always conduct detailed feed sampling and analysis, along with regular moisture testing to maximize performance and minimize costs.

Table 4 shown below contains an example of a feed cost calculation based on a hypothetical pen of cattle being considered for purchase in mid-October 2016. The top of the table shows the incoming parameters as they were entered into in the Rancher’s Risk and Return Spreadsheet. The cattle were assumed to be good quality, medium to large framed exotic cross steers in light flesh condition. Based on this information, an average feed ration was formulated using the Cow Bytes program. From there, the commodity moisture contents and average daily consumption levels were entered into the sheet. The average ration dry matter percentage composition was also entered into the right hand side of the table so that calculations could also be done using the DM conversion method.

The type of cattle were familiar to this feedlot, and the performance was estimated to be 5.9:1 conversion, with a 3.25 lb. per day gain. In this example, both methods generated the same 53 cent per pound of gain feed cost shown in the bottom row of the Table.
One way to start learning how to forecast feed conversion is to go through all of your historical closeouts and summarize the results. While analyzing and making note of the close out results, it is also important to make note of the type and quality of cattle, the average dry matter feed consumption, and other unique factors that may have affected cattle performance. The more data you have, and the more you do it, the better you will become. It is just that simple.

### Table 4 - Cattle Feeding Example Using Rancher’s Risk and Return

**Cattle Feeding Risk and Returns**

<table>
<thead>
<tr>
<th>General Input Table</th>
<th>Strs-finish</th>
<th>Head on Feed (number of cattle to be fed)</th>
<th>Start weight</th>
<th>Start Date (mm/dd/yy)</th>
<th>Start Price</th>
<th>Days On Feed (Total Days on Feed)</th>
<th>End Date</th>
<th>Death Loss (Percent)</th>
<th>End Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>350</td>
<td>575</td>
<td>15-Oct-16</td>
<td>1.82</td>
<td>240</td>
<td>12-Jun-17</td>
<td>3.0%</td>
<td>1355</td>
</tr>
</tbody>
</table>

### Feed Cost and Cattle Performance Table

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Price per Tonne</th>
<th>Moisture Content</th>
<th>Fed LB AF/day</th>
<th>ration % AF</th>
<th>Feeding Program</th>
<th>Price</th>
<th>Moisture Content</th>
<th>Fed LB AF/day</th>
<th>ration % AF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barley</td>
<td>175.00</td>
<td>11.5%</td>
<td>19.42</td>
<td>80.0%</td>
<td>Barley</td>
<td>175.00</td>
<td>11.5%</td>
<td>19.42</td>
<td>80.0%</td>
</tr>
<tr>
<td>Silage</td>
<td>50.00</td>
<td>63.2%</td>
<td>4.39</td>
<td>18.1%</td>
<td>Silage</td>
<td>50.00</td>
<td>63.2%</td>
<td>4.39</td>
<td>18.1%</td>
</tr>
<tr>
<td>Hay</td>
<td>65.00</td>
<td>10.1%</td>
<td>0.24</td>
<td>1.0%</td>
<td>Hay</td>
<td>65.00</td>
<td>10.1%</td>
<td>0.24</td>
<td>1.0%</td>
</tr>
<tr>
<td>Supplement</td>
<td>750.00</td>
<td>10.0%</td>
<td>0.22</td>
<td>0.9%</td>
<td>Supplement</td>
<td>750.00</td>
<td>10.0%</td>
<td>0.22</td>
<td>0.9%</td>
</tr>
<tr>
<td>Other</td>
<td>0.00</td>
<td>0%</td>
<td>0.0</td>
<td>0.0%</td>
<td>Other</td>
<td>0.00</td>
<td>0%</td>
<td>0.0</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Total</td>
<td></td>
<td></td>
<td>24.27</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Ave Dry Matter Consumption as % body wt. 1.99%

Expected Ave Daily Gain (pounds per head per day) 3.25

Dry Matter Feed Conversion 5.91

Feed Cost per lb gain 0.530

Feed:Gain Method (enter 1) 1
1. Calculating Cost of Gain

With yardage estimated as per the description in Tables 1 and 3 in the previous section, and the feed costs calculated in Table 4, there is only bedding, medical, and interest costs left to estimate. This part of the Rancher’s Risk and Return feedlot budget worksheet is shown below in Table 5.

Table 5 - Rancher’s Risk and Return Example – Other Costs and Results

<table>
<thead>
<tr>
<th>Other Costs</th>
<th>total $</th>
<th>$/head</th>
<th>$/hd-day</th>
<th>$/lb Gain</th>
<th>% in Feeder</th>
<th>% in Feed etc.</th>
<th>Equity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yardage</td>
<td>39,480</td>
<td>164.50</td>
<td>0.47</td>
<td>0.15</td>
<td></td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Bedding</td>
<td>7,000</td>
<td>20.00</td>
<td>0.08</td>
<td>0.03</td>
<td></td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Veterinary Medical</td>
<td>17,500</td>
<td>50.00</td>
<td>0.21</td>
<td>0.07</td>
<td>Interest Rate</td>
<td>4.0%</td>
<td></td>
</tr>
<tr>
<td>Interest</td>
<td>9,280</td>
<td>26.51</td>
<td>0.11</td>
<td>0.04</td>
<td>Alternate COG</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Cost and Performance Summary</th>
<th>Price and Profit Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feed Cost / Lb gain</td>
<td>0.57</td>
<td>CME Futures ($/lb) 0.930</td>
</tr>
<tr>
<td>Feedlot Cost per lb gain (no int)</td>
<td>0.82</td>
<td>Exchange Rate (US$ per 1 Can $) 0.745</td>
</tr>
<tr>
<td>Cost per lb gain (with interest )</td>
<td>0.85</td>
<td>Basis (Alberta Cash minus futures in C$/lb) 0.02</td>
</tr>
<tr>
<td>Feedlot Break Even per lb fed</td>
<td>1.28</td>
<td>Price Forecast ($/lb) 1.27</td>
</tr>
<tr>
<td>Total Cost per lb gain w/ pasture</td>
<td>0.85</td>
<td>Breakeven Futures Price 0.94</td>
</tr>
<tr>
<td>Breakeven after pasture</td>
<td>1.28</td>
<td>Maximum Purchase price to BE 1.80</td>
</tr>
<tr>
<td></td>
<td>Hedgable profit per head (10.23)</td>
<td></td>
</tr>
</tbody>
</table>

In addition to the feed and total cost per pound of gain statistics, Table 5 shows some of the expected financial performance results. This piece is especially important if you plan to buy cattle or take a percentage share of a customer’s cattle. However, price forecasting is beyond the scope of this paper.

2. Pulling the Numbers Together

Ultimately, these financial performance estimates will greatly influence a customer's decision to place cattle or not. Therefore, it is critical that feedlots do good cost of gain forecasts before quoting numbers to prospective clients.

Estimating cost per pound gain is even more critical for clients who want you to feed cattle at a very slim cost per pound of gain. If one of your business plan objectives is to make money, then you may want to do some additional calculations and see if the extra head days will lower your average yardage cost enough to make it worthwhile. Ultimately, the decision to custom feed cattle for any set rate must support your business plan objectives. Taking on too much risk, or working for less than your cost of production is not sustainable in the long-run.

3. A Few Production Risks to Consider

When estimating cost per pound of gain, the biggest risk is forecasting performance. Thus, it is strongly advised that a qualified beef nutritionist be advised before final decisions are made. Many nutritionists have first-hand knowledge of the rate of gain, and DM conversions that a feeder can expect given the feedlot's unique systems, and types of cattle.
In the absence of significant historical records, or timely nutritionist advice, the tables in the next section can provide a reasonable range of the Dry Matter conversions that a feeder might expect to see. In general, dry matter conversions increase when rates of gain decrease, and visa-versa. As such, the tables shown below contain a range of ADG levels from which to draw the corresponding conversion figure. Cattle with better feed converting genetics will exhibit better results, while poorer cattle will not achieve the conversion in the table given a specific rate of gain.

**Table 6 - Average Daily Gain – Feed Conversion Tables**

<table>
<thead>
<tr>
<th>Finishing Yearlings off Grass - 875 lbs going to 1410</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average Daily Gain</strong></td>
</tr>
<tr>
<td><strong>D.M. Conversion</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Finishing Yearlings – Backgrounded – 850 lbs. going to 1350 lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average Daily Gain</strong></td>
</tr>
<tr>
<td><strong>D.M. Conversion</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Finishing Heavy weaned steer calves 650 going to 1275 lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average Daily Gain</strong></td>
</tr>
<tr>
<td><strong>D.M. Conversion</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Finishing Medium Weight weaned calves - 550 lbs finished at 1325</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average Daily Gain</strong></td>
</tr>
<tr>
<td><strong>D.M. Conversion</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Backgrounding Light Calves - 400 lbs, growing to 600 lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average Daily Gain</strong></td>
</tr>
<tr>
<td><strong>D.M. Conversion</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Backgrounding Heavy Calves - 550 lbs growing to 850 lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average Daily Gain</strong></td>
</tr>
<tr>
<td><strong>D.M. Conversion</strong></td>
</tr>
</tbody>
</table>

The tables above represent observations from the industry for various generalized feeding programs. However, these tables should be used a guide only.

A second major risk is death loss. To help minimize this risk, it is very important to know the source of the cattle you are proposing to feed, as well as the reputation of your cattle feeding client. This knowledge will help you make conservative death loss estimates that will minimize your risk. In order to measure to financial impact of death loss, it is worth your time to experiment with different death loss rate “what if?” scenarios in a spreadsheet.

Medical costs are another source of risk that can be measured and managed through consultation with your veterinarian, and your past records. Once again, experimenting with different costs will give you an understanding for the level risk involved.
SECTION 4. RISK – THE OTHER DIMENSION

General Risk and Return
One typical business plan objective is to generate a stable and positive return on investment. However, the other sometimes hidden objective is risk minimization. Investors have several tools to help manage price risk, but the management of production risk is also critically important.

Custom cattle feeders that assist cattle owners in managing production risk will ultimately be more valued than their competitors. While the high-risk competitors will still have some cattle to feed, astute investors will always factor in a level risk when making arrangements. Hence, lower risk feeders will be able to extract comparatively more head–days, and ultimately higher fees in the long run.

Before we discuss strategies, we need to define what production risk management is to a cattle investor. In generic terms, risk is essentially ‘uncertainty that matters’. In feedlot production, this is uncertainty around production costs and death-loss. This cost uncertainty is the reason that investors often prefer to lock in a specific cost per pound of gain. In theory, an investor will pay a higher cost of gain to achieve that certainty of cost.

In reality, investors want to transfer the cost-of-gain risk to the feedlot, while at the same time, using their competitive market power to get the lowest rate possible. All too often, feeders who do not have a good understanding of production costs will settle for less than their true costs. Reducing this opportunity for investor leverage is one of the main objectives of this entire discussion.

In capital markets, risk and uncertainty is typically measured in terms of volatility. The more volatile a stock or commodity price is, the more risk that is associated with it. In agriculture, we often measure risk a little differently. That is, we measure risk in terms of predictability. Agriculture prices and production levels are always in motion, but that does not necessarily mean that they are a higher risk than a stock in an equity market. If those dynamic prices and production levels are predictable, then the risk is actually lower. Therefore, we can measure agriculture risk in terms of predictability. In prices, this is captured by the root mean square error (RMSE) static as compared to the standard deviation or ‘volatility’ statistic used in capital markets. The logic is if we can accurately predict the future price of cattle, then the pen of cattle we purchase to feed will be low risk, and our profit will be more certain.

The notion of predictability and certainty can also be applied to feedlot production risk. If a feedlot can accurately predict the cost of gain and death loss, the level of production risk is low. If the cattle owner gets a bad production cost surprise, then the risk is high. No cattle owner wants to be surprised with unexpectedly high gain costs and death losses. If a cattle owner is continually subjected to negative surprises, that owner will likely look elsewhere. Thus, one of the key feedlot management objectives should be to reduce the frequency and severity of bad surprises.

There is also a positive side to risk that people often forget. That is, the chance of having results that are better than predicted. Every cattle owner gets disappointed when dead cattle show up on the monthly feed bill. However, if at the end of the day, the total death loss is less than predicted, then everyone is happy. If the cost of gain and animal performance is better than predicted, then everyone is happy again.
The bottom line is that if a feedlot knows its cost of production, and can more accurately predict production performance, the level of risk faced by the cattle investor is greatly reduced. And if a cattle investor perceives your feedlot to be lower risk than another’s, your feedlot will likely be in higher demand.

**Cost per Pound of Gain Agreement Tradeoffs**

Cost per pound of gain (COG) agreements go a long way to help the cattle owner manage production risk. They transfer the cattle performance risk from the owner to the feedlot. COG agreements have a long history between large cattle owners and smaller backgrounders due to their simple nature. Since there is no need for on-farm feed and cattle weighing equipment, small operators can easily take in cattle, and market their feed and services. Unfortunately, history has shown that some backgrounding operations have fed cattle for less than their true production costs. Some feeders have also accepted too much cattle performance risk as a result from being supplied with sub-standard cattle to feed. All too often, small feedlots feel powerless to negotiate enough compensation to cover their own costs, and account for the extra production risk that they are accepting.

If some of these smaller and less sophisticated feedlots had a written business plan as described earlier in this paper, it is likely their cattle feeding arrangements would not have supported the business plan objectives. Some feeders enter into unfavorable agreements just keep the doors open, and create volume without a strong upside prospect. In some earlier year cases, struggling cattle feeders would have been better off to make the difficult decision to close the doors and move on. Having a plan, knowing your business, and knowing your production costs is critical to successfully creating COG feeding agreements.

While there are many horror stories of feedlots losing money on COG agreements, there have also been some successful long term agreements. Following is a list of ideas that will help make future COG arrangements successful:

a) Accurately project the cattle performance and cost of gain.
   - Know the type and condition of the cattle you are about to feed,
   - Know the target market, weights, and required gains to meet the customer’s needs,
   - Have confidence in your gain and feed conversion forecasts,
   - Have confidence in your death-loss forecasts,

b) Assess the level of risk in your cost of gain forecasts.
   - Run different but highly possible gain and conversion results through a computer program to determine the range of possible gain costs,
   - Determine if the proposed COG rate is high enough to account for some of the bad case scenarios that could happen,
   - Determine the maximum amount of death loss risk you are willing to accept.

c) Be diligent with the weighing grading of incoming cattle.
   - Reject any cattle that do not meet previously agreed upon specs for quality and shrinkage,
   - Train all staff to monitor incoming cattle, and immediately notify the proper people in the event of concern.
d) Keep accurate feed and production records.
   - Use these records to improve future performance forecasting,
   - Use good records to assist in any possible disputes.

e) Keep your agreements simple.
   - Do not get overwhelmed with small print that lawyers have drawn up,
   - If you need a lawyer to interpret an agreement proposal, hire one. But if you really need to hire a lawyer, chances are you should be looking for a new customer.

f) Learn from your successes and failures, and move on.
   - Don’t waste your time with cattle owners that do not respect good work,
   - Explain and present all of your past results to potential new clients.

g) Determine if the agreement rate meets your business plan objectives.
   - See if there is a reasonable chance of covering all variable costs and make some type of contribution to fixed costs,
   - Determine the level where you are better off to leave the pens empty, and wait for a better opportunity.

Other Risk Management Ideas
One risk that all feedlots face is default on feed bills. While feed bill defaults can be large and quite damaging to custom feedlots, they are actually quite rare. While this is an important area to address in cattle feeding agreements, I will defer the technical lecture to your own legal counsel. Your own lawyer should be consulted as soon as you see the possibility of default by a client.

To assist in the protection of feeders, most provinces have their own Animal Keeper’s Act or Stable Keeper’s Act. As a general rule of thumb, it is recommended that feedlots DO NOT waive their right to use these acts in securing funds for non-payment of feed bills. However, some potential clients may require the feedlot to waive their Animal Keepers Act rights to comply with their lenders conditions. One specific example is in regards to the Feeder Associations of Alberta who maintain legal ownership of the cattle on behalf of the client. These associations require the feedlot to waive their rights, but there are several different types of waiver documents in use. Some of them give the feedlot some security in being paid if certain strict procedures are followed. It is strongly suggested that feedlots consult with their lawyers before signing any feeder association waiver document.

To minimize the likelihood of general feed bill default, the following management practices are suggested:
   - Get to know your customers, and establish good lines of communication.
   - Stay on top of your bookkeeping, and get bills out in a timely manner.
   - Closely monitor your receivables, and be aggressive in their collection.
   - Reconcile your receivables with remaining customer cattle inventory.
   - With new customers, it is suggested that feedlots obtain final payments before the last of the cattle are released from the feedlot.

One key to successful long term arrangements lies in the feedlot’s ability to manage all of the unforeseen risks that may occur, but the discussion contained in this section is by no means 100% complete. Feedlots are advised to identify and assess all of the risks that may be present in their own situation and location.
SECTION 5. STRATEGIES TO BUILD RELATIONSHIPS
The following section contains a few things feedlot managers can do to help build sustainable cattle feeding relationships. It summarizes the key messages from earlier on in the paper, and then adds some insights that were obtained from many years of experience in the cattle feeding industry.

Reduce Risk by Improving Cost of Production Knowledge and Predictability

- Know your own business and yardage costs.
- Know cattle, and conservatively predict dry matter feed conversion and average daily gain.
- Have a professionally supervised animal health plan that reduces animal stress, medical costs, and ultimately morbidity and mortality.
- Always forecast and project with a level of conservatism that minimizes the chances of having bad surprises.
- Know your customer’s genetics or preferred type of cattle. Known-source cattle are much easier to predict, while long-haul or stale cattle can have very uncertain performance.
- Weigh all incoming cattle after settling on feed and water. Obtain all pay-weights from cattle owners, and reject cattle with shrinks of over 3%. Stale, stressed, or overly shrunk cattle are not good for anyone, or for the industry.

Reduce the Risk of Producing Substandard Cattle

- Have a feedlot management plan that is consistent with your overall business objectives, and maximizes returns to the unique resources of your operation.
- Have a professionally supervised feeding and feed management plan that produces the weight and flesh conditions that the cattle owner wants.
- Spend time collecting and analyzing interim performance data to minimize the likelihood of surprises at the end of the feeding period.

Communicate, Communicate, Communicate – But Be Humble

- Keep in contact with the customer, and listen to what the customer is saying.
  - This does not mean that ‘the customer is always right’, it just means that the customer may have some knowledge or experience that can benefit you.
  - Customers do not like bad surprises, and bad surprises only get worse with time.
  - Get your feed bills out on time. Customers appreciate it, and it helps reduce your business risk. Give your customer, or their contact person an occasional phone call to minimize the severity of surprises.
- Communicate all incoming weights and cattle arrivals in case the owner has not seen the cattle. It is important that you do not let any cattle buyer slip anything by you, or your clients.
- Introduce and help establish customer relationships with your key employees. This will improve customer relations, and will also help boost employee motivation.
Keep It Clean

- Intensive feed bunk and water trough management is critical. While it is difficult to completely eliminate these items, it is extremely important to minimize the chances of it happening. No one wants to walk up to cattle and see:
  - Feed laying in the drive way,
  - Feed being overshot into the pen,
  - Rock and manure in the bunks,
  - Ultra-slick bunks, or struggling on the pad,
  - Dirty water

- Staying on top of processing and medical handling areas will demonstrate confidence in your herd health program.
- Keep your office clean, and keep your equipment clean. Attention to detail in everything you do will help improve customer confidence.
- Handle your dead stock in accordance with accepted standards.

Stay on Top of Maintenance

- Cattle find the most creative ways to die, so do everything possible to minimize the chances of getting hung up in the gates and fences.
- Look after drainage to minimize the potential for ice and mud buildups. Mud can one of the biggest contributors to reduced feedlot performance, and long-time cattle owners take it very seriously.
- Keep feeding equipment in good working order, with a back-up plan in place.

Keep Up with Capital Investments - But Be Realistic with Purchasing New Equipment

- Long time cattle owners realize that a lot of new equipment typically means higher costs that will ultimately get transferred down to clients. If not, the feedlot could be at risk of become insolvent.
- No cattle owner wants to see too much old equipment used in the primary care of their animals. Clean and well maintained can sometimes have its limits.

Consider Shared Ownership and Share Pens

- Keep a percentage of the pen in your own name to spread your own risk, and instill customer confidence.

Consider Death-Loss Risk Sharing

- But don’t take a deal that gives you more risk than you can handle.
If You Don’t Understand It, Don’t Sign It!

- Sometimes when you are in a hurry and need some cattle, it is tempting to take a new deal.
- If you still feel the need to do it, spend some time and money on a good lawyer who has your best interests at heart.
- Every feedlot has its own business structure and unique risk tolerances that need to be considered. A big legal document may not be for you.
- Don’t sign a contract that guarantees you a loss. Sometimes losses are inevitable, but starting with one hand tied behind your back is just not good.

It is extremely difficult to recommend or specify one best fitting cattle feeding agreement simply because everyone has their own risk tolerance, risk exposure, and more specifically, financial risk exposure. Because of this fact, this document has spent a considerable amount of time discussing business management best practices to help ensure that a feedlot is both doing the right things, and doing things right.

IN CONCLUSION

The discussions contained in this paper have all been intended to support the creation of better cattle feeding arrangements. At the risk of being even more repetitive and sounding like a broken record, it is critically important that feedlots focus on their own business management skills, production costs, and financial risk management. While it is also important to know what the competitive rates in the industry are, feedlots should only enter into agreements that have a reasonable chance of meeting their business objectives. Just because your neighbor is doing it, does not make it the right thing for you.
APPENDIX A – OTHER RESOURCES
Rancher’s Risk and Return – Information Page

Rancher’s Risk and Return is an excel spreadsheet template that calculates costs and expected financial returns for individual cattle enterprises including cow-calf, finishing, backgrounding or backgrounding with grazing. It is available on the Alberta Agriculture website under the decision making tools, and farm management sections. It can also be found by following this link: http://www1.agric.gov.ab.ca/$department/softdown.nsf/main?openform&type=RanchersRiskandReturn&page=information

Clicking HERE will take you directly to the download page.

Alternatively, users can simply search using the key word ‘Ranchers Return’ with Google, or with the Alberta Agriculture and Forestry’s website search box.

CowBytes

CowBytes is an easy-to-use beef ration balancing software package. It allows you to balance for all the major nutrients and most of the micro-nutrients. The program calculates the nutrient values of the rations based on the amount of each feed selected. It can be purchased by following this link: http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex12486

Farm Manager Web Page

The Farm Manager web page has tools, information, and resources to assist in your farm business management planning. It can be found here: http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/bus14419

The Western Beef Development Centre (WBDC)

The WBDC plays a unique and vital role in the development of the Western Canadian cattle industry as a link between "the lab and the land". The WBDC website contains a vast amount of information and can be found here: http://www.wbdc.sk.ca/

Feedlot Search Factsheet

Many producers want to retain ownership of their calves through to slaughter, or want to feed out purchased calves. This factsheet is designed to help cattle owners work through the process of finding the right custom feedlot for their needs. It can be found at: http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex973

Alberta Feedlot Management Guide 2nd Edition

The guide features practical, reliable, easy-to-access information for cattle feeding operations of any size. It can be ordered from this webpage: http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/beef4873