# 3 Ranch Business Planning and Management

*Courtney Bir*

## Objectives

- **Review ranch business plan components: mission and goals; key planning assumptions; operations;organization and management; financial plan; control and records.**
- **Review components of the financial plan.**
- **Identify key business planning and management resources for producers.**

Investing in a ranch is an expensive undertaking and can be financially stressful, particularly for beginning operations. Land ownership in particular is costly. Historically, rates of return to agricultural assets average 4% to 5%, making it difficult to make principal and interest payments on land notes with farm income only. Hence, business planning is especially important in ranching operations, even if the decision to produce beef is a lifestyle choice rather than strictly an economic one.

Few people leave home on a trip to an unfamiliar destination without a plan. They want to know where food, gas and lodging might be available and when they will arrive at their destination. Business planning provides that type of guidance for the ranch. A well-developed plan for the ranch business includes defining goals, understanding limitations and having sound production and financial plans. A comprehensive plan matches livestock to the land resources; identifies appropriate markets for products; and anticipates daily, monthly and annual operations.

Business planning helps the beginning rancher evaluate the feasibility of a proposed venture and helps established producers identify areas for improvement. It identifies financial resources needed for both the ranch investment and annual operating costs. Financial planning and analysis may uncover previously unconsidered opportunities or limitations. It helps ensure investors make decisions based on realistic data, rather than emotions. In addition, the business plan is an important reference for individuals seeking financing and provides the background needed by advisers to assist with problems. The business plan should include:

- Mission or vision statement and goals.
- List of key planning assumptions.
- Market analysis and marketing plan (more in chapters 9 and 10).
- Description of operations, organization and management.
- Financial plan.

Written plans are recommended because writing forces serious thought in the planning process and provides a reference for periodically checking for progress. Business planning is not a one-time event, but rather an ongoing process. Producers may think, "But I just want to own a few cows." If savings are used to finance an investment in a ranch, or the ranch is expected to support a family, completing a business plan helps ensure financial expectations are realistic.

Developing a mission statement and setting goals helps identify why the business exists and what it will achieve (even if it primarily is to serve as a hobby). The mission statement should reflect values and describe what the business will be and what it will accomplish. The mission statement should describe the business purpose (products and services provided) and qualities. This statement provides the basis for developing long-run plans, building from goals and objectives.

Goals can be tangible and intangible; short-term and long-term; and monetary and non-monetary. Because achieving goals often requires the cooperation of family, goal setting should involve discussion and compromise among family members. Goal setting may be used to both anticipate problems and plan strategies for overcoming them. Do not ignore potential conflicts or restrictions that might prevent goals from being reached. Identifying possible problems in the planning stage will allow time to either resolve conflicts or refocus on feasible objectives. Be reasonable in setting goals, use the best information available and include all decision makers in the process. List the family and ranch resources (land, labor, financial capital, other capital assets and management) available for the ranch. Identify planning restrictions and constraints, if any. Spell out what will be produced and where the product will be marketed.

Once the vision, mission and goals of the operation are clearly defined, the next step is to determine how to manage operations efficiently and effectively to move the business in the desired direction. The plan for operations



**All Web addresses given in this chapter are subject to change. The links to these websites will be updated regularly at the Master Cattleman website at extension.okstate.edu/programs/master-cattleman.html**

requires the manager to have a good understanding of beef and forage production, marketing, finances and risks facing the business, all of which are addressed in more detail in other chapters in this manual. OSU Extension fact sheet AFS-3261 *Beef Cow Herd Calendar* may be a helpful guide in building a yearly plan for operations and anticipating monthly needs for decision making. The herd calendar highlights differences in timing for decisions relative to fall and spring calving herds.

If more than one person will be contributing labor, management or other resources, it is important to define the roles of each individual in the business. If the ranch is a large operation, an organizational chart should be developed indicating where decisions will be made along with a list of duties and responsibilities of personnel. In addition, identify the most appropriate legal arrangement: sole proprietorship, partnership, corporation, etc. and develop plans for compensation and allocation of profits.

Records provide the means to measure business performance. It has been said, you can't manage what you haven't measured. Records provide facts about the business, forcing plans to be grounded in reality. Records also allow producers to meet legal obligations, support loan applications and arrange for insurance coverage. A complete recordkeeping system includes both financial and production records.

Records also form the basis for the financial plan. The financial plan should include initial financial requirements, historical and projected financial statements, enterprise analysis, risk assessment and break-even analysis. To complete the financial plan, well-formulated ideas about goals, operations and expected markets are needed. Potential investors, including lenders, will be concerned about both financial feasibility and profitability. In other words, will the cash flow from the operation be sufficient to repay loans and pay bills in the short run? Will returns earned in the long run be sufficient to replace breeding livestock, machinery, equipment and other depreciable assets, while also contributing to family living or otherwise rewarding the manager?



## Components of the Financial Plan

### *Initial Financial Requirements*

Cow-calf investment costs depend on the size of the herd, whether land and livestock are being leased or purchased, how many acres per cow are required, what type of cattle are purchased (commercial or purebred) and whether supplemental feed and hay are raised or purchased. Table 3.1 summarizes sample costs of establishing a 100-cow herd, assuming no improvements such as fences, roads and watering facilities must be added. If land is purchased along with a minimum set of machinery and equipment to care for the cow herd, the investment may exceed $20,000 per cow. If land is rented rather than purchased, the investment may be dramatically reduced to $3,000 per cow (the annual operating costs would increase to include pasture rental costs). Please note that ownership in hay equipment is financially feasible only for large-scale hay producers or producers doing custom work.

**Table 3.1. Ranch investment cost summary.**

| | *No.* | *Units* | *$/unit* | *% to cow-calf* | *$/cow* |
|---|---|---|---|---|---|
| Cows | 100 | Head | 2,400 | 100 | 2,400 |
| Bulls | 3 | Head | 3,600 | 100 | 108 |
| Pickup | 1 | | 28,000 | 50 | 140 |
| Tractor with bale fork | 1 | | 30,000 | 25 | 75 |
| Equipment | | | 1,500 | 100 | 150 |
| Native pasture | 1,000 | Acres | 1,750 | 100 | 17,500 |
| Barn | 1 | | 40,000 | 75 | 300 |
| **Total** | | | | | **$20,673** |

Source: Doye.

It is unlikely returns to a cow-calf operation will pay principal and interest on land purchased with borrowed money. This is why: Say 100 acres of grass purchased for $2,000 per acre will support 10 cows. If the buyer can make a 20% down payment and a lender is willing to loan the remaining balance ($1,600 per acre) at 6% interest with repayment taking 20 years in annual installments, the annual principal and interest payment will be approximately $140 per acre.

Table 3.2 shows annual payments for alternative interest rates and loan amounts, assuming repayment will take 20 years. Increases in interest rates or reductions in the repayment timetable would increase the annual loan payment. Since the cow needs 10 acres of forage (it may be more or less depending on geographic region), it means $140 per acre x 10 acres = $1,400 per cow devoted to loan repayment. That is a hefty task, given other production costs and potential income limited to the sale of one calf per year.

### *Enterprise Analysis*

Analysis of ranch financial data suggests that for nearly half of producers, the cow-calf enterprise is a drain on equity rather than an income-generating enterprise. In an enterprise with seasonal and cyclical price changes, sensitivity to variable grain and hay prices and vulnerability to drought, it is important to do both of the following:

1. Adopt appropriate management practices.
2. Do things right, in particular controlling costs.

Circumstances with which the producer has no control can wreak havoc in the short term if a producer neglects strategic planning and risk management.

**Table 3.2. Annual loan payments with alternative loan amounts ($/acre), interest rates, a 20-year repayment period and a 20% down payment.**

| *Land price ($/a)* | *Loan amount ($/a)* | *Interest rate* | | |
|---|---|---|---|---|
| | | *5%* | *6%* | *7%* |
| 1,000 | 800 | 64 | 70 | 76 |
| 1,500 | 1,300 | 96 | 105 | 113 |
| 2,000 | 1,600 | 128 | 140 | 151 |
| 2,500 | 2,000 | 161 | 174 | 189 |

Source: Doye.

Budgets help identify production and financial risks and opportunities for risk management. Budgeting allows producers to evaluate options before committing resources. Budgets also can be used to estimate potential income and the farm size needed to earn a specified return or to compare the profitability of two or more systems of production. Budgets provide the documentation necessary to project cash flows and obtain/maintain credit-worthiness. Budgets can be used to estimate the amount of rent that can be paid for land or machinery.

A cow-calf enterprise budget is a statement of what generally is expected from a set of particular production practices, listing the expected revenue and expenses incurred. It is designed to show profitability, not cash flow. The enterprise budget shown in Table 3.3 lists anticipated costs of operating inputs plus fixed costs (interest, depreciation, taxes and insurance) on machinery, equipment and livestock, along with expected production per cow. Since the budget documents variable and fixed costs, it is useful in calculating profitability and break-even values and the potential return on an investment.

Two general types of costs make up the total cost of producing any farm commodity: variable costs and fixed costs. Variable costs change with the decision about how

**Table 3.3. Cow-calf budget, 100 cows raised, Payne County in central Oklahoma, 1,000 acres, rented at $17.50 per acre. Used machinery complement, 25% heifer replacement rate and primary forages – native and 120 days of hay and supplement.**

| | *Wt.* | *Unit* | *Price/cwt. ($)* | *Quantity* | *$/Head* | *Total $* |
|---|---|---|---|---|---|---|
| **PRODUCTION** | | | | | | |
| Steer calves | 524 | lbs | $163.00 | 41.82 hd | $357.37 | $35,737 |
| Heifer calves | 514 | lbs | $148.00 | 16.82 hd | $128.10 | $12,810 |
| Cull cows | 1,150 | lbs | $60.00 | 20.00 hd | $138.00 | $13,800 |
| Cull replacement heifers | 825 | lbs | $135.00 | 5.00 hd | $55.69 | $5,569 |
| Cull bulls* | 1,750 | lbs | — | 1.00 hd | — | — |
| **Total receipts** | | | | | **$679.16** | **$67,916** |
| **OPERATING INPUTS** | | | | | | |
| Pasture | | hd | $260.00 | 1 | $260.00 | $26,000 |
| Hay | | hd | $63.17 | 1 | $63.17 | $6,317 |
| Protein supplement | | hd | $60.78 | 1 | $60.78 | $6,078 |
| Minerals and salt | | hd | $12.26 | 1 | $12.26 | $1,226 |
| Vet services/medicine | | hd | $13.62 | 1 | $13.62 | $1,362 |
| Vet supplies | | hd | $6.84 | 1 | $6.84 | $684 |
| Marketing | | hd | $8.36 | 1 | $8.36 | $836 |
| Mach/equip fuel, lube, repairs | | hd | $30.30 | 1 | $30.30 | $3,030 |
| Machinery/equipment labor | | hrs | $15.00 | 3.35 | $50.25 | $5,025 |
| Other labor | | hrs | $15.00 | 5.90 | $88.50 | $8,850 |
| Other expenses | | hd | $5.00 | 1 | $5.00 | $500 |
| Annual operating capital | | $ | 7.00% | 417.74 | $29.24 | $2,924 |
| **Total operating costs** | | | | | **$628.32** | **$62,832** |
| **Returns above total operating costs** | | | | | **$50.84** | **$5,084** |
| **FIXED COSTS** | | | | | | |
| Average value of machinery/equipment complement | | | | $35,000 | | |
| Proportion charged | | | | 40% | | |
| Machinery/equipment | | | | | | |
| Interest at | | $ | 7.00% | | $9.31 | $931 |
| Taxes at | | $ | 1.00% | | $2.44 | $244 |
| Insurance | | $ | 0.85% | | $1.13 | $113 |
| Depreciation | | $ | | | $21.79 | $2,179 |
| Livestock | | | | | | |
| Interest at | | $ | 7.00% | | $85.53 | $8,553 |
| Taxes at | | $ | 1.00% | | $14.33 | $1,433 |
| Insurance | | $ | 0.85% | | $10.39 | $1,039 |
| Depreciation | | $ | | | $15.95 | $1,595 |
| Land | | $/acre | $1,500.00 | | | |
| Interest at | | $ | 0.00% | | — | — |
| Taxes at | | $ | 0.00% | | — | — |
| **Total fixed costs** | | | | | **$160.87** | **$16,087** |
| **Total costs (operating + fixed)** | | | | | **$789.19** | **$78,919** |
| **Returns above all specified costs** | | | | | **$(110.03)** | **$(11,003)** |

* Three purchased bulls per 100 cows are assumed with a 20% culling rate and cull sales income from one bull assumed to equal to its salvage value. March calving, 87.3 %; calf death loss; 4.2%.

Source: OSU Enterprise Budget Software, 2019.

many units of the enterprise to include in the operation. Variable costs are the costs of inputs used in a production period. Examples include feed, fuel, seed and supplies. Fixed costs are those expenses that will be incurred regardless of whether the enterprise is produced. Examples include depreciation, interest, insurance and taxes on buildings and machinery. Fixed costs are associated with breeding livestock, buildings, machinery and equipment and should be prorated throughout the useful life of the asset. Fixed costs are not affected by short-term enterprise decisions and do not vary with the level of production.

Costs that are difficult to allocate to individual enterprises (telephone, tax and accounting services, electricity, etc.), some of which may be variable and others fixed, are called overhead costs. Overhead costs are included in whole farm/ranch budgets, but are sometimes excluded from enterprise budgets.

In the budget in Table 3.3, the return above total operating costs is positive and indicates the operation is able to contribute to fixed costs associated with capital asset ownership. Returns above all specified costs represents residual earnings to land, management and risk. Each individual must decide whether a positive return is sufficient reward for management skills, risk exposure and land devoted to the enterprise. If the return above all costs is negative, supplemental income will be needed. Software at OSU is available to develop a budget customized for an operation (agecon.okstate.edu/budgets).

Building on budgets to determine break-even prices or yields and view sensitivity analysis is helpful in evaluating the financial risk associated with an enterprise. The break-even price is the price at which all costs will be covered, given average production; the break-even yield is the level of production needed to cover all costs, given average market prices. Break-even prices and yields above variable costs and above all costs provide useful information. With sensitivity analysis, income variability due to price and production risk is demonstrated, typically with tables of numbers showing returns under different price and yield scenarios. This information helps the managers assess their willingness to assume the risk of these variations.

### *Historical and Projected Financial Statements*

Financial statements are used for determining business financial performance and planning future financial strategies. Farm records are the basis for developing these statements. Historical financial statements document what has happened in the past; projected financial statements are forward looking and reflect expectations for the future. Although financial statements serve as references for outside investors such as lenders, their greatest value is to the owner/manager in documenting both financial performance and position. Measures showing the ability of the business to pay bills as they come due (liquidity), the value of assets relative to debt (solvency), efficiency, debt repayment capacity and the ability of the business to survive in the long term (profitability) all are important. OSU offers a series of fact sheets (available at extension.okstate.edu) to explain and demonstrate financial statement development, so only brief overviews are provided here.

A **cash flow statement** shows whether there is a surplus or deficiency of cash in an accounting period, typically one year. Historical cash flow statements document seasonal patterns for cash flow and suggest when cash may be available for debt payment. While past cash flows are a good reference for building spending plans, they may be supplemented with information from enterprise budget projections. Reviewing the cash flow plan relative to actual cash flow during a year provides feedback as to whether the business is on track to achieve financial goals. Noticing expenditures in excess of the plan provides an opportunity to make management changes before problems get out of hand. The cash flow plan also is an excellent communication tool for use with a lender.

A **balance sheet** (or net worth statement) is a summary of asset and liability valuations and is one of the most used measures of business financial position. The value of what is owned (assets) less what is owed (liabilities) is the owner's equity or net worth. In other words, it is what is left after satisfying the claims of others to assets. If owner equity increases each year due to profits being reinvested (and not just appreciation in asset values), wealth is increasing and financial progress is positive. Lenders are particularly interested in balance sheet documentation of the market value of assets that serve as collateral for loans.

A **farm inventory** lists all physical assets at a specified date, including the values of all assets or property and the value of all debts or liabilities. A list in a notebook or simple spreadsheet can be used to maintain an inventory of assets and liabilities. A beginning and ending inventory for the accounting year are needed for accurate calculations of net farm income. Taking an inventory involves two processes: examining physical assets and assigning values to the assets. OSU Extension offers two fact sheets that can assist in the process of recording asset and liability information, AGEC-791 *Schedule of Assets* and AGEC-792 *Schedule of Liabilities.*

An **income statement** combines information from the cash flow statement with changes in inventory and valuation of assets and liabilities from the balance sheet. The income (profit or loss) statement evaluates whether the business is profitable. Net farm income shown on the income statement is a measure of the return to equity and unpaid labor and management.

Analysis of financial statements and calculation of financial ratios reveal the strengths and weaknesses of the operation. With this information, the farm manager is able to identify ways to enhance financial performance.

### *Financial Records*

Records are the foundation for accurate budgets, financial statements and tax reports. While tax reporting is the primary motivation for recordkeeping for many producers, research has shown positive returns to investments in recordkeeping and analysis in support of farm and ranch decisions. A variety of tools are available to assist producers in keeping financial records. Computerized recordkeeping systems are affordable and especially useful for manipulating data for different types

of reports. Although a computerized system may not reduce the amount of time spent keeping records, computerized records make financial summaries simple, more efficient and effective for management needs. For instance, an annual or monthly cash flow statement based on actual income and expenses can be generated in a matter of seconds. Income and expenses can be sorted by enterprise so that farm managers know where profit centers are on the farm. Whole farm or enterprise budgets can be prepared and compared to actual transactions so financial progress can be monitored at regular intervals. Graphs prepared with a few keystrokes can show where cash is coming from and where it is going and are valuable in getting a quick feel for the farm's financial situation.

A number of user-friendly commercial software products are now available that can be adapted for farm use. One such software program appropriate for farms and ranches requiring only cash records is Quicken®. Quicken® is user-friendly, widely available and inexpensive. More information on using Quicken® for farm financial recordkeeping is available from the OSU Department of Agricultural Economics at agecon.okstate.edu/quicken. Producers who need a payroll system plus the ability to invoice and maintain accounts payable and receivable may want to use QuickBooks®, or a comparable small business double-entry accounting system. Family expense cash-flow features and investment tracking are lacking in QuickBooks®.

Hand recordbooks are available through the OSU Extension and from many lenders. The OSU Agricultural Economics website agecon.okstate.edu/farmbook offers a book from which individual pages are available to be printed as needed.

Records show that the best decision-making occurs when financial measures are developed annually from the records and care is taken to be consistent in how the measures are developed. Managers will want to note reasons for unusual measures, such as drought and use the information to identify areas for improvement.

## Using the Business Plan

The business plan only will be useful if it is used routinely throughout the year. Part of the manager's control process and feedback on performance will be through comparisons of the plan to actual income and expenses. A good practice is to develop a spending plan and compare the spending plan to actual cash flows at least twice per year. This means cash records must be kept on an ongoing basis. Asset and liability inventories should be updated at least annually and more frequently for some types of operations. Finally, at the end of the year, an **accrual-adjusted income statement** should be developed to assess profitability (as opposed to cash flow or net income for tax purposes). For a more well-rounded view of the financial position and performance of the operation, conduct an annual **farm financial stress test** consisting of 16 performance measures recommended by the Farm Financial Standards Council. Some of the performance measures are described in chapter 4, "Analyzing Financial and Production Performance."

## Conclusion

The business plan serves as a road map for the ranch. Development of a realistic and complete plan helps ensure managers make informed decisions and unpleasant surprises are minimized.

If outside financing is required, the business plan will go a long way to help secure the funds needed. Business management requires producers to focus on financial management as much as production performance.

Developing and maintaining a current business plan ensures that the focus is on business. Nonfarm small businesses maintain cash records on an ongoing basis, develop inventories of assets and liabilities and update them annually, maintain a spending plan, compare the spending plan to actual cash flows regularly and develop accrual-adjusted income statements at least annually. Ranchers interested in being profitable should expect to do no less.

### *References*


DiGiacomo, G., R. King and D. Nordquist (2003) Building a Sustainable Business: A Guide to Developing a Business Plan for Farms and Rural Businesses. Minnesota Institute for Sustainable Agriculture and The Sustainable Agriculture Network. sare.org/Learning-Center/Books/Building-a-Sustainable-Business

Doye, D. (2013) From Cash Records to Cost of Production. Extension Fact Sheet AGEC-242, Oklahoma Cooperative Extension Service, Oklahoma State University.

Doye, D. (2013) Budgets: Their Use in Farm Management. Extension Fact Sheet AGEC-139, Oklahoma Cooperative Extension Service, Oklahoma State University.

Doye, D. (2013) Farm and Ranch Stress Test. Extension Fact Sheet AGEC-237, Oklahoma Cooperative Extension Service, Oklahoma State University.

Doye, D. (2013) Farmers in Transition: Evaluating Options for Change. Extension Fact Sheet AGEC-208, Oklahoma Cooperative Extension Service, Oklahoma State University.

Doye, D. (2014) Quicken for Farm Financial Records. Extension Current Report CR-324, Oklahoma Cooperative Extension Service, Oklahoma State University.

Doye, D. and R. Sahs (2015) Ownership of Machinery versus Custom Harvest. Extension Fact Sheet AGEC-240, Oklahoma Cooperative Extension Service, Oklahoma State University.

Doye, D. and R. Sahs (2013) Using Enterprise Budgets in Farm Financial Planning. Extension Fact Sheet AGEC-243, Oklahoma Cooperative Exten-sion Service, Oklahoma State University.

Doye, D. (2013) Information Systems for Oklahoma Farmers. Extension Fact Sheet AGEC-302, Oklahoma Cooperative Extension Service, Oklahoma State University.

Doye, D. and R. True (2015) Liabilities Schedule. Extension Fact Sheet AGEC-792, Oklahoma Cooperative Extension Service, Oklahoma State University.

Doye, D. and R. True (2013) Schedules of Assets. OSU Extension Fact Sheet AGEC-791, Oklahoma Cooperative Extension Service, Oklahoma State University.

Doye, D. (2013) Evaluating Financial Performance and Position. Extension Fact Sheet AGEC-790, Oklahoma Cooperative Extension Service, Oklahoma State University.

Doye, D. and R. True (2013) Developing a Balance Sheet. Extension Fact Sheet AGEC-752, Oklahoma Cooperative Extension Service, Oklahoma State University.

OSU Enterprise Budget Software. agecon.okstate.edu/budgets/

Shipman, L., D. Doye and R. True (2013) Developing an Income Statement. Extension Fact Sheet AGEC-753, Oklahoma Cooperative Extension Service, Oklahoma State University.