Risk Management Planning Guide

In today's global agricultural economy, risks to producers, processors and marketers are expanding and surfacing in many ways – exposing all to more unfavorable circumstances and increasing uncertainty. Finding ways to manage risk and exposure given increasing uncertainties is critical for long-term business success. Developing a risk management plan helps business owners anticipate and mitigate risks.

The following guidelines provide basic steps for developing a risk management plan. Ultimately, the plan's details and execution depend on your industry and unique circumstances. The steps below can help you get started and are each outlined in the following sections:

Tip: Risk management is a comprehensive process and includes multiple tools and strategies. The goal is not to eliminate risk, but to manage it effectively through a comprehensive process.

Steps in Risk Management Planning:

1. **Define Success**: Identify business goals and objectives
2. **Identify Risks**: Conduct a SWOT analysis
3. **Assess Risks**: Complete a risk assessment and identify available tools
4. **Manage Margins**: Understand costs, breakeven and sensitivity
5. **Drive Performance**: Execute, follow-through and evaluate

Tip: Consider creating an advisory board or group of respected peers and outside professionals to evaluate your operation's risk.

Risk Categories and Tools

Risk management is a broad term and the risks facing each business vary. While every operation is unique, risks for agricultural operations generally fall into several categories. Consider each category as you identify risks specific to your business. Identifying and planning for these risks is key in the risk management process.

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Category	Key Risks	Risk Management Tools
Production	Weather, diseases, pests, technology, land, water	Crop/product/service selections and mix, technology investment, yield insurance, production contracts
Human Resources	Management, labor supply, death, disability, divorce, business continuity, training/development, hiring the right people, systems, tools, compensation, benefits, immigration policy, partner disillusionment, retirement	Defined roles and responsibilities, job descriptions, regular performance reviews, delegated authorities, succession planning, life/disability insurance
Marketing/ Reputation	Market volatility (inputs and outputs), market access, consumer demand, trade restrictions, transportation, natural disasters, geopolitical environment, counterparty issues (relate to individuals/entities you do business with), disease or health scare, neighbor issues, input suppliers, customer concentrations	Marketing plans, contracts, revenue insurance, contract production, letters of credit, customer mix management, hedging sales prices and/or input costs, public engagement, customer communication, traceability, input supplier relations
Operational	Priority-setting, execution, equipment management, facilities maintenance and repair, systems and processes	Management systems and processes, effective day-to-day communications and decision making
Financial	Profitability, liquidity, overall balance sheet position, cash management, access to capital, interest rates, credit obligations, funding growth, foreign exchange rates, accounting systems	Record keeping, financial management knowledge, meaningful tools and reports, enterprise accounting, rate management, life insurance, family living costs
Legal/Regulatory	Entity structure, contract enforceability, business/ personal liabilities, shifts in public policy, environmental regulation, urban encroachment	Sound legal advice, up-to-date documents, contract management, property and casualty insurance, industry group participation, regulatory engagement
Strategic	Communication, disagreement on business vision, asset control (lease vs. own), decision-making, ownership structure, family issues, identification of blind spots, estate planning, counterparty issues (relate to individuals/entities you do business with)	Written strategic planning, strategic planning process, transition and estate planning, decision-making protocol, estate planning, landlord relationship plans

BUSINESS TOOLS

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Risk Management Planning Steps

Managing risk should be a priority for every operation, but is most important for businesses in volatile markets and/or with elevated debt levels where small shifts in markets or margins may cause crippling losses in a short period of time.

The following steps can help you develop a risk management plan.

Tip: Don't start identifying risk management solutions or options until you've completed the SWOT analysis.

Step 1: Define Success: Identify business goals and objectives

Developing a risk management plan without first identifying business goals and objectives is like planning a trip with no destination in mind. Meet with your ownership, management and key players to define success and agreed-upon milestones along the way. With goals and objectives in place, prioritizing risks and risk tools will be much easier. Simply identify those risks that pose the greatest threat to your shared vision for the future.

Step 2: Identify Risks: Conduct a SWOT analysis

A SWOT analysis is an evaluation of the operations' **Strengths, Weaknesses, Opportunities and Threats**. This fundamental tool for strategic and risk management planning can help the team identify risks and blind spots in the operation.

SWOT Analysis	
Strengths	Internal Factors Within Management's Control
Weaknesses	
Opportunities	External Factors Outside of Management's Control
Threats	

While many business owners have a "gut feel" for strengths and weaknesses of their operation, gathering input from others and formalizing findings is a key component of understanding risk exposure.

Strengths and weaknesses (internal and controllable) may include business planning, succession planning, financial management, human resource practices, core competencies, financial or operational positioning. Opportunities and threats (external and out of management control) may include adverse weather, government regulation, marketplace volatility, shifts in consumer demand or a publicized event in the industry. Monitoring opportunities and threats regularly assures that contingency plans

Strengths	Weaknesses
Production: • Strong historical yields and quality • Productive relationship with field man	**Production** • No crop plan in place • Heavy concentration in single crop
Human Resources: • Next generation ready to manage production • Market-based compensation in-place	**Human Resources:** • Next generation not ready for financial mgt. • Conflict surrounding roles/responsibilities
Marketing/Reputation • Positive reputation in the community • Solid relationships with customers	**Marketing/Reputation:** • No marketing plan in place • Unmanaged exposure to commodity prices
Operational: • New field equipment line • Effective harvest plan in place	**Operational:** • Conflicts arise surrounding daily priorities • No equipment maintenance/repair plan in place
Financial: • Good CPA • Strong liquidity position	**Financial:** • Budget not used in decision-making • Financials not understood by all owners
Legal/Regulatory: • Entity structure aligned with estate plan • Life and disability insurance in place	**Legal/Regulatory:** • No buy-sell agreement in place • No written agreements with largest landlord
Strategic: • Owners agree on future vision • Written strategic plan in place	**Strategic:** • Owners disagree about dividend policy • No formal process for decision-making
Opportunities	**Threats**
• Expiration of CRP/potential new leases • New genetics/crop technology • New production technology • Global demand for food/fiber/fuel • Niche product markets • Commodity volatility	• Weather events/disaster • Increasing production costs • Labor cost/availability • Loss of off-farm income • Water scarcity • Death, disability, disease, divorce

can be implemented quickly when the landscape changes. Think about the best management practices used in your industry as you evaluate your operation's strengths and weaknesses.

To begin, review each of the risk categories on page 2 and categorize your strengths, weaknesses, opportunities and threats in each category.

Step 3: Assess Risks: Complete a risk assessment and identify available tools

Using the SWOT analysis, you can now identify key threats to achieving your strategic goals and objectives. Completing a risk assessment helps to assure key players understand risks facing the operation and helps prioritize tools and options to mitigate risks.

Risk Assessment Process

The following section outlines one approach to assessing risk. Whatever process you use, it should help you to identify, prioritize and assess options to address the risks facing your operation. This process prioritizes risks based on the likelihood that some risk event will occur, and the operational or financial impact if it does occur. Using your SWOT, create a spreadsheet or document with the following columns:

Tip: Ask your Northwest FCS Relationship Manager for Peer Financial Benchmarks to help you measure your operation's financial performance, efficiency and profitability compared to similar operations.

Column A - Risk Event: Using the SWOT, list the key risks facing your operation

A	B	C	D	E
Risk Event	**Probability Rating** (see table)	**Impact Rating** (see table)	**Total Risk Score Probability+Impact** (see table)	**Strategy**
Example risk	3	6	9	Develop crop rotation plan Add crop nutrient regimen

Column B - Probability Rating: Assign a rating based on the probability that risk events will happen within the next three years. Use the following table to assign ratings:

Tip: It is easy to focus on weaknesses when completing your risk assessment. Don't forget about leveraging your strengths too – these can be powerful risk mitigation tools.

Probability of Occurrence Within 3-Years	Rating
0 to 10 Percent	0
11 to 20 Percent	1
21 to 50 Percent	2
Greater than 50 Percent	3

Column C - Impact Rating: Assign a rating based on the potential impact to your goals, objectives and/or profitability. Use the following table to assign ratings:

Operational Impact Description	Rating
Minimal impact. Short-term nuisance at worst.	0
Moderate profitability impact or operational disruption. Short-term implications.	3
Significant short-term/long-term impact. Survivable, but serious disruption/loss.	6
Severe or catastrophic hardship and/or loss. Continued operation will be difficult.	9

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Column D - Total Risk Score: Calculate the total score for each risk by adding the Probability (Column B) and Impact (Column C) Ratings. Assess the calculated total relative to other risks and using the table below:

Total Risk Score (Probability Rating + Impact Rating)	Score
No action required.	0 to 2
Not critical. May want to explore low-cost mitigation options.	3 to 4
May be critical. Explore effective mitigation options.	5 to 6
Action required. Implement mitigation options in the near-term.	7 to 8
URGENT ACTION REQUIRED! Implement mitigation options immediately!	9 to 12

Column E - Strategy: List options for addressing the identified risk.

A	B	C	D	E
Risk Event	Probability Rating (see table)	Impact Rating (see table)	Total Risk Score Probability+Impact (see table)	Strategy
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Probability Within 3-Years	Rating
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Adapted from model from the Center for Dairy Profitability; University of Wisconsin Extension

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Tip: To help identify potential opportunities and threats in the market, the Northwest FCS Knowledge Center offers Market Snapshots, Industry Perspectives and Industry Symposiums.

Tip: Northwest FCS offers tools to help evaluate your operation. For example, our Best Management Practices Assessment allows you to compare your management practices to peers.

Step 4: Manage Margins: Understand costs, breakeven and sensitivity

Volatile commodity markets and the competitive global landscape mean managing profit margins is more difficult and more important than ever before. Knowing your operation's break even costs on a crop-by-crop or product-by-product basis is critical to business success, and without this information, risk management tools – especially marketing strategies – can be ineffective.

Know Your Costs: To know your breakeven, you have to know your costs. This means having a financial management system to track inputs and processes to ensure you're capturing operational data and information accurately. It also means distinguishing between fixed versus variable costs and allocating costs appropriately among enterprises:

Cost Type	Definition and Examples
Fixed Costs	Costs that remain constant, regardless of production levels. *Examples:* • General overhead (benefits, administrative salaries, etc.) • Land rent/lease • Living Expenses • Interest Expenses • Depreciation • General Expenses (repairs, utilities, etc.)
Variable Costs	Costs tied directly to production levels. *Examples:* • Harvest expenses • Raw product purchases • Packaging materials (bailing twine, potato sacks, wine bottles) • Processing and marketing charges • Freight

Know Your Breakeven: Once your team understands its costs, you can calculate the breakeven point. There are many ways to calculate breakeven and even different types of breakeven calculations, but the most effective measures include the following items over a specified period:

- Average sales price for each commodity or product
- Assignment of fixed and variable costs to each commodity or enterprise
- Production volume (especially important for any processing / packaging operations)

Breakeven	Definition and Calculation
Price	The sales **price per unit** to generate **zero profit** **Calculation:** $\frac{\text{Sales–Net Profit Before Tax (including non–farm or other income)}}{\text{Total Units Produced}}$
Cost	The **total cost per unit** excluding Non-Farm/Other Income **Calculation:** $\frac{\text{Variable Costs + Fixed Costs (excluding non–farm or other income)}}{\text{Total Units Produced}}$
Throughput *(volume)*	The **number of units** sold to generate **zero profit** **Calculation:** $\frac{\text{Total Fixed Costs}}{\text{Gross Profit per Unit}}$
Cash Flow	The amount of **cash inflow per unit** needed to meet **all cash obligations** **Calculation:** $\frac{\text{Fixed Costs(–)Depreciation (+)Distributions(+)Principal Payments}}{\text{Gross Profit per Unit}}$

After you establish the items above (historical or projected), you can complete a breakeven analysis that is meaningful for your operation:

Assess Balance Sheet Risk: The key to managing margins is to know your breakeven points and how much risk your balance sheet can handle. For production agriculture operations, two key measures of the balance sheet's short-term risk bearing capacity include working capital and working capital as a percentage of annual expenses. These measures indicate how much of the operation's expenses can be funded with owner's equity in the coming year (approximately) versus other sources of cash. The safe or target level is different for each business and commodity, and is influenced by the amount of production and price risk the operation is subject to. If you're unsure about balance sheet risk, ask your Northwest FCS' relationship manager or refer to the Understanding Key Financial Ratios and Benchmarks Business Tool.

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Establish Price Trigger: Sales prices and costs may or may not move together. To manage risk effectively, decision-makers need to consider sales prices and costs simultaneously when making pricing decisions. One way to think about managing margins is to establish a "market playing field" to operate within from a price perspective.

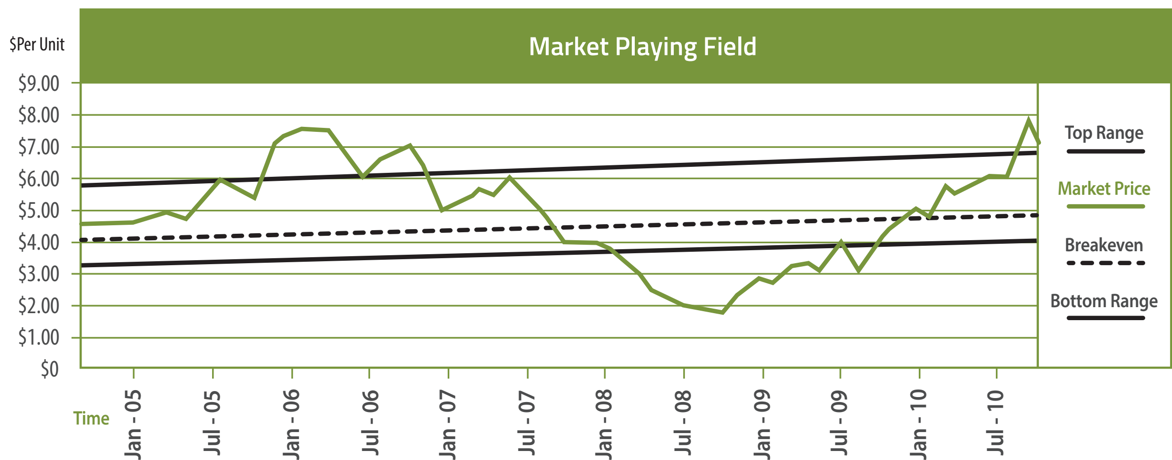
After you understand your balance sheet risk, clearly identify your overall appetite for risk and set an acceptable price target range based on your breakeven calculations. With the pricing targets identified, you can evaluate using risk management tools like forward contracts and hedges on both revenue and input costs, enabling you to know when to 'pull the trigger.'

Managers who use margin management acknowledge they 'leave some earnings on the table' in up markets. They also sleep better at night knowing they've locked in solid profit margins during times of volatility, knowing they're protecting the balance sheet (and hard-earned net worth) from extreme market shocks. A systematic approach to marketing products and purchasing key inputs over the course of the year generally results in better business results over time and improves planning and communication.

Understand Before You Buy: Tools for managing market price and input costs include cash markets, forward contracts, futures contracts, options and mixed strategies. If you do not fully understand the options, get help from someone who does, especially when considering futures or options to hedge price risk. Using these tools haphazardly is closer to speculation than risk management. Contact your local Northwest FCS representative for a list of risk management resources.

When using leverage (credit) to fund your strategy, follow your risk management plan consistently and avoid speculation. Execute risk management tools based on your plan and not emotion.

Tip: Set a bottom and top sales price range based on a certain percentage below and above your breakeven point.



Step 5: Develop short-and long-term goals and action plans

The previous steps help you identify, prioritize and develop plans to manage your operation's risks. Use your analysis to develop short-term goals (less than one year) and long-term goals (more than a year) for managing risks in your operation. Goals should be SMART – specific, measurable, attainable, realistic and time-based.

After identifying your goals, create an action plan for each goal. Action plans should identify who is ultimately responsible for achieving the goal, steps needed to accomplish the objective, who is responsible for each step and target dates for progress at each step.

Review goals and action plans periodically to ensure you're making progress. Keep in mind, you many need to adjust some goals to adapt to opportunities or threats that develop in the marketplace.

Action Plan Sample:

GOAL: Develop a marketing alliance with established apple packer and marketer by January 1, 20XX			
Action Steps	**Person Responsible**	**Due Date**	**Comments**
Inventory area packers			
Develop criteria to evaluate packers			
Talk to well-respected peers about their experiences			
Choose top 3 packers			
Interview packers			
Select packer and develop alliance			

Risk Management as a Discipline

There is no single tool, strategy or silver bullet for managing risk. Rather, risk management is a comprehensive process and represents multiple tools and strategies. The ultimate goal is not to eliminate risk, but to manage it effectively through a comprehensive process. Market volatility reminds all of us in agriculture that what may seem like a positive on the surface can have dramatic impacts on other aspects of our business. Increased time and attention toward risk management planning will go a long way in positioning your business for long-term success.