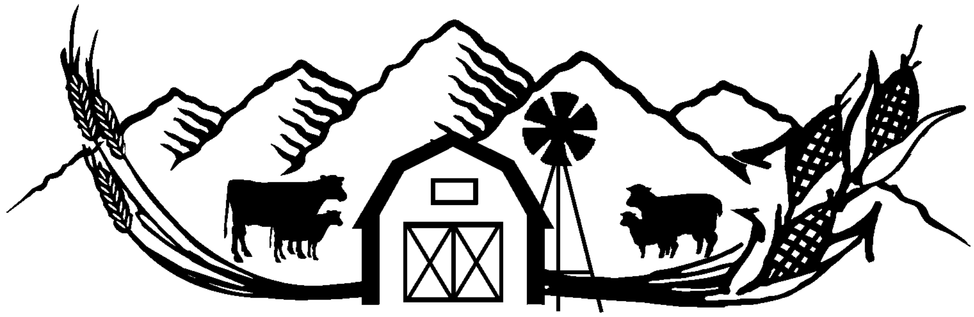


Risk and Resilience in Agriculture

From Risk to Resilience in Agriculture: An Action Plan

By: Chris Bastian and Dennis Kaan
University of Wyoming and Colorado State University

The move to freer global trade, less government intervention in production decisions, increased environmental regulation and the alleged move toward reduced federal disaster aid have created more risks for agriculture. This translates into more variability in prices, yields, legal liabilities, and human relations. This handbook has been designed to help producers assess, plan for and manage their operations to be more resilient in this risky environment.

Risk management involves choosing among alternatives that can reduce risk within the operation, transfer risk outside the operation or increase the operation's ability to bear risk. There are many alternatives to choose from and many aspects of the business which require assessment, planning, decisions and implementation of strategies to address risk. Because every producer's attitude toward risk, each business's goals, and every resource base is different, no one risk management plan can work for everyone at all times. Thus, risk management is a continuous process that the manager must work at just like the production process. The key to incorporating risk management into the daily operations of your business is to incorporate the process in each phase of your operation. This handbook has addressed business planning, production, marketing, financial management, legal risks, human resources and how risk management might be addressed in each of these phases or areas in your operation.

Planning is the first step in assessing and incorporating risk management into the daily operation of your business. The starting point for any planning in your business is to establish goals that you and your family want the business to achieve. These goals need to be translated into written statements that are measurable, attainable, and tractable. Along with these goals a business resource inventory must be done so that you can assess what can and cannot be done with your current operation. These steps will allow you to decide which changes you will need to make to reach your goals and what risk management alternatives will be conducive to meeting those goals. The business plan that comes from this process will then lay out a map of what, when and how the business will get to where it wants to go. Production plans, marketing alternatives, financial adjustments, legal risks to address and human elements can all be incorporated into this plan. Once this is done, the manager will have thought through the goals of the business, the alternatives available to achieve those goals, risks inherent in those alternatives, ways to address those risks if necessary, and possible contingency plans. This plan enables you to evaluate, implement and assess all decisions regarding daily operations, changing the business or addressing risks while remaining focused on the long-term business goals.

Two basic strategies available to manage production risks such as reduced crop yields or livestock performance are enterprise diversification and crop insurance. Enterprise diversification involves producing a mix of products that has the characteristic of leveling out the lows and highs. The first step in evaluating a new enterprise is to produce the product on paper by developing a budget to evaluate the change you are contemplating. Once the costs and income associated with a new enterprise or change in your business has been estimated, you can assess how risky this new enterprise or adjustment will be. Normal risk measures such as range, standard deviation, coefficient of variation and estimating how many years the enterprise may fall below a target level of income can be very useful in helping you determine whether this change will increase or reduce risk. If you decide to implement the change, a quick inventory of what resources are needed will help you plan for success. This evaluation requires you to assess where your business is at and what could happen to your business after the change is implemented.

Crop insurance can be used to protect against losses and insure some level of cash flow in disastrous years. The first decision you must make regarding crop insurance is whether you have enough financial reserves to cover a disastrous crop year. If the answer is no, then crop insurance may be an option you should consider in your risk management plan. You should choose the least expensive insurance coverage that will allow your business to survive. The level your cash flow needs to be for your business to survive should come from your goals and your business plan. Incorporating both enterprise diversification and crop insurance alternatives and strategies can help you reduce your income variability and hence reduce the effects of production risk to your business.

Price variability or market risk is another area that a manager can address in the daily operation of the business. Unfortunately, most agricultural producers are price takers in the market, and thus, price variability in the market can be a large cause of income variability and risk to a farm or ranch. The first step in managing market risk is understanding the four types of price variation. Seasonal, cyclical, trend and random fluctuations affect agricultural commodity prices. While little can be done about random fluctuations, studying the other types of variations and the historical patterns associated with variations in the commodities you sell can help you better time your sales or diversify when and how you market. Basis is a tool that can also be used to help you identify possible marketing alternatives and timing of the marketing decision. By understanding the types of price variation you face and using basis you are armed with valuable tools that can be used in your marketing plan. Developing a marketing plan uses your business goals and plan to develop your marketing goals. Once you determine which marketing alternatives or tools you are willing to use a written marketing plan can be developed. A written marketing plan will help you shop for the best marketing alternative which meets your goals, minimizes the emotion of marketing and allows you to reduce the market risk faced by your business.

During your business planning process, developing key financial statements and analyzing where your business has come from and where it is now can be key criteria in deciding how important risk management is. The balance sheet, income statement, and cash flow statement are documents that should be used to develop key financial indicators for your business. This type of analysis can point toward alternatives to consider when changing your business, how much risk you can afford and perhaps provide the basis for deciding on investment and re-financing strategies. Financial analysis is key in determining whether you are moving in the right direction toward your goals and how well your business and risk management plan is working. Coupling this type of financial information together with trends in rural credit markets can help you better work with your lender to develop a line of credit that will work with your business in realizing your goals and creating a resilient firm.

Production agriculture faces increasing liabilities and business costs associated with the changing legal environment. Three major areas of legal risk for agriculture are contracts, environmental regulation and estate planning and transfer. During your planning process another area of your business to consider and plan for is legal risk reduction. Many agricultural firms use contracts for inputs, production agreements, marketing agreements and or contracts for providing or receiving services. The first step in reducing potential exposure to losses from contract failure is knowing your rights and duties under basic contract law. It is also a good idea to have an attorney examine the contracts you are about to enter into. Knowing how environmental laws may affect your operation is another important piece of information, which can be used in your risk management plan. The next step is to assess whether your operation is at risk of violating any of these laws, and finally, action should be taken to negate or reduce your legal liabilities under environmental laws. This can remove the risk of large fines or imprisonment and potential loss of your business.

Current statistics indicate that only one out of three operations are successfully transferred to the next generation. If passing on the family business is an important goal, estate planning must also become part of your risk management process. First, you should discuss with your family and then develop a written set of goals for transferring the operation. It is then wise to work with a team of specialists which may include an attorney, an accountant, and a financial planner when developing a will and an estate transfer plan. An estate plan can make the difference between whether your operation is transferred to the next generation or eaten up in probate court or taxes. All of these things are important in your daily operations and your business plan should incorporate strategies and goals for addressing these areas of legal risk.

Perhaps the most important and least dealt with aspect of running the farm or ranch business is managing people. People have the hopes, dreams and goals which shape where the business goes. People provide the labor and the management, and people make up the family that derives their livelihood and lifestyle from the farm or ranch business. It is interesting that inter-personal communication, personnel management and managing anger and stress tend to be low priorities for most agricultural producers. Opening lines of communication by holding regular meetings and deciding major business issues in a group setting which allows all family members and laborers to express opinions, concerns, desires and goals is an important strategy for reducing stress and conflict amongst people involved in the farm or ranch business. Remember that if the people leave or turn away from the business, the business will likely die. Addressing and managing the human element of the business is just as important as the other risk management strategies previously discussed.

A business operating in the current environment that does not manage risk and is using risky practices in its daily operations is in danger of going out of business during an economic downturn. A resilient farm or ranch business is a sound operation that incorporates management practices that position the business to survive an income downturn and take advantage of an economic upswing. The materials in this handbook have been developed to help you manage risk in your farm or ranch business. Perhaps the most difficult part of the risk management process is breaking this information down into usable pieces, assessing where your operation is at regarding its risk or resilience, and then taking action to move your operation in the direction you deem necessary. The following section is meant to help you assess where your operation is at regarding risk as it relates to production, marketing, financial management, legal liability and the human element. Once you do the assessment, you can then decide and write down what actions you intend to take and by when they are to be taken, to move your business towards resiliency. This risk assessment and action plan is intended for incorporation into your current business plan, or it may provide you with the beginning of a business plan if you don't have one. It is hoped these materials and this action plan will help you make risk management a part of your daily operations, which in turn will move your business towards resiliency.

Risk and Resilience Self Assessment Test and Action Items to Take

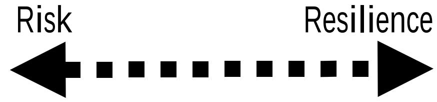
Date of Self Assessment: ____________________

	Risk ◄▪▪▪▪▪▪ No	Resilience ▪▪▪▪▪▪► Yes
Do you have written goal statements for:		
Individual family members?	________	________
The family as a whole?	________	________
The agricultural business?	________	________
Do you have a written mission statement for the operation?	________	________
Do you hold regular family meetings to communicate ideas and make decisions?	________	________
Have you evaluated individual family member's and employee's strengths and weaknesses in regard to meeting the goals and objectives of the operation?	________	________
Have you conducted an inventory of the resources available to the operation?	________	________
Total responses in each column:	________	________

If the number of responses in the risk column is unacceptable to you, what do you plan to do to move towards resiliency?

When do you plan to have these action items completed? Date: _________________

Date of Self Assessment: ____________________

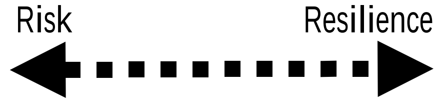


	No	Yes
Have you evaluated possible enterprise combinations given the inventory of resources?	________	________
Do you have written goal statements for each enterprise of the operation?	________	________
Have you evaluated the risks inherent in each enterprise, addressed those risks and developed a contingency plan?	________	________
Do you know the cost of production for each enterprise with confidence?	________	________
Have you evaluated the risk involved with major changes in an enterprise?	________	________
Have you evaluated the use of crop insurance as a tool to cover a minimum level of cash flow required for the business to continue in operation?	________	________
Total responses in each column:	________	________

If the number of responses in the risk column is unacceptable to you, what do you plan to do to move towards resiliency?

When do you plan to have these action items completed? Date: ________________

Date of Self Assessment: ___________________



	No	Yes
Do you have the following financial statements developed and up-to-date for your operation:		
Balance Sheet?	________	________
Income Statement?	________	________
Cash Flow Statement?	________	________
Based on these financial statements, have you evaluated:		
Liquidity measures?	________	________
Solvency measures?	________	________
Profitability measures?	________	________
Financial Efficiency measures?	________	________
Does your financial analysis indicate you are moving towards achieving your goals and objectives?	________	________
Total responses in each column:	________	________

If the number of responses in the risk column is unacceptable to you, what do you plan to do to move towards resiliency?

When do you plan to have these action items completed? Date: ________________

Date of Self Assessment: ___________________

	Risk ◄ No	Yes ► Resilience
Do you have a basic understanding of the four types of price variation?		
Seasonal?	________	________
Cyclical?	________	________
Trend?	________	________
Random Fluctuations?	________	________
Do you understand "basis" as a tool in your marketing decision making process?	________	________
Do you have a written marketing plan for each enterprise of the operation?	________	________
Have you identified your marketing team for each enterprise?	________	________
Have you identified your marketing toolbox for each enterprise?	________	________
Total responses in each column:	________	________

If the number of responses in the risk column is unacceptable to you, what do you plan to do to move towards resiliency?

When do you plan to have these action items completed? Date: ________________

Date of Self Assessment: ____________________

	Risk ◄ No	Resilience ► Yes
Are you familiar with all the terms and conditions of legal contracts you have entered into?	________	________
Has your attorney reviewed the same contracts?	________	________
Are you familiar with current environmental laws that potentially could affect your operation?	________	________
Have you conducted an environmental audit of your operation?	________	________
Have you discussed which family members are interested in taking over the operation and which ones are not?	________	________
Based on the answers from above, have you developed an estate plan that will successfully transfer the operation to the next generation?	________	________
Have estate planning professionals helped develop and review this plan?	________	________
Total responses in each column:	________	________

If the number of responses in the risk column is unacceptable to you, what do you plan to do to move towards resiliency?

When do you plan to have these action items completed? Date: ________________

Additional Workspace

Risk and Resilience Self Assessment Test and Action Items to Take; One Year Later

Date of Self Assessment: ___________________

	Risk ◄ No	Resilience ► Yes
Do you have written goal statements for:		
Individual family members?	________	________
The family as a whole?	________	________
The agricultural business?	________	________
Do you have a written mission statement for the operation?	________	________
Do you hold regular family meetings to communicate ideas and make decisions?	________	________
Have you evaluated individual family member's and employee's strengths and weaknesses in regard to meeting the goals and objectives of the operation?	________	________
Have you conducted an inventory of the resources available to the operation?	________	________
Total responses in each column:	________	________
Total responses in each column from the last assesssment:	________	________
Have you made acceptable progress toward your goals?	________	________

If the number of responses in the risk column is unacceptable to you or you have not made acceptable progress toward your goals, what do you plan to do to move towards resiliency?

When do you plan to have these action items completed? Date: _________________

Date of Self Assessment: ____________________

	Risk No	Resilience Yes
Have you evaluated possible enterprise combinations given the inventory of resources?	________	________
Do you have written goal statements for each enterprise of the operation?	________	________
Have you evaluated the risks inherent in each enterprise, addressed those risks and developed a contingency plan?	________	________
Do you know the cost of production for each enterprise with confidence?	________	________
Have you evaluated the risk involved with major changes in an enterprise?	________	________
Have you evaluated the use of crop insurance as a tool to cover a minimum level of cash flow required for the business to continue in operation?	________	________
Total responses in each column:	________	________
Total responses in each column from the last assesssment:	________	________
Have you made acceptable progress toward your goals?	________	________

If the number of responses in the risk column is unacceptable to you or you have not made acceptable progress toward your goals, what do you plan to do to move towards resiliency?

When do you plan to have these action items completed? Date: _________________

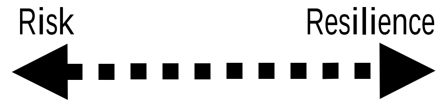
Date of Self Assessment: ____________________

	Risk ◄ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■	► Resilience
	No	Yes
Do you have the following financial statements developed and up-to-date for your operation:		
Balance Sheet?	________	________
Income Statement?	________	________
Cash Flow Statement?	________	________
Based on these financial statements, have you evaluated:		
Liquidity measures?	________	________
Solvency measures?	________	________
Profitability measures?	________	________
Financial Efficiency measures?	________	________
Does your financial analysis indicate you are moving towards achieving your goals and objectives?	________	________
Total responses in each column:	________	________
Total responses in each column from the last assesssment:	________	________
Have you made acceptable progress toward your goals?	________	________

If the number of responses in the risk column is unacceptable to you or you have not made acceptable progress toward your goals, what do you plan to do to move towards resiliency?

When do you plan to have these action items completed? Date: ________________

Date of Self Assessment: ____________________

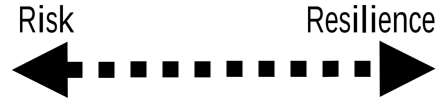


	No	Yes
Do you have a basic understanding of the four types of price variation?		
Seasonal?	________	________
Cyclical?	________	________
Trend?	________	________
Random Fluctuations?	________	________
Do you understand "basis" as a tool in your marketing decision making process?	________	________
Do you have a written marketing plan for each enterprise of the operation?	________	________
Have you identified your marketing team for each enterprise?	________	________
Have you identified your marketing toolbox for each enterprise?	________	________
Total responses in each column:	________	________
Total responses in each column from the last assesssment:	________	________
Have you made acceptable progress toward your goals?	________	________

If the number of responses in the risk column is unacceptable to you or you have not made acceptable progress toward your goals, what do you plan to do to move towards resiliency?

When do you plan to have these action items completed? Date: ________________

Date of Self Assessment: ____________________



	No	Yes
Are you familiar with all the terms and conditions of legal contracts you have entered into?	________	________
Has your attorney reviewed the same contracts?	________	________
Are you familiar with current environmental laws that potentially could affect your operation?	________	________
Have you conducted an environmental audit of your operation?	________	________
Have you discussed which family members are interested in taking over the operation and which ones are not?	________	________
Based on the answers from above, have you developed an estate plan that will successfully transfer the operation to the next generation?	________	________
Have estate planning professionals helped develop and review this plan?	________	________
Total responses in each column:	________	________
Total responses in each column from the last assesssment:	________	________
Have you made acceptable progress toward your goals?	________	________

If the number of responses in the risk column is unacceptable to you or you have not made acceptable progress toward your goals, what do you plan to do to move towards resiliency?

When do you plan to have these action items completed? Date: ________________

Additional Workspace