



Getting Started in Ag: Risk Scenario Planning

Accounting for Risk

These are challenging times to be involved in commercial agriculture. Depending on what enterprise mix your farm or ranch is involved in, your markets may be good or bad. Grain markets are experiencing low prices compared to just a few years ago, while hay markets are spotty. Cattle markets are at or near record highs, but remain extremely volatile; prices can shift dramatically in just a few days.

If you are new or just starting out in production agriculture, it is imperative that you account for as much uncertainty in your operation as possible and develop a solid risk management plan to address it.

Every level of production and planning requires at least some risk management. It is important that a manager is able to properly recognize and address inherent risk not just in the production side of their business, but also in the many planning and budgeting aspects as well. Accurate budgets can help you efficiently allocate resources to the most profitable outcomes and achieve your long-term objectives.

Risk Scenario Planning Concept

Partial budgeting is an important part of risk management. The basic premise of a partial budget is to determine the potential effect on net income from a proposed change in a business or enterprise. Examples of these changes could include expansion, a machinery or equipment purchase, crop rotation changes, a change in marketing strategy, or choosing between custom hiring and purchasing equipment.

A partial budget categorizes potential decisions into four areas: added revenues,

reduced expenses, reduced revenues and added expenses. The net effect of a decision equals the potential benefits (added revenue and reduced expenses) minus the potential costs (reduced revenues and added expenses). From a risk management perspective, the primary challenge posed by partial budgets lies in their dependency on estimated values. Projected figures frequently fail to adequately consider variable yields, prices, or expenses, ultimately leading to an incomplete accounting for inherent risks. This shortfall often arises due to the complexities involved in accurately quantifying these variables, potentially leaving decision-makers exposed to unforeseen financial vulnerabilities.

Partial budgets are often simply a “best guess” or forecast of the value for a given variable. The problem arises when a budget and the subsequent decision is based on these assumptions without also accounting for variability. For example, if you are looking at changing from one crop to another, what price should you use to calculate the expected revenue for the new crop? If this price changes,

how will it affect the partial budget used in your decision-making process? Finally, what’s the probability that the change in cropping practice will result in a positive net return? The Risk Scenario Planning (RSP) tool and the online learning module developed by RightRisk.org were designed to give managers a way to account for at least some of this uncertainty by assigning a range of probable outcomes associated with a change in certain variables, such as prices or yields. This can help account for at least some of the variability and result in better production decisions.

RSP Module from RightRisk.org

It is important to remember that risk doesn’t necessarily imply a negative outcome, but instead an uncertain outcome that could be positive, negative or neutral. One point of risk management planning is to reduce the chances of negative outcomes and increase the chances for positive outcomes. Risk management should be as much about

maximizing positive opportunities as it is about minimizing negative outcomes.

The RSP module provides an overview of the different types of risk: financial, production, human, institutional and marketing/price. The Risk Management Framework section of the module discusses how to implement a solid risk management culture for your business. Effective risk management should be viewed as a competitive advantage, proactive response, a priority and an integral part of the organization.

In addition to explaining each level of the Risk Management Framework, the module demonstrates how to apply the framework to an individual operation.

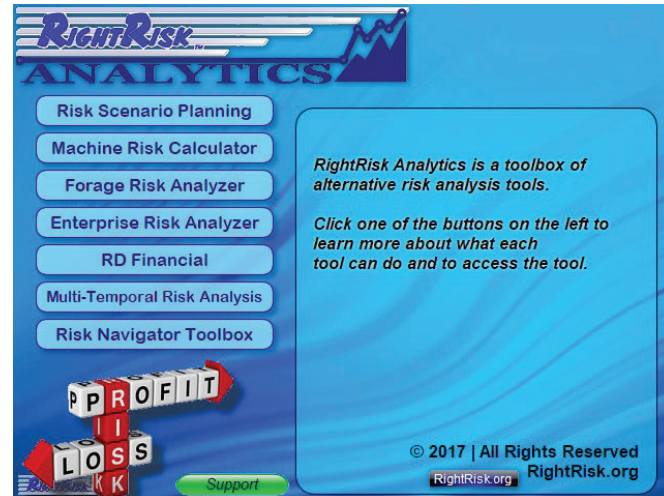
RSP Tool From RightRisk.org

The Risk Scenario Planning (RSP) tool was designed as a partial budgeting resource to eliminate as much of the “best guess” problem as possible. The tool is arranged in the form of a typical partial budget, with sections for added and reduced costs and returns.

The tool’s analysis section challenges producers to decide which variables should be allowed to fluctuate. This unique feature offers users the chance to enter a range of data—minimum, maximum and most likely—for up to two variables, such as price and yield, under consideration. The tool then generates a probability distribution showing the range of potential outcomes and their associated probabilities, as well as the estimated net benefit given the range of variables entered.

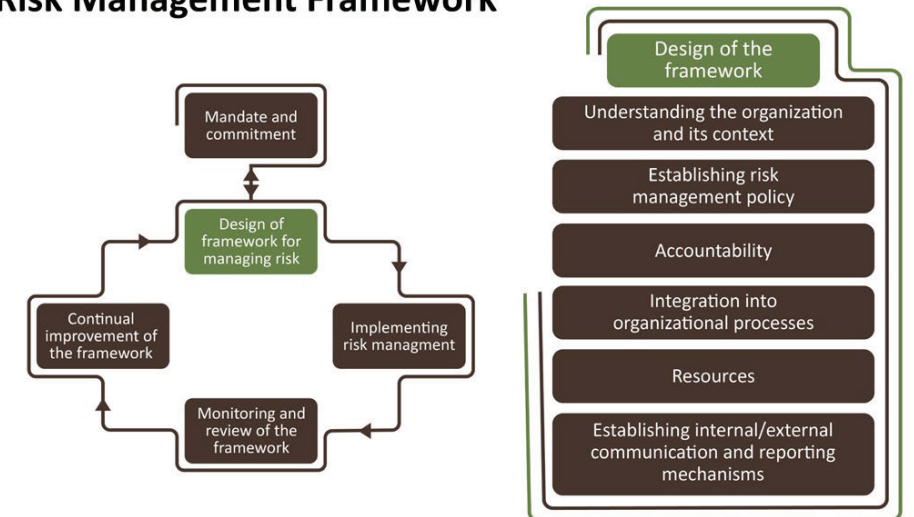
Users can read off the probabilities for various potential outcomes estimated by the analysis, providing a much clearer picture of the potential impact of the decision compared to the “best guess” approach (using a single value for the uncertain variable).

The probability curves generated by the RSP tool illustrate the range of outcomes that might be expected, as well as the most likely outcome. This tool can be extremely useful because it allows users to select and analyze which variables have the greatest effect on estimated net benefits.

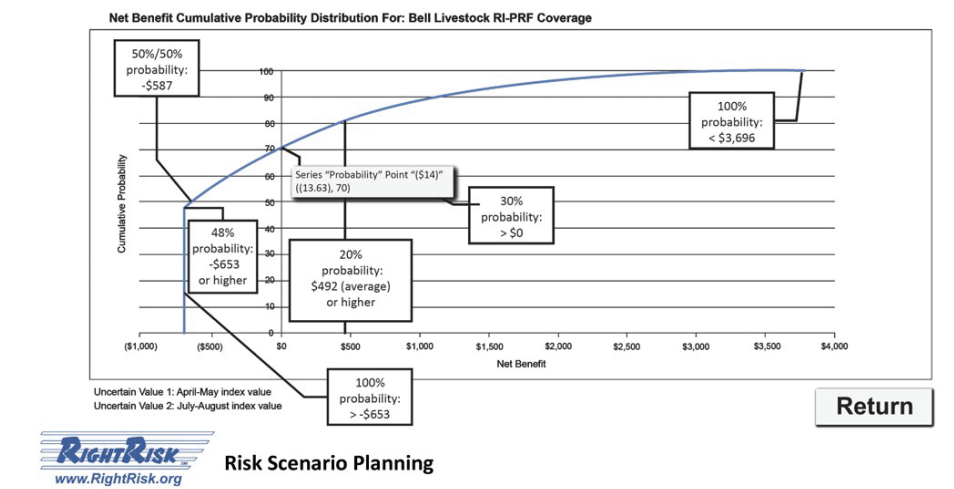


The RightRisk Analytics Toolbox contains several risk analytics tools, covering a wide range of agricultural risk management areas and issues such as budgeting, forage leasing, machinery costs and whole farm analysis.

Risk Management Framework



Using the Risk Scenario Planning Tool



FOR MORE INFORMATION

RightRisk.org houses numerous courses, tools—such as the Risk Scenario Planner Tool— producer profiles, presentations and other resources to help new and beginning producers gain insight into their risk management situations and decision-making processes. Visit RightRisk.org to view the Risk Scenario Planning module or use the Risk Scenario Planner (RSP) tool. Be sure to check out the other risk management planning resources available, including the RightRisk Analytics toolbox.