



## Flora, Alvin and Chris Consider A Risk Influence Calculator

**A**lvin Doddy raises hay, cattle and corn on a farm in eastern Wyoming with his wife Flora and their teenage son Chris. Like all farm families, the Doddys face a multitude of risks including production, market, and financial risks.

However, institutional risk brought about by changes in government programs, import/export policies, and environmental rules and regulations have taken more time to manage lately.

Alvin has also started to think more about their exposure to the elements of human risk as Chris prepares to go off to college and as they consider plans for him to possibly return to the operation someday as something more than just hourly labor.

Managing risk is a complex process. Alvin and Flora realize there are not enough hours in the day for them to do everything they would like to do to manage risk in their operation. After a few frustrating discussions that seemed more overwhelming than anything, Alvin decided he was going to search for some tools that could help them identify and prioritize the risks they should be addressing. This search led him to the RightRisk Education Team, the website [RightRisk.org](http://RightRisk.org) and the *Risk Navigator Toolbox*.

### Risk Navigator Toolbox

*Risk Navigator* is a 10-step, strategic risk management process. One of those steps (Step 4) is to prioritize risks. In the Risk

Navigator Toolbox, a *Risk Influence Calculator* is provided to help agricultural producers prioritize their risks in a visual map that makes it clear which risks need to be managed most.

Alvin liked all of the support materials to help him use the tool that he found online, including a full chapter from the book *Applied Risk Management in Agriculture* that covers prioritizing risks. The authors also included a recorded lecture users may access for free on the topic.

### Case Study Family

Alvin read about a case farm that was similar to theirs in that they were considering expanding the operation to accommodate the next generation, in the chapter on prioritizing risks. The family had already identified some risk goals but now wanted to develop a list of the most important risks to manage.

Alvin read that there are five main sources of risk in agriculture: (1) Production risk; (2) Market or price risk; (3) Financial risk; (4) Institutional risk; and, (5) Human resource risk. He also read about some surveys that have been done with agricultural producers in the United States and how the results of those surveys have produced differing views about which were the most important risks to manage.

Alvin concluded it was really up to them to decide which risks were the most important for them and their



operation. He was grateful for the case study approach taken in the RightRisk educational materials. It made it easier to follow the steps by tracking another farm family in their journey through the process.

### Risk Influence Calculator

The *Risk Influence Calculator* provides space for listing up to two risks in each of the five categories of risk. This is followed by an assessment of the probability of each of these risks affecting the operation in the near future and an associated assessment of the impact it would have on the operation if it did occur.

Figure 1. The Doddy’s Risk Influence Calculator data matrix.

RightRisk Navigator STRATEGIC RISK MANAGEMENT PROCESS		Risk-Influence Calculator				
Data Matrix		Probability - Impact	Risk - Influence	Help	Save, Load, and Delete	
Risk Category	Risk Type	Description	Probability	Impact	Risk	Influence
Market/Price:	Cattle Price	Will market revenues cover costs?	8	10	9	6
			0	0	0	0
Production:	Moisture	Will we have good pastures all year?	2	8	5	7
	Feed	Will hay and corn production be enough?	3	5	4	6
Financial:	Expansion	Can we expand to bring Chris back?	6	8	7	8
			0	0	0	0
Human:	Management	Will Alvin teach Chris how to manage?	2	8	5	10
	Health	What are the risks of someone getting sick?	2	8	5	4
Institutional:	Estate laws	Will future changes limit succession?	6	3	4	4
			0	0	0	0



The last step is to assess the business’s ability and capacity to influence each risk by taking management actions to address either the probability of the risk occurring or the impact of the risk if it does occur.

This *Risk Influence Calculator* then uses this information to create a visual Risk-Influence chart that identifies the most important risks to focus attention on.

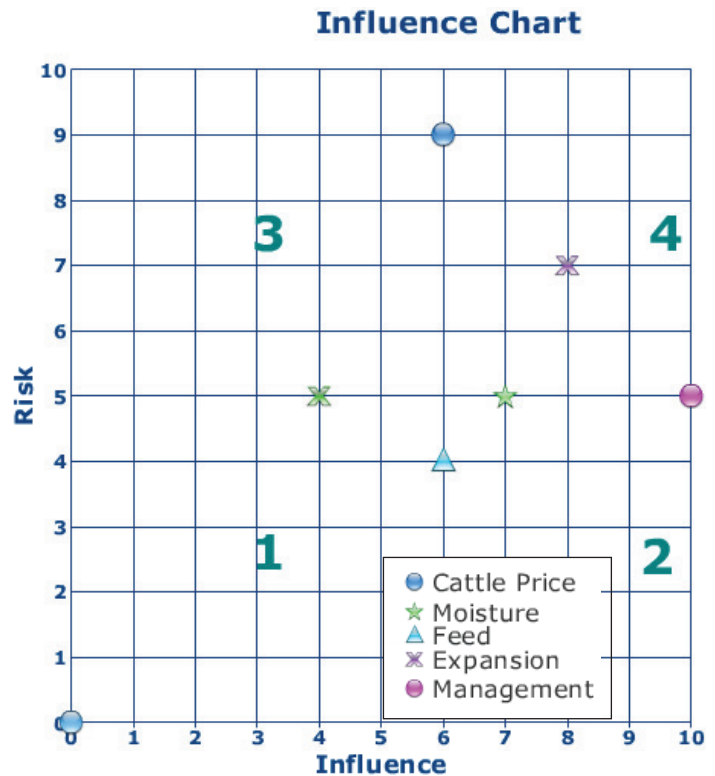
Alvin realized this was an exercise that would best be completed as team, so he arranged a time on Sunday evening when all three of them (Alvin, Flora, and Chris) could get together and watch the recorded “Step 4: Prioritize Risks” presentation provided on the Risk Navigator website ([RiskNavigatorSRM.com](http://RiskNavigatorSRM.com)). He made sure they had enough time afterwards to discuss the risks they each thought were important to address and to use the *Risk Influence Calculator* to help prioritize them.

Flora and Chris both thought the recorded presentation was very well done and were eager to offer their opinion on the risks they thought were important to the operation. Flora pointed out that cattle market prices seemed to determine much of how well they did each year financially. She also noted that sometimes it looks like it is going to be a good year and then the market drops off and things don’t turn out so well. She doesn’t know a lot about how to use some of the more sophisticated marketing tools available but she thinks they should be more aggressive about trying to protect themselves in the market place.

Chris pointed out that one of his biggest worries was whether or not the operation could support him coming back into operation after college, while still generating enough income for his parents to live on. He was confident he could work with his dad and they would get along fine, he just wasn’t confident a good business partnership would develop unless they focused on it. Chris also pointed out the regulations, tax rules, and government policies in farming seemed to change pretty dramatically over time. He said by



Figure 2. The Doddy’s Risk-Influence chart.



the time he is ready to come back to the farm they may be working under a very different set of rules and he knows they will likely change several times before his parents retire.

Lastly, Alvin weighed in with his thoughts on the many production risks they faced. He pointed out that feed costs can vary greatly each year, depending on how much grass they have available and the overall impact of weather on the market.

Chris wondered aloud if that was why his dad kept so much extra hay stored around the place, even though they probably would never need it. Alvin said it sure was but, even with all of it available, it seemed like their feed costs fluctuated quite a bit.

Flora asked why he didn’t just sell it and turn it into cash. Alvin said he had not really thought about it but that was probably something they should work on and put some numbers to it.

By the end of the evening, the Daddys had agreed on seven key risks and entered them into the *Risk Influence Calculator* along with their assessment of probability, impact, and influence (Figure 1).

### Risk-Influence Chart

When the Daddys viewed the Risk-Influence chart, it became very apparent which risks they should focus their

attention on in the near future (Figure 2). The risks higher on the chart are the greatest threats to the operation and the risks farther to the right represent the risks they have the most influence over. This makes risks in Quadrant 4, in the upper right corner of the chart, the ones they should focus most of their attention on.

They all agreed that cattle price risk was their biggest risk. There was some disagreement over how much influence they could have over it but Alvin admitted that it had not received the attention that it probably should have up to now.

The next biggest risk to the operation was their ability to expand and bring Chris back to the operation. This was a risk that they also agreed they had considerable influence over.

The only risk they thought they had more influence on was Alvin teaching and transitioning some of the management responsibilities to Chris over time. They felt they could completely influence that outcome so they scored it a 10 in terms of influence.

The discussion surrounding these risks got the family excited. They knew this was something that needed to be addressed and the *Risk Influence Calculator* provided the tool they needed to move it to the top of their priority list.

Alvin, Flora, and Chris deemed the night a success. They sketched out a quick plan for moving forward. The plan included looking into some market risk management

alternatives for the coming year. Alvin and Chris agreed to sit down together in one week and see what they could discover together in the educational materials on the RightRisk website.

They agreed to work together in the next month to draft a marketing plan for the coming year, with the understanding that it might not be aggressive or make use of any fancy tools, but at least it would give them a better perspective to work from throughout the year.

With some excitement, they agreed to start work on a full business plan for the operation that involved expansion in the next six years that would allow Chris to come back to operation fulltime. Flora agreed to take the lead with the writing, but it would be a team effort all the way.

Finally, they agreed they might need some assistance reviewing and implementing their plans. Alvin offered to contact a local brokerage firm and Chris volunteered to contact the professionals at RightRisk to seek their input and ideas.

## Resources

Hoag, Fathelrahman, Griffith, Hewlett, Keske, Parsons, and Pritchett. *Applied Risk Management in Agriculture*. 2009. CRC Press. Boca Raton Florida.

Risk Navigator | [RiskNavigatorSRM.com](http://RiskNavigatorSRM.com)

RightRisk | [RightRisk.org](http://RightRisk.org)

RightRisk Risk Analytics | [RightRisk.org/Analytics](http://RightRisk.org/Analytics)



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<https://RightRisk.org>

