



RightRisk: **Effective Risk Management Solutions**

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Colorado State University Extension

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What is RightRisk?

RightRisk helps agricultural firms and farm and ranch families better understand & manage the risks they face.



What is *RightRisk*?

- Risk Management Extension **Education Team**
- Risk Management **Educational Tools**
 - Simulations
 - Programs and Courses
 - Books
- **Private Company** – RightRisk, LLC.
 - Educational Program Delivery
 - Consulting
 - Research

***RightRisk* is an Education Team**

- Team of Researchers and Extension Specialists
 - From 8 Western states
 - Derived from existing network of co-workers
 - “Risk and Resilience in Agriculture” Project
 - “Managing for Today’s Cattle Market and Beyond”
 - Western Risk Management Library
 - Other Western Extension Farm Management Committee Projects
- Established to:
 - Develop innovative and effective extension risk management educational programs for farmers and ranchers across the Western United States

Original *RightRisk* Education Team

Arizona (The University of Arizona)

- Trent Teegerstrom
- Russ Tronstad

Colorado (Colorado State University)

- John Deering
- Dana Hoag
- Dennis Kaan
- Jay Parsons
- Rod Sharp
- Jeff Tranel

Idaho (The University of Idaho)

- Wilson Gray

Montana (Montana State University)

- Duane Griffith

Nevada (The University of Nevada)

- Willie Riggs

Utah (Utah State University)

- Bruce Godfrey

Washington (Washington State University)

- Jay Jenkins

Wyoming (The University of Wyoming)

- Chris Bastian
- John Hewlett

***RightRisk* is a set of Risk Management Education Tools**

- Ag Survivor – Risk Management Simulation Game
- CD and On-Line Risk Management Courses and Programs
- Applied Risk Management in Agriculture Book

Farm Survivor – In the Beginning

- Risk Management Simulation Game
- Developed by Colorado Extension Economists
 - Participants manage a farm operation
 - Two years (8 quarters)
 - Risks faced by producers over production cycle
 - Production (precipitation, frost, hail, disease)
 - Marketing (national crop conditions, exports)
 - Human (health issues)
- Farm in Southeastern Colorado
 - Dryland cropping
 - Cattle
 - Hunting rights

Farm Survivor – In the Beginning

Simulation Program Taught Participants:

- The Sources of Risk and Probably of Occurrence
- The Impact of Risk Events (possible outcomes)
- Risk Concepts and Management Strategies
- Risk Management Tools

Farm Survivor – In the Beginning

- Played by Teams (3-7 people per team)
- One Program Host (presenter)
- One Facilitator per Team
 - Recorded team decisions and outcomes (flip charts).
 - Answered questions by team members.
 - Encouraged team discussion.
- Very Labor Intensive.

Farm Survivor – The Next Steps

Explored New Teaching Tactics.

- To computerize
 - To reduce labor needs
 - More accurate & quicker calculation of results
- To improve presentation
 - Timing
 - Group size
 - Materials
 - Other
- Additional scenarios to better fit different audiences

Ranch Survivor

- Received grant (CSU & UW).
 - Improve game.
 - Computerized the game.
 - Reduced labor needs.
 - Easier development of new versions and scenarios.
 - Compare outcomes of different decisions.
 - Website.
 - General access to risk management education materials.
 - Play game (after participating in workshop).
 - Private site.
 - Share resources.
 - Develop new ideas.
 - Development of complete educational program.

Ranch Survivor

- King Family Ranch
 - Developed in 2001
 - Mountain ranch setting
 - Hay (350 acres)
 - Cow-calf production (500 cows)



- Home
- About
- Risk Navigator
- People
- Workshops
- Sponsors

Residential AC Contractor
 Highlands Ranch air conditioning.
 Exceptional service since 1979.
[appletreephddenver.com](http://www.appletreephddenver.com)

Ads by Google

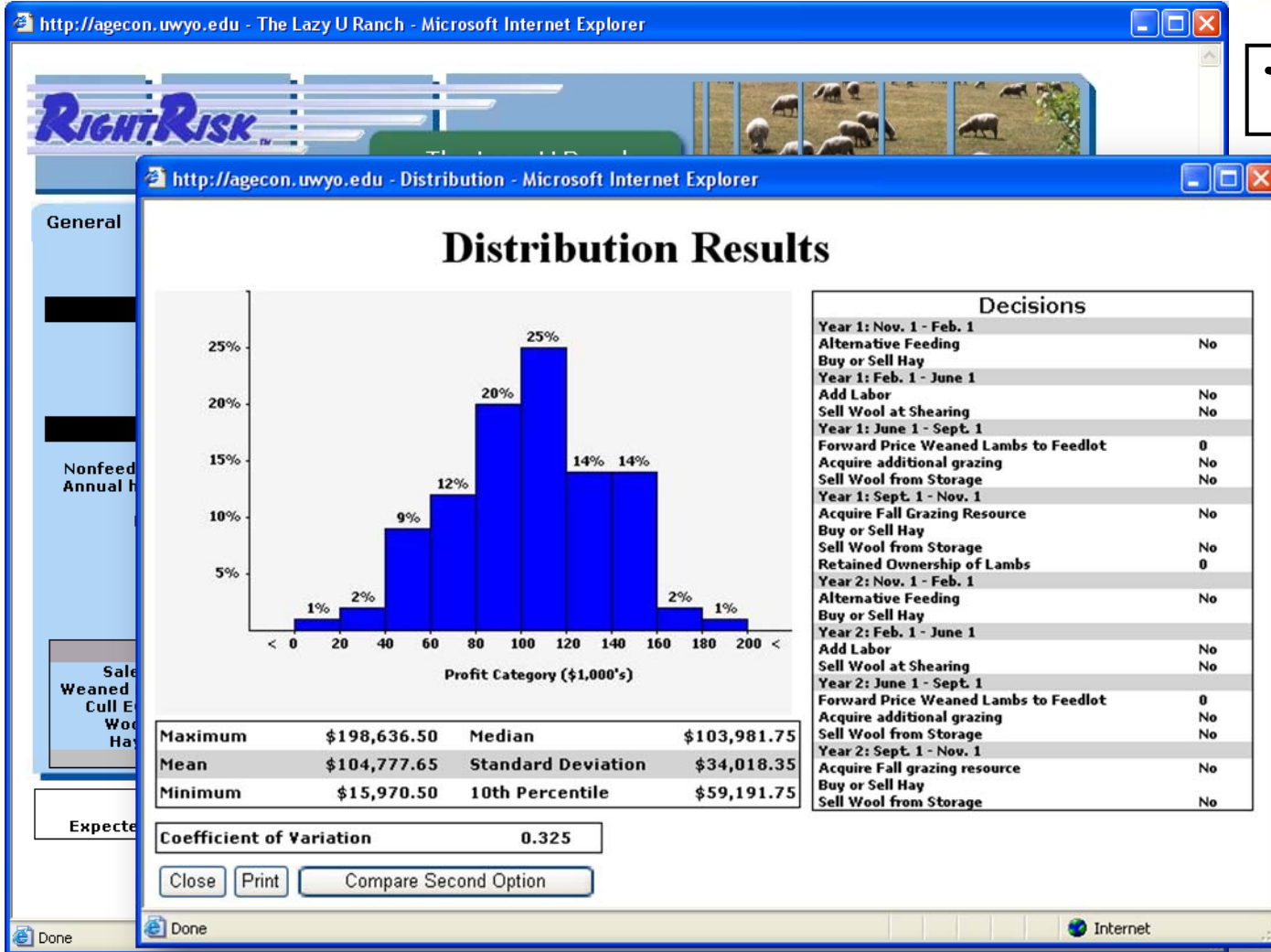
Presented by



The **King Family Ranch** is a cow/calf/hay operation in the mountains of Colorado. They raise 350 acres of hay each year and use much of their production as winter feed for their 500 cows. They typically calve in March-April and sell weaned calves in October.



Ag Survivor - Simulation

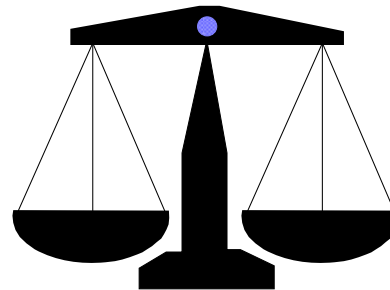


Ten Scenarios

- EWS Farms
- Public Lands
- The King Family Ranch
- The Lazy U Ranch
- The Wheatfields
- Bar BQ Ranch
- Mountain View Farms
- Big Horn Basin Farms
- Oasis Ranch
- High Plans Ranch

Decisions

- * Forward price calves?
- * Buy or sell hay?
- * Vaccinate cows?
- * Retain ownership?

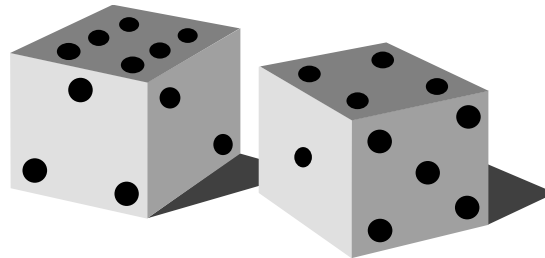
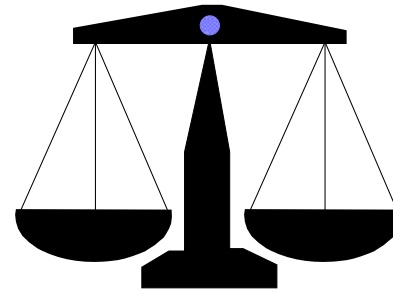


Decisions



Risks

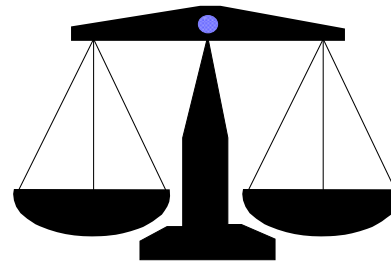
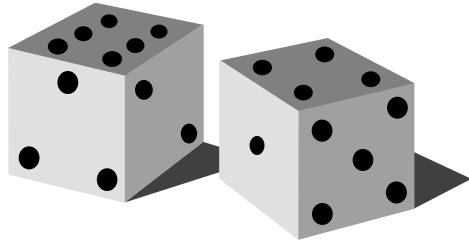
- * Production
 - ** Weather
 - ** Disease
- * Market
 - ** Shifts in demand
 - ** Corn crop situation



Decisions



Risks



Evaluation

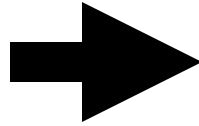


Ranch Survivor

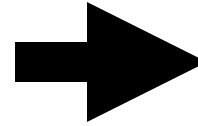
Presented to:

- Agricultural lenders.
- Producers.
- Extension agents.
- Western Extension Committees.
 - Farm Management.
 - Marketing.

Farm
Survivor



Ranch
Survivor

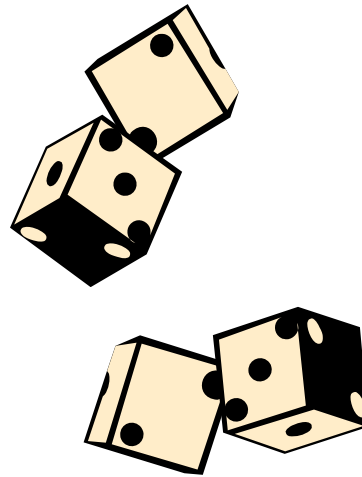


Ag
Survivor



Ag Survivor *Simulation Game*

Provides an opportunity to practice risk management without the *real world* consequences



Ag Survivor - Working Scenarios

- The King Family Ranch
 - Mountain Ranch Colorado
 - Cow/calf, grass hay
 - Decisions include forward pricing, purchasing/buying hay, vaccinating cows, retained ownership.
- The Wheatfields
 - Plains Farm Eastern Colorado
 - Dryland winter wheat, cow/calf
 - Decisions include crop insurance, forward pricing.

Ag Survivor - Working Scenarios

- Public Lands
 - Public Lands Ranch on the Arizona and Utah Border
 - Cow/calf, hay
 - Decisions include forward pricing, buying/selling hay, grazing management, buying/selling pairs, retained ownership
- Lazy U Ranch
 - Central Rockies Ranch in Northern Colorado
 - Sheep, hay
 - Decisions include alternative feeding, buying/selling hay, forward pricing, wool storage, labor, retained ownership

Ag Survivor

Working Scenarios

- Bar BQ Ranch
 - Ranch in Northern Rocky Mountains
 - Cow/calf, yearlings, and hay
 - Decisions include buying or selling hay, purchasing LRP insurance, sell or retain calves, buying stockers, feedlot
- EWS Farms
 - Irrigated/dryland farm in Northeastern Colorado
 - Wheat and corn
 - Decisions include forward contracting, hedging,

Ag Survivor

Working Scenarios

- Mountain View Farms
 - Idaho Dryland Grain Farm
 - Malt barley, feed barley, winter wheat, beef cows
 - Decisions include crop insurance, forward pricing, sell stored crops, cross hedge,
- Big Horn Basin Farms
 - Wyoming Irrigated Farm
 - Malting barley, sugar beets, alfalfa hay
 - Decisions include crop insurance, fertilization, replant option, sell or store,

Ag Survivor Working Scenarios

- Oasis Ranch
 - SE Colorado Ranch (Drought Risk Scenario)
 - Cow/calf
 - Decisions include PRF insurance and purchasing additional hay/grazing.

Ag Survivor

Working Scenarios

- High Plains Ranch
 - Rocky Mountain West Livestock Ranch
 - Cow/calf, hay
 - Decisions include insurance products (PRF, AGR-Lite, and LRP), fertilizer application, timing of planting and marketing
- Chesapeake Farm
 - Maryland Farm
 - Corn, soybean, and wheat
 - Decisions include crop mix, crop insurance, forward pricing, and crop storage.

RightRisk Ag Survivor Workshop Offerings

- December 2002
 - Western Alfalfa & Forage Conference in Sparks, NV.
- 2003
 - 37 workshops across 9 states
- 2004
 - 57 workshops across 8 states
- 2005
 - 10 workshops across 5 states
- 2006-2010
 - 96 workshops across 16 states

Delivered to over 7,500 farm and ranch families across 35 states, Washington D.C., Canada, Ireland, Australia, and New Zealand.

The King Family Ranch J. Tranel, D. Hoag and J. Parsons

The King Family Ranch is representative of mountain valley cow/calf and hay ranches in the Rocky Mountain west. Production practices, costs of production, market prices, weather patterns, and other information are based on data from the region in order to provide a realistic setting. The probabilities of risk events were also calculated using actual data, however slight modifications were sometimes made to maintain the workability and realism of the game.

The ranch runs 500 mother beef cows with annual production costs of \$350 per cow. Calving typically occurs in March-April and weaned calves are sold in October. The King Family historically has a 94 percent weaning percentage and replaces 14 percent of their cows. This leaves 400 calves (100%-6%-14%), weighing 550 pounds (for steers and heifers, alike), to market for \$95.00 per hundredweight. Cull cows weighing 1,111 pounds are sold at the end of each year for \$45.00 per hundredweight.

The King Family Ranch also raises 350 acres of hay each year and uses most of it as winter feed for their 500 cows. Normal annual yield is 2.5 tons per acre, which costs \$60.00 per acre to produce. When you begin the simulation, there are 875 tons in inventory with a market value of \$80 per ton. Space limitations prevent the Kings from having more than 1,000 tons of hay in inventory.

The King Family Ranch expects to sell 400 calves at weaning, 70 cull cows, and 50 tons of hay. Total sales will generate \$247,997 in revenues each year. The Kings will have \$21,000 in expenses for producing 350 tons of hay. They will also have \$175,000 of expenses for the cow herd. The Kings expect their Ranch to generate \$51,997 of profits each year or almost \$104,000 over the two years in which the game is played.

Beef Cattle Production

Quantity	500 head
Production costs per unit	\$350 per cow
Weaning Percentage	94%
Average Net Sale Weight	550 pounds per weaned calf
Initial Market Price	\$95.00 per hundredweight
Annual Hay Consumption	1.65 tons per cow
Replacement percentage	14%
Sale weight per cull unit	1,111 pounds per cow
Net Sale Price	\$45.00 per hundredweight

Crop Production

Crop Acres	350 acres
Normal Annual Yield	2.5 tons per acre
Production Costs	\$60.00 per acre
Initial Inventory	875 tons
Initial Market Price	\$80.00 per ton

Expected Annual Net Ranch Income

Expected Revenues	Expected Expenses
Weaned Calves 400 head = \$209,000	Cows 500 cows = \$175,000
Cull Cows 70 head = \$34,997	Hay 350 acres = \$21,000
Hay 50 tons = \$4,000	
Annual total: \$247,997	Annual total: \$176,000
Profit = \$51,997 per year	

- ✓ LRP insurance is useful for cattle producers who want to protect against a decline in market prices.

Livestock Risk Protection (LRP) Insurance Pilot Program: Potential Risk Management Opportunities for Cattle Producers

By: Wendy J. Umberger and Dennis A. Kaan

What is the LRP Insurance Pilot Program?

Like most of agriculture, price risk is an inherent risk faced by cattle producers. Producers have used futures, options, and forward contracting to protect against declining cattle prices for several years. Despite the potential advantages for managing risk, many cattle producers have not participated in these available private risk management programs. In June 2003, the U.S. government began offering an additional price risk management program to cattle producers, Livestock Risk Protection (LRP). The LRP insurance program originated from the Agricultural Risk Management Act of 2000, and was first offered to swine producers in 2001. The pilot programs provide subsidized price insurance to feeder and select states. The current program is being administered and Crop Insurance Corporation (FCIC).

The purpose of this fact sheet is to provide information on the feeder cattle programs and to present an analysis of the LRP risk management programs available for cattle producers.

- ✓ Feeder cattle contracts are available in CO, IA, KS, NE, NV, OK, SD, TX, UT, and WY.
- ✓ Fed cattle contracts are available in IL, IA, and NE.
- ✓ LRP insurance sets a coverage price, but basis risk is still a factor in the final price level received by the producer.

How Does the LRP Insurance Program Work for Cattle Producers?

Feeder cattle LRP insurance can be purchased for steers with of 650 to 900 pounds. The feeder cattle LRP is currently being available to producers in Colorado, Iowa, Kansas, Nebraska, Dakota, Texas, Utah and Wyoming. For heavier weight cattle is currently available for cattle that are expected to grade sale grade of 1 to 3, and to weigh between 1000 to 1400 pounds (1 states for the fed cattle LRP program are Illinois, Iowa, and N in a non-pilot state, but who own cattle in a pilot state are also insurance on the cattle residing in the pilot state. For example Colorado may purchase fed cattle LRP insurance for cattle that that he/she owns.

Safety-First: A RightRisk™ Lesson Guide

by Chris Bastian and John P. Hewlett, University of Wyoming

With safety first you choose the best investment available that assures a minimum level of income.

There are many different sources of risk, which can affect income and ultimately the survival of an agricultural operation. Management decisions about what to produce, how to handle potential problems, and when to take action can all have outcomes that turn out to be less than what was hoped for because of the occurrence of uncontrollable events. Because many things are out of the manager's control when he or she makes a decision, the manager needs to decide if the business can accept a bad outcome if one of these uncontrollable events occur. This is the essence of risk management.

The manager must assess what could happen if a certain action were taken. The manager must ask him or herself, how likely is a bad outcome if that action is taken, and can the business accept or survive that bad outcome? If the manager decides the business cannot afford the bad outcome, then action must be taken to reduce the potential damage to the business.

Safety-First Decision Rule

For example, you may not be able to consider an investment that could possibly lose a significant amount of money if things go wrong.

The concept of "safety-first" is a rule used to help managers choose the best strategy when faced with the risk of a bad outcome. The "safety-first" decision rule is based on the idea that there is some minimum level the operation must make each year to ensure its survival (Kay and Edwards, 1994). For example, let's say the operation in the "King Family Ranch" RightRisk™ scenario has been informed by their banker that if they miss their loan payment of \$5,000, the bank will foreclose. In this case, the safety-first decision rule dictates that a manager of the King Family Ranch would want to make sure he/she manages the operation so there is the highest chance of being able to make that \$5,000 payment each year.

Practicing Safety-First

RightRisk™ provides you an opportunity to try different management strategies to see if they are an improvement over what was done last time. It is this ability to practice several strategies that we are going to take advantage of in learning about "safety first." You are going to practice making management decisions that you think will have the highest chance of allowing the King Family Ranch to make its \$5,000 loan payment as compared to doing nothing about potentially bad outcomes that could keep the ranch from meeting its' loan obligations.

Advantages of using *Ag Survivor* in an Educational Program

- Hands-on activity
- Everyone is involved making decisions
- Competing with other teams (game)
- Real farm/ranch settings
- Realistic probabilities
- Quick results (computerized simulation)
- IT'S FUN

Ag Survivor

Works in a Variety of Settings

- Ag Production Meetings
 - Focus on production risks
 - Weather/Drought
 - Disease
 - Insects
 - Weeds
 - And production tools
 - Insurance
 - Diversity
 - Fertilization
 - Disease Prevention (Vaccination)

Ag Survivor

Works in a Variety of Settings

- Marketing meetings
 - Focus on market risks
 - Price variations
 - Cyclical patterns
 - Price trends
 - And marketing tools
 - Forward pricing
 - Retained ownership
 - Futures and options
 - Marketing plans

Ag Survivor

Works in a Variety of Settings

- Financial Management Meetings
 - Focus on financial risks
 - Insufficient cash flow
 - Declining asset values
 - Foreclosure / Bankruptcy
 - Interest rates
 - And Financial management tools
 - Enterprise budgets
 - Financial statements
 - Financial analysis

Ag Survivor

Works in a Variety of Settings

- Classrooms
 - High School vo-ag classes
 - University classes
 - Community college classes

Ag Survivor

Works in a Variety of Settings

- Examples
 - Agriculture lender meetings
 - Crop insurance trainings
 - Risk management workshops
 - Drought workshops
 - Futures/Options trainings
 - Commodity group annual meetings
 - Extension agent in-service trainings
 - Professional development for extension specialists
 - Regional production symposium

And for a variety of different audiences.

- Examples
 - Extension agents
 - Farm management specialists
 - Marketing specialists
 - Ag lenders
 - Livestock producers
 - Crop producers
 - High School students
 - College students

Important Features of *Ag Survivor*

- Building Basic Skills
 - Overview of risk and risk management
 - Measuring risk tolerance
 - Strategic planning/Making decisions
 - Risk mapping
 - Probabilities
- Lesson Guides
 - Risk Management Techniques
 - Insurance
 - Financial Risk Management
 - Price Risk Management
 - Safety First

Simulation



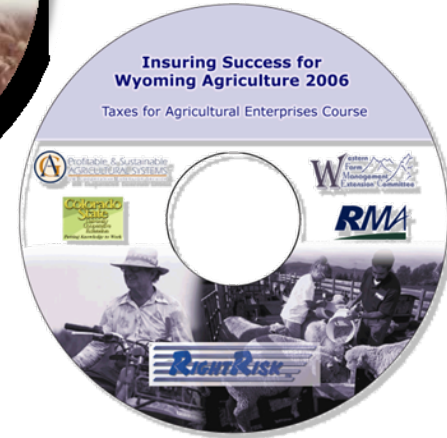
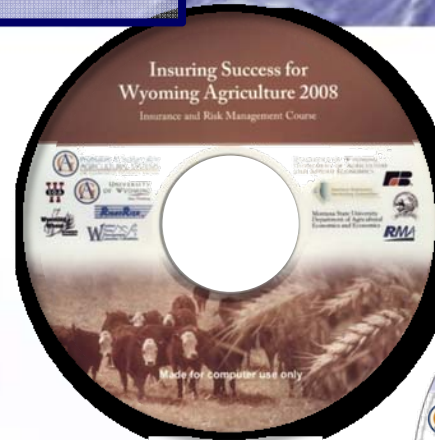
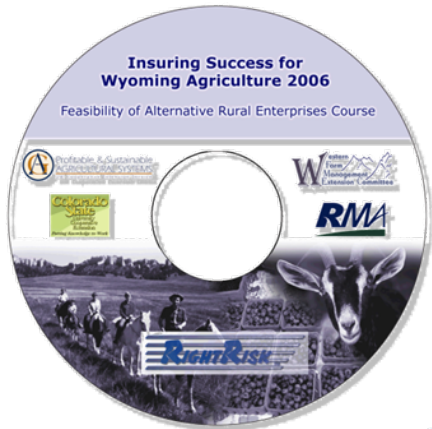
Any Questions
about the simulation
game?



Courses

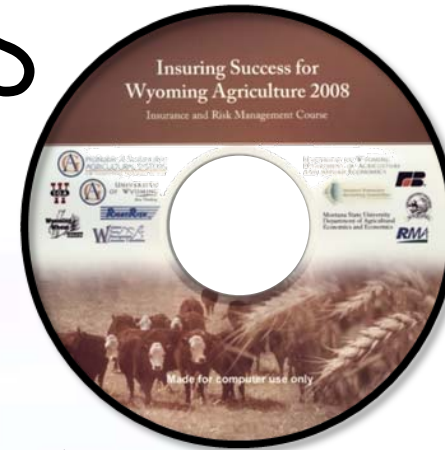
CD/Web-based
courses

Seven Risk management CD and web-based courses



Seven Risk management CD and web-based courses

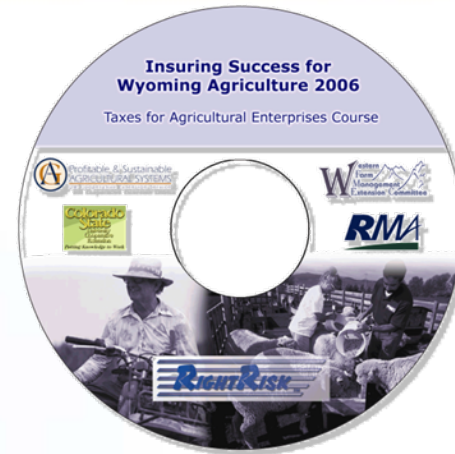
— Insuring Success



- Introduction to Risk Management
- Sources of Risk
- Strategic Planning and Goal Setting
- RMA Insurance Products
 - Crop Production & Revenue Products
 - Livestock Products
- Price and risk diversification
- Retained ownership
- Drought mitigation
- Self assessment

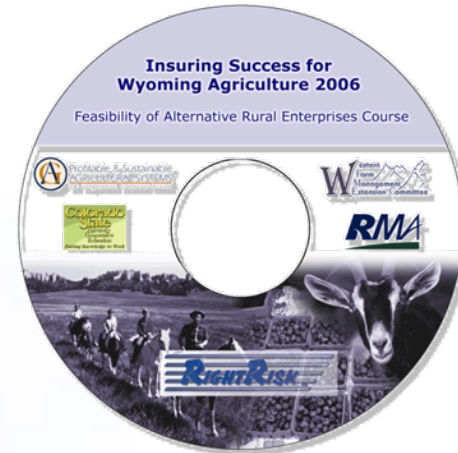
Seven Risk management CD and web-based courses

- Taxes for Agricultural Enterprises
 - Definition of a farm
 - Importance of records
 - Farm income
 - Farm expenses
 - Tax management



Seven Risk management CD and web-based courses

- Feasibility of Alternative Rural Enterprises Course



- Definition of an alternative enterprise
- Assessing feasibility
- Competitive analysis
- Business analysis
- Assessing risks

Seven Risk management CD and web-based courses

— AGR-Lite Training

- Intro to risk management
- AGR-Lite overview
- Application process
- In the event of a loss
- Documentation considerations
- Summary and examples

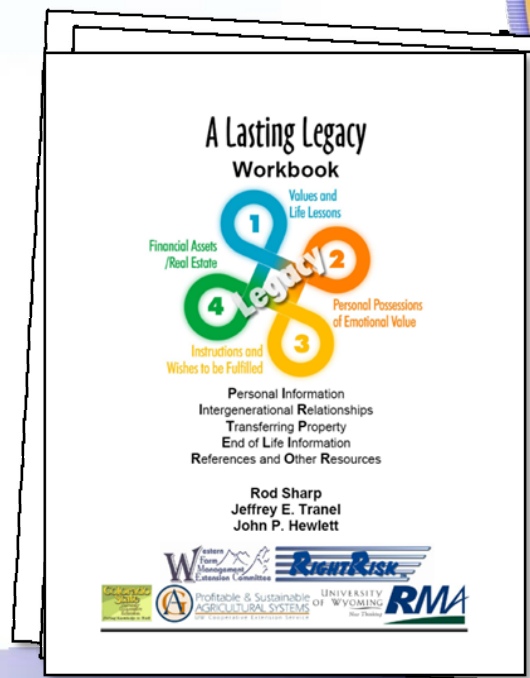
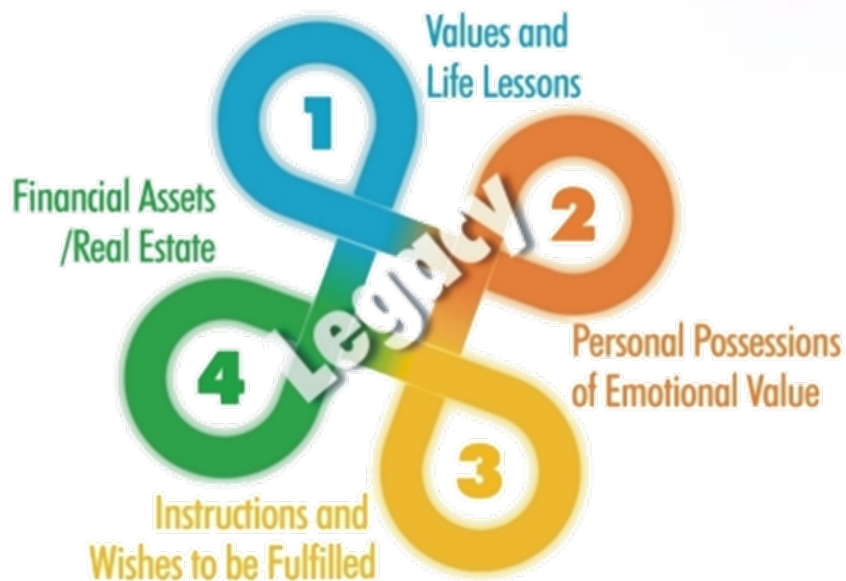


Courses

CD/Web-based courses cont.

Risk management CD and web-based courses cont.

- A Lasting Legacy: Course 1 and Course 2



Seven Risk management CD and web-based courses

- **Getting on Track: Better Management Through Basic Ag Records**
 - Why keep records
 - 5 easy steps to record keeping
 - Keeping production records
 - Keeping financial records
 - Schedule F
 - Vignettes



Coming Soon

- Pasture, Rangeland, Forage (PRF) Insurance Course



Each Course Includes:

- Teaching Outline
- Marketing Flyer
- Teaching resources-
 - Handouts/worksheets
 - Example problems with answer keys
 - Electronic tools/simulations
 - Links to external readings/resources
- PowerPoint slides with presentation notes



Courses

CD/Web-based
courses cont.

Any Questions
about the Courses?



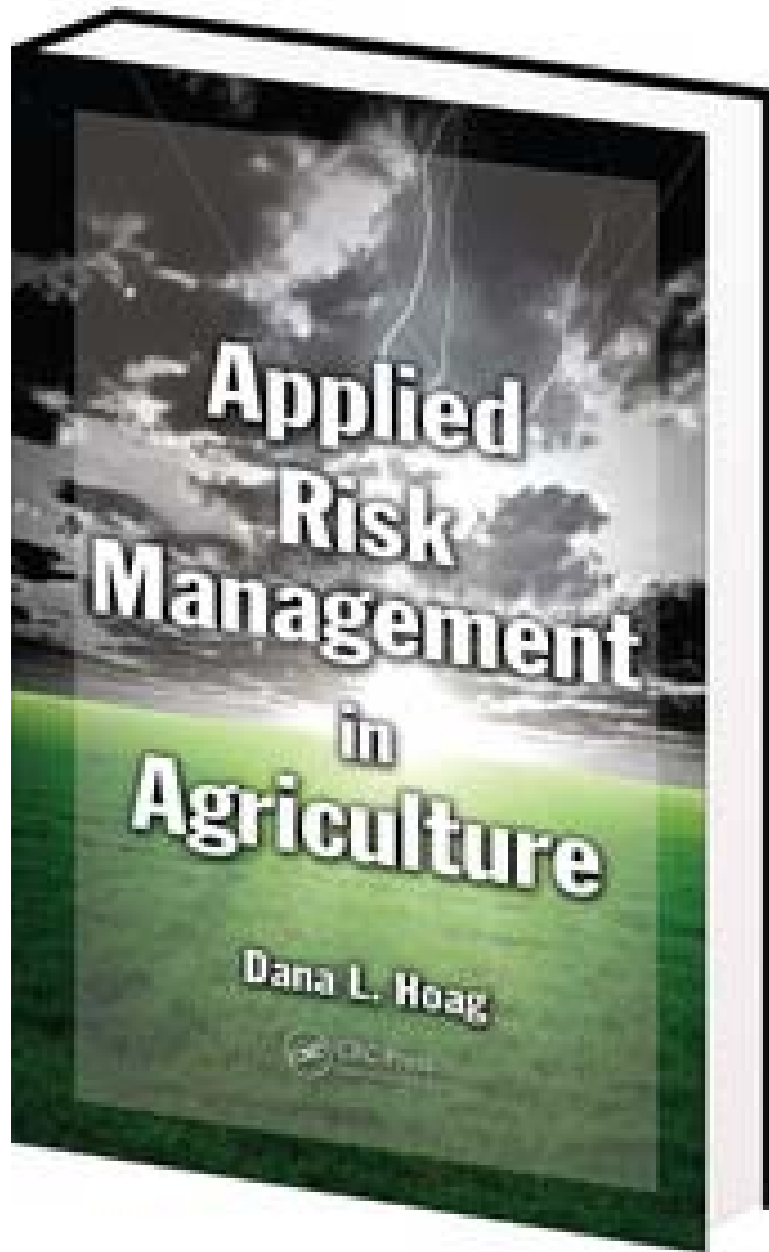
Tools

Strategic Risk Management Process

10 Steps to Manage Risk

1. Determine Financial Health
2. Determine Risk Preference
3. Establish Risk Goals
4. Determine Risk Sources
5. Identify Management Alternatives
6. Estimate Likelihoods
7. Rank Management Alternatives
8. Implement Plans
9. Monitor & Adjust
10. Replan





Price: \$79.95

Tools

Strategic Risk Management Process



Toolbox

Financial

Management

Planning

Risk Analysis

Ratio Analysis

Tools Folder

Install Flash Player

Install Adobe Reader

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AdequacyAchievementGrid.swf	659 KB	10/25/2008 19:26	Shockwave Flash Object
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Monitor and Adjust
Balance Sheets
Income Statement
Cash Flow
Statement of Owner
Equity

41 different tools

***RightRisk* is a Private Company**

- RightRisk, LLC
 - Opportunity to financially reward members for doing work outside their states of Extension responsibility
 - Educational programming
 - Consulting
 - Research
 - 10 members (3 states)



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Thank You !

