Managing Risks

in California Specialty Crop Production

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http://california.erightrisk.com

What is RISK?

- RISK: The effect of uncertainty on your objectives:
  - Current profit level
  - Financial situation (equity position)
  - Satisfaction and well-being

Sources of Risk in Agriculture – *Ag Risk 5*

1. Marketing and Price Risk
2. Production Risk
3. Institutional Risk
4. Human Risk
5. Financial Risk

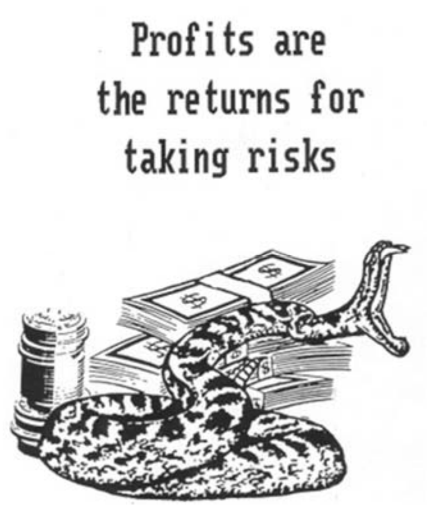
Strategies for Managing Risk

1. Avoid it
2. Reduce it
   a) Reduce the probability it will happen
   b) Reduce the impact if it does happen
3. Transfer it outside the business
   a) Insurance
   b) Contracting
4. Build your internal capacity to bear
   a) Increase reserves
   b) Maintain flexibility
5. Accept it

Origin of Word RISK

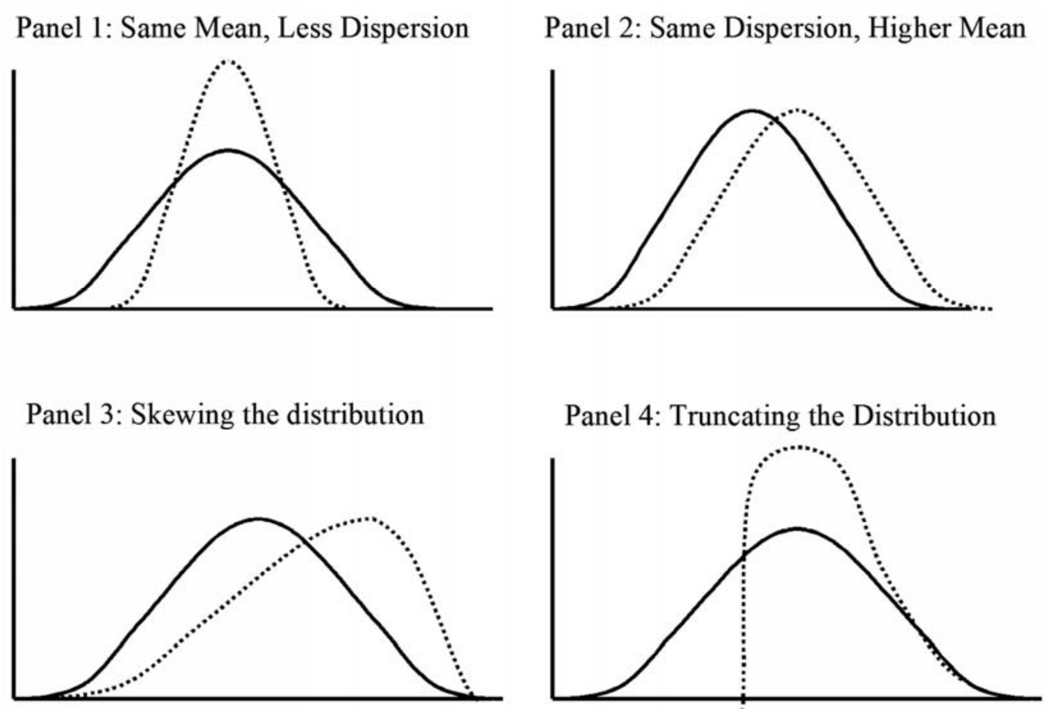
- RISICARE
  - –Italian word
  - –"TO DARE"

Risk Tradeoffs



- Upside: Greater risk taking usually leads to greater wealth
- Downside: Losses from risk taking can be devastating
- Managing risks are a matter of evaluating tradeoffs.
- How much risk and how much stress are you willing to endure to potentially achieve higher returns?

Strategy Impacts



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Insurance Plans Available in CALIFORNIA			
Insurable Crops	**Insured Acres**	**Total Acres**	**Percent Insured**
Alfalfa Seed	11,795	36,280	33%
Almonds	721,275	860,000	84%
Apples	5,562	15,200	37%
Avocados	36,130	55,261	65%
Barley	38,635	95,000	41%
Blueberries	3,771	4,542	83%
Cherries	29,063	40,414	72%
Citrus – 8 types of fruit	229,451	270,000	85%
Corn	184,830	430,000	43%
Cotton & ELS Cotton	309,372	315,000	98%
Beans (Dry)	25,972	47,500	55%
Figs	4,076	7,351	55%
Forage Production	144,193	930,000	16%
Grapes (Table)	81,427	95,000	86%
Grapes (Wine)	498,428	570,000	87%
Grain Sorghum	3,328	4,570	73%
Mint	1,641	2,000	82%
Oats	3,624	10,000	36%
Olives	25,557	42,779	60%
Onions	19,570	43,900	45%
Pears	8,455	11,600	73%
Pecans	1,370	3,600	38%
Pistachios	90,097	203,000	44%
Potatoes	23,680	33,500	71%
Prunes	45,972	50,000	92%
Rice	478,856	495,000	97%
Rice (Cultivated Wild)	12,444	13,000	96%
Safflower	35,268	55,000	64%
Stonefruit (Includes Plums)	70,125	102,073	69%
Strawberries	26	41,500	1%
Sugar Beets	4,454	24,500	18%
Tomatoes (Fresh)	11,313	28,000	40%
Tomatoes (Processing)	278,058	288,000	97%
Walnuts	148,497	290,000	51%
Wheat	271,829	585,000	46%
Dollar Liability Program		**Total Dollar Liability**	
Adjusted Gross Revenue		$35,427,458	
Apiculture (Rainfall Index)		$28,811,523	
Forage Seeding		$2,288,715	
Livestock Gross Margin (LGM) Dairy		$58,023,160	
Livestock Risk Protection (LRP) Feeder Cattle and Lamb		$11,994,519	
Nursery		$140,832,241	
Pasture, Rangeland, Forage (Rainfall Index)		$41,605,195	
Raisins		$196,617,340	

Crop Pilot Programs	
Program	**County Availability**
Adjusted Gross Revenue	Fresno, Kern, Riverside, San Diego, San Joaquin, San Luis Obispo, Tulare, and Ventura Counties
Apiculture (Rainfall Index)	All Counties
Avocados	Orange, Riverside, San Diego, San Luis Obispo, Santa Barbara, and Ventura Counties
Cherries	Butte, Contra Costa, Fresno, Kern, Kings, Madera, Merced, Placer, Sacramento, San Benito, Santa Clara, San Joaquin, Stanislaus, Sutter, Tulare, and Yuba Counties
Forage (Alfalfa) Seed	Kings and Fresno Counties
Strawberries	Fresno, Merced, Monterey, Santa Barbara, Santa Cruz, and Ventura Counties
Citrus Dollar (Navels)	Fresno, Kern, Madera, and Tulare Counties
PRF (Rainfall Index)	All Counties
Olives	Butte, Colusa, Fresno, Glenn, Tehama, Kern, Madera, San Joaquin, Shasta, Stanislaus, Sutter, Tulare, Yolo
Pistachios	Alameda, Butte, Colusa, Contra Costa, Fresno, Glenn, Kern, Kings, Madera, Merced, Riverside, San Benito, San Bernardino, San Joaquin, San Luis Obispo, Santa Barbara, Stanislaus, Sutter, Tehama, Tulare, Yolo, Yuba Counties

http://www.rma.usda.gov

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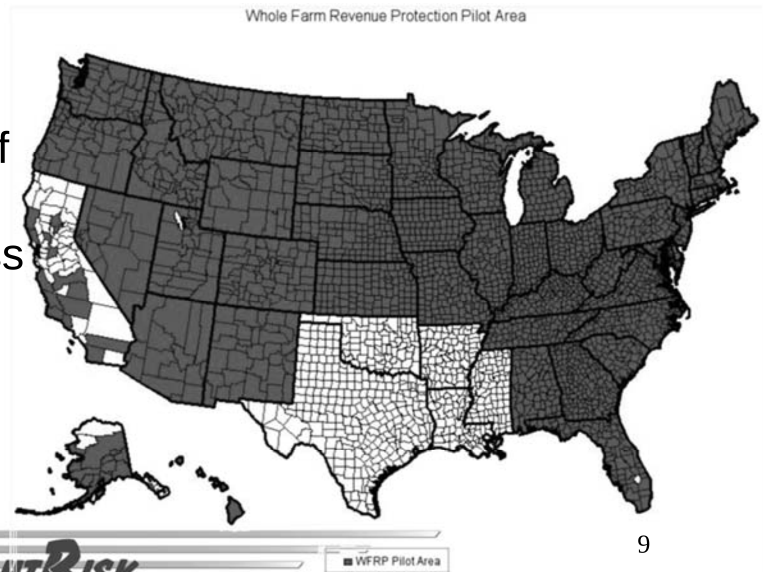
Whole-Farm Revenue Protection

- A whole-farm insurance product that provides producers with risk management protection for all eligible commodities on the farm under **one insurance policy**

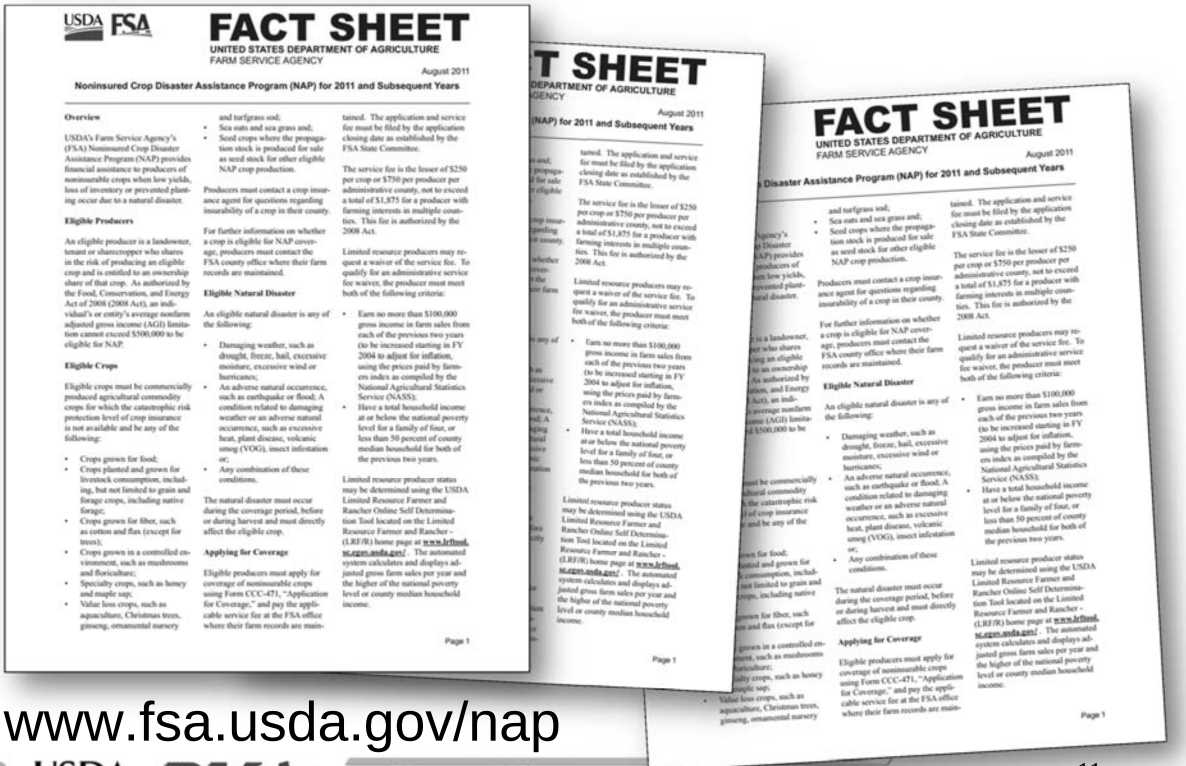
- WFRP is a combination of Adjusted Gross Revenue (AGR) and Adjusted Gross Revenue-Lite (AGR-Lite) policies



Whole-Farm Revenue Protection cont.

- Coverage is based on:
  - The operation's whole-farm **historic average revenue and expenses** using information from five consecutive tax years before the insurance year (adjusted according to the WFRP policy and procedures)
- An indemnity payment occurs when:
  - *Allowable Revenue* during the insurance year **falls below** the *Insured Revenue* (the amount of revenue the farm operation is expected to earn during the insurance year multiplied by the coverage level elected)

Farm Service Agency:
Noninsured Crop Disaster Assistance Program (NAP)


USDA FSA

FACT SHEET

UNITED STATES DEPARTMENT OF AGRICULTURE
FARM SERVICE AGENCY

August 2011

Noninsured Crop Disaster Assistance Program (NAP) for 2011 and Subsequent Years

Overview

Eligible Producers

Eligible Crops

Eligible Natural Disaster

Applying for Coverage

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www.fsa.usda.gov/nap

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Noninsured Crop Disaster Assistance Program (NAP): ELIGIBLE crops

- ELIGIBLE CROPS:
  - *Any commercial agricultural crop (excluding livestock and their by-products), commodity, or acreage of a commodity* ***grown for food or fiber****, and commercial or industrial crops for which CAT or additional coverage is not available*
  - ***Biomass crops*** or feedstock crop grown for purpose of producing bio-based product
- CROPS **NOT** ELIGIBLE:
  - *Where CAT or additional level of insurance coverage* ***IS*** *available*
  - *Where Group Risk Protection insurance* ***IS*** *available*

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Noninsured Crop Disaster Assistance Program (NAP): Coverage Summary

- NAP available for 2015 through 2018 crop years:
  - **CAT-level** coverage 50/55, and
  - **Buy-up** coverage
    - 50, 55, 60 or 65 percent coverage at 100 percent of the established market price
- Protects against eligible causes of loss during the coverage period before or during harvest: drought, hail, excessive moisture, freeze, tornado, hurricane, excessive wind, insufficient chill hours (limited), earthquake, flood, volcanic eruption
- Market price established by FSA as an ***average market price*** for the eligible crop

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Noninsured Crop Disaster Assistance Program (NAP): Coverage Updates

- Organic Crop Option
  - May receive payment based on an organic price if
    - RMA has established a separate organic price in the State
    - Producers elect the organic option on CCC-471
    - Acreage is certified organic or exempt from certification according to the National Organic Program regulations
    - A copy of organic system plan provided to FSA
- Direct Market Price Option
  - May receive payment based on an direct market price if
    - Buy-up coverage is elected with direct market price option
    - Sufficient data is available for FSA to approve separate average market prices within a State

Noninsured Crop Disaster Assistance Program (NAP): BUY-UP Coverage cont.

- **Premium calculation:**

  Eligible acres
  X Producer share
  X Approved yield
  X Coverage level
  X 100% of market price
  X 5.25 percent

❖ *NAP fees or buy-up premiums are reduced by 50 percent for:*
  - *Beginning farmers (BF)*
  - *Limited resource farmers (LR)*
  - *Socially disadvantaged farmers (SDA)*

Payment Limits

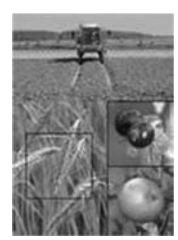
- **<u>NO</u>** person or legal entity, may receive directly or indirectly more than:
  - $125,000 total in payments under LFP, LIP, and ELAP combined
  - $125,000 total in payments under NAP
  - $125,000 total in payments under TAP
- An individual or legal entity is **<u>ineligible</u>** for payments where average adjusted gross income (AGI) exceeds $900,000
- A producer may receive benefits under a buy-up policy for crop insurance and LFP/LIP/ELAP/NAP/TAP, but combined benefits ***may not exceed the loss***

Production Risk

Uncontrollable events such as weather, pests or disease make yields or inputs unpredictable.

What are Your Management Controls?

- Selecting low production risk enterprises
- Using low-risk production practices
- Crop insurance
- Diversification
- Maintaining flexibility and extra capacity
- Utilizing land over a wide spread area




Marketing and Price Risk

Prices of inputs or outputs change after you commit to a plan of action.

What are Your Management Controls?

- Forward pricing or contracting
- Diversified market timing
- Diversified production
- Selecting low price risk enterprises
- Obtaining market outlook reports (information)
- Negotiated lease agreements
- Crop Insurance

Institutional Risk

Government or other institutional rules, regulations and policies effect profitability through costs or returns.

What are Your Management Controls?

- Keeping informed of new regulations and interpretations of the law
- Maintaining a liability insurance program

Human Risk

The character, health or behavior of the people involved in your operation introduces risk.

What are Your Management Controls?

- Maintain a good employee benefit package and relationship plan
- A plan to deal with the possible loss of a key employee(s)
- A backup management plan
- Maintaining good health and life insurance plans
- Establishing and maintain estate plans

Financial Risk

Financial risk is the extra risk that is attached to being leveraged. It's the added variability that results from financial obligations associated with debt financing.

What are Your Management Controls?

- Maintaining a financial cushion
- Practicing solid land leasing strategies
- Incorporating all or part of your operation
- Maintaining up-to-date financial information

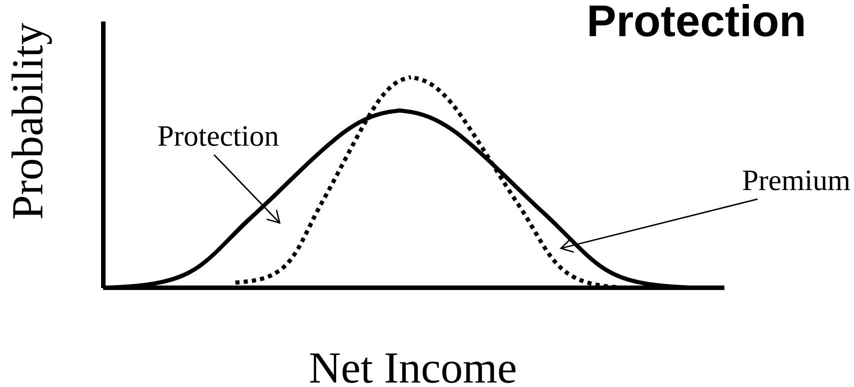
Personal Perspectives on Risk

- Generational differences
- Gender differences
- Life stage/family differences
- Life experiences

These are dynamic and change over time.

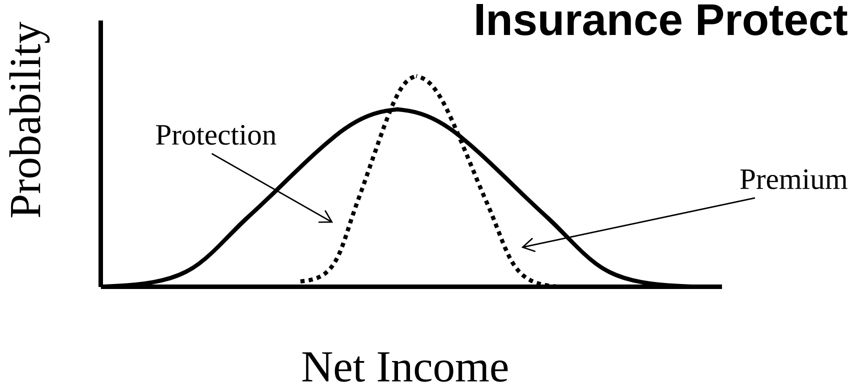
How much risk is right for you?

Crop Insurance Protection



How much risk is right for you?

MORE Crop Insurance Protection

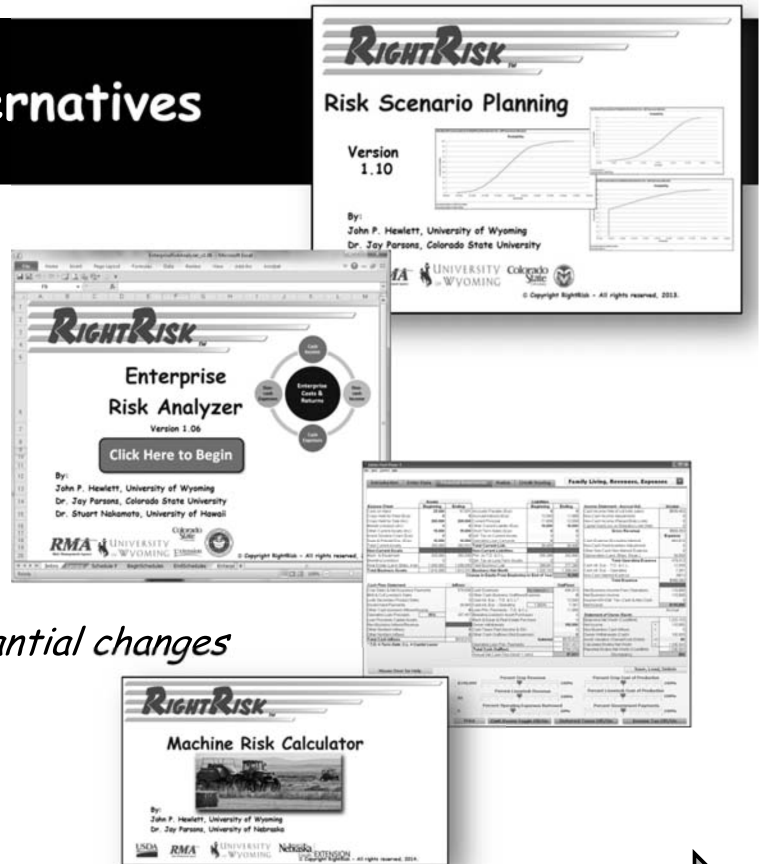


Risk Tools

evaluating risk management strategies

Tools to Evaluate Alternatives

- Risk Scenario Planner
  relatively minor changes
- Enterprise Risk Analyzer
  larger changes
- RD Financial
  Whole Farm Budget-*substantial changes*
- Machine Risk Analyzer
  estimating machinery and field operations costs



http://RightRisk.org/tools

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Thank You!

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The Enterprise Risk Analyzer

University of California
Agriculture and Natural Resources

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Dr. Jay Parsons, University of Nebraska-Lincoln

http://california.erightrisk.com

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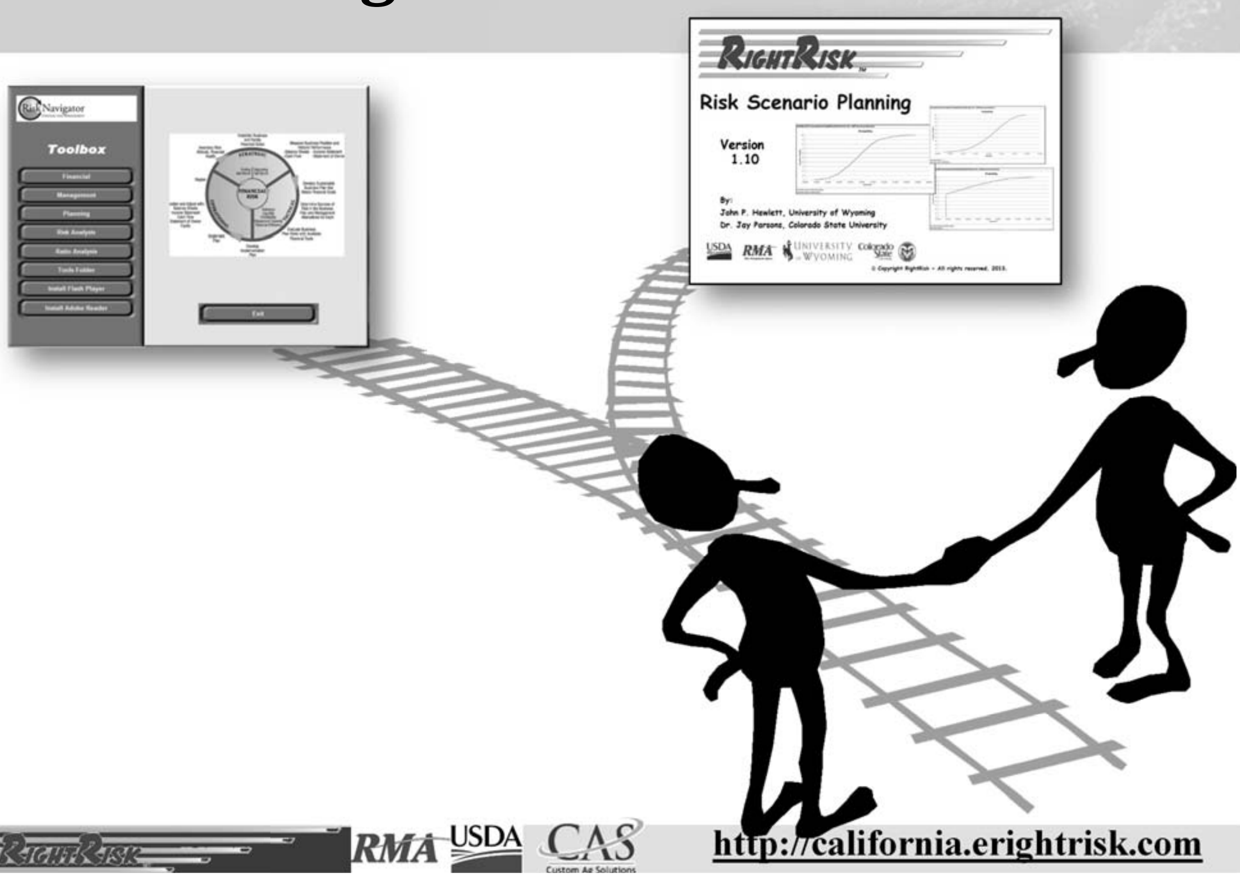
Evaluating Alternatives



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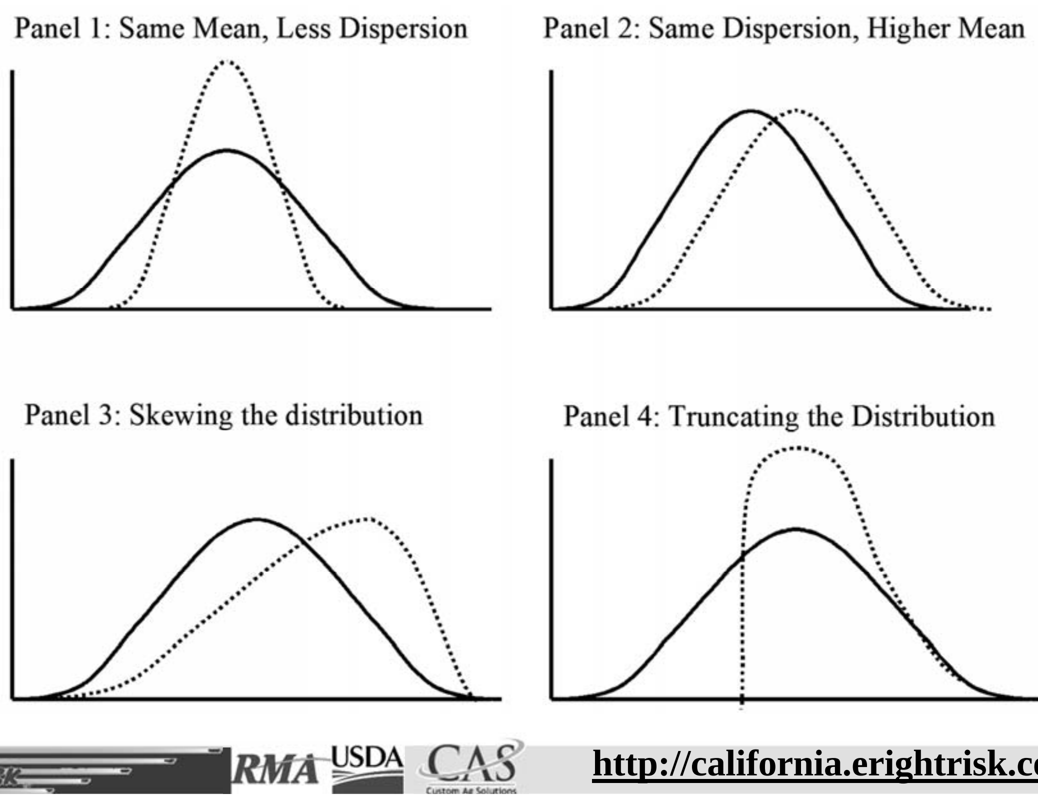
Enterprise Risk Analyzer

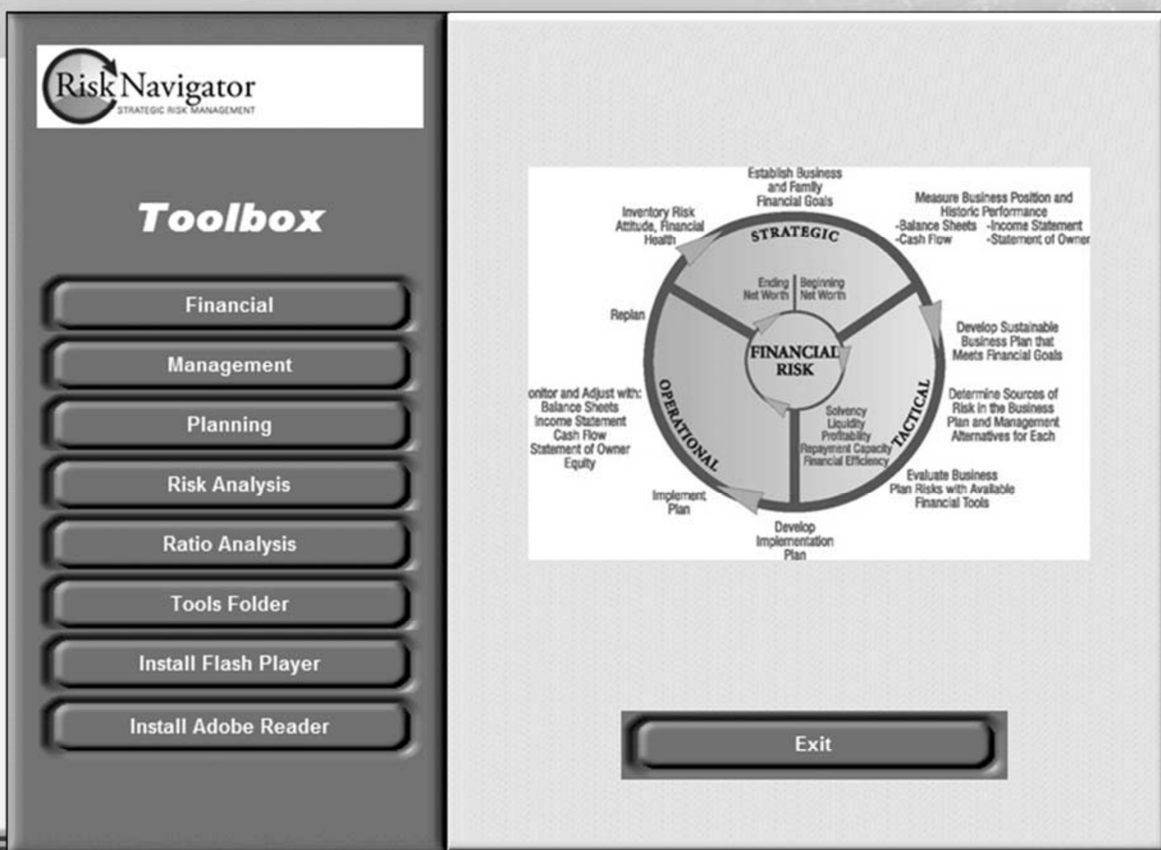
	Cow-Calf	Native Hay	Oat Hay	Alfalfa Establishment	Al[fa - Baled]
FARM REVENUE					
TOTAL FARM INCOME - CASH	121,759.00	12,380.00	2,802.00	2,306.00	
TOTAL NON-CASH INCOME ADJUSTMENTS					
GROSS FARM REVENUE	121,759.00	12,380.00	2,802.00	2,306.00	25,040.00
FARM EXPENSES					
FARM EXPENSES - CASH	86,843.00	6,557.00	1,756.00	2,297.00	12,072.00
FARM EXPENSES - NON-CASH EXPENSE ADJUSTMENTS	98,550.00	11,245.00	2,709.00	2,536.00	15,331.00
GROSS FARM EXPENSES	185,393.00	17,802.00	4,465.00	4,833.00	27,403.00
NET FARM INCOME FROM OPERATIONS	**(63,634.00)**	**(5,422.00)**	**(1,663.00)**	**(2,527.00)**	**(2,363.00)**

Break-Even PRICE Analysis					
YIELD PER ENTERPRISE UNIT	**Cow-Calf**	**Native Hay**	**Oat Hay**	**Alfalfa Establishment**	**Alfalfa - Baled**
Maximum	400	1.75	4	4	4
Most Likely	**373.97**	**1.5**	**3**	**2.54**	**3**
Minimum	350	1	1.5	1.5	1.5
BREAK-EVEN PRICE - CASH EXPENSES					
Minimum	0.59	32.30	33.77	44.17	29.02
Most Likely	**0.64**	**37.68**	**45.03**	**69.56**	**38.69**
Maximum	0.68	56.53	90.05	117.79	77.38
BREAK-EVEN PRICE - GROSS EXPENSES					
Minimum	1.27	87.69	85.87	92.94	65.87
Most Likely	**1.36**	**102.31**	**114.49**	**146.37**	**87.83**
Maximum	1.45	153.47	228.97	247.85	175.66
Probability Analysis (*click button at right*)	Graph	Graph	Graph	Graph	Graph

Strategy Impacts



Risk Navigator Tool Box



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http://RightRisk.org/tools

http://RightRisk.org > Courses

Risk Management Profiles

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