

Ag Risk 5



Sources and Tools Available for Managing Risk on Farms and Ranches in California

Jay Parsons
John Hewlett

What is RISK?

- RISK: The probability of an event occurring that can negatively impact your:
 - *Current profit level*
 - *Financial situation (equity position)*
 - *Satisfaction and well-being*

Origin of Word RISK

- RISICARE

–*Italian word*

–“*TO DARE*”

Risk Tradeoffs

Profits are
the returns for
taking risks



- Upside: Greater risk taking usually leads to greater wealth over time
- Downside: Losses from risk taking can potentially 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?

Sources of Risk

- **Business Risks**
 - *Business risks are those risks that occur independently of the way a firm (or farm) is financed. Even with 100% equity (no debt obligations) these risks still occur.*
- **Sources of Business Risk**
 - *Market risk*
 - *Production risk*
 - *Institutional risk*
 - *Social risk*
 - *Legal risk*
 - *Human risk*

Marketing and Price Risk

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

What are Your Sources?

- Total national production
- Government programs
- Demand (including quality issues)
- Seasonal effects

Marketing and Price Risk

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

Production Risk

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

What are Your Sources?

- Weather
- Pests
- Disease
- Genetic variations
- Timing of operations



Production Risk

What are Your Management Controls?

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



Current Federal Insurance Options

Insurance Plans Available in California			
Insurable Crops	Insured Acres	Total Acres	Percent Insured
Adult Seed	4,672	29,710	15%
Almonds	62,825	720,000	8%
Apples	5,524	18,000	30%
Azulesado	35,508	52,158	68%
Bananas	82,365	1,000,000	8%
Bushberries	1,840	3,000	61%
Cherries	24,517	29,000	85%
Citrus - All types of fruit	202,089	287,400	70%
Corn	222,386	640,000	35%
Cotton & ELS Cotton	362,264	420,000	86%
Beans (Dry)	15,506	40,000	39%
Flax	5,911	8,791	67%
Forage Production	144,729	340,000	43%
Grapes (Table)	78,720	85,000	93%
Grapes (Wine)	448,691	487,000	92%
Grain Sorghum	1,087	17,000	6%
Mint	2,368	3,700	64%
Onions	2,368	20,000	12%
Oranges	2,328	43,000	5%
Peanut	7,107	11,177	63%
Pecans	1,101	3,500	31%
Potatoes	23,497	29,000	81%
Pumpkins	24,180	30,000	81%
Rice	483,642	375,000	128%
Rice (Unmilled Wild)	3,927	10,000	39%
Safflower	32,045	48,000	67%
Soybeans (Includes Plums)	78,862	115,000	68%
Sugar Beets	3,378	25,000	14%
Tomatoes (Fresh)	115,368	90,000	128%
Tomatoes (Processing)	245,173	258,000	95%
Wheat	125,881	277,000	46%
Wheat	439,487	880,000	50%

Dollar Liability Program		Total Dollar Liability
Adjusted Gross Revenue		\$50,995,073
Agriculture (Market Index)		\$1,909,793
Forage Seedings		\$1,865,743
LRP Feeder Cattle/Fed Cattle/Some Dairy		\$15,122,681
LRP Lamb		\$20,472,471
Netting		\$20,745,868
PPF (Market Index)		\$128,472,707
Reserve		

Crop Pilot Programs		
Program	County Availability	
Adjusted Gross Revenue	Fresno, Kern, Riverside, San Diego, San Joaquin, San Luis Obispo, Tulare and Ventura Counties	
Agriculture (Market Index)	All Counties	
Forage	Orange, Riverside, San Diego, San Luis Obispo, Santa Barbara and Ventura Counties	
Netting	Contra Costa, Fresno, Kern, Santa Clara, San Joaquin, Stanislaus and Tulare Counties	
Cherries (Market Index)	Fresno, Kern, Madera and Tulare Counties	
Forage (Market Index)	All Counties	

Western Regional Compliance Office		LRP - Livestock Risk Protection	
Contact: Jeff Vaul, Director		Not Available	
Address: 430 S Street, # 4168		PPF - Pasture, Rangeland, Forage	
Davis, CA 95616			
Phone: (530) 792-5850			
Fax: (530) 792-5850			
E-Mail: jeff.vaul@rma.usda.gov			

<http://www.rma.usda.gov/pubs/2012/stateprofiles/california11.pdf>

California Fifteen Year Crop Insurance History						
Year	Policies Earning Premium	Net Acres Insured	Liability	Gross Premium	Losses	Loss Ratio
1997	21,416	3,322,856	1,796,989,512	88,138,544	22,184,148	0.23
1998	23,089	3,526,398	2,124,399,638	109,881,653	118,272,047	1.08
1999	28,590	4,023,277	2,494,656,258	130,826,215	133,134,448	1.02
2000	29,191	4,278,811	2,746,253,781	143,343,881	92,359,640	0.64
2001	27,668	4,810,138	2,690,254,801	142,319,840	117,359,796	0.82
2002	27,200	3,920,007	2,833,818,262	146,356,279	79,069,848	0.54
2003	26,471	3,969,438	2,951,841,257	150,191,677	79,366,130	0.53
2004	25,629	3,608,123	3,153,568,412	157,913,694	85,152,323	0.53
2005	24,869	3,818,813	3,317,832,621	168,995,411	92,497,107	0.55
2006	24,480	3,232,668	3,036,807,941	186,617,768	98,500,333	0.47
2007	24,207	3,780,829	3,708,288,115	187,455,253	154,139,100	0.82
2008	24,074	3,870,375	3,911,843,812	187,920,949	89,455,031	0.48
2009	24,273	3,852,306	4,448,816,611	242,273,227	177,696,829	0.73
2010	24,489	3,752,230	4,493,432,544	219,282,809	111,142,002	0.51
2011	23,974	4,002,185	4,418,781,271	239,149,814	99,694,654	0.21



Institutional Risk

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

What are Your Sources?

- Changes in social attitudes
- Changing regulations about land use and environmental quality
- The possibility of lawsuits for accidents or misuse of chemicals

Institutional Risk

What are Your Management Controls?

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



Human Risk

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

What are Your Sources?

- Health issues
- Divorce
- The possibility of losing a key employee
- Moral or the mental state of the work force



Human Risk

What are Your Management Controls?

- A backup management plan
- A plan to deal with the possible loss of a key employee
- Maintaining a health and life insurance program
- Establishing and maintaining an estate plan
- A good employee benefit package

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



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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 Sources?

- Possibility of losing a lease
- Production, prices, or casualty losses
- Instable financial partners
- Anything that would negatively affect cash flow and the ability to meet debt obligations

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Financial Risk

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

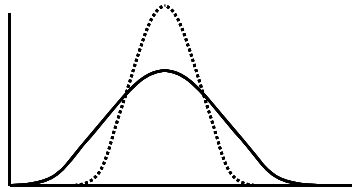


Strategies for Managing Risk

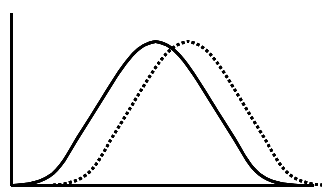
1. Avoid it
2. Reduce it
 - a) *Reduce the probability it will happen*
 - b) *Reduce the impact if it does happen*
3. Transfer it outside the business
 - a) *Insurance*
 - b) *Contracting*
4. Build your internal capacity to bear
 - a) *Increase reserves*
 - b) *Maintain flexibility*
5. Accept it

Strategy Impacts

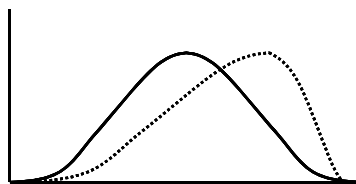
Panel 1: Same Mean, Less Dispersion



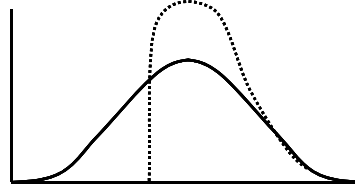
Panel 2: Same Dispersion, Higher Mean



Panel 3: Skewing the distribution



Panel 4: Truncating the Distribution



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Personal Perspectives on Risk

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

These are dynamic and change over time.

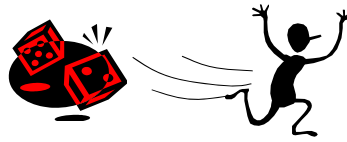
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Types of Risk Preference

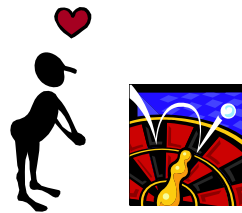
Risk Averse



Risk Neutral



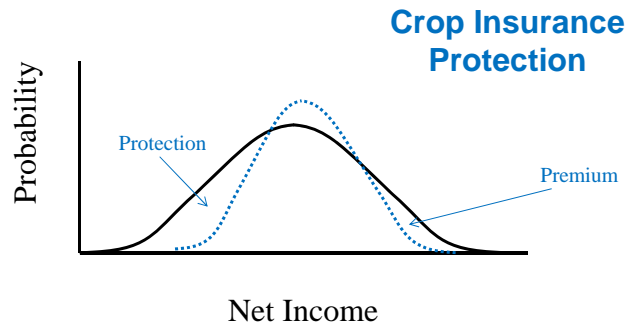
Risk Loving



Risk Preference

Management situations with multiple decision makers are likely to have multiple risk preferences represented.

How much risk is right for you?

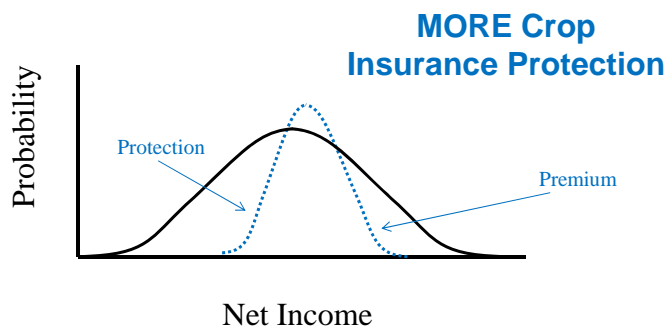


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How much risk is right for you?



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QUESTIONS?

University of California
Agriculture and Natural Resources

Thank You!

Contact info:

Jay Parsons

jparsons@eRightRisk.com

970-215-8043

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