

Understanding Risk Management

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Competitive Forces Shaping Agriculture

Ag profits are being squeezed:

- Commodity price is global
- Production cost is local

U.S. and California Response to Profit Squeeze:

Expanding Acreages of High-Revenue Crops

	<u>1992</u>	<u>2002</u>
	(million acres)	
U.S. land in farms	945.5	938.3
California land in farms	29.0	27.6
U.S. orchard acreage	4.771	5.330
California orchard acreage	2.246	2.872

The Focus of Risk Management:

Income

Income = Revenue – Costs

Revenue = Price X Quantity

Costs = Fixed costs +
(Variable costs X Quantity)

Price Risk

Sources:

- Variable market prices over time
- Uncertain access to markets

Tools:

- Forward contracts
- Futures contracts
- Marketing groups (co-ops, boards, etc.)
- Vertical integration

Quantity Risk

(Variable yield per acre over time)

Sources:

- Too many to list!

Tools:

- Crop insurance
- Geographic diversification of production
- Risk-reducing inputs
- New technologies and/or varieties

Risks related to Fixed Costs

Sources:

- Variable interest rates over time
- Variable cash flows over time
- Family living costs
- Land ownership and structural issues
- Environmental liability

Tools:

- Farm records and financial analysis
- Financial structure of firm
- Insurance on business & family

Risks related to Variable Costs

Sources:

- Variable labor supplies & costs
- Variable input costs
- Changing production methods and/or tools

Tools:

- Farm labor contractors
- Employee benefits plan
- Supply contracts
- Leasing of inputs (equipment, etc.)
- New technologies and/or varieties

Other Risks

Sources:

- Retirement and asset transfer
- Variability of income across enterprises

Tools:

- Estate planning
- Diversification across enterprises

Risk concerns of Producers versus Lenders

Producers' concerns:

- Income risk
- Default risk

Lenders' concerns:

- Default risk (amount, timing)

**To reduce default risk in
agricultural income,**

**many producers have diversified
their household income sources**

to include off-farm income.