

Risk Issues at the Interface of Extension and Research

2010 AAEA Annual Meetings
Denver, CO
July 27, 2010

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Outline

- Converting a research model to an extension model, FARM Assistance experience
- Production Risk Analysis
 - Successes
 - Challenges
 - Issues



What is *FARM Assistance*?

- Analysis service provided by Texas AgriLife Extension
- Initiated by State Legislature in 1997
- A strategic planning tool for the farm or ranch manager, consisting of:
 - 10-year pro-forma financial analysis
 - Stochastic simulation risk analysis
 - Producer specific
 - Professional analyst



How do producers use *FARM Assistance*?

Long-Range Planning Tool

- Production planning
- Financial planning (feasibility and profitability)
- Accounting for Risk

Strategic Decision Support Tool

- What's my best alternative
- Is a particular plan worth the trouble?

Communication Tool

- Family management
- Bank



Broader Program Scope

- Data is an Asset for Agriculture Industry
- What can we learn/teach?
 - Benchmarking
 - Characteristics of Success
 - Characteristics of Failure
- Policy Analysis
 - Farm Bill
 - School Finance/Tax Reform
 - Water Conservation



Research/Extension Synergy

- Research experience in AFPC at Texas A&M University
 - Farm level simulation (FLIPSIM)
 - Decision Support for Policy-makers
- Extension Program Development
 - Farm level simulation
 - Decision Support for Farm/Ranch Managers



Risk Analysis Continuum

Theory

Theoretical Research

Applied Research

Extension Risk Management/Decision Tools

Extension Risk Management Education



Risk Analysis Continuum

- Scope of the question(s)**
 - Ability to compartmentalize**
- Scope of the audience**

- Ability to change analysis model**



Methodology/Program Delivery Challenges

- **Program Flexibility**
 - Enterprises (any crop, livestock, non-traditional production)
 - Multiple production locations
 - Business Structure (types of and multiple entities)
 - Management Decisions
- **Simulation Methods**
 - Spatial Correlation
 - Stochastic Futures Prices
 - Output/Input Market dependence
- **Illustrating Results Effectively**



Figure 7. Projected Variability in Ending Cash Reserves Before Borrowing for the Base Scenario and Alternative 1.

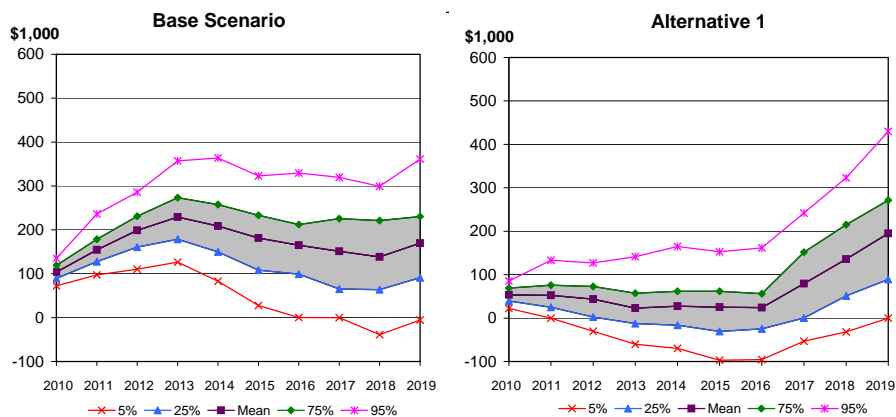
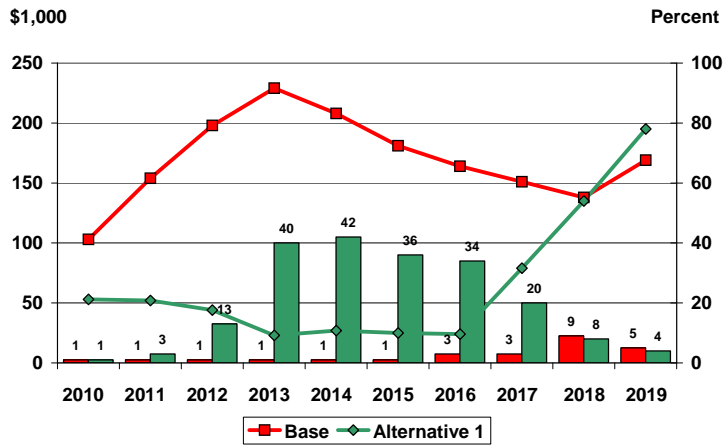
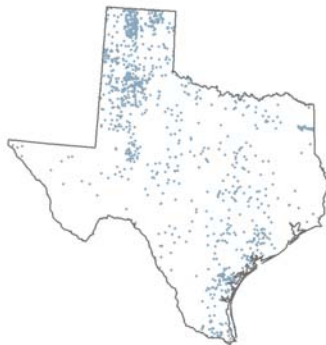


Figure 3. Ending Cash Reserves and Probability of Having to Refinance Operating Note for the Base and Alternative 1.



Results & Program Output

FARM Assistance Program Participation,
2000 - 2007



- Over 1,500 Individual Analyses
 - 160/year
- Program Partnerships
- Annual Database Report
- FARM Assistance Focus Series
- Newsletters



Communicating Impacts

- **Subjective**
 - Client Comments
 - Client repeat rate can imply value
- **Objective**
 - Number of contacts
 - Equity difference in alternatives studied
 - \$250,000 in real net worth over 10 years
 - \$ 25,000/year equity impact
 - Values decisions... Not Analysis



Communicating Impacts

- **Client Evaluations**
 - 99% would recommend the program.
 - 94% of clients gained a better understanding of the financial aspects of their operation.
 - 94% believe they are better equipped to evaluate financial risks and impacts of alternative decisions.
 - 94% believe that their management ability improved to the benefit of their bottom-line.
 - On average, participants expect a \$21,667 annual benefit from their participation.



Intersection of Extension/Research

- Diversification is critical
 - Beyond our ability to analyze
 - Geographic
 - Enterprise
 - Family
- Production/Market/Business/Financial Risks are NOT independent
- Trade-off between accuracy and providing relevant decision information??



Discussion/Questions

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