Risk Management for Agriculture

Archie Flanders
Northeast Research and Extension Center
Keiser, AR

University of Arkansas System
Division of Agriculture
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Background

• Risks are potentially adverse occurrences that could diminish financial success for a business.
  ➢ History provides information for the likelihood of an occurrence.
  ➢ Knowledge of the business financial situation provides information for the potential impact of an occurrence.
• Risk management is an effort to mitigate consequences of a potential occurrence.
  ➢ Risk management is not for increasing revenue above average levels during normal conditions.
  ➢ Risk management is intended to limit the downside of potential occurrences.
Five Categories of Risks

1) Production: yield or quality impacted by weather and pests
2) Price: market conditions, input prices, currency markets
3) Institutional: laws and regulations effects on the business
4) Human: personal and life situations
5) Financial:
   - capital markets affect terms of borrowing
   - any of the first four categories could affect the capital situation for the borrower or lender
Public Policy for Risk Management

- USDA programs are focused on mitigating production and commodity price risks.
  - Commodity Programs
  - Insurance

- Federal and state legislation affects institutional, human, and financial risks (ex. depreciation laws, farm transition, cooperatives).
Crop Price and Production Risks

• Programs for PLC, ARC, and LDP
  ➢ Price Loss Coverage (PLC) mitigates price risk.
  ➢ Agricultural Risk Coverage (ARC) mitigates risk for price and production.
  ➢ Loan Deficiency Payments (LDP) or Marketing Loan Gains mitigate price risk.

• Crop Insurance
  ➢ Federal subsidies attempt to address high premium costs that are due to factors unique to agricultural risks.
  ➢ Producers accept significant coverage deductibles in order to limit premium costs.
Crop Price and Production Risks

• Producers invest in irrigation systems and adopt management practices to limit production risks.

• Price risk may be characterized
  1) by decreasing prices within the production year or
  2) by anticipated commodity prices lower than the long-term averages
     ➢ adjust inputs (ex. select seed with lower price)
     ➢ renegotiate land rental rates

• Producers utilize marketing and financial instruments to limit price risks.
  ➢ forward pricing
  ➢ futures and options
Livestock Price and Production Risks

• Disaster Assistance – Farm Service Agency (FSA) programs mitigate production losses for livestock and forage. https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/livestock-forage/index

Livestock Insurance

- Livestock Risk Protection – LRP mitigates market price risks for feeder cattle, fed cattle, swine, and lambs.
- Livestock Gross Margin – LGM mitigates loss of gross margin (market value of livestock minus feed costs) with plans for cattle, dairy, and swine.
- Margin Protection Plan for Dairy is an FSA program alternative to LGM-Dairy.
- Pasture, Rangeland and Forage - PRF is an area plan based on rainfall and vegetation indexes for mitigating losses caused by poor forage conditions.

http://www.rma.usda.gov/policies/pasturerangeforage/
Livestock Price and Production Risks

- Producers invest in irrigation systems and adopt management practices to limit production risks.

- Price risk may be characterized
  1) by decreasing prices within the production year or
  2) by anticipated commodity prices lower than the long-term averages
    - adjust inputs (ex. adjust feed rations)
    - adjust stocking rates or production

- Producers utilize marketing and financial instruments to limit price risks.
  - forward pricing
  - futures and options
Conclusion

Questions?

Comments?

870-526-2199 ext. 108
aflanders@uaex.edu