

#### 2016 Risk and Profit Conference Breakout Session Presenters

"Knowledge for Life"

## 3. Should We Return to Diversified Crop-Livestock Operations?

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Dustin Pendell joined the Department of Agricultural Economics as an Associate Professor in 2015. He received his BS in Agribusiness from Illinois State University, MS in Agribusiness Economics from Southern Illinois University and PhD in Agricultural Economics from Kansas State. His research and extension programs are focused in the areas animal health and livestock production economics. He teaches a course at the undergraduate level in data analysis and optimization. Prior to joining K-State, Dustin was a faculty member at Colorado State University where he conducted research on economic issues surrounding animal health and livestock and meat marketing. He has also taught undergraduate and graduate courses in agricultural marketing, production economics, and farm management.

Glynn Tonsor <gtonsor@ksu.edu>

Glynn Tonsor is an Associate Professor in the Department of Agricultural Economics at Kansas State University (KSU). Glynn grew up on a farrow-to-finish swine farm in Monroe City, Missouri. Tonsor obtained a B.S. from Missouri State University and Ph.D. from KSU. He was a faculty member at Michigan State University from May 2006 to March 2010 when he joined the KSU faculty.

Tonsor has broad interests and experiences which span issues throughout the meat supply chain. Through active research, engaged outreach with industry, and first-hand knowledge with livestock production, Glynn has economic expertise in an array of topics of importance to Kansas, U.S. and global stakeholders. These topics include animal identification and traceability, animal well-being and welfare, commodity market analysis, consumer demand, food safety, meat labeling policies, producer perceptions and preferences, risk management, and technology acceptance. Glynn's integrated research and extension program has resulted in multiple journal article publications and numerous outreach contributions. Glynn and his wife, Shauna, live in Saint George, Kansas with their children Ethan, Levi, and Aubree.

Mykel Taylor <mtaylor@ksu.edu>

Dr. Taylor's research and extension programs are focused in the areas of crop marketing and farm management. She grew up on a cattle ranch in Montana and attended Montana State University majoring in Agribusiness Management. She has worked in extension positions at both Kansas State University and Washington State University. Some of her current research areas include measuring basis risk for commodity grains, understanding the implications of the 2014 Farm Bill, and analyzing trends in Kansas agricultural land values, rental rates, and leasing arrangements.

#### Abstract/Summary

In recent years, grain prices have fallen and input prices have seen small increases. This has led to decline in crop income for KFMA members and raises the question, should producers return to diversified crop-livestock operations? This session is designed to discuss the various issues surrounding this question.

# Should We Return to Diversified Crop-Livestock Operations?

Dustin Pendell, Glynn Tonsor, Mykel Taylor
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KANSAS STATE Department of Agricultural Economics

#### What is Diversification?

- In general, an increase in the number of enterprises operated on the farm.
  - Crop diversification
  - Crop-livestock

### Why Diversify?

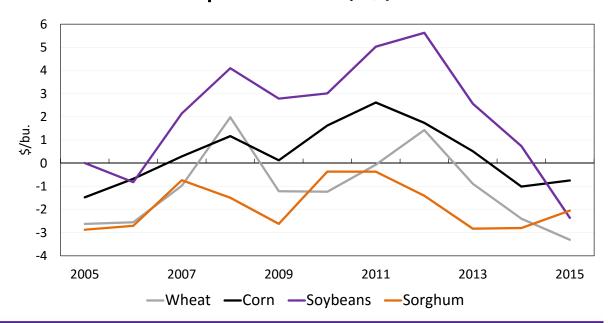
One way to manage risk

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#### Ways to Manage Risk?

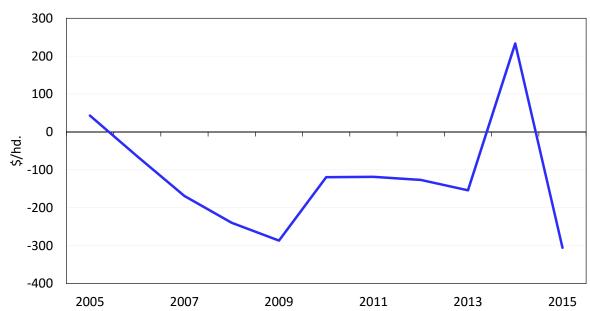
- Insurance
- Off-farm income
- Government payments
- Futures market
- Diversify of crops and/or livestock

### Crop Returns, \$/bu.



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### Cow-Calf Returns, \$/hd



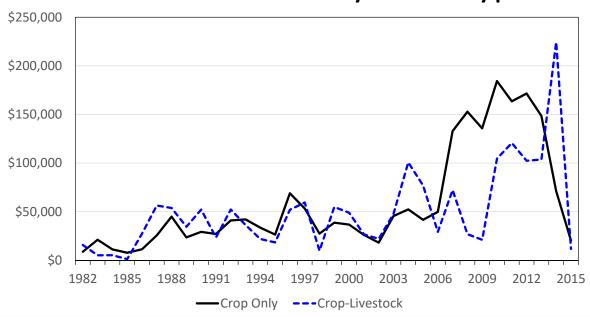
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#### Correlation between Crops and Cow-Calf

- Return over Variable Costs
  - **1975-2015: +0.176**
  - **1975-1979: +0.468**
  - **1980-1990: +0.141**
  - **1991-2004: -0.095**
  - **2005-2014: -0.150**

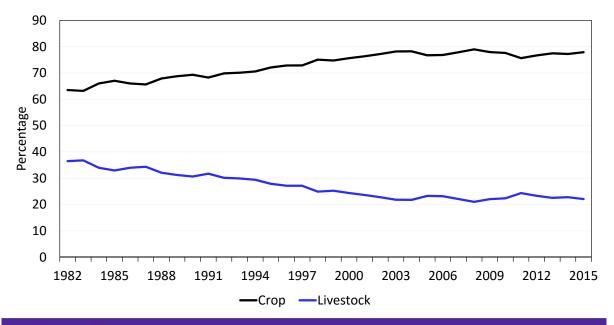
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### Net Farm Income by Farm Type



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#### Crop and Livestock Labor, %



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#### Why Less Diversification/More Specialization?

- More crop insurance
- Less rangeland/pasture
- Economies of scale
- Labor/technology/age
- Vertical coordination

#### Pros of Diversification

- Risk
- Cash flow
- Labor
- Equipment
- Agronomic
- Land use
  - Crop/pasture and cover crops

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#### Cons of Diversification

- Labor
- Equipment
- Economies of scale
- Agronomic
- Management

## Should We Return to Diversified Crop-Livestock Operations?

- Correlations for corn and cow-calf returns
- NFI for crop and crop-livestock operations
- Examples
  - Intergenerational
  - Geographic region
- More specialization

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# Should We Return to Diversified Crop-Livestock Operations?

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