

## Situation

Profitability is critical for long-term business survival and the anticipation of profits are the motivation for the entrepreneur to engage in business and take on risk. However, because agriculture is so dynamic in its various aspects (e.g., markets, technology adoption, and policy), and particularly with the continued volatility of input and output markets, producers need to constantly evaluate what enterprises and production systems are the most profitable. Technology must also be evaluated for possible adoption and machinery costs must be managed well. Cash rent values are of particular importance now as well, due to the much lower crop prices in recent years and the recent decline in land values has begun to affect solvency of some operations as incomes have dropped. Some operations will need to make decisions regarding the sale of assets (land or machinery) and perhaps make use of machinery leases or custom operations. These decisions include a variety of options that must be considered and evaluated. An additional emphasis on women involved in agriculture needs to continue to take place as well.

## Public Value

When you support the Production Economics Program, participants will learn about and adopt best short-run production systems that are based on current economic conditions of profitability and sustainability, which will lead to more competitive producers that are able to sustain long-term profitability. This will benefit other community members by increasing the viability of rural communities and their access to a safer and less expensive food supply.

## Outcomes

### Short-Term (Knowledge)

- Producer participants will learn about short-run options based on current economic conditions such as enterprise analysis, land values when considering purchase, or selecting alternative feeding programs. They will utilize farm management guides and other information in choosing between different crop enterprises.
- Participants will learn how to create equitable leases for cropland and pastureland, learning to work with landlords and tenants to develop mutually beneficial relationships and sustainable leases which provide profitable returns for all parties.
- Participants will learn to manage machinery costs and to evaluate technologies for adoption. They will also learn to manage equipment complements better, taking into account the days available for fieldwork in their region.
- Participants will learn to select appropriate technology and precision systems and to better utilize the data generated by these systems.
- Participants will learn about the economics of efficient irrigation water usage in High Plains crop production using KSU Crop Water Allocator and associated water use efficiency tools.
- Participants will learn how to use Excel and make use of the more than 60 Excel decision tools available on the AgManager.info website.

### Indicators

- What knowledge did producer participants gain about short-run economic options?
- In what ways did participants evaluate machinery and technology and what did they learn?
- How are producers using the decision tools available on AgManager.info and associated K-State websites?

### Medium-Term (Behavior)

- Producer participants will adopt production systems that are expected to be the most profitable and sustainable over time (e.g., tillage versus no-till, beef cows versus stockers, freestall versus drylot dairy, increasingly efficient water application practices).

- Landlords and tenants will develop land and pasture leases which benefit both parties.
- New technologies which seem viable following evaluation will be tested with a view to full adoption.
- Data from precision systems begins to be utilized in decision-making.
- Decisions regarding machinery purchase, land purchase and rental, or new crop and livestock enterprises will take place.

#### **Indicators**

- What changes did producers make regarding their cropland and pasture leases?
- What changes have producer participants made to develop profitable and sustainable production systems?
- Which technologies are adopted and used following evaluation and testing?
- What decisions are made regarding machinery, land tenure, or crop and livestock enterprises?

#### **Long-Term (Change in Condition)**

Agricultural producers will be more competitive and able to sustain long-term profitability.

#### **Indicators**

- How have agricultural producers demonstrated competitiveness and long-term profitability?

#### **Outputs**

- Farm Management Guides for livestock (beef, swine and dairy) as well as non-irrigated and irrigated crops – posted to [www.AgManager.info](http://www.AgManager.info)
- Custom Rates in Kansas - posted to [www.AgManager.info](http://www.AgManager.info)
- Land Values in Kansas and Land Rents in Kansas - posted to [www.AgManager.info](http://www.AgManager.info)
- Bluestem pasture report based on survey of producers – posted to [www.AgManager.info](http://www.AgManager.info)
- Field Workdays in Kansas – posted to [www.AgManager.info](http://www.AgManager.info) weekly
- Research papers, newsletters, factsheets, and presentations – posted to [www.AgManager.info](http://www.AgManager.info)
- Decision tools, both Excel and web-based – posted to [www.AgManager.info](http://www.AgManager.info)
- Databases (e.g., crop & livestock prices, land values & rents) – posted to [www.AgManager.info](http://www.AgManager.info)
- Radio interviews and videos – posted to [www.AgManager.info](http://www.AgManager.info)
- Programs for women involved in agriculture, including, but not limited to, Women in Agriculture meetings
- Lease workshops, including information on cropland leases and pasture leases, with information also posted to [www.AgManager.info](http://www.AgManager.info)
- Excel workshops, to assist producers in using the Excel spreadsheet decision tools on the [www.AgManager.info](http://www.AgManager.info) site.
- Water resource conservation and quality sustainability research and educational presentations and education.
- Presentations at Risk and Profit Conference and Ag Lenders Conferences
- Presentations at Extension multi-county meetings, including Ag Profitability Conferences
- Webinars on timely, relevant topics, including land values, land rental rates, budgets, etc.
- One-on-one consultations/assistance by phone and email