



Kansas Land Values and Rental Rates

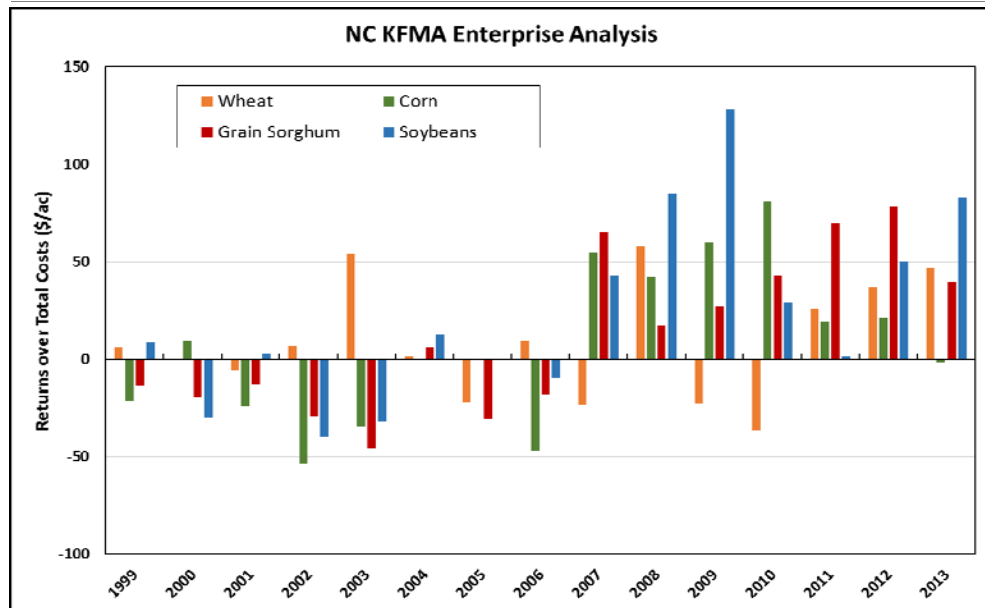
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Current Economic Conditions

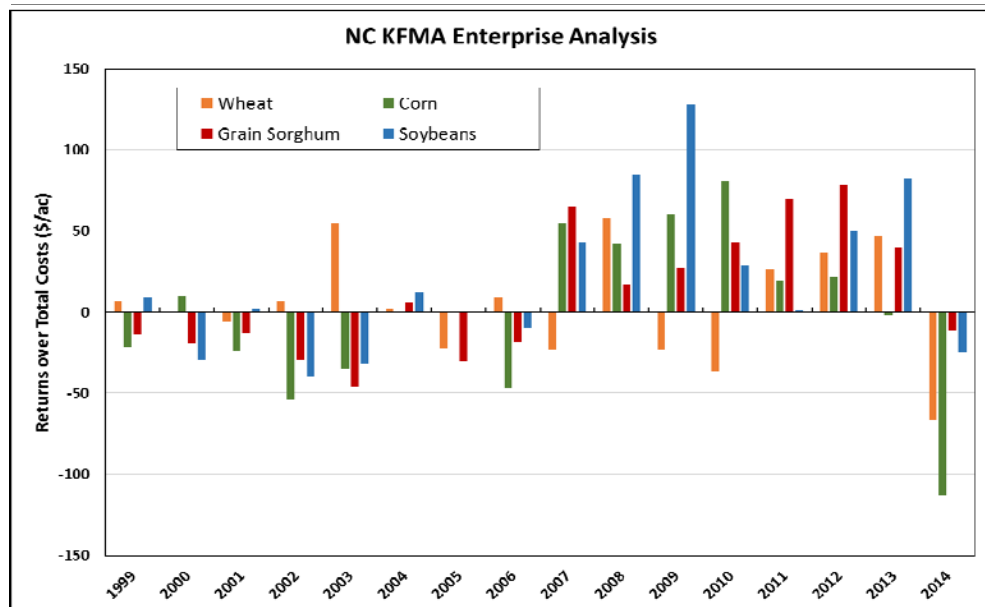


Returns to Farming



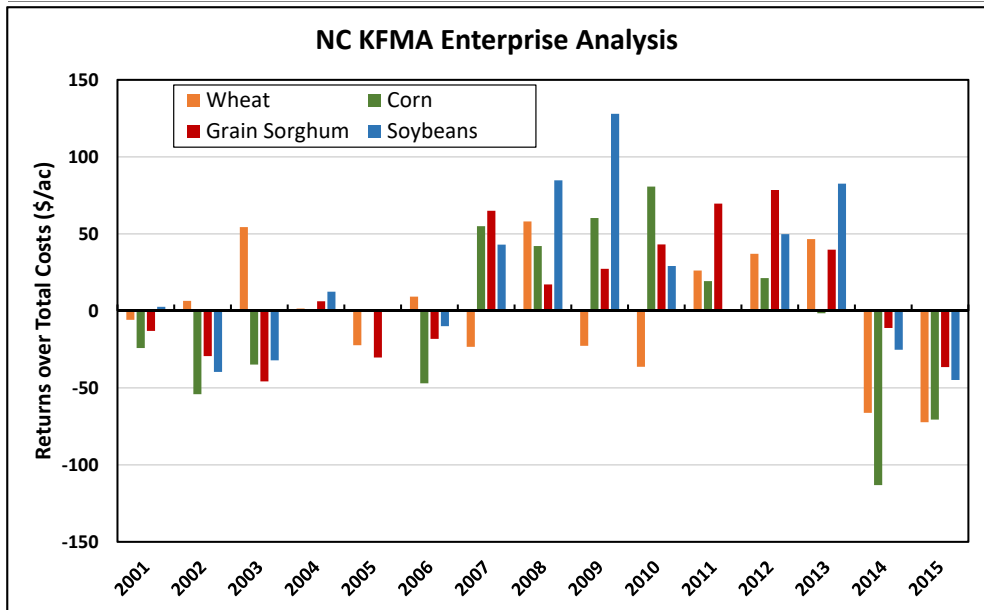
Source: KFMA Enterprise Reports (<http://www.agmanager.info/kfma>)

Returns to Farming



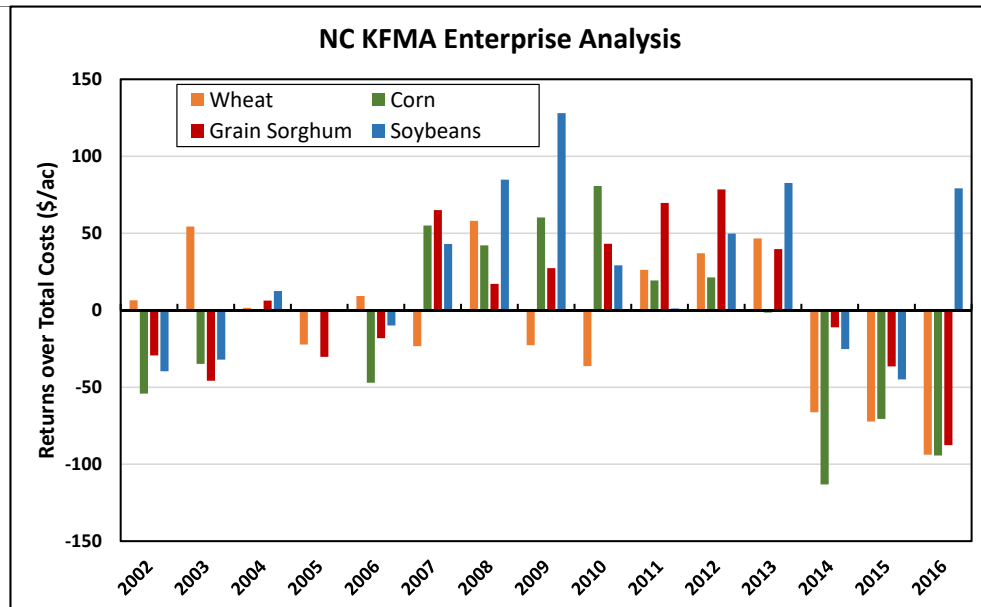
Source: KFMA Enterprise Reports (<http://www.agmanager.info/kfma>)

Returns to Farming



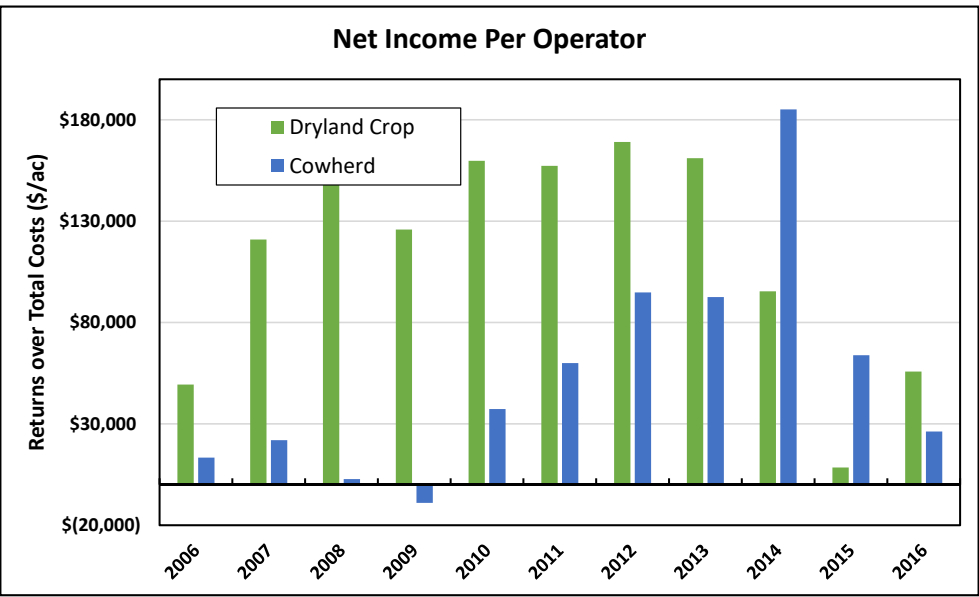
Source: KFMA Enterprise Reports (<http://www.agmanager.info/kfma>)

Returns to Farming

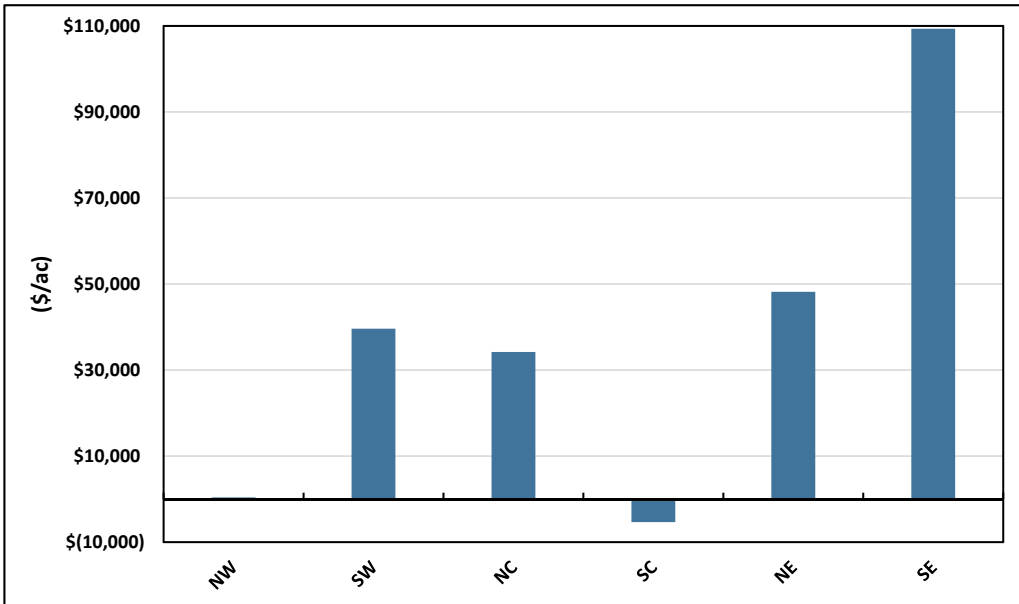


Source: KFMA Enterprise Reports (<http://www.agmanager.info/kfma>)

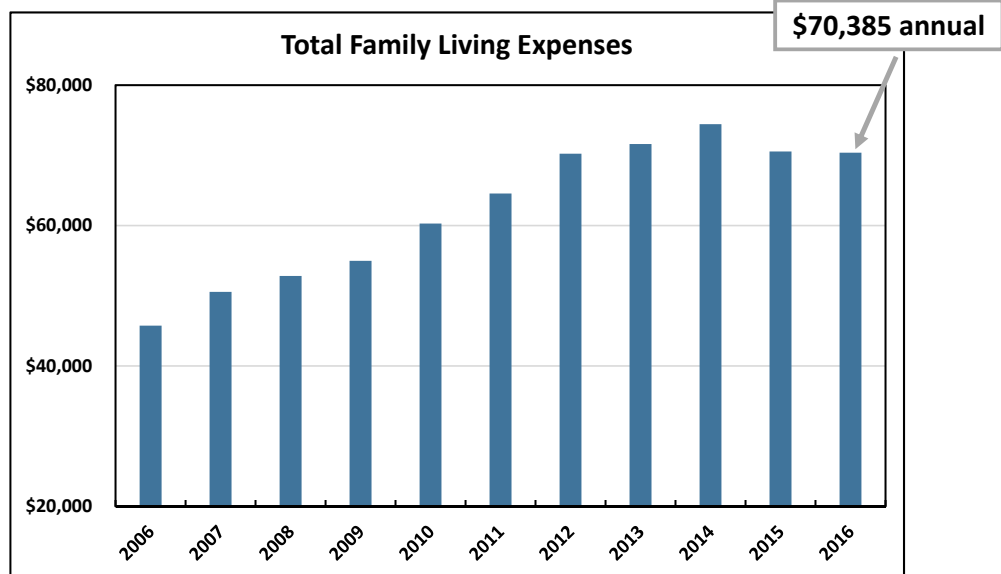
Net Farm and Ranch Income



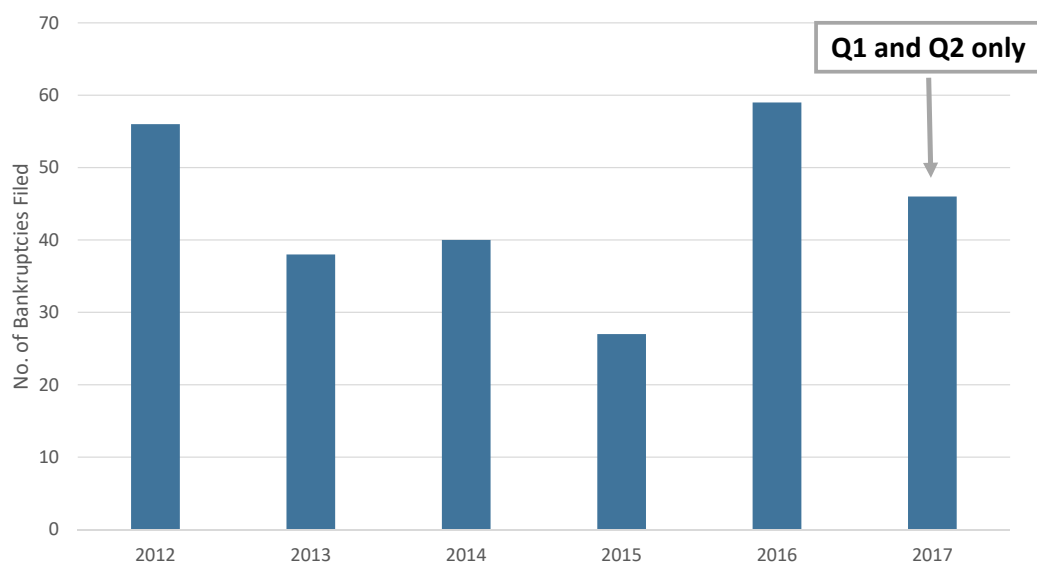
Average Net Farm Income



Farm Family Living Expenses



Bankruptcies Filed by KS Farms



Land Value Trends



Land Values

Affected by profitability in ag sector

But land values do not adjust as quickly as profitability to changes in commodity prices

Adjustment period due to

- Long-run reasons for buying and holding land
- Expectations of buyers/sellers



Land Values

Where do we get information on land values?

KS Ag Stats Service

- Annual survey series
- Dropped CRD-level estimates in 2013
- Only have a state value for irrigated, non-irrigated, and pasture land in Kansas



United States Department of Agriculture
National Agricultural Statistics Service



News Release

612 Old Van Buren, Room 202, Topeka, Kansas 66603
Media Contact: Jason Lamproff (785) 233-2230

KANSAS FARM REAL ESTATE VALUE AND CROPLAND RENT HIGHER

TOPEKA, KS, August 2, 2013 -- Kansas's farm real estate value, a measurement of the value of all land and buildings on farms, increased from 2012, according to USDA's National Agricultural Statistics Service. Farm real estate value for 2013 averaged \$1,900 per acre. This is up \$290 per acre or 18 percent higher than last year's revised level.

Cropland value increased 19 percent from last year to \$2,100 per acre. Dryland cropland value averaged \$2,000 per acre, up \$300 from last year. Irrigated cropland value averaged \$3,000 per acre, up \$600 from a year ago. Pastureland, at \$1,250 per acre, increased \$250 from a year ago.

Cash rent paid to landlords in 2013 for cropland also increased from last year. Irrigated cropland rent averaged \$137 per acre, an increase of \$18. Dryland cropland rent averaged \$53 per acre, up slightly from a year earlier. Pasture rented for cash, which averaged \$17.50 per acre, is up \$1.00 from the previous year.

County level averages of 2013 cash rents paid to landlords will be released on September 6 and will be available through NASS Quick Stats. Quick Stats is located at <http://quickstats.nass.usda.gov>.

Access the National publication for this release at: <http://usd401.library.cornell.edu/usda/current/AgriLandVa/AgriLandVa-08-02-2013.pdf>

Find agricultural statistics for your county, State, and the Nation at www.nass.usda.gov

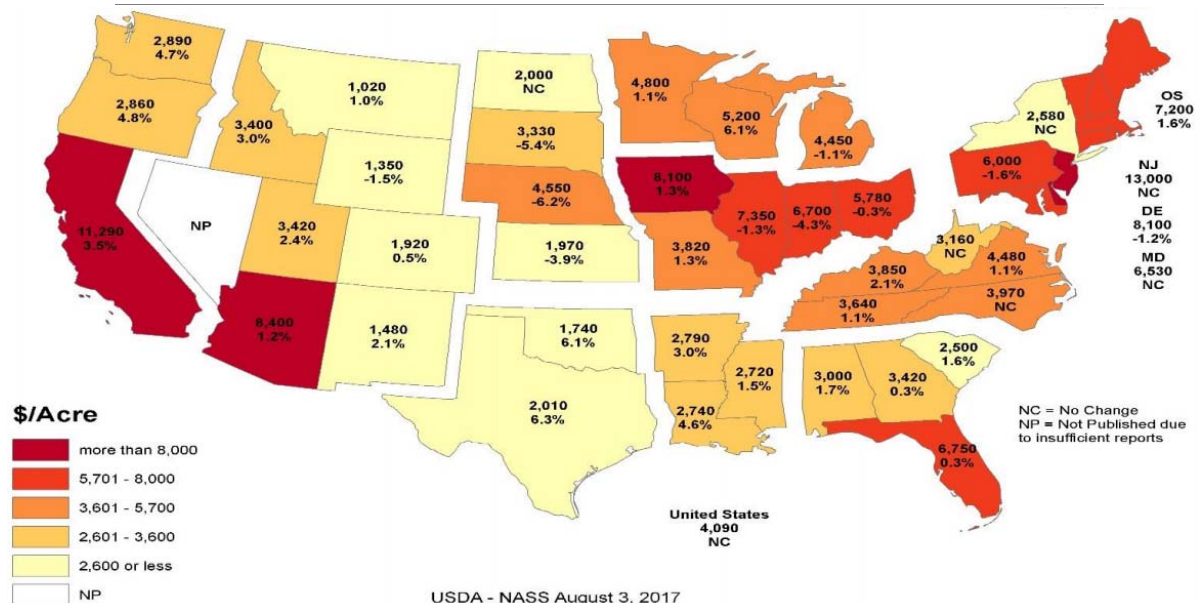
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NASS provides accurate, timely, useful and objective statistics in service to U.S. agriculture. The Agency invites you to express your thoughts and provide occasional feedback on our products and services by joining a data user community. To join, sign in at <http://usda.nasslib.cornell.edu/registration> and look for "NASS Data User Community".

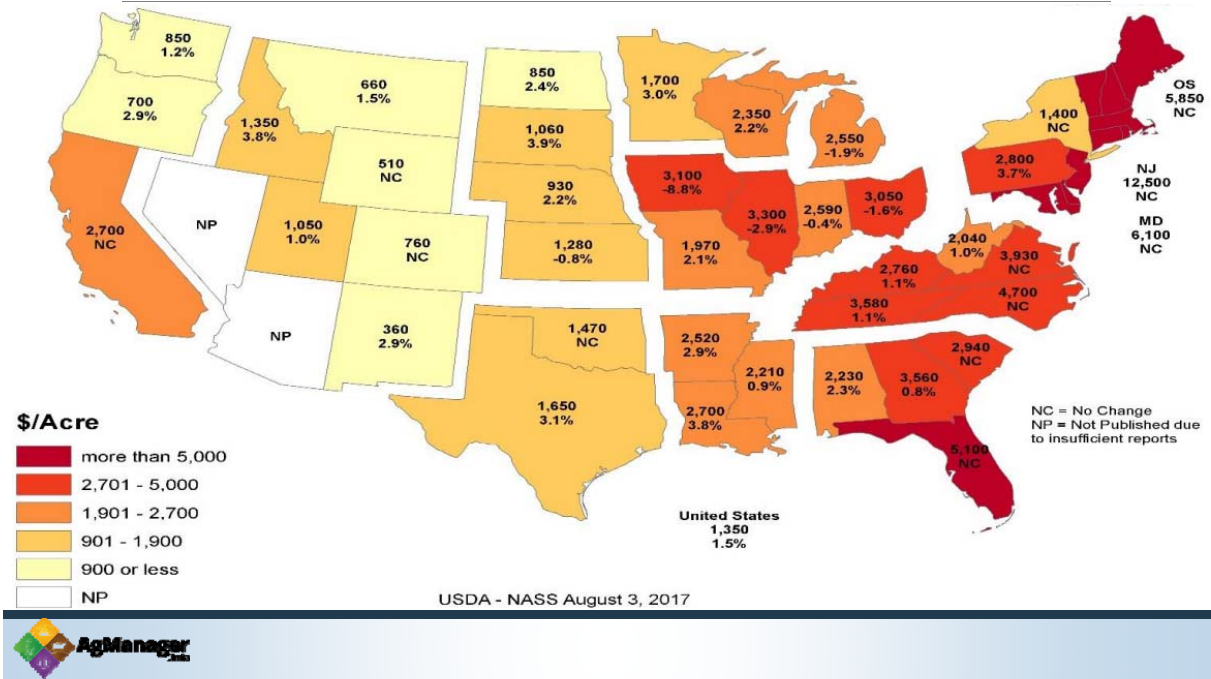
USDA is an equal opportunity provider and employer.



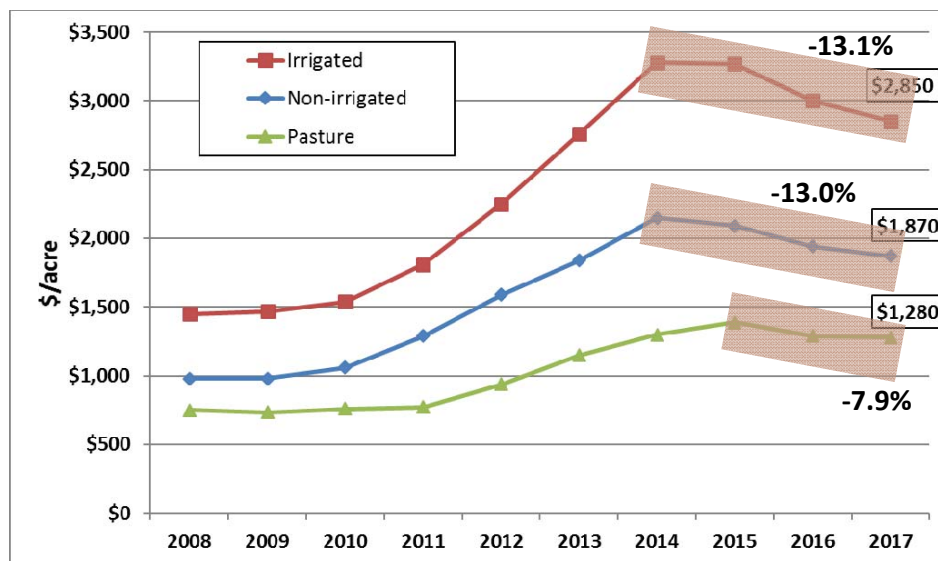
2017 Cropland Values



2017 Pasture Land Values

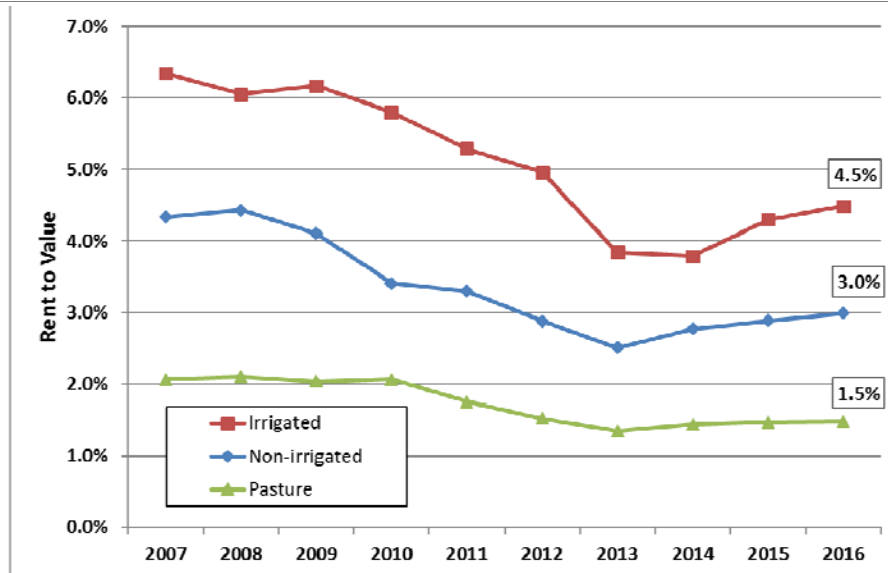


Kansas Land Values



Source: USDA-NASS

Rent-to-Land Value Ratio



Source: USDA-NASS



Market-Based Land Values



Kansas Land Values

Source for market transaction data

- Property Valuation Department, Topeka

2014-16 sales data

- County location, population density
- Acres in sale
- Mixture of irrigated, non-irrigated and pasture in parcel
- 20-year average rainfall and water-holding capacity
- Enrollment in CRP
- Value of improvements is removed for bare land value
- Parcels under 40 acres are omitted
- Johnson and Wyandotte County parcels removed



PVD Sales Data 2014-2016

| 2016 | Average |
|---------------------------|---|
| Acres in Sale | 155.8 |
| CRP Contracts | 4.5% |
| Sales Per County | 24.7 |
| All Years | |
| Total Sales Transactions: | 6,845 |
| 2016 | 2,117 18% drop in sales |
| 2015 | 2,502 |
| 2014 | 2,333 |



Model-Predicted Sales Price (\$/ac)

| Land Type | 2016 | 2015 | 2014 |
|--------------------------|---------|---------|---------|
| Non-Irrigated | 2,398 | 2,897 | 2,835 |
| Irrigated | 4,896 | 5,540 | 5,444 |
| Pasture | 1,726 | 1,871 | 1,684 |
| All Cropland and Pasture | \$3,027 | \$3,378 | \$3,321 |

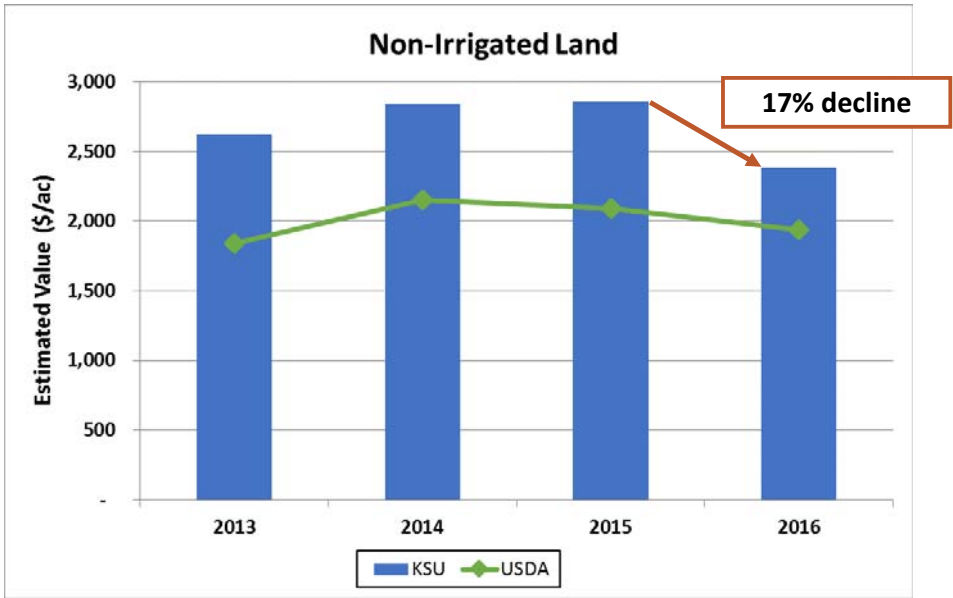
10.4% decline
from 2015



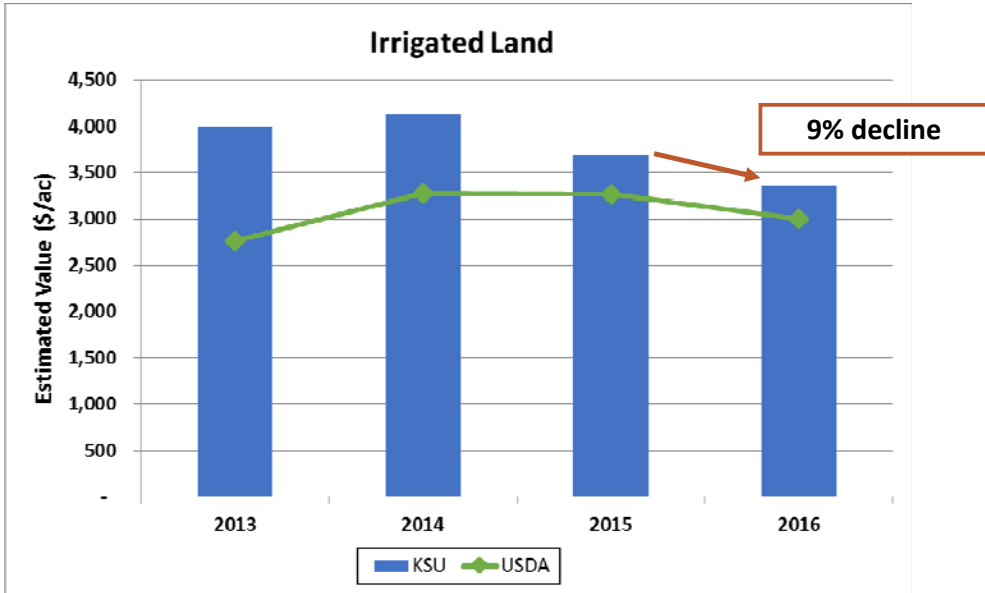
Land Model Results



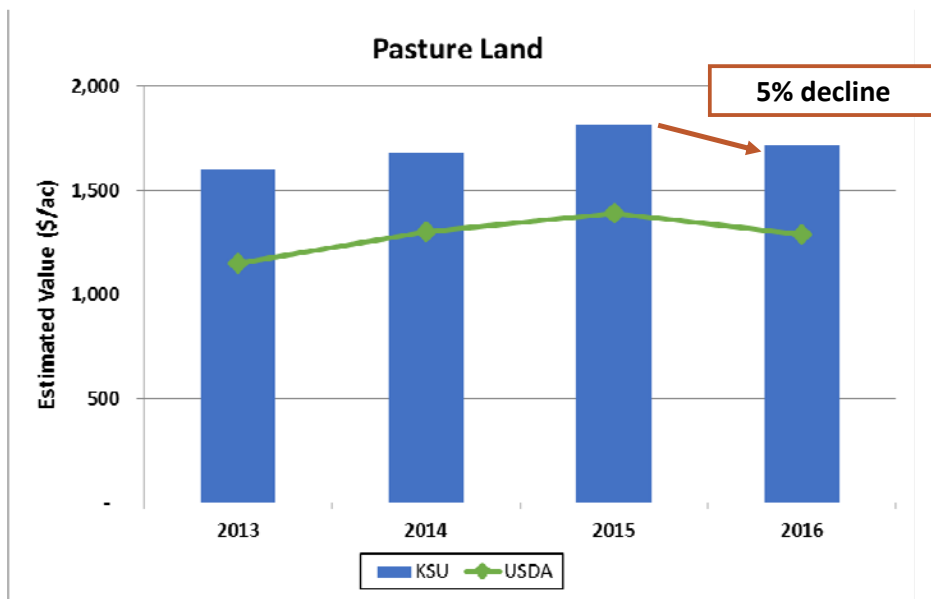
Land Model Results



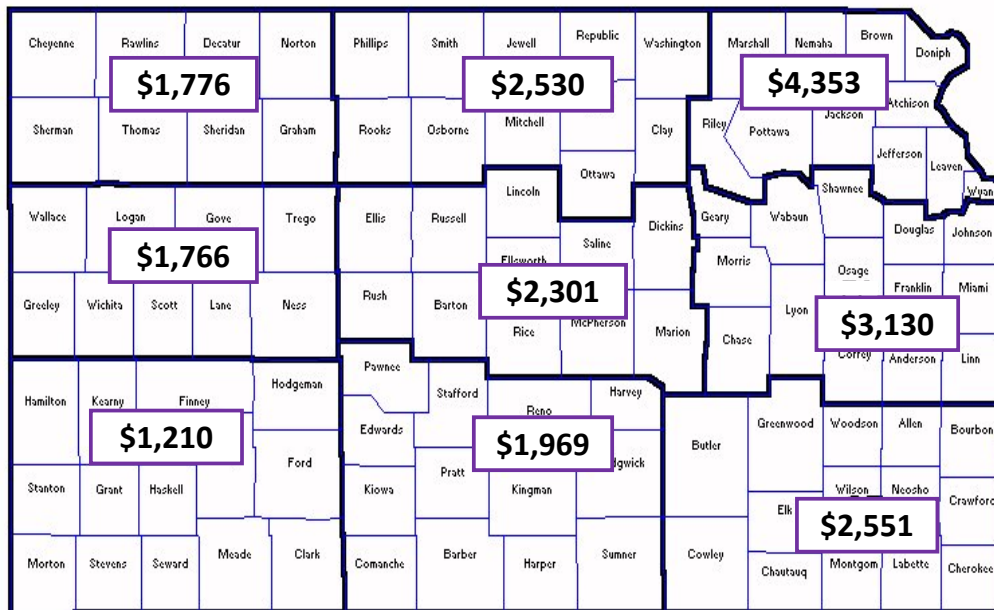
Land Model Results



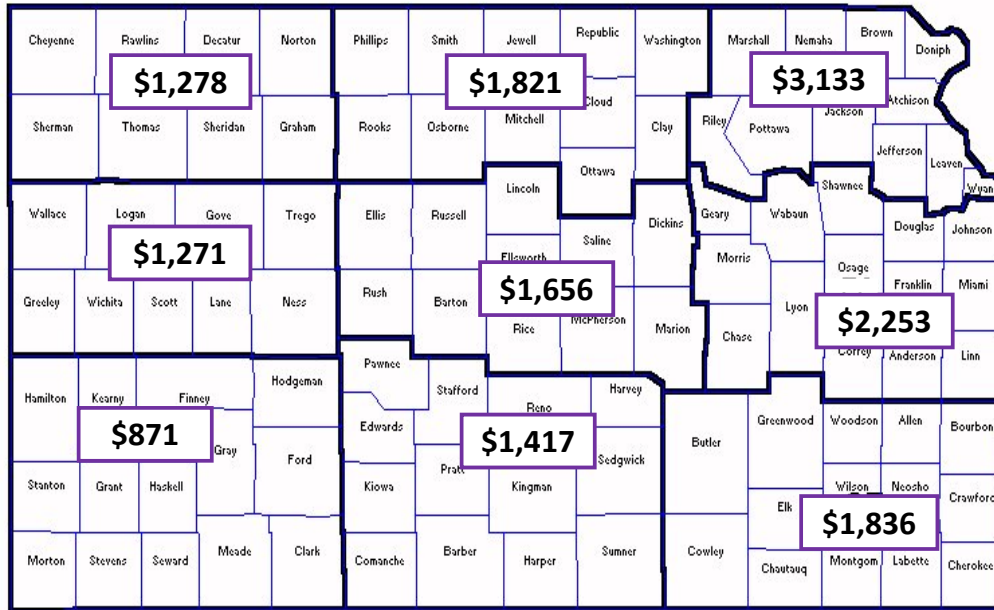
Land Model Results



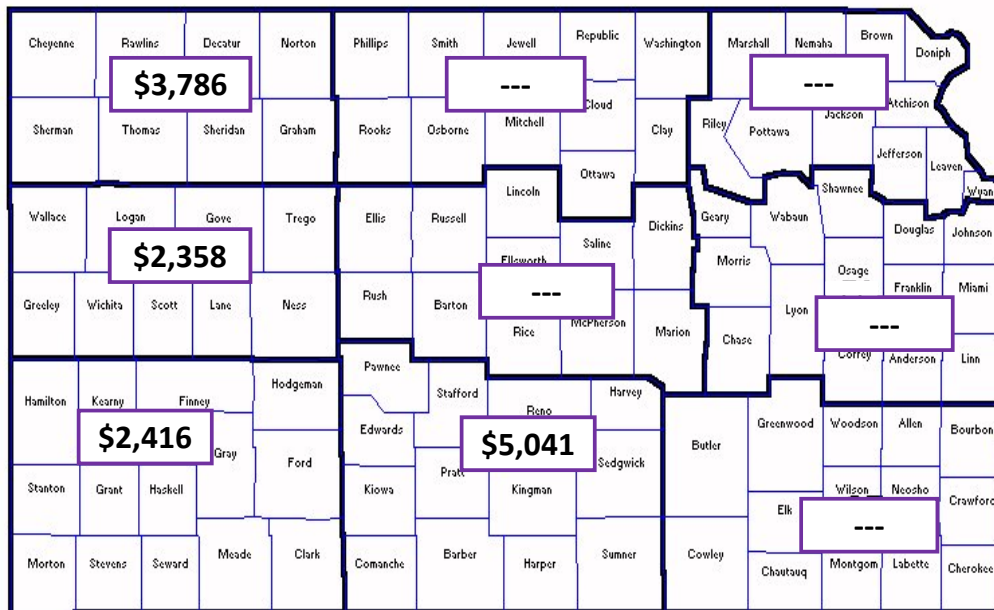
2016 Non-Irrigated Land Values



2016 Pasture Land Values



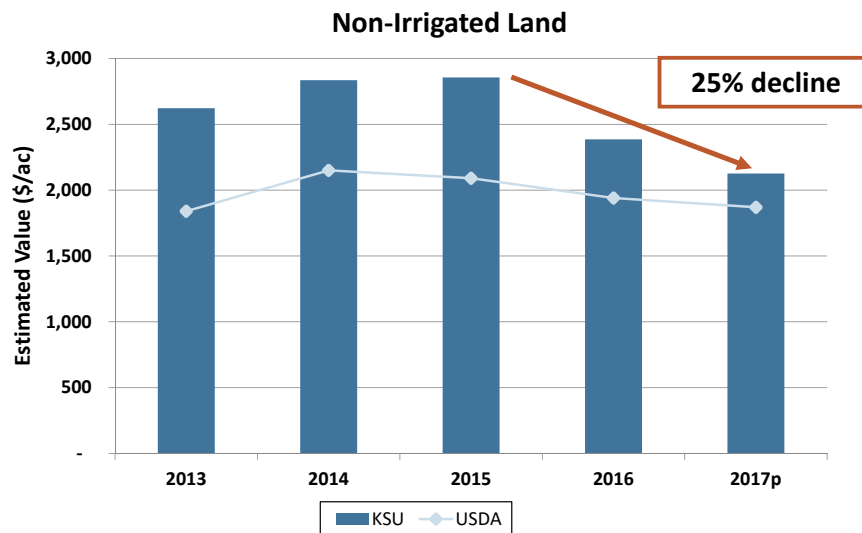
2016 Irrigated Land Values



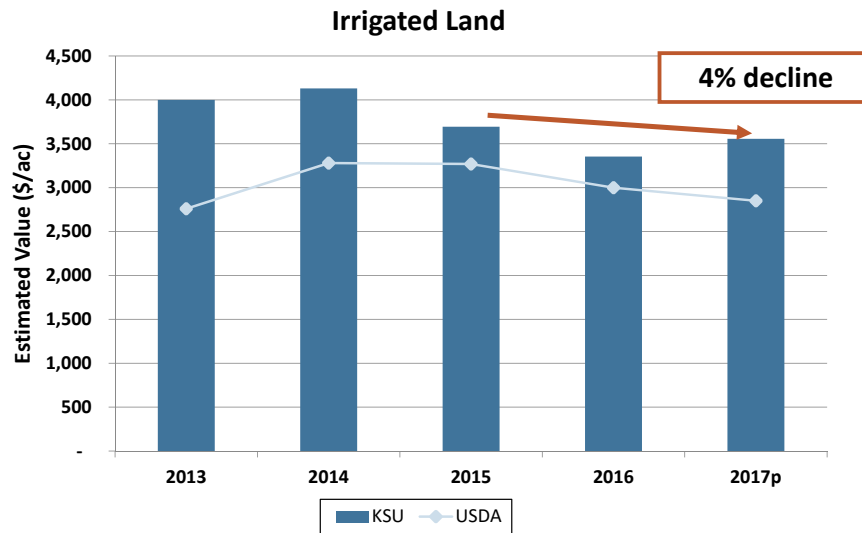
2017 Projections



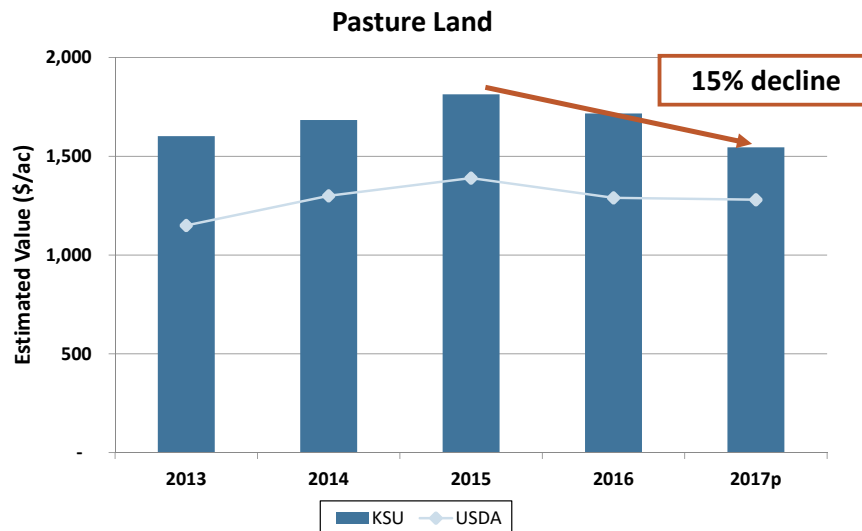
Land Model Results



Land Model Results



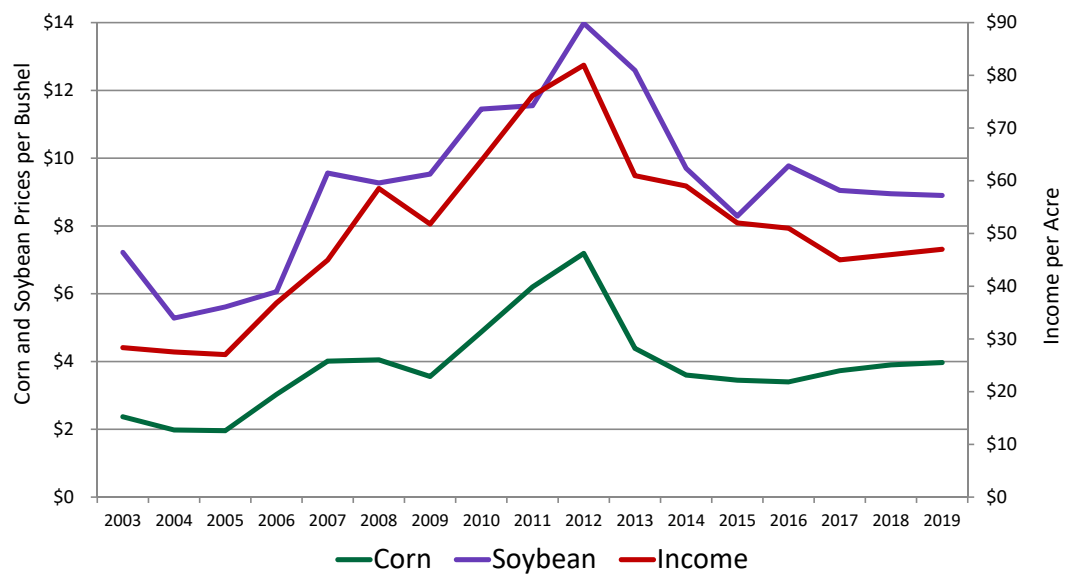
Land Model Results



Long-Run Growth



Projected Income Per Crop Acre



Land Value Impacts

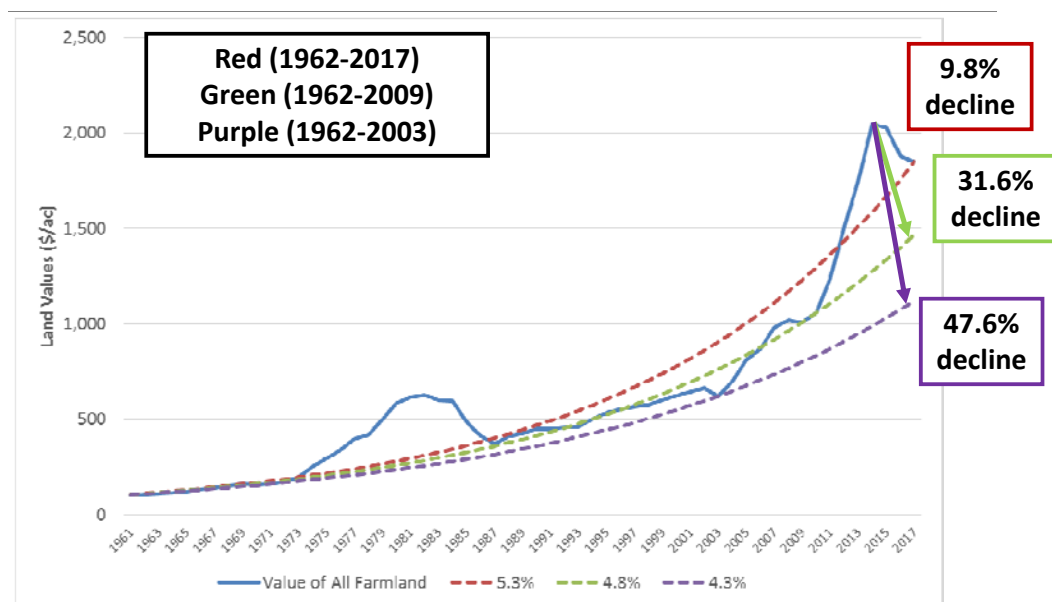
The long-run multiplier is 21.71 or an implied capitalization rate of 4.61%

- Long-run elasticity is 96.9%

At a net farm income per acre of \$46, the projected long-run Kansas (real) land price is \$999, a decline of about 50%



Kansas Land Values



Others' Observations...



Others' Observations

Responses to the survey from April webinar

- 114 people responded
- Majority of values for Kansas (other states: 6)

Reponses by occupation

- Lender: 34%
- Farmer/Rancher: 32%
- Other: 33%



Others' Observations

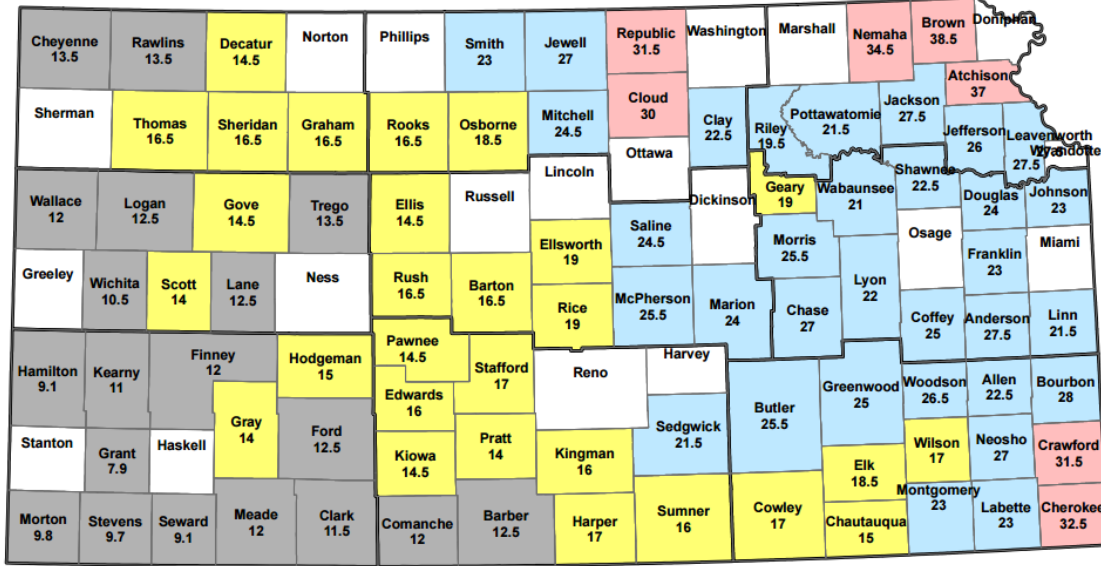
| KS Region | Lender | Farmer/Rancher | Other |
|----------------|---------------|----------------|--------------|
| NE | -11% | -7% | -4% |
| SE | -5% | 0% | 0% |
| NC | -10% | -6% | -5% |
| SC | -9% | -3% | -7% |
| NW | -20% | -6% | -16% |
| SW | -13% | -9% | -14% |
| Average | -11.3% | -5.2% | -7.7% |



Rental Rates



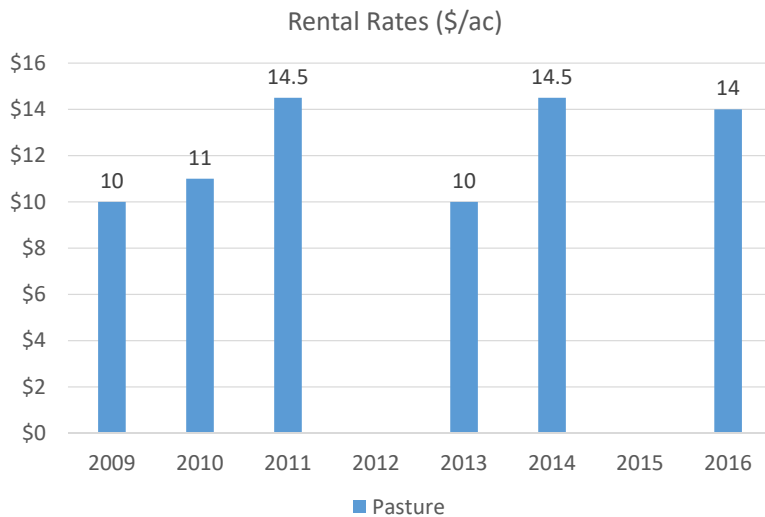
2016 USDA Pasture Rents



Source: USDA-NASS



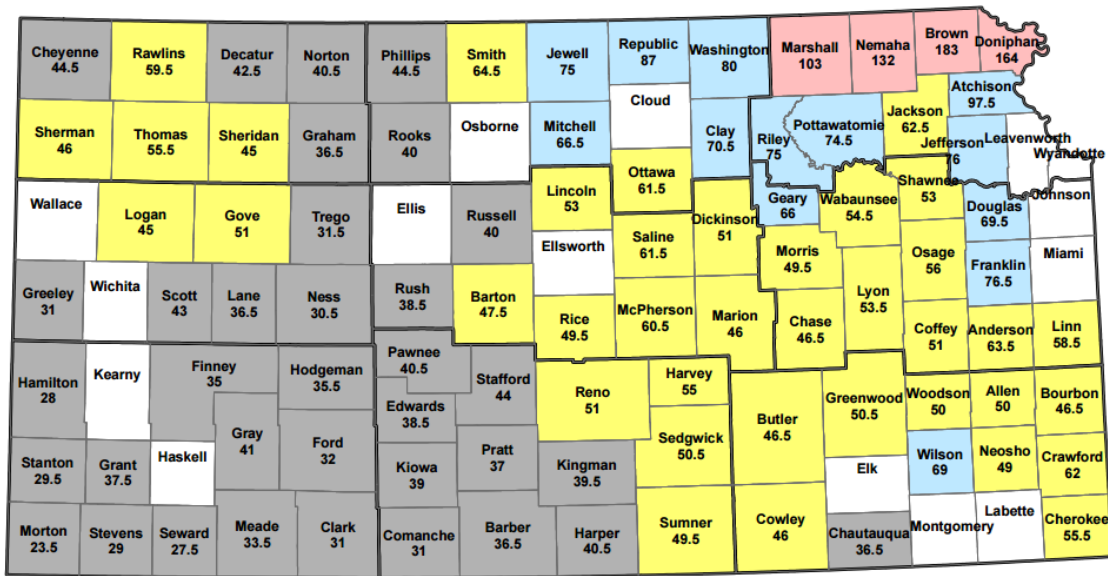
Rental Rates-Scott Co.



Source: USDA-NASS



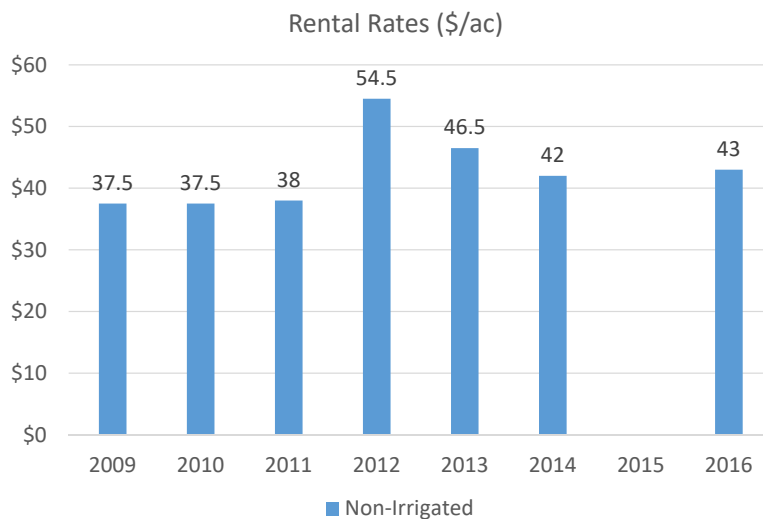
2016 USDA Non-Irrigated Rents



Source: USDA-NASS



Rental Rates-Scott Co.



Source: USDA-NASS



Public Information

Limited public information on rental rates

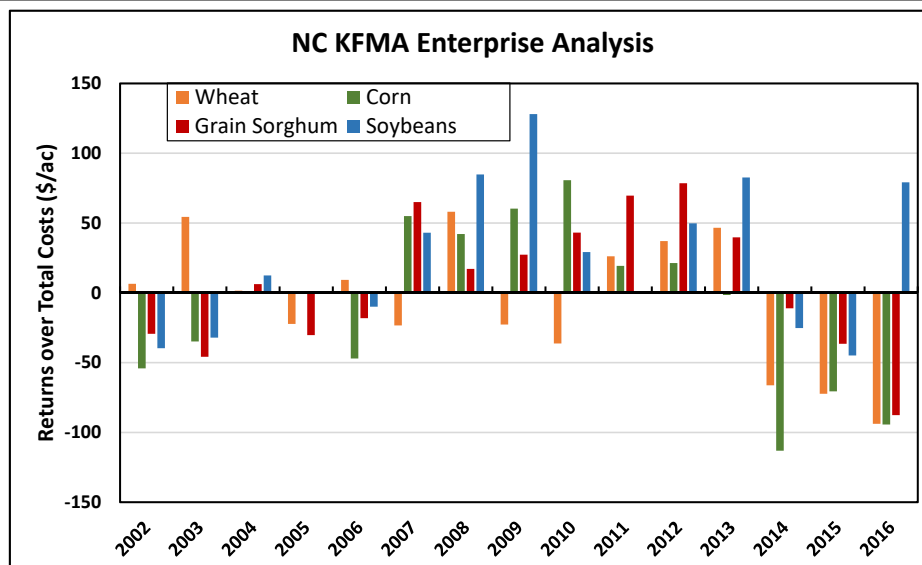
- Surveys (USDA, some KS Counties)
- K-State budgeting approach: what a representative farmer could afford to pay

Comparisons need to be done carefully

- One measures what is actually being paid
- One measures what we expect could be paid



Returns to Farming



Source: KFMA Enterprise Reports (<http://www.agmanager.info/kfma>)



KSU Non-Irrigated Rental Rates

| NE District | 2015 | 2016 | 2017 | 2018 |
|--------------|----------|----------|---------|----------|
| Atchison | 125.80 | 109.30 | 99.80 | 110.60 |
| Brown | 148.50 | 129.30 | 117.90 | 135.20 |
| Doniphan | 166.70 | 145.90 | 132.20 | 137.70 |
| Jackson | 109.80 | 94.90 | 86.70 | 97.30 |
| Jefferson | 118.60 | 102.90 | 93.80 | 108.10 |
| Leavenworth | 109.80 | 94.50 | 87.50 | 99.70 |
| Marshall | 106.60 | 91.80 | 81.90 | 88.60 |
| Nemaha | 120.00 | 104.10 | 94.10 | 106.00 |
| Pottawatomie | 108.80 | 94.00 | 85.20 | 99.60 |
| Riley | 94.20 | 80.90 | 71.22 | 81.70 |
| Wyandotte | 105.70 | 90.70 | 84.90 | 103.80 |
| Average: | \$119.50 | \$103.48 | \$94.11 | \$106.21 |



KSU Non-Irrigated Rental Rates

| SC District | 2015 | 2016 | 2017 | 2018 |
|-------------|---------|---------|---------|---------|
| Barber | 38.70 | 26.60 | 10.50 | 25.30 |
| Comanche | 31.40 | 21.80 | 8.50 | 19.80 |
| Edwards | 36.80 | 25.80 | 10.10 | 25.80 |
| Harper | 37.70 | 26.00 | 10.20 | 23.10 |
| Harvey | 59.00 | 41.40 | 16.80 | 39.50 |
| Kingman | 40.60 | 27.90 | 11.00 | 27.60 |
| Kiowa | 33.50 | 23.40 | 9.10 | 22.00 |
| Pawnee | 41.50 | 29.20 | 11.40 | 25.90 |
| Pratt | 45.20 | 31.40 | 12.40 | 29.30 |
| Reno | 49.50 | 34.50 | 13.80 | 33.00 |
| Sedgwick | 49.60 | 34.70 | 13.90 | 32.70 |
| Stafford | 45.80 | 32.00 | 12.70 | 29.50 |
| Sumner | 44.60 | 31.00 | 12.30 | 28.00 |
| Average: | \$42.61 | \$29.67 | \$11.75 | \$27.81 |



KSU Non-Irrigated Rental Rates

| Central District | 2015 | 2016 | 2017 | 2018 |
|------------------|---------|---------|---------|---------|
| Barton | 48.20 | 34.10 | 17.40 | 34.10 |
| Dickinson | 65.70 | 46.00 | 24.60 | 48.40 |
| Ellis | 36.70 | 25.90 | 13.10 | 24.70 |
| Ellsworth | 53.40 | 37.60 | 19.20 | 35.30 |
| Lincoln | 58.00 | 40.90 | 21.10 | 39.70 |
| Marion | 58.90 | 41.50 | 21.90 | 43.20 |
| McPherson | 61.30 | 43.10 | 22.30 | 44.50 |
| Rice | 60.10 | 42.50 | 22.00 | 42.00 |
| Rush | 42.20 | 30.00 | 15.10 | 28.90 |
| Russell | 46.40 | 32.90 | 16.60 | 32.00 |
| Saline | 60.80 | 42.50 | 22.30 | 43.00 |
| Average: | \$53.79 | \$37.91 | \$19.60 | \$37.80 |



KSU Non-Irrigated Rental Rates

| NC District | 2015 | 2016 | 2017 | 2018 |
|-------------|-------|-------|-------|-------|
| Clay | 79.90 | 56.30 | 37.60 | 64.70 |
| Cloud | 75.10 | 53.40 | 34.00 | 57.40 |
| Jewell | 75.40 | 53.70 | 34.20 | 58.10 |
| Mitchell | 72.80 | 51.70 | 32.30 | 53.60 |
| Osborne | 59.50 | 42.40 | 26.30 | 43.10 |
| Ottawa | 63.70 | 45.10 | 28.60 | 49.00 |
| Phillips | 57.90 | 41.40 | 26.00 | 43.90 |
| Republic | 79.50 | 56.40 | 37.50 | 65.80 |
| Rooks | 45.70 | 32.60 | 20.30 | 37.20 |
| Smith | 68.10 | 48.60 | 30.50 | 50.30 |
| Washington | 84.80 | 59.90 | 40.40 | 67.30 |
| Average: | 69.31 | 49.23 | 31.61 | 53.67 |

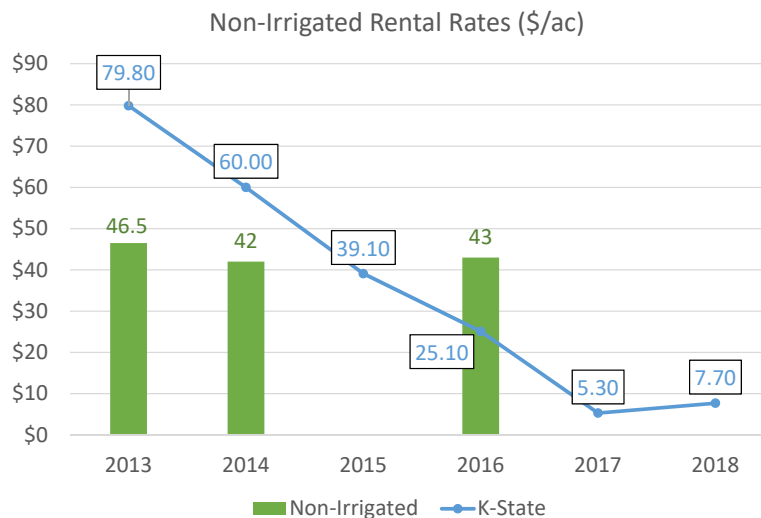


KSU Non-Irrigated Rental Rates

| WC District | 2015 | 2016 | 2017 | 2018 |
|--------------|--------------|--------------|-------------|-------------|
| Gove | 35.40 | 22.80 | 4.90 | 7.80 |
| Greeley | 26.40 | 16.90 | 3.60 | 5.90 |
| Lane | 26.80 | 17.00 | 3.60 | 6.00 |
| Logan | 30.00 | 19.20 | 4.10 | 6.30 |
| Ness | 25.50 | 16.10 | 3.40 | 5.40 |
| Scott | 39.10 | 25.10 | 5.30 | 7.70 |
| Trego | 30.20 | 19.30 | 4.10 | 6.30 |
| Wallace | 26.90 | 17.10 | 3.70 | 5.80 |
| Wichita | 31.30 | 20.00 | 4.30 | 6.30 |
| Average: | \$30.18 | \$19.28 | \$4.11 | \$6.39 |



USDA vs. KSU - Scott



Source: USDA-NASS and www.AgManager.info/land-leasing



Why are rents staying high?

Multi-year leases

- Consider signing 3-5 year leases but renegotiate rate annually

Good yields in 2016, soybeans profitable

- Kept some profitability in sector to pay rents that wouldn't be affordable with average or below average yields

People are willing to pay more than they can afford in the short run

- Length of the short run is going to vary by producer



Summary



Summary

Land values in 2017 have decreased since market high in 2015

- Non-irrigated cropland: -25% (projected)
- Irrigated cropland: -4% (projected)
- Pasture: -15% (projected)

Long-run trends indicate downward movement will continue into 2018

- Up to a 50% decline from market high



Other Comments

“Land prices are still based on quality land having the highest demand and poor land having few buyers and lower prices.”

- Appraiser in Central Kansas, September 2017

Farmers are the biggest buyers of farmland

- When farmers are reluctant to buy, demand falls and isn't likely to be sufficiently supported by outside investment
- Turnaround will happen when projections for net farm income rebound



Online Resources

2016 Kansas County-Level Ag Land Values

- www.agmanager.info/land-leasing/land-buying-valuing

2017 Rent Estimates: Non-Irr. & Irrigated Cropland

- www.agmanager.info/land-leasing/land-rental-rates

Pasture Rental Rate Tool

- www.agmanager.info/land-leasing/land-rental-rates/pasture-rental-rate-decision-tool

A wide-angle photograph of a Kansas landscape at sunset. The sun is low on the horizon, casting a warm glow over a green field with several round hay bales. The sky is a mix of blue and orange, with scattered white clouds.

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