

**Conference**  
**AG STEWARDSHIP**  
**People Helping People.**

Plan to attend this free conference:  
 • farmers and ranchers • absentee landowners • women or minority farmers  
 • new or beginning farmers • small or specialty crop farmers  
 • land management agents • bankers.

**Friday, January 7, 2011**  
 9:00 a.m. to 3:00 p.m.  
 Grace Community Church  
 310 East 8<sup>th</sup> Street (Highway 56), Overbrook, Kansas

**Welcome & Opening Comments**  
 Kelly Lenz, Agriculture Director  
 WIBW AM 580 Radio

**As Expert Panel**  
 USDA Natural Resources Conservation Service, USDA Farm Service Agency, USDA Risk Management Agency, Conservation District, Extension Service, Frontier Farm Credit, and Kansas Farm Bureau

**ABC's of Agriculture**  
 Doug Shoop, Southeast Agronomist,  
 K-State Research & Extension

**Leasing 101**  
 Kevin Dhuyvetter, Ag Economics,  
 Kansas State University

**Estate and Tax Planning for Farm Families**  
 Terry Arthur, Attorney, Arthur-Green Law Firm  
 and General Counsel, Kansas Farm Bureau

**Space Limited - Lunch Provided**  
 Pre-registration is required to arrange for meal and facility space, please contact the Conservation District in Lyon at (785) 828-3458 by December 30.

**Logos:** AM 580 WIBW, KSTATE, FRONTIER, FSA, and others.

## Leasing 101

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**K-State Ag Econ**  
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## Renting cropland in Kansas...

- **KFMA farms with > 100 crop acres (2007-2009 avg)**
  - 88% of KFMA farms use rented crop land (range across six regions, 81%-94%)
  - 61% of crop acres farmed by KFMA members are rented (range across six regions, 51%-72%)
- **In other words, almost everybody rents land, and the majority of the acres they are farming are rented.**
- **For owner-operators rent is the “profit” assigned to land after all other opportunity costs are considered**

## Types of leases on crop land

- **Crop-share**
  - Landowner shares in annual revenues (production and government payments) and typically shares certain production costs
- **Cash rent**
  - Landowner gets a fixed annual cash payment in exchange for use of land
- **Numerous variants around these two**

## Over the years, the majority of land leasing questions we receive pertain to:

- **Impact of adopting new technologies**
- **Cash renting (folks always want the “going rates”)**
- **“Non-traditional” leases**
  - Net share rent
  - Flexible cash rent
  - Bushel rent
  - Combination cash/cropshare
- **Terminating leases**

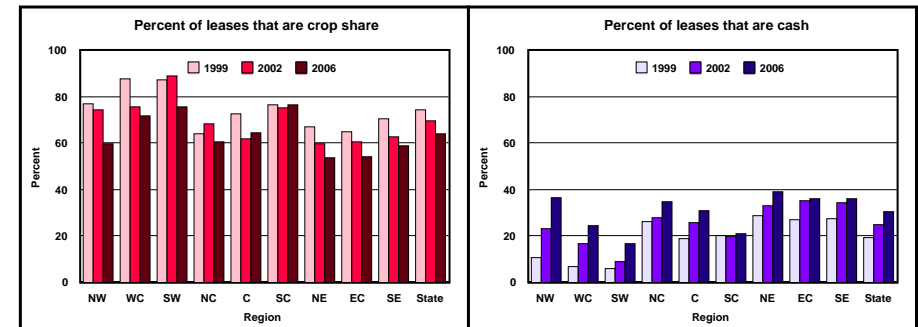
**... regardless of the topic pertaining to lease terms, method of addressing questions does not change.**

## Distribution of non-irrigated crop leases by type of lease...

Region	Cash	Share	Other
Northwest	36.3%	59.8%	3.9%
West Central	24.3	71.7	4.0
Southwest	16.5	75.5	8.0
North Central	34.9	60.5	4.6
Central	30.9	64.6	4.5
South Central	21.0	76.4	2.6
Northeast	38.8	53.5	7.7
East Central	36.0	54.3	9.6
Southeast	36.2	58.9	4.9
State	30.5	63.9	5.6

Source: Schlegel and Tsoodle -- 2007 KAS/KSU survey (2006 data)

## Trend towards more cash rent...



Source: KSU and KS Ag Stat - Non-Irrigated Farm Lease Arrangement Surveys

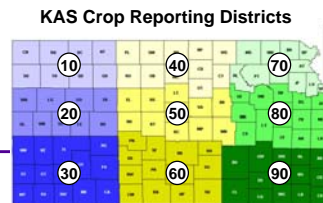
Crop share continues to be the most prevalent, but the trend has been a shift from crop share arrangements towards more cash rent leases.

### Questions to ask:

- 1) What factors have been behind this trend?
- 2) Do we expect this to continue or to reverse in current environment?

## Length of cropland leases...

Region	Years rented
Northwest (10)	17.6
West Central (20)	21.0
Southwest (30)	20.0
North Central (40)	16.9
Central (50)	17.2
South Central (60)	15.5
Northeast (70)	17.2
East Central (80)	18.8
Southeast (90)	15.6
State	17.8

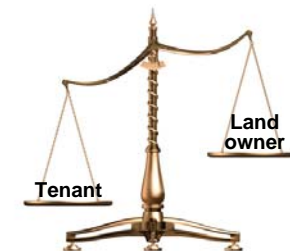


Producers tend to lease land from the same landowner for a long time.

Long-term relationships can be good or bad...

## Determining the terms of a lease...

How are cash lease rates or the terms of crop share leases established?



Source: Schlegel and Tsoodle -- 2007 KAS/KSU survey

## Determining the terms of a lease...

- How are cash lease rates or the terms of crop share leases established?
  - Short answer is “the market”

## Market established rates...

- Land Use Value Project of the KSU Ag Econ Dept annually conducts one of four surveys (irrigated, non-irrigated, pasture, input costs)
- Kansas Agricultural Statistics (KAS) annually surveys landowners and producers regarding land values and cash rents
- Local and regional surveys of leasing practices
- With surveys there is often a trade-off between statistical validity and level of aggregation

### Example of market established crop shares...

Table 11. Northeast-70 Nonirrigated Crop-Share Arrangements				
Crop	Landlord's Percent of Crop Received (or of Costs Paid)*			
	33% Share	40% Share	50% Share	Other % Share
<b>Wheat (21 Leases)</b>	3	10	8	
% of Total Leases in Lease Arrangement	14.30%	47.60%	38.10%	No Responses
% of Leases Sharing Fertilizer Costs	100.00%	100.00%	100.00%	
% of Leases Sharing Herbicide Costs	33.30%	60.00%	100.00%	
% of Leases Sharing Insecticide Costs	33.30%	40.00%	62.50%	
<b>Corn (54 Leases)</b>	2	9	42	1
% of Total Leases in Lease Arrangement	3.70%	16.70%	77.80%	1.80%
% of Leases Sharing Fertilizer Costs	100.00%	100.00%	100.00%	100.00%
% of Leases Sharing Herbicide Costs	100.00%	88.90%	95.20%	100.00%
% of Leases Sharing Insecticide Costs	100.00%	88.90%	76.20%	100.00%
<b>Sorghum (11 Leases)</b>	1	7	3	
% of Total Leases in Lease Arrangement	9.10%	63.60%	27.30%	No Responses
% of Leases Sharing Fertilizer Costs	100.00%	100.00%	100.00%	
% of Leases Sharing Herbicide Costs	0.00%	85.70%	100.00%	
% of Leases Sharing Insecticide Costs	0.00%	57.10%	66.70%	
<b>Soybeans (43 Leases)</b>	4	14	25	
% of Total Leases in Lease Arrangement	9.30%	32.60%	58.10%	No Responses
% of Leases Sharing Fertilizer Costs	100.00%	100.00%	100.00%	
% of Leases Sharing Herbicide Costs	100.00%	92.90%	76.00%	
% of Leases Sharing Insecticide Costs	100.00%	78.60%	52.00%	
<b>Other Hay (8 Leases)</b>	2	2	4	
% of Total Leases in Lease Arrangement	25.00%	25.00%	50.00%	No Responses
% of Leases Sharing Fertilizer Costs	100.00%	100.00%	100.00%	
% of Leases Sharing Herbicide Costs	0.00%	0.00%	100.00%	
% of Leases Sharing Insecticide Costs	0.00%	0.00%	100.00%	

\* The percentages calculated in this table represent the percent of landlords sharing the same percent of costs as they share of the crop. For example, 100% of landlords receiving 33% of the wheat crop paid 33% of fertilizer expenses.

Source: Schlegel and Tsoodle -- 2007 KAS/KSU survey (available at [www.agmanager.info](http://www.agmanager.info))

### Example of market established crop shares...

Table 12. East Central-80 Nonirrigated Crop-Share Arrangements				
Crop	Landlord's Percent of Crop Received (or of Costs Paid)*			
	33% Share	40% Share	50% Share	Other % Share
<b>Wheat (27 Leases)</b>	19	5	3	
% of Total Leases in Lease Arrangement	70.4%	18.5%	11.1%	No Responses
% of Leases Sharing Fertilizer Costs	100.0%	100.0%	100.0%	
% of Leases Sharing Herbicide Costs	84.2%	80.0%	100.0%	
% of Leases Sharing Insecticide Costs	52.6%	60.0%	66.7%	
<b>Corn (29 Leases)</b>	21	3	5	
% of Total Leases in Lease Arrangement	72.4%	10.4%	17.2%	No Responses
% of Leases Sharing Fertilizer Costs	100.0%	100.0%	100.0%	
% of Leases Sharing Herbicide Costs	85.7%	100.0%	100.0%	
% of Leases Sharing Insecticide Costs	52.4%	66.7%	80.0%	
<b>Sorghum (9 Leases)</b>	6	1	1	1
% of Total Leases in Lease Arrangement	66.7%	11.1%	11.1%	11.1%
% of Leases Sharing Fertilizer Costs	100.0%	100.0%	100.0%	100.0%
% of Leases Sharing Herbicide Costs	83.3%	100.0%	100.0%	100.0%
% of Leases Sharing Insecticide Costs	33.3%	100.0%	100.0%	100.0%
<b>Multiple Crops (4 Leases)</b>	4			
% of Total Leases in Lease Arrangement	100.0%	No Responses	No Responses	No Responses
% of Leases Sharing Fertilizer Costs	100.0%			
% of Leases Sharing Herbicide Costs	100.0%			
% of Leases Sharing Insecticide Costs	100.0%			
<b>Soybeans (41 Leases)</b>	33	6	2	
% of Total Leases in Lease Arrangement	80.5%	14.6%	4.9%	No Responses
% of Leases Sharing Fertilizer Costs	100.0%	100.0%	100.0%	
% of Leases Sharing Herbicide Costs	72.7%	50.0%	100.0%	
% of Leases Sharing Insecticide Costs	45.5%	50.0%	50.0%	

\* The percentages calculated in this table represent the percent of landlords sharing the same percent of costs as they share of the crop. For example, 100% of landlords receiving 33% of the wheat crop paid 33% of fertilizer expenses.

Source: Schlegel and Tsoodle -- 2007 KAS/KSU survey (available at [www.agmanager.info](http://www.agmanager.info))

# KAS surveyed market rates...

**AGRICULTURAL LAND VALUES & CASH RENTS**  
Kansas Agricultural Statistics  
Released September 15, 2010

**2010 Land Value Highlights**  
The average value of all farmland and buildings for 2010 in Kansas is estimated to be \$1,000 per acre. This compares with \$1,020 in 2009 and \$1,020 in 2008. Kansas average value of all farmland and buildings increased 2.9 percent from 2009 to 2010. Irrigated cropland values rose 3.3 percent from 2009 while non-irrigated cropland increased 7.0 percent in value from last year. The value of Kansas pasture land increased 2.7 percent from 2009 at \$170.

**2010 Cash Rents**  
The 2010 average cash rent farmers pay for non-irrigated cropland in Kansas was \$43.50 per acre, unchanged from 2009. The cash rent rates for non-irrigated cropland ranged from a low in Seward County of \$25 per acre to the high in Doniphan County of \$111 per acre. Doniphan County was followed by Brown County at \$123, Nemola at \$82 and Atchison at \$78. Seward was followed by Lane and Trego at \$20 and Greeley at \$20.50. The district with the highest rent was the Northeast District at \$84 per acre.

The 2010 cash rent rate for irrigated cropland in Kansas averaged \$99 per acre, up from \$89 per acre in 2009. The Northeast District had the highest rent with \$121 per acre, followed by the Northwest at \$120 and the North Central at \$116. The District with the lowest irrigated rent was \$62 per acre.

The pasture cash rent averaged \$15.50 per acre in 2010, unchanged from the rate in 2009. The rent for pasture in Kansas ranged from \$6.50 per acre in Morton County for a low to \$32 per acre in Doniphan County for the high. Doniphan was followed by Marshall at \$29 and Brown at \$27.50. Morton was followed by Seward and Stevens at \$7 and Kearny and Hamilton at \$7.50. The Northeast District had the highest district-level rent per acre in the State at \$22 per acre.

Year	Irrigated		Non-Irrigated		Pasture and Rangeland		All Farmland and Buildings	
	Value	Rent	Value	Rent	Value	Rent	Value	Rent
2008	1,040	630	666	36.50	360	12.80	828	28.88
2009	1,080	635	673	36.00	360	12.80	845	30.89
2010	1,080	645	684	36.00	410	12.80	898	32.332

**KAS report** (switched to county-level in 2009, will drop CRD-level land values after 2010)

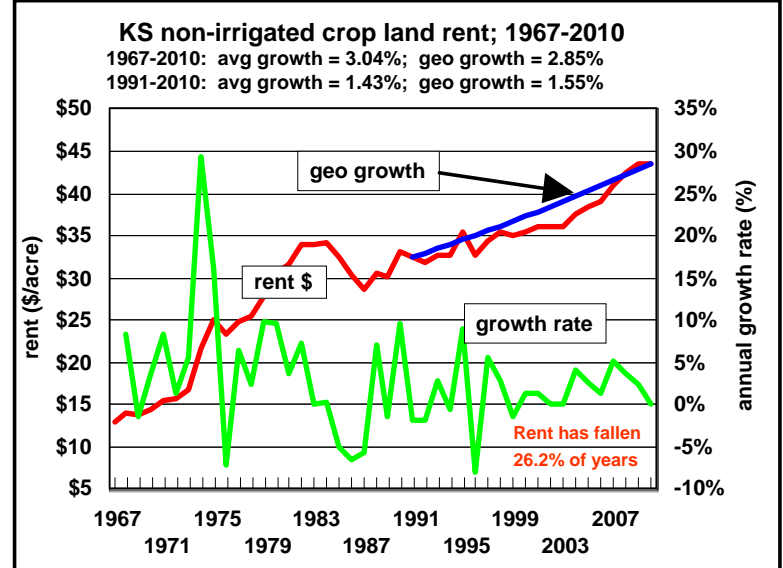
**Kansas Land Prices and Cash Rental Rates**  
Kansas State University Agricultural Experiment Station and Cooperative Extension Service  
Ken C. Oberthur, Terry L. Kammer, Agricultural Economics, Farm Management

This Farm Management guide reports Kansas land prices and cash rents for 1991-2010. These data are useful to farm managers in determining cash rental rates, to landowners in calculating values for making time adjustments to land prices, and to landowners and farmers who have expectations on historical price and rental levels for the future. The average price in the guide represents parcels of land that vary widely in productivity. Thus, these data are more appropriate for analyzing trends than the outstanding market value or rental rates for specific tracts of land.

**Kansas Land Prices**  
Table 1 through 3 show average prices of land (and buildings, Table 3) for each district and an average for the state for the most recent 30 years reported. Data are shown for each of the four major crop types: all-crop, all-cropland, non-irrigated cropland, irrigated cropland, and pasture. The annual data are based on surveys conducted by Kansas Agricultural Statistics in June of each year making for consistency of the January 1 land values and the percentage change in land values from the previous year as of June 1.

**KSU report** - basically a repackaging of KAS data (show more history)

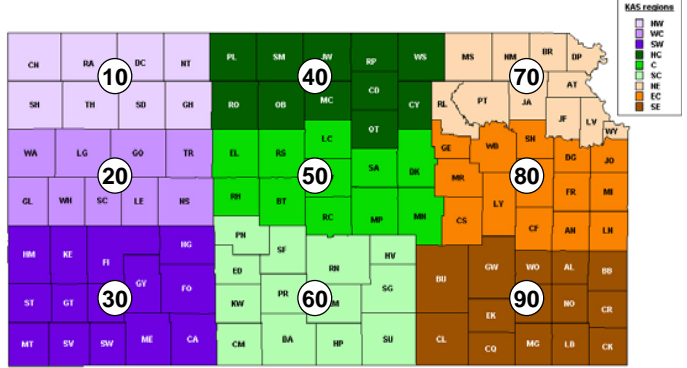
# Cash rent historical perspective



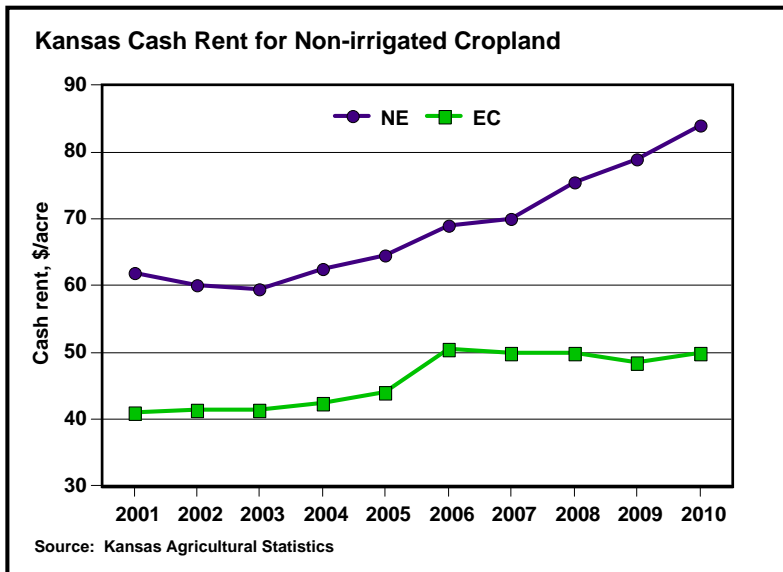
1967-2009 average land value growth = 5.09%

# Market going rate...

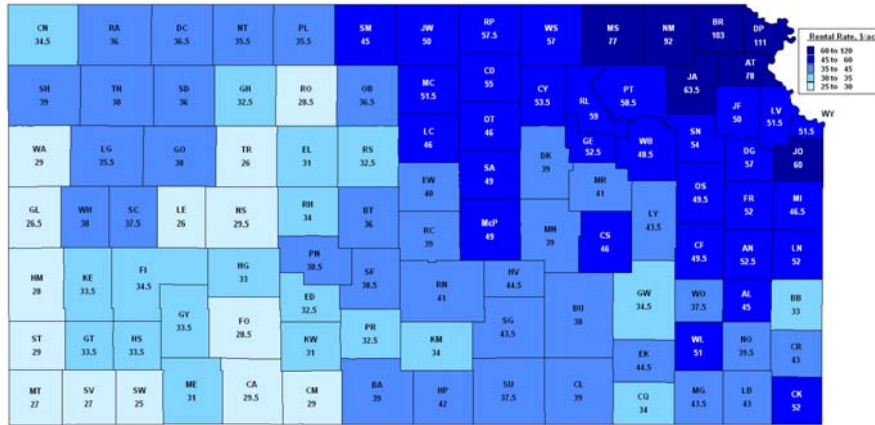
Historically Kansas Agricultural Statistics (KAS) reported average cash rent values for non-irrigated, irrigated, and pasture land at the crop reporting district (CRD) level - beginning in 2009 began reporting county-level data.



# Market going rate?

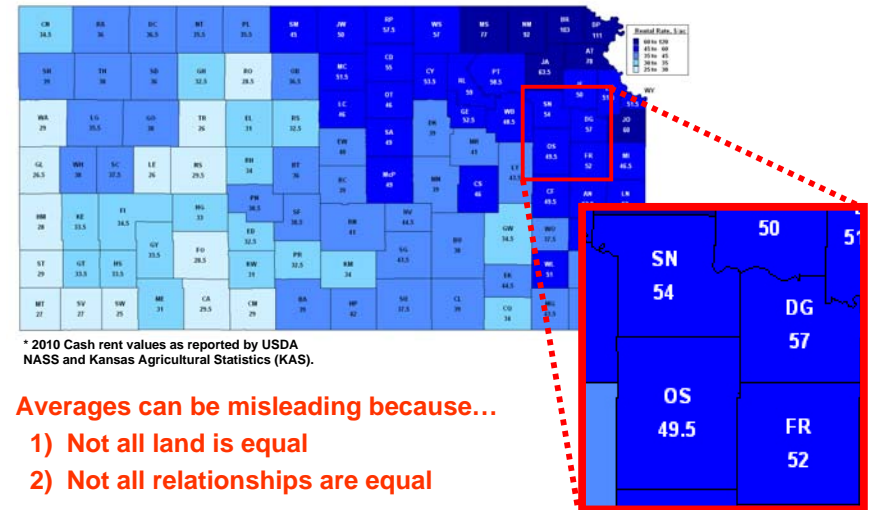


## Kansas county-level non-irrigated crop cash rents...



\* 2010 Cash rent values as reported by USDA NASS and Kansas Agricultural Statistics (KAS).

## Kansas county-level non-irrigated crop cash rents...



\* 2010 Cash rent values as reported by USDA NASS and Kansas Agricultural Statistics (KAS).

Averages can be misleading because...

- 1) Not all land is equal
- 2) Not all relationships are equal

## Determining the terms of a crop lease...

- How are cash lease rates or the terms of crop share leases established?
  - Short answer is “the market”
- When market reported rates are not sufficient to answer the question at hand, what do we do?
- While landowners and tenants (i.e., the market) ultimately determine terms of crop share and cash leases, we use the equitable concept to arrive at a starting point for negotiations – and to better understand the market.

## Principles embodied in an equitable lease...

- Profit maximization ( $MR=MC$ )
- Economic profits (expected profit = 0)
- Opportunity costs
- Risk across lease types
- Equal rates of return on annual investment (if economic profit = 0, then rate of return = 0)

## A good crop share lease should follow five basic principles ...

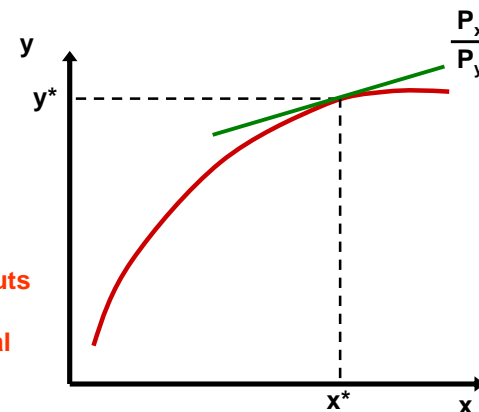
1. Yield increasing inputs should be shared
  2. Share arrangements should be re-evaluated as technology changes
  3. Total returns divided in same proportion as resources contributed
- 
4. Compensation for unused long-term investments at termination
  5. Good landlord/tenant communications

## Principle #1: Yield increasing inputs should be shared

### Examples of yield increasing inputs

- Fertilizer
- Irrigation water
- Herbicides ???
- Seed ???

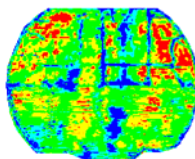
Sharing yield increasing inputs in the same % as income provides the economic signal to both parties to apply the optimal amount of the input.



## Principle #2: Technology may affect share arrangements

### Examples of technological change

- Reduced-/no-till
- New crops/rotations (e.g., double crop)
- Center pivot irrigation
- Hybrid seed
- Bio-technology
- Precision agriculture (GPS)



## Impact of new technologies ...

- Why do people adopt new technologies?
- What happens as “new” technologies become common practice?
- How does this impact relative contributions?
- Does adoption of new technologies impact the type of lease arrangement used?

**Principle #3:**  
Returns divided in same proportion as resources contributed.

This requires annual contributions of both parties to be identified (budgeting type approach).

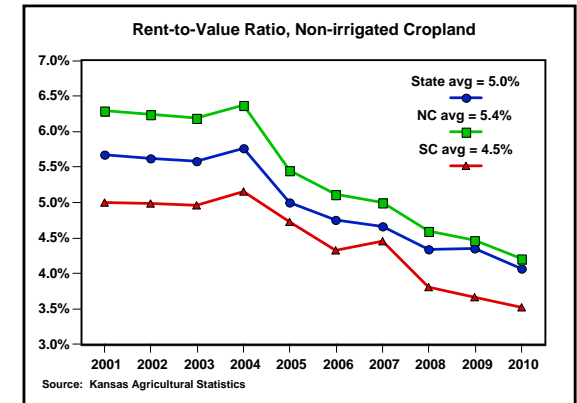
Base input values on expectations consistent with the time-frame of the lease (if expectations end up being significantly off, be willing to make adjustments).



## Land contribution ...

The land contribution has typically been based on an “average market value” for the land along with an historical average return to land.

As cash leases become more common, the land contribution can be set equal to the cash rent. However we still often struggle with what the “right” number is.



## Machinery contributions ...

Machinery contribution should be based on average costs. Two methods for estimating the machinery contribution:

1. Machinery investment approach - annual contribution is based on depreciation, interest, repairs, fuel and oil, and labor.
2. Custom rates approach - annual contribution is based on reported custom rates and the typical operations.

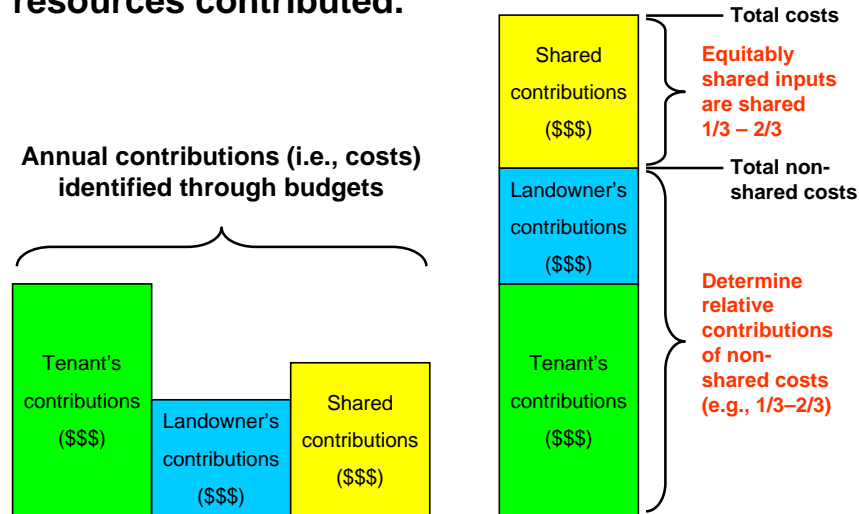


## Crop production input contributions ...

The value of contributions for input expenses such as seed, herbicides, insecticides, fertilizer, etc. are generally valued at current market prices and represent “typical” production practices.

How do we deal with input prices if they deviate significantly from historical averages (e.g., fertilizer, fuel)?

**Principle #3:**  
Returns divided in same proportion as resources contributed.



**Principle #4:**  
Compensation for unused long-term investments at lease termination.

It is generally recommended that landowners make long-term investments such as terraces, irrigation well, lime, alfalfa seed, etc.

If the tenant pays for long-term investments, or shares their cost, he should be compensated for his share of any value that remains when the lease is terminated

Lime, soil fertility (P), alfalfa stands, even no-till soil building (organic matter)

**Principle #5:**  
Good communications between the landlord and the tenant.

Because so many of the terms of a lease are based on negotiation between the landowner and the tenant, good communications are critical.

A lease is a legal contract in Kansas, thus it is suggested that terms of the lease agreed upon by both parties be put in writing. This becomes more important as the complexity of leases increases – or as the volatility of crop and input prices increases.

**Tests of a good crop share lease ...**

- Are yield increasing inputs shared?
- Does it have flexibility to deal with change?
- Does it promote optimal management?
- Is income shared in same % as contributions?
- Is it written?
- Will it be reviewed periodically?
  - Keep the automatic rollover clauses out!
- Do all parties agree that lease is “fair”?

## “Non-traditional” leases ...

- Cash rent
- Net share rent
- Bushel rent
- Flexible cash rent
- Combination cash and crop share rent

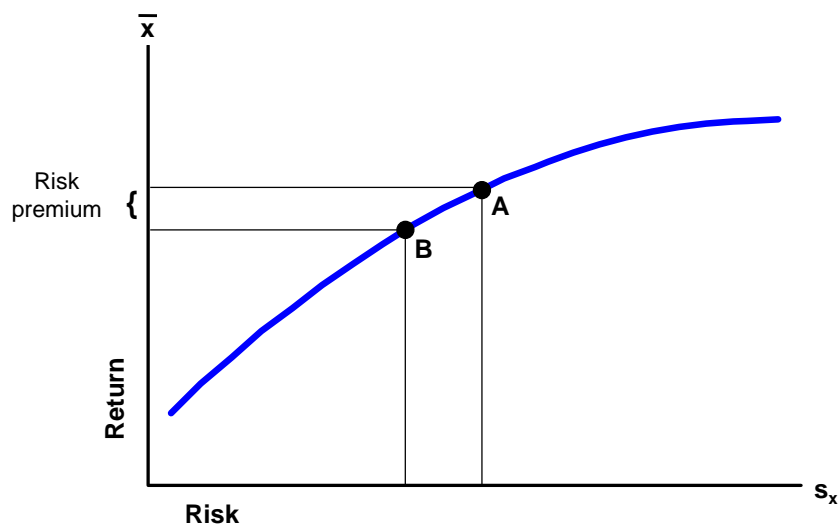
Because there is currently much interest in these types of leases, there must be good reasons to use them ...

## Cash rents ...

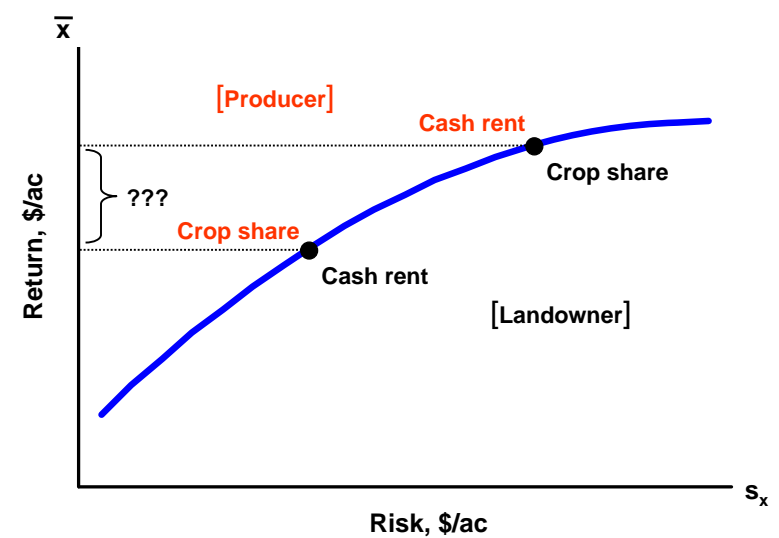
Numerous good reasons to go to cash rent, but landowners and producers need to recognize several things when doing so ...

- Land tends to change hands more often
- Relative risks change

### Risk-return tradeoff



### Landowner/producer risk-return tradeoff



## Risk

- **Risk: variation about expected outcome**
  - Suggests that the cash-equivalent of a share lease will be greater than cash rent
- **Hasn't helped much in understanding rents**
  - Tenant's risk lower recently (1990s thru 2006)
  - Cash rent is not riskless
  - Costs may be higher with share rents
    - So cash rents may be higher than share rents i.e., tenants bid up cash rents to avoid costs
- **Crop share rent shares are sticky**
  - Only way to bid up rents is through cash rent

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## Methods of establishing cash rent values ...

- **Market going rate (if available)**  
-----
- **Crop share equivalent (adjusted for risk)**
- **Landowner's cost**
- **Amount tenant can afford to pay**



The last three require yield, price, and government payment projections (as well as cost information used for crop share).

## Flexible Cash Rents – WHAT?

- Flexible cash rents simply refer to land rental arrangements where the amount of cash rent paid (received) can vary based upon some pre-determined formula (i.e., formalizes bonus rents)
- Methods of “flexing” rental rates, i.e., formulas are based on:
  - Yield (actual for producer, county average, etc.)
  - Price (harvest, season average, actual)
  - Revenue (yield x price, crop insurance, residue)
  - Costs (e.g., fertilizer price)
  - Other...

## Flexible Cash Rents – WHY?

- Many good reasons to go to cash rent, but there are risks associated with multi-year fixed rents
- Method of allowing rents to vary from year-to-year without having to renegotiate rents annually (avoid mental anguish associated with rental rate negotiation)
- Way of sharing/managing risks associated with volatile markets (without hassles of crop share lease)
- FSA has changed rules allowing flexible leases
- Somewhat “force” a higher level of communication relative to fixed cash rent (poor/lack of communication is often an issue with problem lease arrangements)

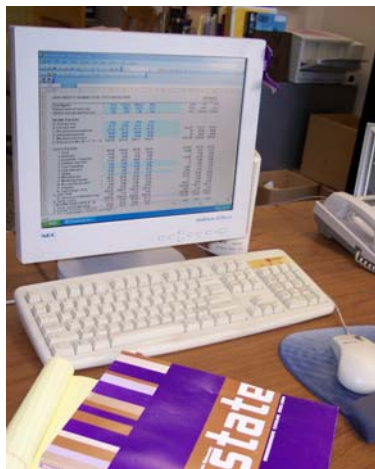
## Flexible Cash Rents – WHY NOT?

- Complex!
- Theory and intuition guide conceptual design, but little help with specific details
- Not needed if cash rents are renegotiated frequently (every year?)
- Hard to think of everything, which means we might need to be “tweaking” arrangement regularly
- If designed wrong, might increase risk
- Appealing for certain situations, but not appropriate in all cases (depends on why you are considering cash rent)

## KSU-Lease.xls

- A what-if spreadsheet to analyze rents
- Delineates relative contributions
- Allows considering cash vs. crop-share
  - Can deal with a risk premium
- Very flexible; can handle
  - Net share leases
  - Fixed bushel rents
  - Cash transfers
- Important purpose is to allow people to move beyond traditional leases when they need to change (and to analyze impact of cash rent)

## Using “KSU-Lease.xls” to determine equitable crop share and cash leases...



### Information/data required:

1. Crop rotation/mix
2. Income information
3. Production inputs
4. Machinery costs
5. Land value
6. Irrigation equipment
- 
7. Contributor of input
8. Risk adjustment

## Level of complexity...

- *KSU-Lease* is extremely flexible and can be used to generate leases with terms that are quite simple to extremely complex
- For example equitable percentages for ...
  - net share lease (i.e., no inputs shared)
  - fertilizer shared equitably (i.e., same % as income)
  - fertilizer shared equitably, herbicides shared in some other proportion
  - different inputs shared differently for each crop
  - combination of crop share and cash rent

Microsoft Excel - KSU Lease(AgStewardshipConference-1.7.11).xls

Version -- 10.12.10

**KSU Lease.xls ---- A spreadsheet budgeting program to determine equitable crop share and cash lease rental arrangements.**

**INPUTS vs CALCULATED VALUES**  
 In the Crop budgets, Shares, and Lease budgets sheets all blue numbers are inputs and all black numbers are calculated from these inputs. The spreadsheet automatically recalculates every time an additional input is entered. Thus, it is important to wait until all data have been entered and reviewed before interpreting any of the calculated results (i.e., black numbers).

**DESCRIPTION OF INPUTS**  
 The paper titled *KSU\_lease.pdf* serves as a "users guide" and provides a brief overview of this spreadsheet. Also, several of the input cells (i.e., blue numbers) have a red diamond in the upper right hand corner of the cell. By moving your mouse cursor over this diamond, a brief description of the input will be displayed on the screen.

**COMPANION PUBLICATIONS**  
 This spreadsheet was developed as a decision-aid tool based on the principles of equitable leases outlined in several publications that can be found on the K-State Ag Econ departmental website (www.agenon.ksu.edu). Additionally, the budget format of this spreadsheet was designed to follow that of the K-State Farm Management Guide crop budgets, which are also available on the Ag Econ website, so they can also be a useful resource when analyzing leasing alternatives.

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 website: www.agmanager.info

**AG MANAGER.INFO**  
 Department of Agricultural Economics

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Various tabs

Intro / Crop budgets / Shares / Lease budgets / Flex1 / Flex2 / Irr energy costs / Notes / KASdata

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**Projected crop budgets are available on agmanager.info (serve as a good starting point)**

Home **Farm Management** FM Guides Nonirrigated Crops

**Non-irrigated Crops**

Crop	Western	South Central	North Central	Northeast	Southeast	Southwest
Wheat	MF-903	MF-674	MF-2159	MF-672	MF-992	
Grain Sorghum	MF-904	MF-675	MF-2159	MF-673	MF-995	
Forage Sorghum Silage		MF-649				
Soybeans	MF-2366	MF-2156	MF-2160	MF-670	MF-991	
Double Crop Soybeans		MF-2637	MF-2637	MF-2637	MF-2637	
Corn	MF-2150	MF-2157	MF-2161	MF-671	MF-993	
Corn Silage				MF-2364		
Sunflower	MF-887		MF-2144	MF-2144	MF-2145	
Double Crop Sunflower		MF-2145	MF-2145	MF-2145	MF-2145	
Canola		MF-2921				
Cane Hay	MF-997					
Alfalfa	MF-2367	MF-363	MF-363	MF-363	MF-363	
Cotton		MF-939			MF-939	MF-2565
Brome Hay		MF-2143	MF-2143	MF-2143	MF-2143	
Fescue Hay		MF-2145	MF-2145	MF-2145	MF-2145	

Excel Version of Crop Budgets: FM\_Guidon\_Crops\_(2009).xls

Department of Agricultural Economics, K-State Research & Extension, College of Agriculture, Kansas State University

Microsoft Excel - KSU Lease(AgStewardshipConference-1.7.11).xls

**CROP BUDGETS SHOWING TOTAL COSTS AND RETURNS**

	Wheat	Milo	Corn	SB-FS	SB-DC	Total	Per Acre	Per Acre
Planted acres of each crop	10.0	5.0	25.0	60.0	0.0	100.0	Planted	Tillable
Tillable acres per planted acre	1.00	1.00	1.00	1.00	0.00	100.0		
<b>INCOME PER ACRE</b>								
A. Yield per acre	0.0	40.0	76.0	110.0	33.0	20.0		
B. Price per unit	\$0.00	\$6.19	\$3.72	\$3.93	\$9.72	\$9.72	\$33,944	\$339,44
C. Net government payments	\$13.60	\$13.60	\$13.60	\$13.60	\$0.00	\$0.00		
D. Indemnity payments	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0	\$0	\$0
E. Miscellaneous income	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0	\$0	\$0
F. Returns/acre (A x B) + C + D + E	\$261.12	\$296.32	\$445.68	\$334.49	\$194.48	\$35,304	\$353.04	\$353.04
<b>COSTS PER ACRE</b>								
1. Seed	\$13.50	\$15.69	\$86.94	\$46.20	\$49.50	\$5,159	\$51.59	\$51.59
2. Herbicide	4.29	30.07	29.90	10.04	9.08	1,543	15.43	15.43
3. Insecticide / Fungicide	27.90	0.00	0.00	0.00	0.00	279	2.79	2.79
4. Fertilizer and Lime	35.91	42.96	64.05	19.65	10.10	3,354	33.54	33.54
5. Crop Consulting	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
6. Crop Insurance	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
7. Drying	0.00	9.88	14.30	0.00	0.00	407	4.07	4.07
8. Miscellaneous	8.25	8.25	8.25	8.25	7.00	825	8.25	8.25
9. Machinery Expense	69.71	91.51	98.48	64.42	60.57	7,482	74.82	74.82
10. Non-machinery Labor	7.15	9.36	10.14	6.63	6.24	770	7.70	7.70
11. Irrigation	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
12. Land Charge / Rent	90.00	90.00	90.00	90.00	0.00	9,000	90.00	90.00
G. SUB TOTAL	\$256.71	\$297.72	\$402.05	\$245.18	\$142.49	\$28,818	\$288.18	\$288.18
H. TOTAL COSTS	\$261.66	\$303.47	\$411.21	\$249.79	\$146.70	\$29,402	\$294.02	\$294.02
I. RETURNS OVER COSTS (F - H)	(\$0.54)	(\$7.15)	\$34.47	\$84.70	\$47.78	\$5,903	\$59.03	\$59.03
J. TOTAL COSTS/UNIT (H/A)	\$6.54	\$3.99	\$3.74	\$7.57	\$7.33			
K. RETURN TO TOTAL COST (+I+J)/G	1.72%	-0.47%	10.85%	36.43%	36.49%	20.08%	20.08%	20.08%

Intro / **Crop budgets** / Shares / Lease budgets / Flex1 / Flex2 / Irr energy costs / Notes / KASdata

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**TABLE 1. Production Inputs Used for Budgets**

ITEM	Wheat	Milo	Corn	SB-FS	SB-DC	\$/unit
Seeding rate (lbs. seeds, etc)	90	4.67	27	140	150	
Seed price, \$/unit	\$0.15	\$3.36	\$3.22	\$0.33	\$0.33	
<b>Fertilizer:</b>						
82-0-0	0.0	48.0	86.0	0.0	0.0	\$0.330 / lb
N (dry/liquid)	40.0	10.0	14.0	0.0	0.0	\$0.495 / lb
P	22.0	34.0	47.0	29.0	20.0	\$0.505 / lb
K	0.0	0.0	0.0	0.0	0.0	\$0.420 / lb
Lime	500.0	500.0	500.0	500.0	0.0	\$0.010 / lb
<b>Herbicide</b>						
2, 4-D LV Ester	0.75					\$5.72 / pt
Finesse						\$1.00 / ac
+ Surfactant						\$3.00 / oz
Bicep II Magnum		1.6	2			\$10.92 / qt
Buctril + Atrazine		2				\$6.30 / pt
Glyphosate			64	24	64	\$0.11 / oz
+ Ammonium Sulfate			3	3	6	\$0.34 / lb
Roundup Weather Max				22		\$0.29 / oz
xxx						\$0.00 / ac
xxx						\$0.00 / ac
<b>Insecticide / Fungicide</b>						
Force 3G						\$4.83 / lb
Capture 2EC						\$141.09 / lb
Headline						\$3.10 / oz
Seed treatment						\$1.00 / ac
Irrigation water, inches/acre						\$3.50 / in
Irrigation repairs, \$/acre-inch						\$0.33 / in
Drying cost, \$/unit (bu, cwt, etc)	\$0.00	\$0.00	\$0.13	\$0.13	\$0.00	\$0.00

86 x 0.330 = \$28.38 / ac  
 + 14 x 0.495 = \$6.93 / ac  
 + 47 x 0.505 = \$23.73 / ac  
 + 0 x 0.420 = \$0.00 / ac  
 + \$0.01 = \$0.01 / ac  
 + \$64.05 / ac

Intro / **Crop budgets** / Shares / Lease budgets / Flex1 / Flex2 / Irr energy costs / Notes / KASdata

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CROP BUDGETS SHOWING TOTAL COSTS AND RETURNS

Crop/System	Wheat	Milo	Corn	SB-FS	SB-DC	Total	Per Acre	Per Acre
Planted acres of each crop	10.0	5.0	25.0	60.0	0.0	100.0	Planted	Tillable
Tillable acres per planted acre	1.00	1.00	1.00	1.00	0.00	100.0		
<b>INCOME PER ACRE</b>								
A. Yield per acre	0.0	40.0	76.0	110.0	33.0	20.0	---	---
B. Price per unit	\$0.00	\$6.19	\$3.72	\$3.93	\$9.72	\$9.72	\$33.944	\$339.44
C. Net government payments		\$13.60	\$13.60	\$13.60	\$13.60	\$0.00	\$1,360	\$13.60
D. Indemnity payments		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0	\$0.00
E. Miscellaneous income		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0	\$0.00
F. Returns/acre (A x B) + C + D + E	\$261.12	\$296.32	\$445.68	\$334.49	\$194.48	\$35,304	\$353.04	\$353.04
<b>COSTS PER ACRE</b>								
1. Seed	\$13.50	\$15.69	\$86.94	\$46.20	\$49.50	\$1,519	\$51.59	\$51.59
2. Herbicide	4.29	30.07	29.90	10.04	9.08	1,543	15.43	15.43
3. Insecticide / Fungicide	27.90	0.00	0.00	0.00	0.00	279	2.79	2.79
4. Fertilizer and Lime	35.91	42.96	64.05	19.65	10.10	3,354	33.54	33.54
5. Crop Consulting	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
6. Crop Insurance	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
7. Drying	0.00	9.88	14.30	0.00	0.00	407	4.07	4.07
8. Miscellaneous	8.25	8.25	8.25	8.25	7.00	825	8.25	8.25
9. Machinery Expense	69.71	91.51	98.48	64.42	60.57	7,482	74.82	74.82
10. Non-machinery Labor	7.15	9.36	10.14	6.63	6.24	770	7.70	7.70
11. Irrigation	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
12. Land Charge / Rent	90.00	90.00	90.00	90.00	0.00	9,000	90.00	90.00
G. SUB TOTAL	\$256.71	\$297.72	\$402.05	\$245.18	\$142.49	\$28,818	\$288.18	\$288.18
13. Interest on 1/2 Nonland Costs	4.94	5.75	9.16	4.61	4.21	584	5.84	5.84
H. TOTAL COSTS	\$261.66	\$303.47	\$411.21	\$249.79	\$146.70	\$29,402	\$294.02	\$294.02
I. RETURNS OVER COSTS (F - H)	(\$0.54)	(\$7.15)	\$34.47	\$84.70	\$47.78	\$5,903	\$59.03	\$59.03
J. TOTAL COSTS/UNIT (H/A)	\$6.54	\$3.99	\$3.74	\$7.57	\$7.33	---	---	---
K. RETURN TO TOTAL COST ((I+J)/G)	1.72%	-0.47%	10.85%	36.43%	36.49%	20.08%	20.08%	20.08%

Navigation: Intro Crop budgets Shares Lease budgets Flex1 Flex2 Irr energy costs Notes KASda

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TABLE 2. Machinery and Land Resources Used for Budgets

ITEM	Wheat	Milo	Corn	SB-FS	SB-DC	\$/unit
Drill/Plant, \$/acre	\$13.84	\$14.01	\$14.07	\$14.32	\$14.32	
<b>Tillage and Chemical Applications:</b>						
Chisel	0	0	0	0	0	\$11.01 /ac
Disk	0	0	0	0	0	\$9.20 /ac
Field cultivate	0	0	0	0	0	\$9.15 /ac
Cultivate w/sidedress	0	0	0	0	0	\$8.23 /ac
Anhydrous application	0	1	1	0	0	\$10.99 /ac
Fertilizer application	1	0	0	0	0	\$4.96 /ac
Herbicide application	1	2	2	2	2	\$5.10 /ac
Insecticide/fungicide application	1	0	0	0	0	\$5.10 /ac
<b>Harvest</b>						
Base charge, \$/acre	\$22.27	\$23.68	\$27.01	\$26.76	\$26.76	
Charge for high yields, \$/unit	\$0.217	\$0.222	\$0.204	\$0.209	\$0.209	
High yield	22	36	74	28	28	
Hauling, \$/unit	\$0.205	\$0.203	\$0.181	\$0.189	\$0.189	
<b>Non-machinery labor, hr/acre</b>						
Base charge, hr/acre	0.55	0.72	0.78	0.51	0.48	\$13.00 /hr
Irrigation labor, hr/acre	0.00	0.00	0.00	0.00	0.00	\$13.00 /hr
<b>Average land value, \$/acre /A</b>						
Annual return to land, % /A	\$90	\$90	\$90	\$90	\$90	100.0%
Interest on capital, %						7.0%
<b>Irrigation Equipment</b>						
Investment, \$	Total	\$/wet ac	Years	Salvage value, %		
Well, pump and gearhead value	\$0	n/a	25	0%		
Power unit and meter	\$0	n/a	7	0%		
Irrigation system	\$0	n/a	25	25%		

Navigation: Intro Crop budgets Shares Lease budgets Flex1 Flex2 Irr energy costs Notes KASda

Annotations:

- Non-machinery costs have been estimated to be 10-13% of total machinery costs for non-irrigated crops in Kansas.
- Land "cost" is often determined based on what "works" in the budget.

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Yield scenarios to consider

	Wheat	Milo	Corn	SB-FS	SB-DC	Use
Used in analysis above	0	40	76	110	33	20
Expected yields	40	76	110	33	20	1 (base)
High yield scenario	50	110	140	45	33	0
Low yield scenario	30	60	80	25	10	0
Slightly above budget	44	85	120	37	25	0
Slightly below budget	35	70	100	30	15	0

Price scenarios to consider

	Wheat	Milo	Corn	SB-FS	SB-DC	Use (Y=1, N=0)
Used in analysis above	\$0.00	\$6.19	\$3.72	\$3.93	\$9.72	1
5-year average	\$6.19	\$3.72	\$3.93	\$9.72	\$9.72	1 (base)
Current forward bids (12-17-10)	\$7.10	\$4.72	\$4.92	\$11.70	\$11.70	0
75% of 5-yr average	\$4.64	\$2.79	\$2.95	\$7.29	\$7.29	0
125% of 5-yr average	\$7.74	\$4.65	\$4.91	\$12.16	\$12.16	0
Other	\$5.50	\$3.50	\$4.00	\$9.50	\$9.50	0

Machinery cost adjustment (percent of values entered in Table 2) 110.0%

Forward bids for Overbrook (Ottawa Coop -- 12/17/10)

	Price	Basis
Price	\$7.10	\$4.72
Basis	-\$1.15	-\$0.70
Implied forward bids during Oct and Nov		
Price	\$7.59	\$6.44
	\$4.52	\$4.72
	\$10.98	\$10.98

Navigation: Intro Crop budgets Shares Lease budgets Flex1 Flex2 Irr energy costs Notes KASda

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Landowner ----- Average landowner, Northeast East Central KS, 555-987-6543 12/18/10

Operator ----- Average farmer, Northeast East Central KS, 555-123-4567 2:29 PM

Basis for equitable share calculations: For the entire rotation (L4 = 0), Crop-by-crop (L4 = 1) L4 ==> 0

OPERATOR'S share of production inputs (enter -100% if equitably shared)

Crop/System	Wheat	Milo	Corn	SB-FS	SB-DC	Total
Planted acres	10.0	5.0	25.0	60.0	0.0	100.0
Seed	100%	100%	100%	100%	100%	
<b>Fertilizer:</b>						
82-0-0	-100%	-100%	-100%	-100%	-100%	
N (dry/liquid)	-100%	-100%	-100%	-100%	-100%	
P	-100%	-100%	-100%	-100%	-100%	
K	-100%	-100%	-100%	-100%	-100%	
Lime	0%	0%	0%	0%	0%	
<b>Herbicide</b>						
2, 4-D LV Ester	-100%	-100%	-100%	-100%	-100%	
Finesse	-100%	-100%	-100%	-100%	-100%	
+ Surfactant	-100%	-100%	-100%	-100%	-100%	
Bicep II Magnum	-100%	-100%	-100%	-100%	-100%	
Buctril + Atrazine	-100%	-100%	-100%	-100%	-100%	
Glyphosate	-100%	-100%	-100%	-100%	-100%	
+ Ammonium Sulfate	-100%	-100%	-100%	-100%	-100%	
Roundup Weather Max	-100%	-100%	-100%	-100%	-100%	
xxx	-100%	-100%	-100%	-100%	-100%	
xxx	-100%	-100%	-100%	-100%	-100%	
<b>Insecticide / Fungicide</b>						
Force 3G	-100%	-100%	-100%	-100%	-100%	
Capture 2EC	-100%	-100%	-100%	-100%	-100%	
Headline	-100%	-100%	-100%	-100%	-100%	
Seed treatment	-100%	-100%	-100%	-100%	-100%	
Crop consulting	100%	100%	100%	100%	100%	
Crop insurance	-100%	-100%	-100%	-100%	-100%	
Drying cost	-100%	-100%	-100%	-100%	-100%	
Operator's equitable share (OS%)	50.7%	56.6%	68.2%	56.8%	98.9%	59.9%

Navigation: Intro Crop budgets Shares Lease budgets Flex1 Flex2 Irr energy costs Notes KASda

Annotations:

- Entering a number between 0-100% (or a -100%) by crop and by input provides flexibility to handle most any situation.

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	Wheat	Milo	Corn	SB-FS	SB-DC	Total
Crop/System	---	---	---	---	---	---
Planted acres	10.0	5.0	25.0	60.0	0.0	100.0
<b>OPERATOR'S share of machinery, labor, irrigation, and land (enter -100% if shared equitably)</b>						
Drill/Plant	100%	100%	100%	100%	100%	100%
Tillage and Chemical Applications:	100%	100%	100%	100%	100%	100%
Chisel	100%	100%	100%	100%	100%	100%
Disk	100%	100%	100%	100%	100%	100%
Field cultivate	100%	100%	100%	100%	100%	100%
Cultivate w/sidress	100%	100%	100%	100%	100%	100%
Anhydrous application	100%	100%	100%	100%	100%	100%
Fertilizer application	100%	100%	100%	100%	100%	100%
Herbicide application	100%	100%	100%	100%	100%	100%
Insecticide/fungicide application	100%	100%	100%	100%	100%	100%
Harvest	100%	100%	100%	100%	100%	100%
Harvest Hauling	100%	100%	100%	100%	100%	100%
Miscellaneous	80%	80%	80%	80%	80%	80%
Non-machinery labor	100%	100%	100%	100%	100%	100%
Irrigation expenses	100%	100%	100%	100%	100%	100%
Labor	100%	100%	100%	100%	100%	100%
Fuel and oil	100%	100%	100%	100%	100%	100%
Repair and maintenance	100%	100%	100%	100%	100%	100%
Irrigation investment	100%	100%	100%	100%	100%	100%
Well, pump and gearhead	100%	100%	100%	100%	100%	100%
Motor	100%	100%	100%	100%	100%	100%
Irrigation system	100%	100%	100%	100%	100%	100%
Land	0%	0%	0%	0%	0%	0%
Cash payment to landowner, \$/acre	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator's equitable share (OS%)	50.7%	56.6%	68.2%	56.8%	98.9%	59.9%
Landowner's equitable share (LS%)	49.3%	43.4%	31.8%	43.2%	1.1%	40.1%

What is the interpretation of inputs and calculated share in this example?

Impact on shares from changing... fertilizer prices? seed prices? herbicide prices? diesel fuel prices?

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CROP BUDGETS SHOWING OPERATOR'S COSTS AND RETURNS

Average farmer, Northeast East Central KS, 555-123-4567

	Wheat	Milo	Corn	SB-FS	SB-DC	Total	Per Planted Acre	Per Tillable Acre
Equitable share (OS%)	59.9%	59.9%	59.9%	59.9%	59.9%	59.9%	---	---
Crop/System	---	---	---	---	---	---	---	---
Total tillable acre	100.0	100.0	100.0	100.0	100.0	100.0	---	---
Planted acres of each crop	10.0	5.0	25.0	60.0	0.0	---	---	---
Harvested yield per acre	40.0	76.0	110.0	33.0	20.0	---	---	---
<b>INCOME PER ACRE</b>								
A. Yield per acre	24.0	45.5	65.9	19.8	12.0	---	---	---
B. Price per unit	\$6.19	\$3.72	\$3.93	\$9.72	\$9.72	---	---	---
C. Net government payments	\$8.15	\$8.15	\$8.15	\$8.15	\$0.00	\$8.15	\$8.15	\$8.15
D. Indemnity payments	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0	\$0.00	\$0.00
E. Miscellaneous income	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0	\$0.00	\$0.00
F. Returns/acre (AxB) + C + D + E	\$156.39	\$177.47	\$266.92	\$200.33	\$116.48	\$21,144	\$211.44	\$211.44
<b>COSTS PER ACRE</b>								
1. Seed	\$13.50	\$15.69	\$86.94	\$46.20	\$49.50	\$5,159	\$51.59	\$51.59
2. Herbicide	2.57	18.01	17.91	6.01	5.44	924	9.24	9.24
3. Insecticide / Fungicide	16.71	0.00	0.00	0.00	0.00	167	1.67	1.67
4. Fertilizer and Lime	18.51	22.73	35.36	8.77	6.05	1,709	17.09	17.09
5. Crop Consulting	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
6. Crop Insurance	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
7. Drying	0.00	5.92	8.56	0.00	0.00	244	2.44	2.44
8. Miscellaneous	6.60	6.60	6.60	6.60	6.60	660	6.60	6.60
9. Machinery Expense	69.71	91.51	98.48	64.42	60.57	7,482	74.82	74.82
10. Non-machinery Labor	7.15	9.36	10.14	6.63	6.24	770	7.70	7.70
11. Irrigation	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
12. Land Charge / Rent	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
G. SUB TOTAL	\$134.76	\$169.82	\$263.99	\$138.63	\$133.39	\$17,114	\$171.14	\$171.14
13. Interest on 1/2 Nonland Costs	3.82	4.56	7.68	4.03	3.89	495	4.95	4.95
H. TOTAL COSTS	\$138.58	\$174.39	\$271.67	\$142.66	\$137.29	\$17,609	\$176.09	\$176.09
I. RETURNS OVER COSTS (F - H)	\$17.81	\$3.09	(\$4.75)	\$57.67	(\$20.81)	\$3,535	\$35.35	\$35.35
J. TOTAL COSTS/UNIT (H/A)	\$5.78	\$3.83	\$4.12	---	---	---	---	---
K. RETURN TO TOTAL COST (I/H)	12.85%	1.77%	-1.75%	40.43%	-15.16%	20.08%	20.08%	20.08%

Microsoft Excel - KSU-Lease(AgStewardshipConference-1.7.11).xls

CROP BUDGETS SHOWING LANDOWNER'S COSTS AND RETURNS

Average landowner, Northeast/East Central KS, 555-987-6543

	Wheat	Milo	Corn	SB-FS	SB-DC	Total	Per Planted Acre	Per Tillable Acre
Equitable share (100 - OS%)	40.1%	40.1%	40.1%	40.1%	40.1%	40.1%	---	---
Crop/System	---	---	---	---	---	---	---	---
Total tillable acre	100.0	100.0	100.0	100.0	100.0	100.0	---	---
Planted acres of each crop	10.0	5.0	25.0	60.0	0.0	---	---	---
Harvested yield per acre	40.0	76.0	110.0	33.0	20.0	---	---	---
<b>INCOME PER ACRE</b>								
A. Yield per acre	16.0	30.5	44.1	13.2	8.0	---	---	---
B. Price per unit	\$6.19	\$3.72	\$3.93	\$9.72	\$9.72	---	---	---
C. Net government payments	\$5.45	\$5.45	\$5.45	\$5.45	\$0.00	\$5.45	\$5.45	\$5.45
D. Indemnity payments	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0	\$0.00	\$0.00
E. Miscellaneous income	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0	\$0.00	\$0.00
F. Returns/acre (AxB) + C + D + E	\$104.73	\$118.85	\$178.76	\$134.16	\$78.00	\$14,160	\$141.60	\$141.60
<b>COSTS PER ACRE</b>								
1. Seed	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0	\$0.00	\$0.00
2. Herbicide	1.72	12.06	11.99	4.03	3.64	619	6.19	6.19
3. Insecticide / Fungicide	11.19	0.00	0.00	0.00	0.00	112	1.12	1.12
4. Fertilizer and Lime	17.40	20.23	28.68	10.87	4.05	1,645	16.45	16.45
5. Crop Consulting	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
6. Crop Insurance	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
7. Drying	0.00	3.96	5.74	0.00	0.00	163	1.63	1.63
8. Miscellaneous	1.65	1.65	1.65	1.65	1.40	165	1.65	1.65
9. Machinery Expense	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
10. Non-machinery Labor	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
11. Irrigation	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
12. Land Charge / Rent	90.00	90.00	90.00	90.00	0.00	9,000	90.00	90.00
G. SUB TOTAL	\$121.96	\$127.90	\$138.06	\$106.55	\$9.09	\$11,704	\$117.04	\$117.04
13. Interest on 1/2 Nonland Costs	1.12	1.19	1.48	0.58	0.32	89	0.89	0.89
H. TOTAL COSTS	\$123.08	\$129.09	\$139.54	\$107.13	\$9.41	\$11,793	\$117.93	\$117.93
I. RETURNS OVER COSTS (F - H)	(\$18.35)	(\$10.24)	\$39.21	\$27.03	\$68.59	\$2,368	\$23.68	\$23.68
J. TOTAL COSTS/UNIT (H/A)	\$7.67	\$4.23	\$3.16	---	---	---	---	---
K. RETURN TO TOTAL COST (I/H)	-14.91%	-7.93%	28.10%	25.23%	728.84%	20.08%	20.08%	20.08%

Microsoft Excel - KSU-Lease(AgStewardshipConference-1.7.11).xls

ALTERNATIVE METHODS OF ESTIMATING CASH RENT

Average farmer, Northeast East Central KS, 555-123-4567

	Wheat	Milo	Corn	SB-FS	SB-DC	Total	Per Planted Acre	Per Tillable Acre
Crop/System	---	---	---	---	---	---	---	---
Total tillable acre	100.0	100.0	100.0	100.0	100.0	100.0	---	---
Planted acres of each crop	10.0	5.0	25.0	60.0	0.0	---	---	---
<b>A. Landowner's COST</b>								
Land	\$90.00	\$90.00	\$90.00	\$90.00	\$0.00	\$9,000	\$90.00	\$90.00
Irrigation equipment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0	\$0.00	\$0.00
Total	\$90.00	\$90.00	\$90.00	\$90.00	\$0.00	\$9,000	\$90.00	\$90.00
<b>B. Landowner's EQUITABLE SHARE RENT ----- risk adj factor</b>								
Total income	\$261.12	\$296.32	\$445.68	\$334.49	\$194.48	\$35,304	\$353.04	\$353.04
Landowner's share	40.1%	40.1%	40.1%	40.1%	40.1%	\$14,160	\$141.60	\$141.60
Landowner's income	\$104.73	\$118.85	\$178.76	\$134.16	\$78.00	\$14,160	\$141.60	\$141.60
Landowner operating expense	33.08	39.09	49.54	17.13	9.41	2,793	27.93	27.93
Less less operating expense	\$71.65	\$79.76	\$129.21	\$117.03	\$68.59	\$11,368	\$113.68	\$113.68
Income risk adjustment	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
Cash rent equivalent	\$71.65	\$79.76	\$129.21	\$117.03	\$68.59	\$11,368	\$113.68	\$113.68
<b>C. Amount tenant CAN AFFORD TO PAY</b>								
Total income	\$261.12	\$296.32	\$445.68	\$334.49	\$194.48	\$35,304	\$353.04	\$353.04
Total operating expense	\$171.66	\$213.47	\$321.21	\$159.79	\$146.70	\$20,402	\$204.02	\$204.02
Return to land and Irr equip	\$89.46	\$82.85	\$124.47	\$174.70	\$47.78	\$14,903	\$149.03	\$149.03
<b>Comparison of alternative cash rent methods</b>								
Low	\$71.65	\$79.76	\$90.00	\$90.00	\$0.00	\$9,000	\$90.00	\$90.00
Average	\$83.71	\$84.20	\$114.56	\$127.24	\$38.79	\$11,757	\$117.57	\$117.57
High	\$90.00	\$90.00	\$129.21	\$174.70	\$68.59	\$14,903	\$149.03	\$149.03
Returns above all costs (profit)	(\$0.54)	(\$7.15)	\$34.47	\$84.70	\$47.78	\$5,903	\$59.03	\$59.03

# Pasture rental rates



## Kansas Agricultural Statistics surveyed market rental rates (available at [http://www.nass.usda.gov/Statistics\\_by\\_State/Kansas/index.asp](http://www.nass.usda.gov/Statistics_by_State/Kansas/index.asp))

United States Department of Agriculture  
National Agricultural Statistics Service, Pasture Field Office  
**AGRICULTURAL LAND VALUES & CASH RENTS**  
Kansas Agricultural Statistics  
Cooperating with the Kansas Department of Agriculture  
PO Box 354 - Topeka KS 66603-0354 • (785) 235-2236 • www.nass.usda.gov/kas • nass.kas@nass.usda.gov  
Released: September 15, 2010

### 2010 Land Value Highlights

The average value of all farmland and buildings for 2010 in Kansas is estimated to be \$1,000 per acre. This compares with \$1,030 in 2009 and \$1,020 in 2008. Kansas' average value of all farmland and buildings increased 2.9 percent from 2009 to 2010. Irrigated cropland values rose 3.2 percent from 2009 while non-irrigated cropland increased 7.0 percent in value from last year. The value of Kansas pasture land increased 2.1 percent from 2009 at \$770.

### 2010 Cash Rents

The 2010 average cash rent farmers pay for non-irrigated cropland in Kansas was \$43.50 per acre, unchanged from 2009. The cash rent rates for non-irrigated cropland ranged from a low in Seward County of \$25 per acre to the high in Doniphan County at \$71 per acre. Doniphan County was followed by Brown County at \$70, Nemaha at \$62 and Atchison at \$78. Seward was followed by Lane and Trego at \$26 and Greeley at \$26.50. The District with the highest rent was the Northeast District at \$54 per acre.

The 2010 cash rental rate for irrigated cropland in Kansas averaged \$96 per acre, up from \$89 per acre in 2009. The Northeast District had the highest rent with \$121 per acre, followed by the Northwest at \$120 and the North Central at \$118. The Southwest District had the lowest irrigated rent with \$60 per acre.

The pasture cash rent averaged \$15.50 per acre in 2010, unchanged from the rate in 2009. The rent for pasture in Kansas ranged from \$6.50 per acre in Morton County for a low to \$32 per acre in Doniphan County for the high. Doniphan was followed by Marshall at \$29 and Brown at \$27.50. Morton was followed by Seward and Chase at \$7 and Kearny and Hamilton at \$7.50. The Northeast District had the highest district-level rent per acre in the State at \$22 per acre.

### Kansas Farmland Values and Cash Rents, 2000 - 2010

Year	Value		Rent		Pasture and		All Farmland and Buildings	
	Irrigated	Non-Irrigated	All-Crop	Non-Crop	Value	Rent	Value	Rent
2000	1,040	693						
2001	1,080	698						
2002	1,080	645						
2003	1,080	641						
2004	1,080	691						
2005	1,180	770						
2006	1,200	820						
2007	1,280	882						
2008	1,400	960						
2009	1,400	1,000						
2010	1,400	1,070						

\* Rental rates are for land only \* 100 base

**BLUESTEM PASTURE RELEASE - 2009**  
Kansas Department of Agriculture  
In Cooperation with the National Agricultural Statistics Service  
P.O. Box 354  
Topeka, Kansas 66603-0354  
Phone: (785) 235-2236  
Released: April 24, 2009

Bluestem pasture condition in the Flint Hills region is rated at 2 percent poor, 18 percent adequate, 57 percent good, and 23 percent excellent going into the 2009 grazing season. As of April 20, typical moisture conditions were rated mostly adequate to surplus across the Bluestem region. Sources of stock water being used are ponds, 59 percent; streams, 30 percent; tanks, 7 percent; and spring developments, 4 percent. Water supplies are rated adequate to surplus, with 92 percent reporting adequate or better supplies.

The percentage of respondents who already completed the average price per acre for a full summer season is 56 percent. The average price per acre for a full summer season is \$27.00. The average price per acre for a full summer season is \$27.00. The average price per acre for a full summer season is \$27.00.

When the stocking rate is based on pounds of live cattle per acre, for a full summer season the average live weight is 772 pounds. The average live weight for a partial summer season is 596 pounds. The average live weight counts per acre for a full summer season is 207 pounds and for a partial summer season the average is 217 pounds per acre. For a full summer season, the average price per acre with care is \$20.70, while the average price per acre without care is \$15.70. For a partial summer season, the average price per acre with care is \$15.70 and the average price per acre without care is \$11.70.

Partial season contracts have been broken into two categories: contracts with money grazing days or less and contracts with more than ninety grazing days.

Partial season contracts with money grazing days or less reported an average per acre lease rate of \$25.10 where care is provided, and \$22.50 where no care is provided. Price per head with care for steers and heifers under 100 pounds averaged \$5.20 with a guarantee of 2.5 acres. Without care, the price per head averaged \$5.10 with 2.5 acres guaranteed.

The average price per acre for partial more than money days was \$24.30 per acre provided and \$20.50 per acre where no care is provided. Price per head with care for steers and heifers under 100 pounds averaged \$5.40 with a guarantee of 2.5 acres. Without care, the price per head averaged \$5.10 with 2.5 acres guaranteed.

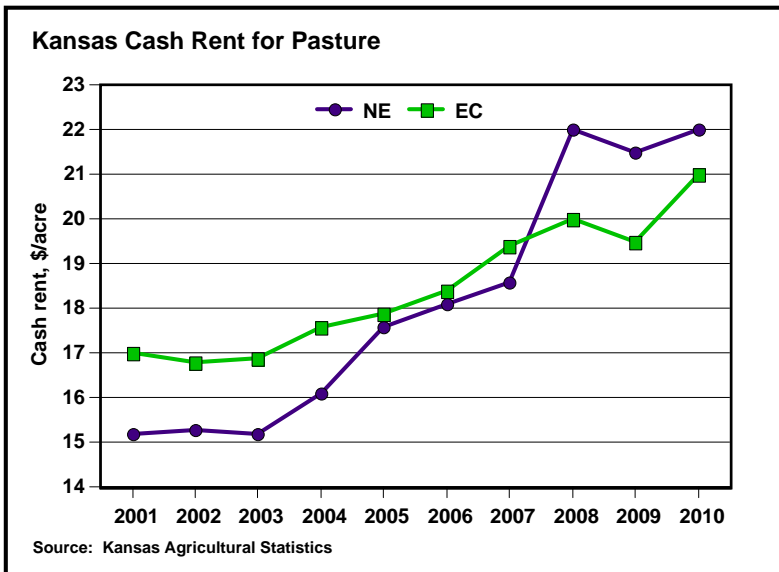
Services provided by the landlord or caretaker in full summer season leasing arrangements are reported as follows:

- Winter stocker grazing arrangements, the average reported price is \$9.40 per head per month with 5.2 acres guaranteed. For winter cow grazing arrangements, the average reported price is \$12.30 per head per month with 7.5 acres guaranteed.
- Twenty-eight percent of the respondents reported burning of pastures, using 8 percentage points from last year. The average burning rate was April 1.

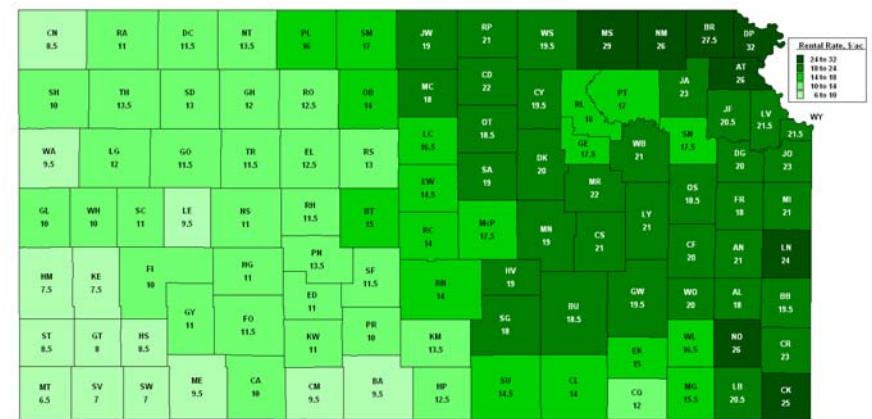
This Report may be found on the Internet at: [www.nass.usda.gov](http://www.nass.usda.gov)

Switched to county-level rents in 2009, will drop CRD-level land values after 2010)

## Market going rate?

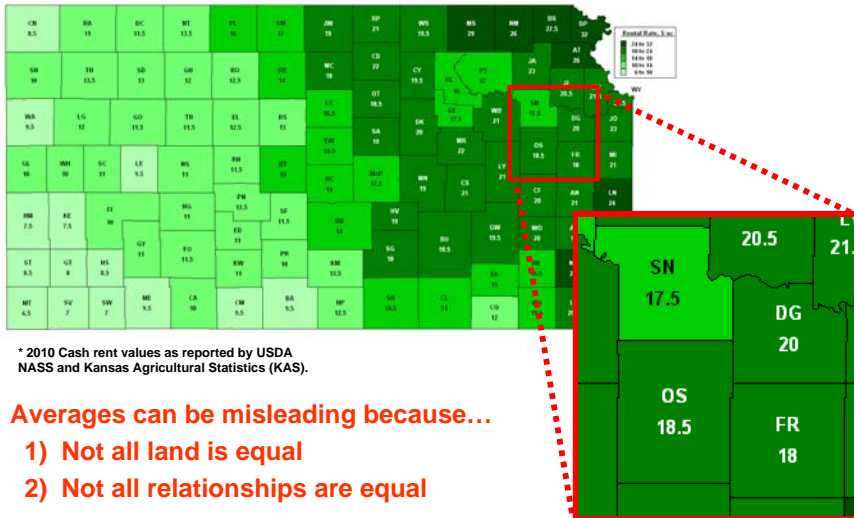


## Kansas county-level pasture cash rents...



\* 2010 Cash rent values as reported by USDA NASS and Kansas Agricultural Statistics (KAS).

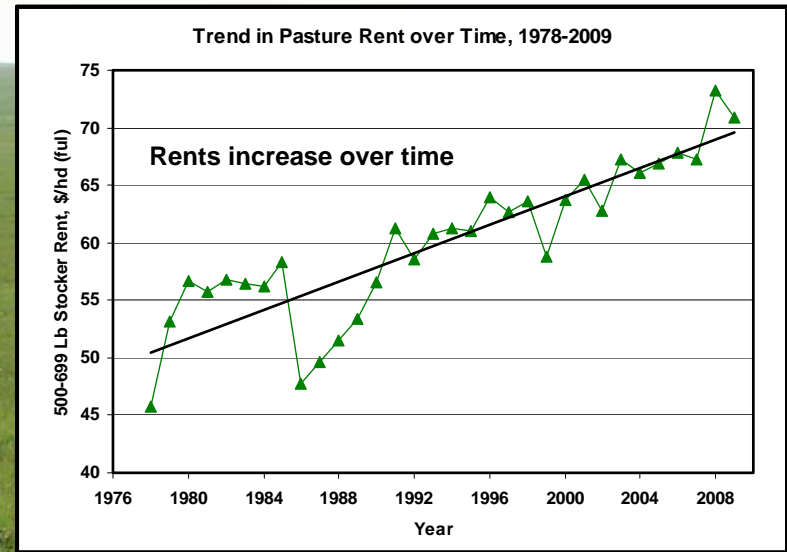
## Kansas county-level pasture cash rents...



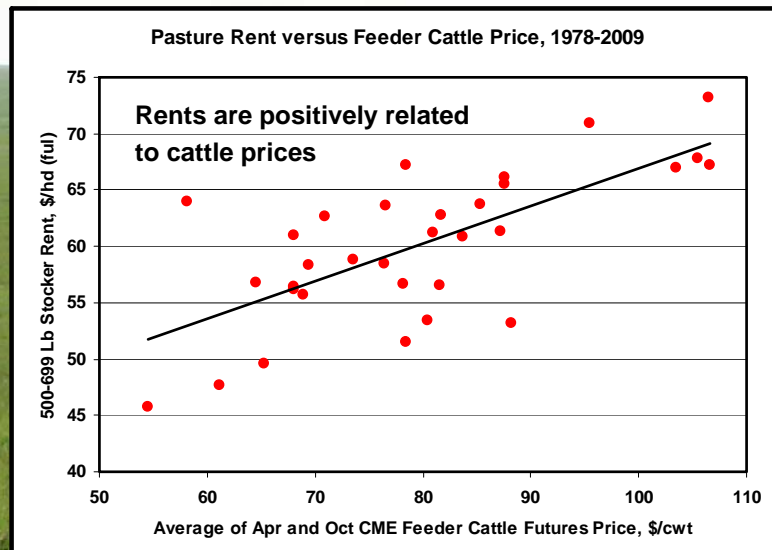
Averages can be misleading because...

- 1) Not all land is equal
- 2) Not all relationships are equal

## What drives pasture rental rates?



## What drives pasture rental rates?



## What drives pasture rental rates?

