

2010-2011

**K-State Leasing & Excel Workshops**

January 12, 2011

Baden Square  
700 Gary Street  
Winfield, KS



Kansas State University  
Department of Agricultural Economics

## Leasing & Excel Workshop

Kevin Dhuyvetter  
Rich Llewelyn

Department Agricultural Economics  
Kansas State University

www.agmanager.info



## What we're going to do today...

- Introduction to Rental Arrangements

- Types of leases
- Principles of leases
- Available information

Objective is to get us all on the same page with regard to terminology and information that is publicly available.

- Ethics of leasing

Discuss issues/factors that lead to potential problems with lease arrangements (seem to be more common in current environment).

- Using Excel Spreadsheets (hands on)

Best way to learn is to actually get on the computer!

- Working with *KSU-Lease.xls* (hands on)

Learn how to tailor numbers to your own operations.

Feel free to ask questions, disagree, and/or make comments at any time...

## Introduction to Rental Arrangements



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

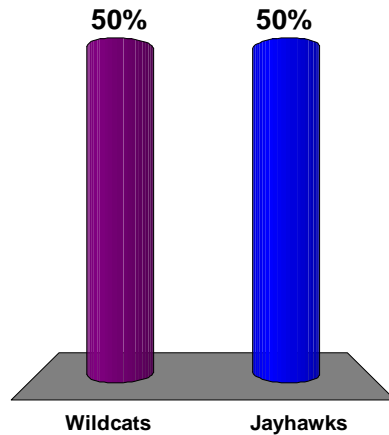
- Impact of adopting new technologies
- Cash renting (folks always want the "going rates")
- "Non-traditional" leases
  - Net share rent
  - Flexible cash rent
  - Bushel rent
  - Combination cash/cropshare
- Terminating leases

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

## Test to make sure clickers are working...

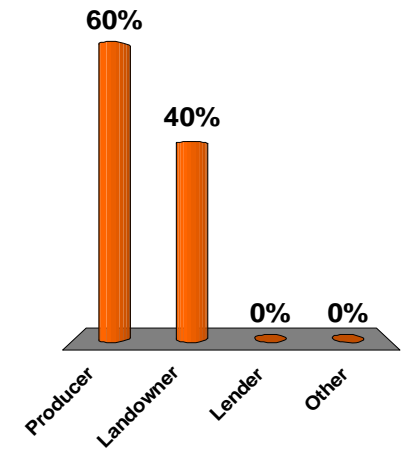
Who will finish higher in the Big XII this year?

1. K-State Wildcats 
2. KU Jayhawks 



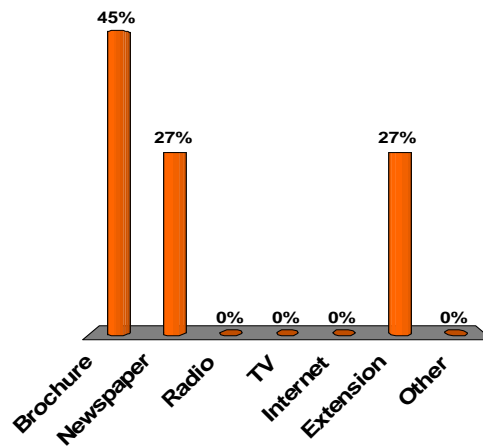
## Which best describes you?

1. Producer
2. Landowner
3. Lender
4. Other



## How did you hear about this meeting?

1. Brochure/mail
2. Newspaper
3. Radio
4. TV
5. Internet
6. Extension office
7. Other



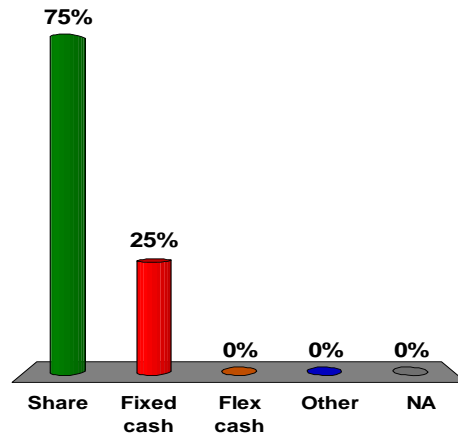
## Types of leases on crop land

- **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**

## What type of leases do you use?

The lease arrangement for the majority of non-irrigated crop acres I rent or manage is ...

1. Crop share
2. Fixed cash
3. Flexible cash
4. Other
5. Does not apply



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

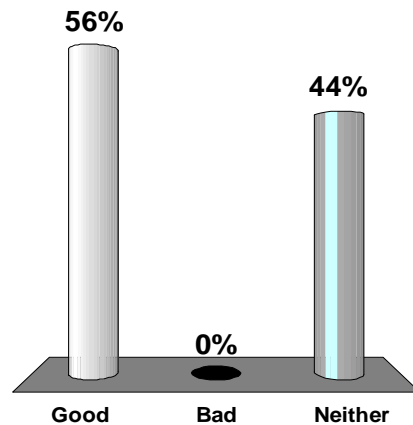
Region	Cash	Share	Other
Northwest	36.3%	59.8%	3.9%
West Central	24.3	71.7	4.0
Southwest	16.5	75.5	8.0
North Central	34.9	60.5	4.6
Central	30.9	64.6	4.5
South Central	21.0	76.4	2.6
Northeast	38.8	53.5	7.7
East Central	36.0	54.3	9.6
Southeast	36.2	58.9	4.9
State	30.5	63.9	5.6

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

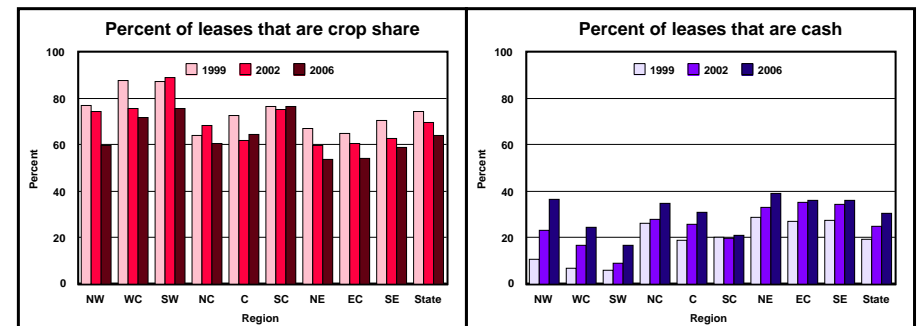
## Crop share versus cash leases...

Relative to equitable crop share leases, fixed cash leases are...

1. A good thing
2. A bad thing
3. Neither (just different)



## 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.

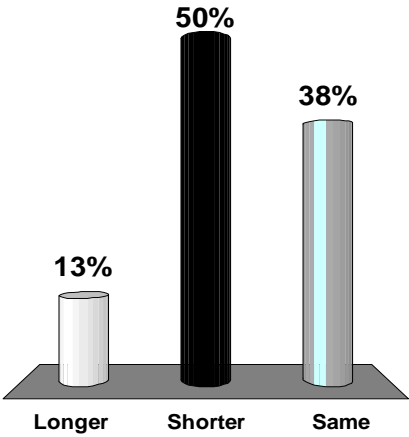
### Questions to ask:

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

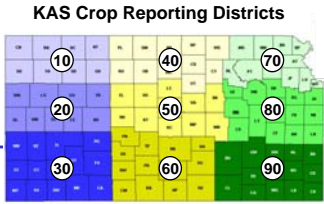
# Crop share versus cash leases...

Relative to crop share leases, the length of leases (number of years) for fixed cash rent tend to be...

1. Longer
2. Shorter
3. Basically the same



## Length of cropland leases...



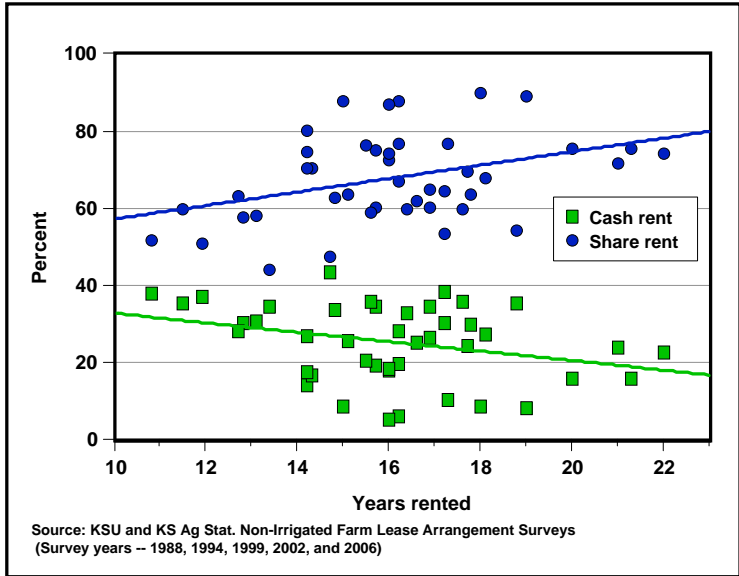
Region	Years rented
Northwest (10)	17.6
West Central (20)	21.0
Southwest (30)	20.0
North Central (40)	16.9
Central (50)	17.2
South Central (60)	15.5
Northeast (70)	17.2
East Central (80)	18.8
Southeast (90)	15.6
State	17.8

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

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

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

## Length of lease vs. lease type ...



Source: KSU and KS Ag Stat. Non-Irrigated Farm Lease Arrangement Surveys (Survey years -- 1988, 1994, 1999, 2002, and 2006)

## 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”
- 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.



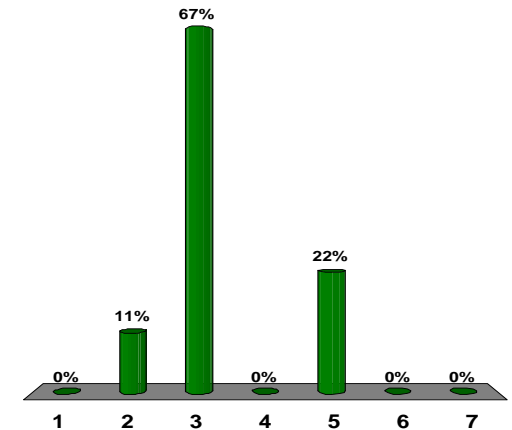
## Sharing of expenses...

### 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

On non-irrigated crop share leases, we share the following:

1. Nothing
2. Fertilizer
3. Fert & chem
4. Fert & seed
5. Fert, chem & seed
6. Other
7. Does not apply



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

Table 10. South Central-60 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 (167 Leases)</b>	163	3	1	
% of Total Leases in Lease Arrangement	97.6%	1.8%	0.6%	No Responses
% of Leases Sharing Fertilizer Costs	100.0%	100.0%	0.0%	Responses
% of Leases Sharing Herbicide Costs	71.2%	33.3%	0.0%	
% of Leases Sharing Insecticide Costs	53.4%	33.3%	0.0%	
<b>Sorghum (9 Leases)</b>	9			
% 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	88.9%			
% of Leases Sharing Insecticide Costs	22.2%			
<b>Multiple Crops (21 Leases)</b>	16	5		
% of Total Leases in Lease Arrangement	76.2%	23.8%	No Responses	No Responses
% of Leases Sharing Fertilizer Costs	100.0%	80.0%		
% of Leases Sharing Herbicide Costs	68.8%	0.0%		
% of Leases Sharing Insecticide Costs	43.8%	80.0%		
<b>Soybeans (6 Leases)</b>	6			
% 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	33.3%			
% of Leases Sharing Insecticide Costs	33.3%			
<b>Alfalfa (9 Leases)</b>	8		1	
% of Total Leases in Lease Arrangement	88.9%	No Responses	11.1%	No Responses
% of Leases Sharing Fertilizer Costs	100.0%			
% of Leases Sharing Herbicide Costs	100.0%		0.0%	
% of Leases Sharing Insecticide Costs	87.5%		0.0%	

\* 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))

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

Table 13. Southeast-90 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 (43 Leases)</b>	43			
% of Total Leases in Lease Arrangement	100.0%	No Responses	No Responses	No Responses
% of Leases Sharing Fertilizer Costs	79.1%			
% of Leases Sharing Herbicide Costs	46.5%			
% of Leases Sharing Insecticide Costs	34.9%			
<b>Corn (36 Leases)</b>	32	2	1	1
% of Total Leases in Lease Arrangement	88.8%	5.6%	2.8%	2.8%
% of Leases Sharing Fertilizer Costs	87.5%	100.0%	100.0%	100.0%
% of Leases Sharing Herbicide Costs	25.0%	50.0%	100.0%	100.0%
% of Leases Sharing Insecticide Costs	21.9%	100.0%	100.0%	100.0%
<b>Sorghum (14 Leases)</b>	14			
% of Total Leases in Lease Arrangement	100.0%	No Responses	No Responses	No Responses
% of Leases Sharing Fertilizer Costs	85.7%			
% of Leases Sharing Herbicide Costs	42.9%			
% of Leases Sharing Insecticide Costs	35.7%			
<b>Multiple Crops (23 Leases)</b>	21	1	1	
% of Total Leases in Lease Arrangement	91.4%	4.3%	4.3%	No Responses
% of Leases Sharing Fertilizer Costs	85.7%	100.0%	100.0%	
% of Leases Sharing Herbicide Costs	81.0%	100.0%	100.0%	
% of Leases Sharing Insecticide Costs	57.1%	100.0%	100.0%	
<b>Soybeans (26 Leases)</b>	23	1	1	1
% of Total Leases in Lease Arrangement	88.6%	3.8%	3.8%	3.8%
% of Leases Sharing Fertilizer Costs	91.3%	100.0%	100.0%	100.0%
% of Leases Sharing Herbicide Costs	69.6%	0.0%	100.0%	100.0%
% of Leases Sharing Insecticide Costs	65.2%	100.0%	0.0%	100.0%

\* 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, 79.1% 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))

## 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 ...

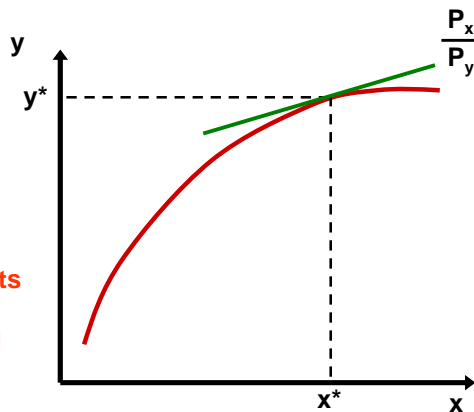
1. Yield increasing inputs should be shared
  2. Share arrangements should be re-evaluated as technology changes
  3. Total returns divided in same proportion as resources contributed
- 
4. Compensation for unused long-term investments at termination
  5. Good landlord/tenant communications

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

#### Examples of yield increasing inputs

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

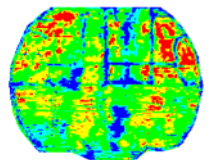
Sharing yield increasing inputs in the same % as income provides the economic signal to both parties to apply the optimal amount of the input.



### 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?

## Adoption of new technologies ...

- ... tends to cause problems because traditional arrangements or rules-of-thumb are often not appropriate.
- ... should not be a problem if we follow basic principles of a good lease.
- ... if problems persist as to what is equitable, can lead to alternative leasing arrangements (e.g., cash lease).

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

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

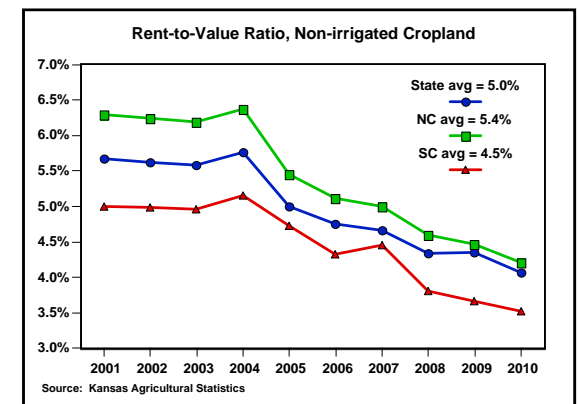
Base input values on expectations consistent with the time-frame of the lease (if expectations end up being significantly off, be willing to make adjustments).



## 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.



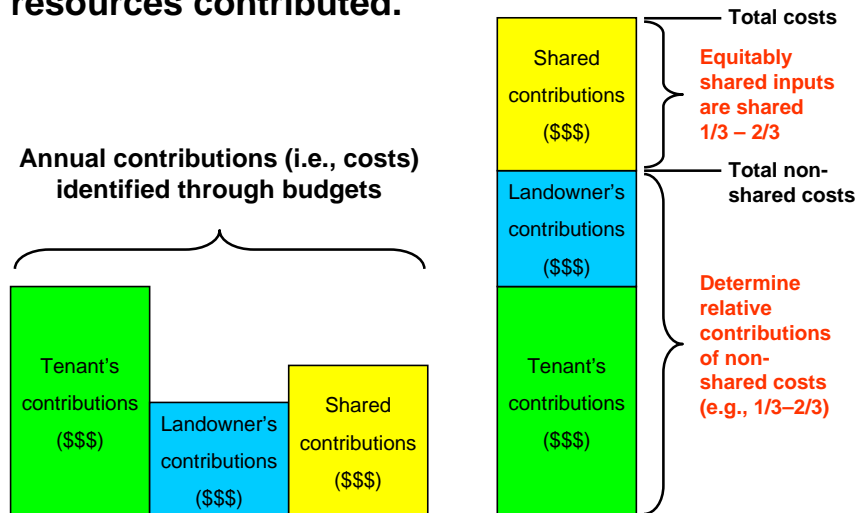
## Crop production input contributions ...

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.

Annual contributions (i.e., costs) identified through budgets



## “Non-traditional” leases ...

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

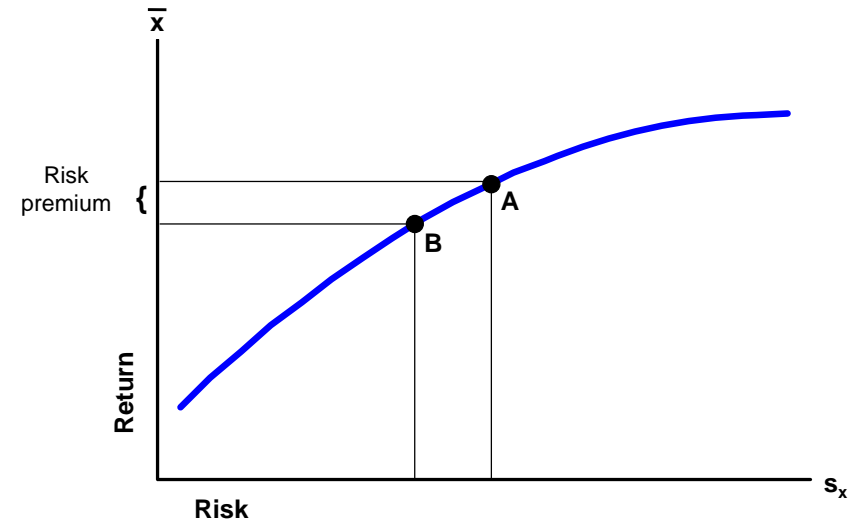
Because there is currently much interest in these types of leases, there must be good reasons to use them ...

## Cash rents ...

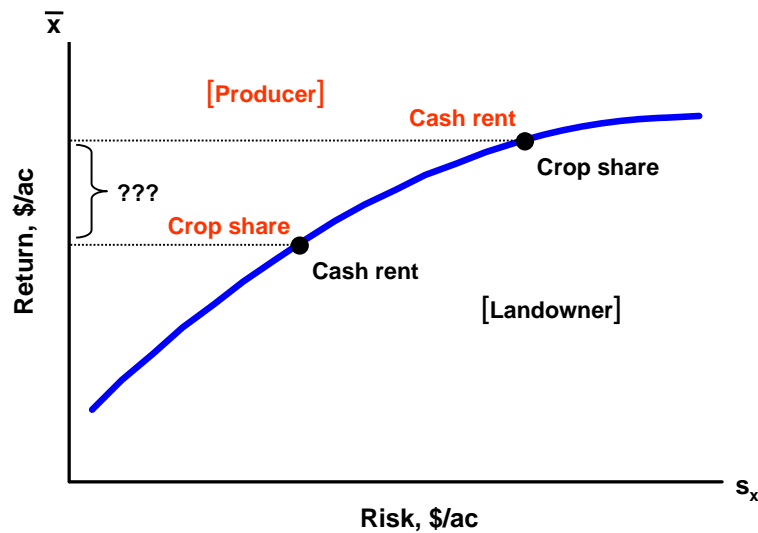
Numerous good reasons to go to cash rent, but landowners and producers need to recognize several things when doing so ...

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

## Risk-return tradeoff



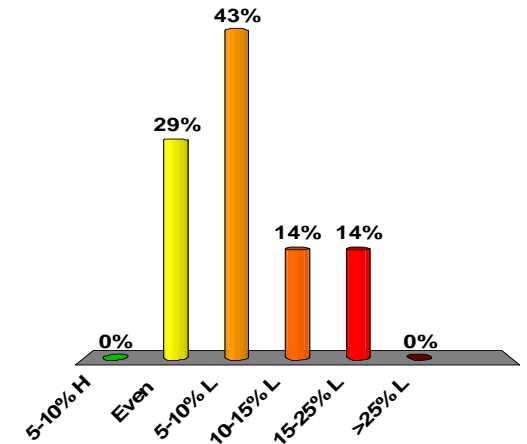
## Landowner/producer risk-return tradeoff



## Risk premium...

How should cash rent for non-irrigated land compare with expected returns from equitable crop share...

1. 5-10% higher
2. Roughly equal
3. 5-10% less
4. 10-15% less
5. 15-25% less
6. >25% less



## 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

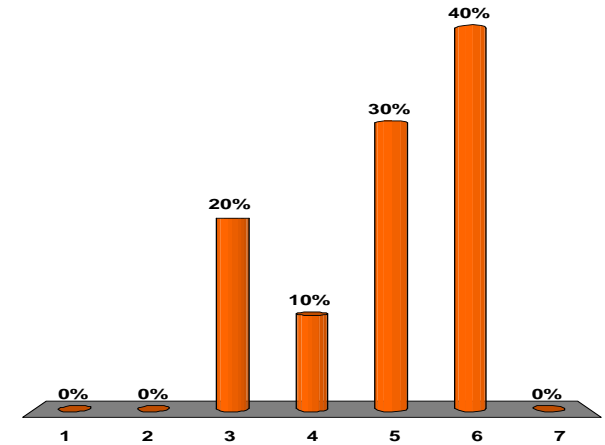


The last three require yield, price, and government payment projections (as well as cost information used for crop share).

## Market rate for average cash rent...

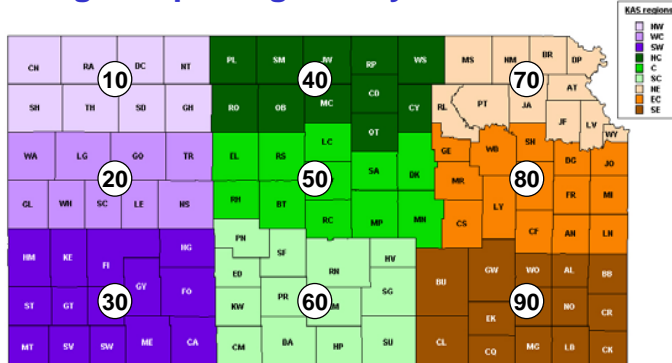
Average cash rent per tillable acre for non-irrigated crop land in my area is...

1. < \$30
2. \$31-\$35
3. \$36-\$40
4. \$41-\$45
5. \$46-\$50
6. \$51-\$60
7. > \$60



## 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.



## KAS surveyed market rates ...

USDA United States Department of Agriculture  
National Agricultural Statistics Service, Kansas Field Office  
**AGRICULTURAL LAND VALUES & CASH RENTS**  
Kansas Agricultural Statistics  
Cooperating with the Kansas Department of Agriculture  
RD Box 3024 • Topeka KS 66603-3024 • (785)235-2250 • www.ksas.usda.gov • rates@ksas.usda.gov  
Released: September 10, 2010

### 2010 Land Value Highlights

The average value of all farmland and buildings for 2010 in Kansas is estimated to be \$1,050 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 \$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 Sedgewick County of \$25 per acre to the high in Compton County of \$115 per acre. Compton County was followed by Green County at \$105, Nemaha at \$92 and Johnson at \$75. Sedgewick was followed by Lane and Trego at \$26 and Geary at \$24.50. The District with the highest rent was the Northeast District at \$94 per acre.

The 2010 cash rent rate for irrigated cropland in Kansas averaged \$95 per acre, up from \$90 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 Southeast 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 Compton County for the high. Compton was followed by Marshall at \$28 and Brown at \$27.50. Morton was followed by Sedgewick 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 Buildings		All Farmland and Buildings		
	Value	% Change	Value	% Change	Value	% Change	Value	% Change	
2009	1,040	630	698	67.00	380	12.80	820	20.688	
2010	1,080	638	673	72.00	390	12.80	845	30.638	
2008	1,000	640	670	72.00	380	12.80	805	31.445	
2007	1,080	645	684	68.00	410	12.80	885	32.332	
2006	1,080	660	688	72.00	420	12.20	780	32.790	
2005	1,180	770	805	73.00	38.00	500	18.40	810	38.200
2004	1,200	820	854	74.00	39.00	690	19.70	870	41.292
2003	1,260	880	914	82.00	41.00	690	18.50	980	48.214
2002	1,450	940	1,020	92.00	42.50	730	18.50	1,020	47.124
2001	1,600	1,040	1,090	94.00	43.00	730	18.50	1,080	47.888
2010	1,850	1,010	1,120	95.00	43.80	770	18.80	1,080	?

<sup>1</sup>Rental rates are for land only. <sup>2</sup>Will be published in August 2011.

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

Farm Management Guide MF-1100  
**Kansas Land Prices and Cash Rental Rates**  
Department of Agricultural Economics - www.agmanager.org  
Kansas State University Agricultural Experiment Station and Cooperative Extension Service  
Kevin C. Dreyer  
Agricultural Economics  
Farm Management  
Terry L. Kuehn  
Professor Emeritus

This Farm Management Guide reports Kansas land prices and cash rents for 1993-2010. These data are useful to farm managers in determining cash rental rates, in landowner decisions in calculating yields for making time adjustments to land prices, and in landowners and managers who have expectations on historical price and rental levels for farmland. The average price for the guide measures per acre of land that vary widely in productivity. Thus, these data are more appropriate for analyzing trends than for establishing rental rates or rental rates for specific tracts of farmland.

The annual data for all land in farms reported also includes the value of any buildings that may be on the land. The value of the buildings represents a small portion of the total value, on average, and thus this reporting method does not significantly affect the accuracy of land value reported.

Kansas Agricultural Statistics  
For reporting purposes, Kansas Agricultural Statistics Service has divided the state into agricultural statistical districts. The districts are: Northwest (NW), West Central (WC), Southwest (SW), North Central (NC), East Central (EC), South Central (SC), Northeast (NE), and Southeast (SE), and Southwest (SE) (Figure 1). Since 1976, Kansas Agricultural Statistics has collected price information on these types of land: non-irrigated cropland, irrigated cropland, and pasture. This information is combined in two tables.

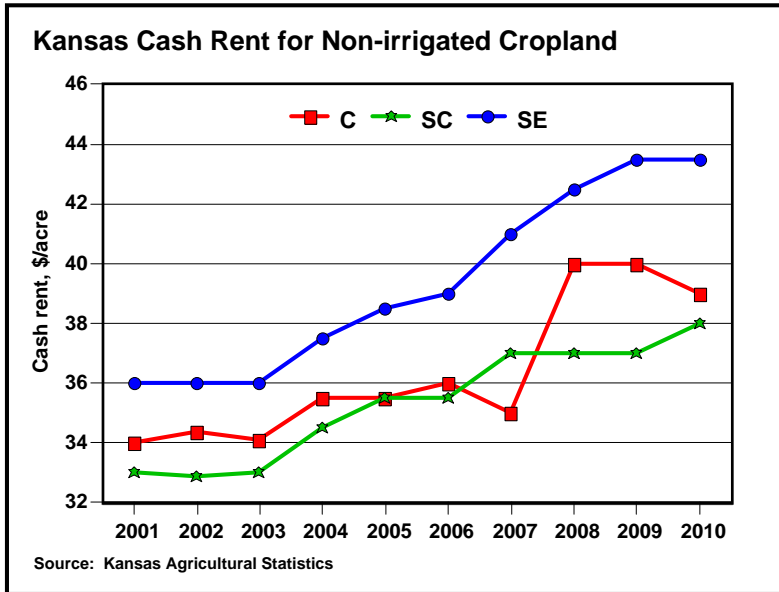
Kansas Land Prices  
Table 1 through 5 show average prices of land and buildings. Table 1 is each district and an average for the state for the most recent 20 years reported. Data are shown for each of the five land groupings: all land in farms, all irrigated, non-irrigated cropland, irrigated cropland, and pasture. The annual data is based on a survey conducted by Kansas Agricultural Statistics in June of each year asking for estimates of both January 1 land values and the percentage change in land values from the previous year as of June 1.

Year	NW	SWC	SW	NC	EC	SC	NE	SE	State
1991	830	673	819	810	812	815	830	840	810
1992	870	764	818	812	842	841	834	842	834
1993	900	811	812	847	851	846	830	847	843
1994	917	784	812	821	869	841	826	847	849
1995	911	784	844	827	845	879	809	831	833
1996	940	809	848	840	840	840	840	840	840
1997	960	810	880	840	840	840	840	840	840
1998	960	810	880	840	840	840	840	840	840
1999	960	810	880	840	840	840	840	840	840
2000	1,000	810	880	840	840	840	840	840	840
2001	1,000	810	880	840	840	840	840	840	840
2002	1,000	810	880	840	840	840	840	840	840
2003	1,000	810	880	840	840	840	840	840	840
2004	1,000	810	880	840	840	840	840	840	840
2005	1,000	810	880	840	840	840	840	840	840
2006	1,000	810	880	840	840	840	840	840	840
2007	1,000	810	880	840	840	840	840	840	840
2008	1,450	940	1,020	92.00	42.50	730	18.50	1,020	47.124
2009	1,600	1,040	1,090	94.00	43.00	730	18.50	1,080	47.888
2010	1,850	1,010	1,120	95.00	43.80	770	18.80	1,080	?

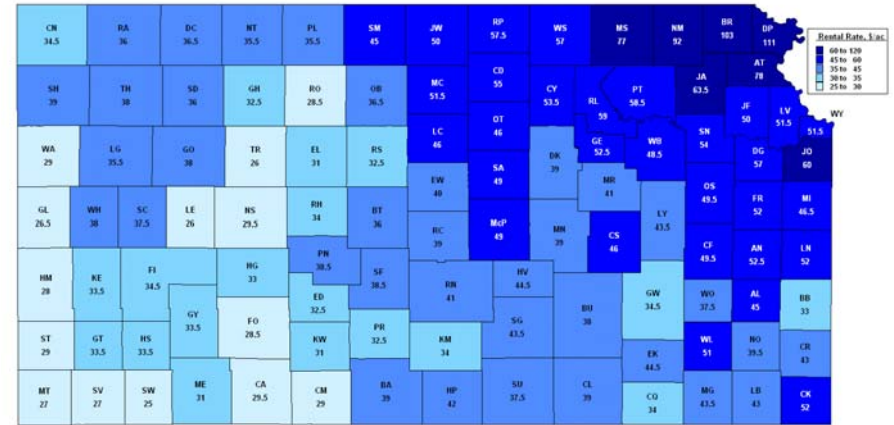
Land Economics - Revised October 2010

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

## Market going rate?

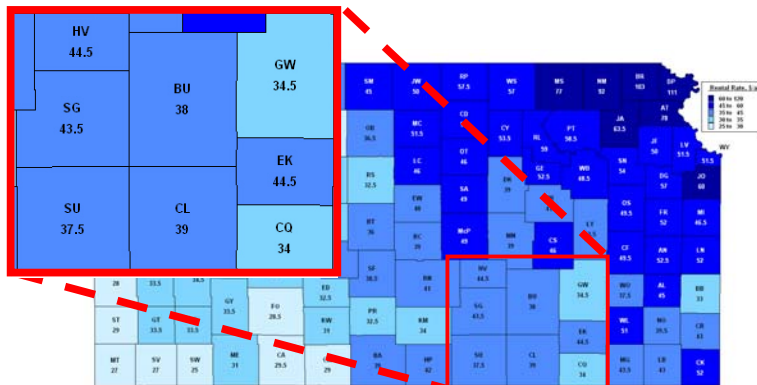


## Kansas county-level non-irrigated crop cash rents...



\* 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...

... not all land is equal and not all relationships are equal.

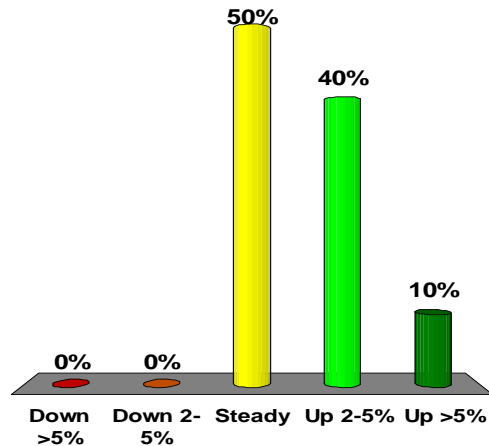
## Methods of establishing cash rent values ...

- **Crop share equivalent (adjusted for risk)**
  - Converts equitable crop share rent to an expected dollar amount per acre
- **Landowner's cost**
  - Based on the premise of landowner's continuing to receive comparable returns to what has been received in the past
- **Amount tenant can afford to pay**
  - Residual approach – after tenant pays all expenses, whatever income is left represents cash rent

## Crop land cash rents for 2011...

My estimate as to what cash rents for crop land in 2011 will be, relative to 2010, is...

1. Down >5%
2. Down 2-5%
3. Steady
4. Up 2-5%
5. Up >5%



## 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)

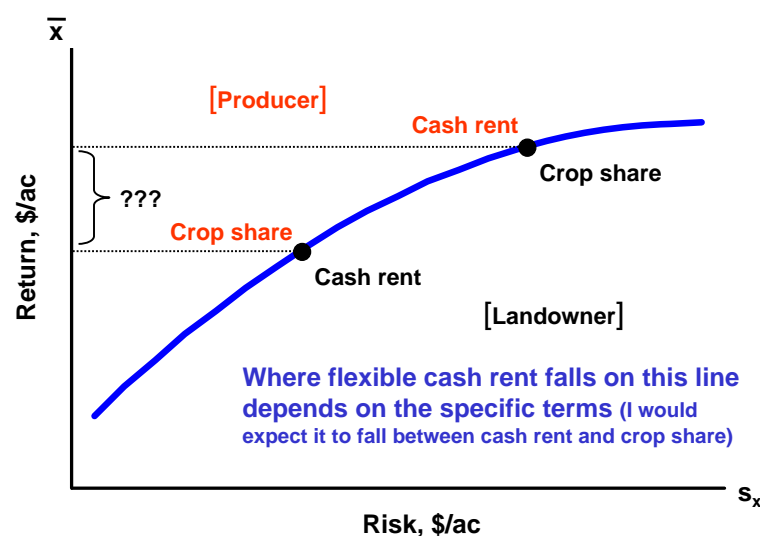
## Flexible Cash Rents – WHY NOT?

- 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)

## Flexible cash rents – HOW?

- There is not a single right way to do this!  
(but there are plenty of wrong ways)
- A couple things to keep in mind
  - Risk-return trade-off suggests that higher risk is associated with higher expected returns and vice versa
  - Absolutely critical that all parties involved understand the flexible arrangement and how it can play out under different scenarios (i.e., have a written lease and include example calculations)
  - Important to remain “flexible” with flexible cash rents (somewhat of a learning process)

## Landowner/producer risk-return tradeoff



## Flexible Cash Rents – HOW?

### Steps to determining a flexible cash lease

1. Establish a base cash rent  
(often tied to local market and/or costs of production)
  - Identify what risk adjustment should be (if any)
2. Determine what base rent will be “flexed” on
  - Price deviation from base (fixed bushel rent)
  - Yield deviation from base
  - Price and yield (revenue) deviation from base
  - Gross revenue deviation from base
  - Cost deviation from base

## Flexible Cash Rents – HOW?

### 1. Establish a base cash rent

#### A. USDA NASS survey value

- Advantages – third party reported, county-level data now available, easy/transparent (requires no assumptions)
- Disadvantages – county average may not fit specific situation, year lag in availability, subject to revisions

#### B. Budget-derived value (*KSU-Lease.x/s*)

- Advantages – tailored to specific situation (rotation, yields, etc.), equitable crop share can be calibrated to local area
- Disadvantages – requires development of crop budgets and associated assumptions

## Flexible Cash Rents – HOW?

### Questions to ask

1. Does cash rent flex up and down or only up?  
(this should impact base price as it relates to market rate)

If cash rent only flexes up (i.e., base rent is a floor), should base rent be adjusted to reflect risk situation?

Examining the options market might help guide thinking on this issue...

## At-the-money call options premiums as % of futures\*

Crop (contract)	----- Scenario -----		
	A	B	C
Wheat (Jul 2011)	10.2%	9.5%	5.9%
Corn (Dec 2011)	13.5%	9.7%	6.2%
Soybean (Nov 2011)	10.8%	8.2%	6.0%

A. Current volatility (35.5, 36.6, 30.1) and current days to expiration (208-362)

B. Current volatility and 180 days to expiration (6 months)

C. Historical volatility (22.3, 23.5, 22.3) and 180 days to expiration

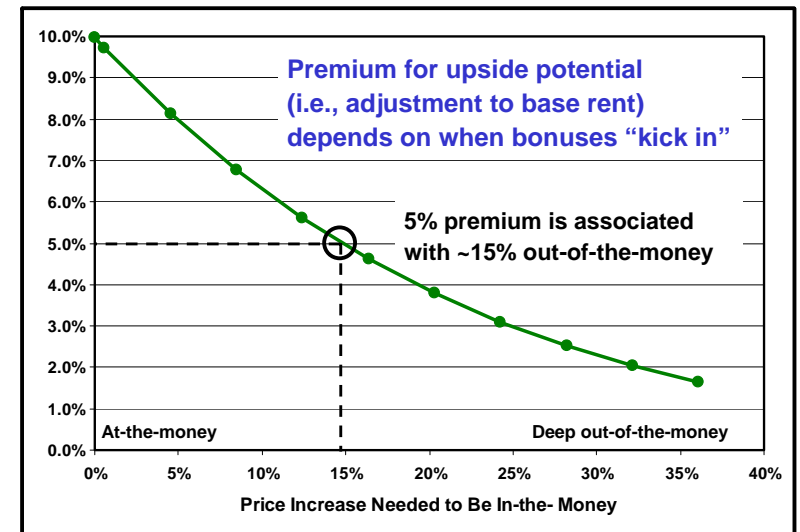
\* Based on futures market closing prices on 11/26/2010 and Black-Scholes options model

## Flexible Cash Rents – HOW?

### Questions to ask

1. If cash rent only flexes up (i.e., base rent is a floor), should base rent be adjusted to reflect risk situation? -- YES
2. But, how does this relate to price triggers (i.e., when bonus payments start kicking in?)

## Call options premiums as percent of current price\*



\* Based on 11/26/2010 DEC 2011 corn futures volatility, but assuming 180 days to expiration

## Flexible Cash Rents – HOW?

### *Getting complicated enough yet?*

*(start to see why not many people are using flexible rents)*

## Flexible Cash Rents – HOW?

### Questions to ask

2. What yields and prices are used to determine actual gross revenue?
  - a. Yields and prices used for determining adjustments to base rent need to be consistent with those used in determining base rent and should be spelled out in lease.
  - b. Suggestions – use actual crop yields as turned in for insurance records and a multi-week or monthly average cash price for a relevant market (if post-harvest prices are used, prices should be net of storage costs). I would not use actual prices received for crop. What about insurance prices?

## Flexible Cash Rents – HOW?

### Questions to ask

3. What crops should all be included in calculations?
  - a. Goal is to pay bonuses when income is high and thus it is important that bonuses are tied reasonably close to what is actually done. However, the benefits of additional complexity need to outweigh the associated costs.
  - b. Suggestion – include crops that account for the majority of the production and income and those which data will be readily available. Nothing wrong with applying percentage changes from 80-90% of acres to 100% of acres rented. Remember KISS principle...

## Flexible Cash Rents – HOW?

### Questions to ask

4. Are crop insurance and government payments (e.g., ACRE, SURE) included / accounted for?
  - a. Typically crop insurance indemnity payments are received when income is low and thus they would not be expected to trigger bonuses. However, if working with gross income for farm they could be included (need to account for premium cost).
  - b. Suggestion – do not factor in crop insurance or government payments to bonuses (i.e., these are handled strictly by tenant), but share information in case things need to be changed in the future.

## Flexible Cash Rents – HOW?

### Questions to ask

5. What about flexing cash rent based on costs of crop inputs?
  - a. Probably only makes sense for major inputs that have considerable price risk (e.g., fertilizer, irrigation fuel). Establish a \$/acre for each crop (and total for farm) based on quantity and price and then flex on price deviation from base (do not use actual price paid).
  - b. Suggestion – if this is a major concern, consider going back to crop share lease. Focus on yield and price first to keep things slightly less complex.

## Flexible Cash Rents – HOW?

### Questions to ask

6. What will final rent be under alternative potential outcomes?
  - a. Ask yourself lots of “what if” questions to make sure you know how things “turn out” under various price/yield scenarios.
  - b. Suggestion – take time to create example outcomes as this will help with identifying the terms that need to be included in written lease (include examples showing relevant calculations in written lease).

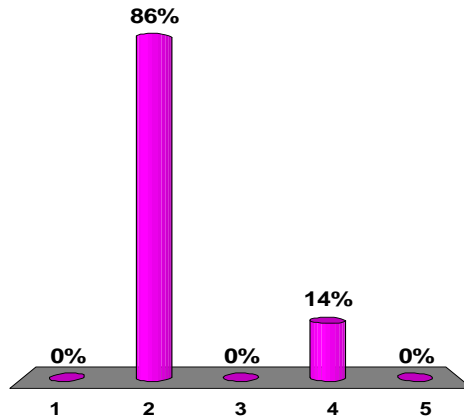
**Questions**  
**Comments**  
**Discussion**

***Ethics of Leasing***  
*(thoughts from Kevin and Terry)*

## View of other party to the lease...

How do you view the other party in a lease?

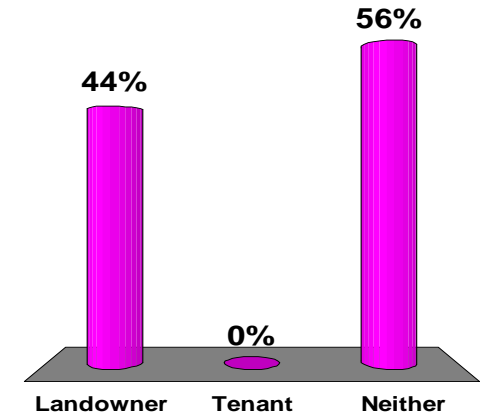
1. Competitor
2. Partner
3. Neither C nor P
4. Necessary evil
5. Does not apply



## View of other party to the lease...

Who has more "power" in negotiating the terms of a lease?

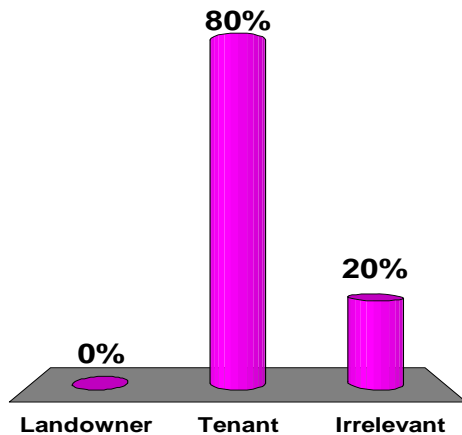
1. Landowner
2. Tenant
3. Neither (roughly equal)



## View of other party to the lease...

Who "typically" needs the income from the land the most?

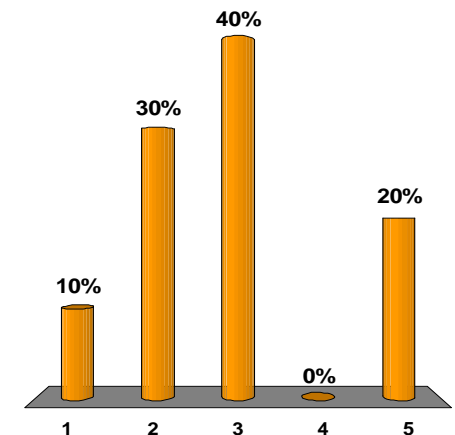
1. Landowner
2. Tenant
3. Does not matter



## Fixed cash leases...

Of land that I rent (manage) on a fixed cash rent, on average, the rental rate is renegotiated...

1. Every year
2. Every 2-3 years
3. Every 3-5 years
4. 6 years or more
5. Does not apply



## Rental Ethics -- Our perceptions...

- Tenants have the information (power)
- Cash rents tend to rise over time
- Manna-from-heaven payments often should be shared
- Foot-in-door high rents often inappropriate
- Landowners need money just like tenants
- Landowners are sometimes unethical too
- Family situations often are the worst
- Ethical behavior more profitable in long run

## Tenants have the power!

- Landowners often:
  - Are generations and geographically removed
  - Are technologically removed
  - Are old and easily taken advantage of
  - View the arrangement with a tenant as a long-term commitment handed down from their parents
  - Think that farming is a low-income business and so want to “do their part” in aiding it
  - Believe there are few potential tenants and so are beholden to the existing tenant
- Tenants take advantage of the situation
  - Unintentionally (may be poor managers)
  - Intentionally (“she never asked me to raise rent”)
- Only occasionally do we see a landowner shafting a tenant

## Tenants have the power!

- Landowners often:
  - Are generations and geographically removed
  - Are technologically removed
  - Are old and easily taken advantage of
  - View the arrangement with a tenant as a long-term commitment handed down from their parents
  - Think that farming is a low-income business and so want to “do their part” in aiding it
  - Believe there are few potential tenants and so are beholden to the existing tenant
- Tenants take advantage of the situation
  - Unintentionally (may be poor managers)
  - Intentionally (“she never asked me to raise rent”)
- Only occasionally do we see a landowner shafting a tenant

Many of these points are the result of the fact that a number of landowners are landowners “by inheritance” as opposed to investing in land intentionally. Thus, returns are often viewed as “money I never had before” as opposed to “what I expect from my investment.”

## Cash rents rise over time

- Although cash rents do fall about 30% of the years, on average they rise 2-3% annually
  - Unusual to see a 3-year contract rate that shouldn’t be higher than the previous contract
- Landowners & tenants who see stable crop-share terms for years think that translates to stable cash rent
  - We see cash rental rates that haven’t changed for years and decades
    - Landlord: “We didn’t know.”
    - Tenant: “She never asked for a higher rent.”

## Manna-from-heaven payments

- Unexpected payments, typically from the government, should be shared according to parties' costs
  - Examples: CRP, CSP, EQIP
- If tenant does nothing to earn payment it should go to the land, i.e., the landowner
- Such payments should be discussed between landowner & tenant (especially the relative associated costs)

## Foot-in-door high rental payments

- High rent payments on new contracts often are followed by stagnant rates for many years, which could be:
  - A) Tenant overbids to get land, then realizes he's not profitable so rationalizes stagnant rents
  - B) Tenant uses this as a strategy to acquire land and pay lower-than-market rents over time
    - This is the least ethical outcome of the two
- Some tenants who do this actually beg for lower rents in near future, realizing that landlords are reluctant to change tenants
  - This is really unethical!

## Landowners need money too

- Tenants often make the argument that “she doesn't need the money”
  - This is completely irrelevant!
- Admittedly, landowners sometimes foster this perception
  - . . . which tends to change when investment-minded heirs acquire land being rented

## Landowner ethics

- Landowners may use their land for non-ag purposes and yet expect the same rent
  - Utility poles, oil leases
  - Lease hunting
- Landowners think if they paid too much for land it should bring a higher rent
  - This is completely irrelevant!
- Landowners might demand certain farming practices yet expect market rent
  - e.g., no fertilizer; conventional tillage
- Landowners make demands on current tenants to “fix” problems of past tenants

## Family situations often are the worst

- “Sweat-equity” parent-child relationships lead to unrealistic expectations across generations
- Family members have trouble believing their own parents, children, or siblings would cheat them
  - Backlash then goes overboard
- Family members often are “always around” and so the pain always resurfaces
  - Hard to “forget and move on”

## Ethics is good long run economics

- Poor ethics results in high tenant turnover:
  - Increases cost of relationship establishment and monitoring
  - Reduces profit to the land (tenant makes short run decisions)
- Bad business leads to unethical behavior
  - Poor management causes “I deserve more”
  - Bad behavior is rationalized
- Good ethics should emerge because it is the “right thing to do,” not for the purpose of long-run profit-maximization

## Miscellaneous

- Landowners rarely will evict tenants!
  - Often will sell land rather than evict tenants
  - Will put up with atrocious behavior of tenants (especially relatives)
- We as educators have some blame
  - Promote perceptions of “poor returns to farming,” “sweat equity,” etc.
  - Believe, like many, that farming is “special”
- We as educators should
  - Tell landowners it’s okay to evict tenants
  - Help clients understand that FARMING IS A BUSINESS!

## The way we would like to see things...

“We have decided that we do not need to include [REDACTED] as a farm manager with your lease. We have complete confidence in your operation and always appreciate your open communication and response to any questions and or concerns.”

**Information sent from landowner to tenant  
(sent prior to signing of second lease contract).**



  
Kansas State Research & Extension  
[www.agmanager.info](http://www.agmanager.info)