



## Transitioning From Crop Share to Cash Leases— Ethical & Economic Issues

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Farm Leasing Issues Symposium  
Monday June 10, 2013 -- 1:00 - 2:30 pm



Over the years, the majority of land leasing questions I have received pertain to...

- Impact of adopting new technologies (i.e., what inputs “should” be shared)
- Cash renting (folks always want the “going rates”)
- “Non-traditional” leases
  - Net share rent
  - Flexible cash rent
  - Bushel rent
- Terminating leases

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

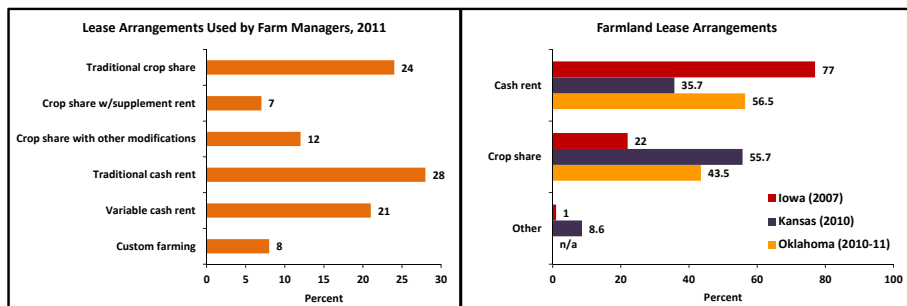
### Types of leases on crop land

- **Crop-share:** Landowner receives a share of annual revenues (grain sales and government payments) and shares certain production costs
  - Yield risk, price risk, and input (e.g., fertilizer) price risk are shared
- **Net share:** Landowner receives a share of annual revenues (grain sales and government payments), but pays no production costs
  - Yield risk and price risk are shared
- **Fixed cash rent:** Landowner receives a fixed annual cash payment (Landowner has no yield or price risk)

### Types of leases on crop land

- **Combination share / cash rent:** Landowner receives a fixed annual cash payment but has upside potential through a share of the crop (may or may not share inputs)
- **Cash rent – flex on price:** Landowner receives cash payment that is based upon crop price (bushel rent)
- **Cash rent – flex on yield:** Landowner receives cash payment that is based upon crop yield
- **Cash rent – flex on revenue:** Landowner receives cash payment that is based upon crop revenue (i.e., yield x price)
- **Cash rent – w/bonus:** Landowner receives cash payment and ad hoc bonus at tenant discretion

## Distribution of crop leases by type of lease...



Sources: IL – Schnitkey; IA – Duffy, et al.; KS – Schlegel and Tsoodle

- Corn Belt generally has a higher percentage of cash rent – Why?
- Trend is towards more cash rent most everywhere – Why?
- The use of “non-traditional” leases is increasing – Why? (speed of adoption varies considerably regionally)

## Length of cropland leases in years...

State	Share	Cash	All
Iowa (2007)	18.1	9.5	11.4
Kansas (2010)	n/a	n/a	18.6
Oklahoma (2010-2011)	17.0	14.0	15.3

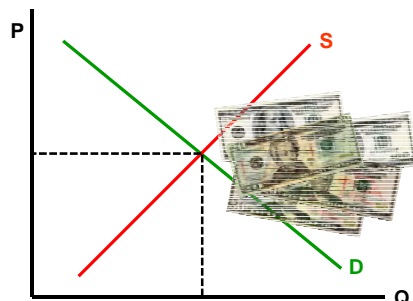
Sources: IA – Duffy, et al.; KS – Schlegel and Tsoodle; OK – Doye and Sahs

**Producers tend to lease land from the same landowner for a relatively long time, but cash leases tend to be for fewer years.**

**Why is this?**

## Determining the terms of a lease...

- How are cash lease rates or the terms of crop share leases established?
  - Short answer is “the market”
  - That is, the terms of a lease are determined by Producers (demand) negotiating with Landowners (supply)



## 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

## Examples of market established crop shares...

Percent of Leases by Crop Share Percentage

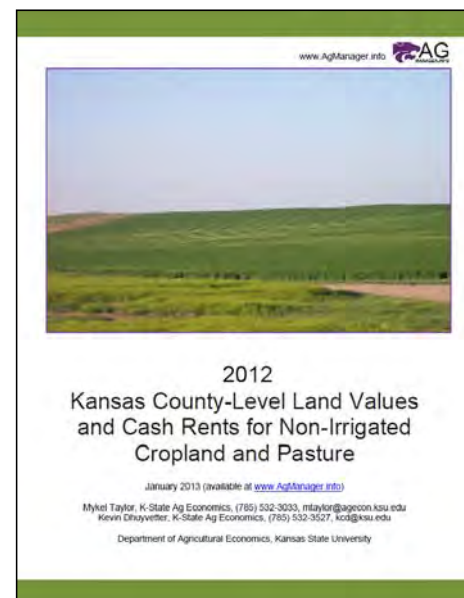
Landlord Share	Crop Reporting District								
	NW-10	WC-20	SW-30	NC-40	C-50	SC-60	NE-70	EC-80	SE-90
20.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%
25.0%	0.0%	3.5%	1.4%	0.0%	0.7%	0.0%	5.3%	1.0%	0.0%
33.3%	96.2%	96.5%	94.5%	62.7%	83.4%	90.8%	22.3%	70.7%	94.4%
40.0%	0.0%	0.0%	1.4%	28.9%	13.1%	6.4%	27.7%	9.1%	0.0%
50.0%	0.0%	0.0%	2.7%	6.3%	0.7%	2.1%	44.7%	17.2%	4.2%
66.7%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	1.0%	0.0%
75.0%	1.9%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%
Other	1.9%	0.0%	0.0%	0.7%	0.7%	0.7%	0.0%	1.0%	1.4%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Color coding scale

> 80%	50-80%	20-50%	5-20%	< 5%
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Source: Schlegel and Tsoodle -- 2010 KAS/KSU survey (available at [www.agmanager.info](http://www.agmanager.info))

## Land value and cash rent information



**MAJOR** change from what was reported in this paper previously

1. KAS survey data for land values and cash rents (same as in the past) and
2. KSU estimates of county-level land values and rents (**new stuff**)

KSU estimates of both land values (based on market transactions) and rents (based on crop share) are significantly higher than KAS reported values

## Average 2012 Non-Irrigated Cropland Rental Rates

Crop Reporting District (CRD)	KAS (\$/ac)	KSU (\$/ac)	Difference (%)
Northwest	46	65	+42.4
West Central	40	62	+55.8
Southwest	31	54	+71.6
North Central	58	86	+48.1
Central	46	72	+57.4
South Central	43	60	+40.8
Northeast	91	158	+74.0
East Central	58	111	+91.6
Southeast	47	77	+65.9

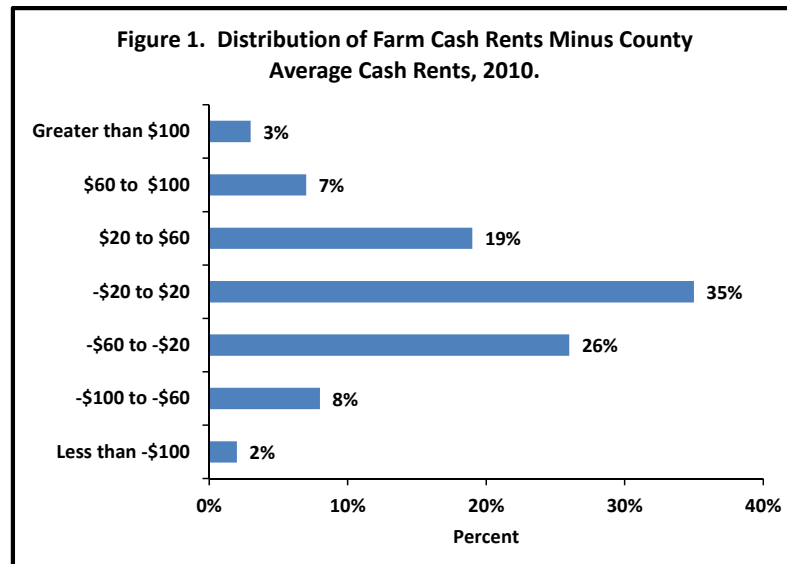
Source: 2012 Kansas County-Level Land Values and Cash Rents for Non-Irrigated Cropland and Pasture (available at [www.agmanager.info/farmmg/land/county/CountyValuesRents\\_Jan\\_2013.pdf](http://www.agmanager.info/farmmg/land/county/CountyValuesRents_Jan_2013.pdf))

## KAS versus KSU-estimated rental rates...

### Why the big discrepancy?

1. Do they represent the same thing?
2. Multi-year fixed rate leases?
3. Rates that have not been renegotiated for years?
4. Productivity of land/producer may not be the same?
5. We don't know the terms of the lease for KAS values (e.g., are bonuses included?)
6. Landowner/tenant relationship?
7. Other?

## Wide variability in rents exists...



Source: FEFO 11-21, Schnitkey, Department of Agricultural and Consumer Economics, University of Illinois.

## Large differences in observed/reported rents...

- Partly due to land quality differences
- Big portion due to relationships
- Landowners and tenants are generally aware of differences that exist and much of these differences are consistent with their desires

## Implications...

- Average cash rents are not a good indication of what it takes to acquire land
- High cash rents we hear about are not an indicator of average rents

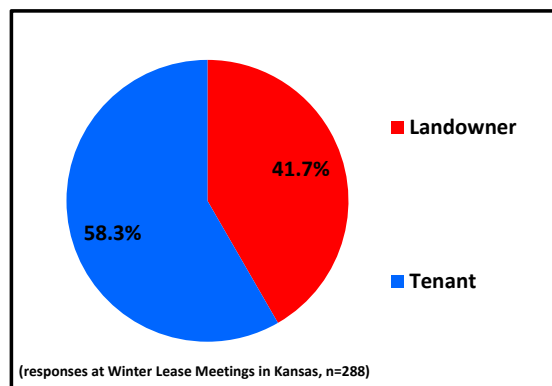
Source: FEFO 11-21, Schnitkey, Department of Agricultural and Consumer Economics, University of Illinois.

## Responsibility for rental rates...

Whose responsibility is it to see to it that a landowner's cash rental rate is "fair and equitable" considering current conditions?

1. Landowner
2. Tenant

Who typically has better information?



## 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.

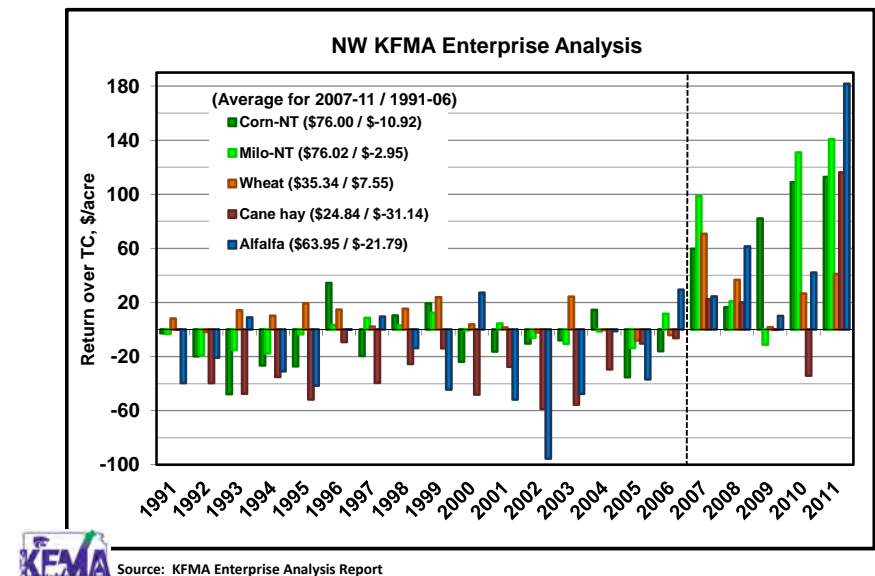


## Principles embodied in an equitable lease...

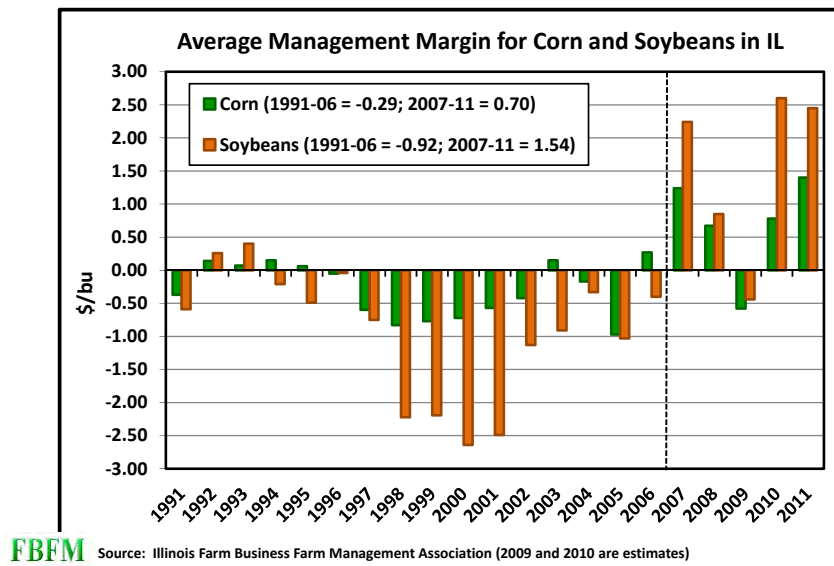
- Profit maximization (MR=MC)
- Economic profits (expected profit = 0\*)
- Opportunity costs
- Risk across lease types
- Equal rates of return on annual investment  
(if economic profit = 0, then return on *annual investment* = 0)

\* On average, in the long run

On average, we seldom cover total costs. Why?



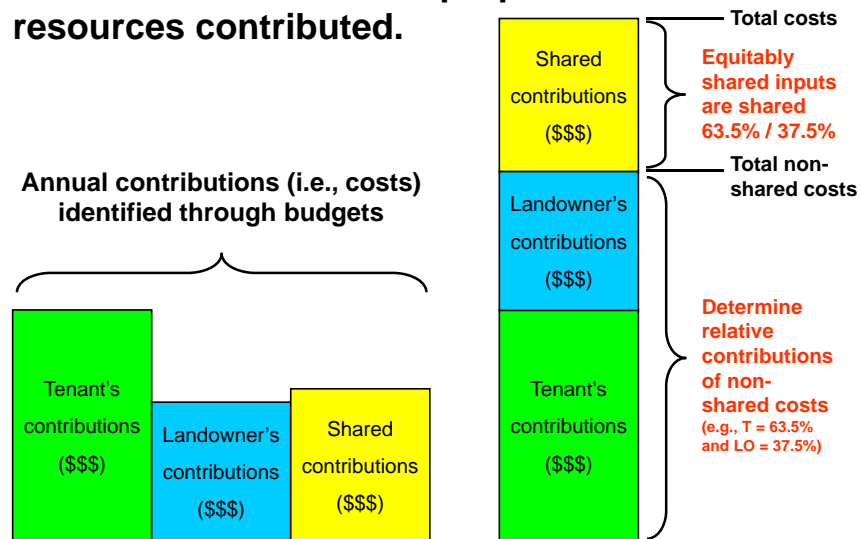
On average, we seldom cover total costs. Why?



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



**Methods of establishing cash rent values...**

- Market going rate (if available)

- Crop share equivalent (adjusted for risk)

- Landowner's cost

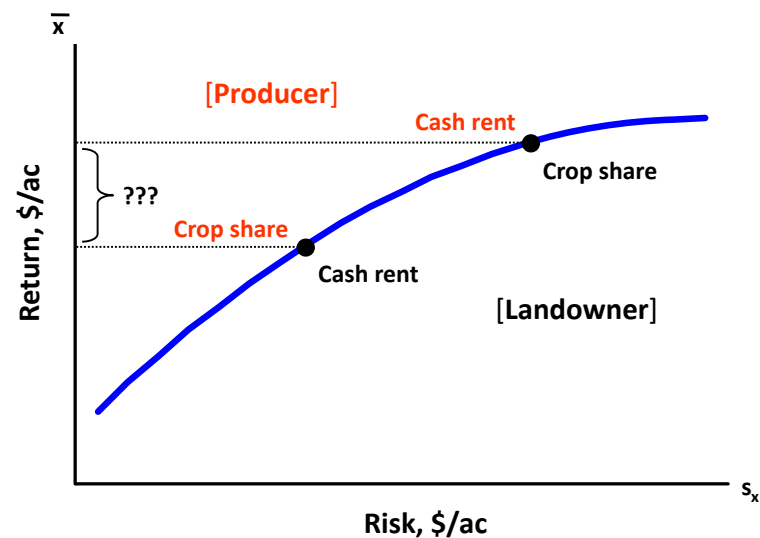
- Amount tenant can afford to pay

I typically focus on these two



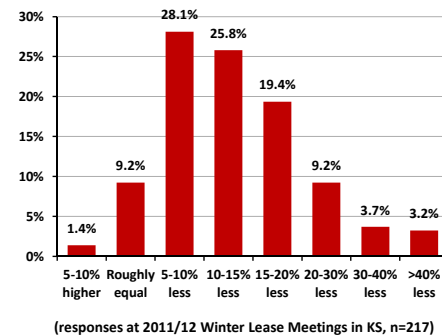
The last three require yield, price, and government payment projections (as well as cost information used for crop share).

**Landowner/producer risk-return tradeoff**

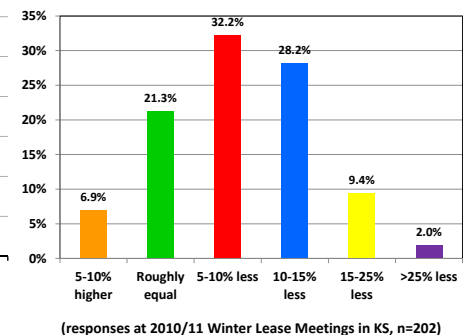


**What folks told us about the risk premium...**

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

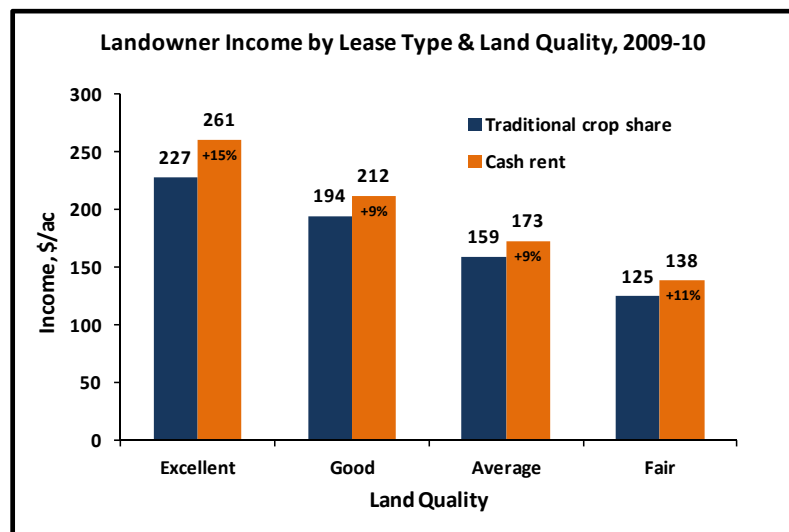


82.5% said 0% to 20% less



81.7% said 0% to 15% less

## Comparison of landowner income by lease type...



Source: Schnitkey, G. University of Illinois

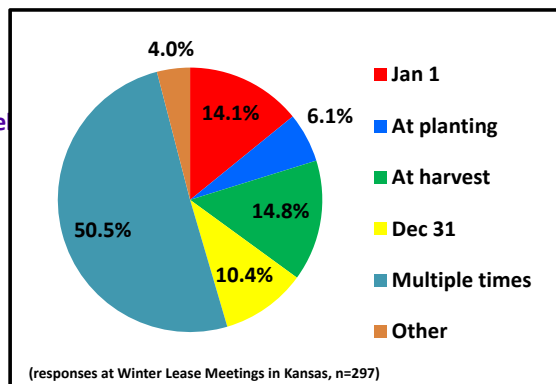
## Why might producers pay a higher rent with a cash lease than crop share?

- Lower costs (easier to manage)
- Increased production flexibility
- Ability to manage risk with crop insurance
- Easier method of expansion
- Timing of when rates were negotiated
- Other???

## Timing of cash lease payments...

On cash leases, rent payments are due...

1. Jan 1 (approximately)
2. At planting
3. At harvest
4. Dec 31 (approximate)
5. Multiple times
6. Other

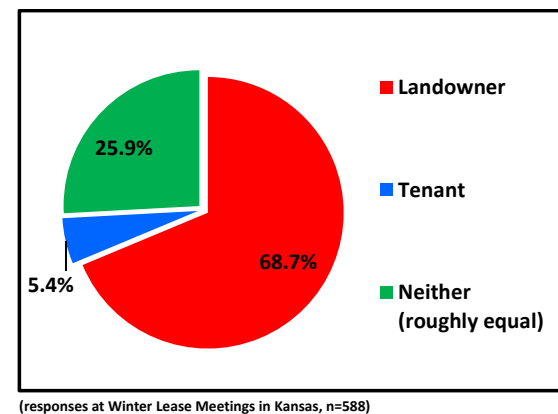


## View of other party to the lease...

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

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

Who typically has better information?



## 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

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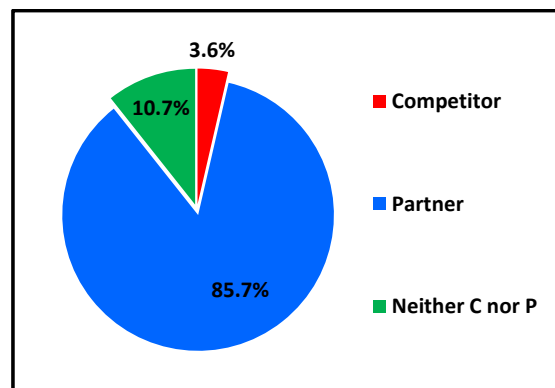
Many of these points are the result of the fact that a number of landowners are landowners “by inheritance” as opposed to investing in land intentionally. Thus, returns are often viewed as “money I never had before” as opposed to “what I expect from my investment.”

### 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

Do partners share or withhold information from each other?

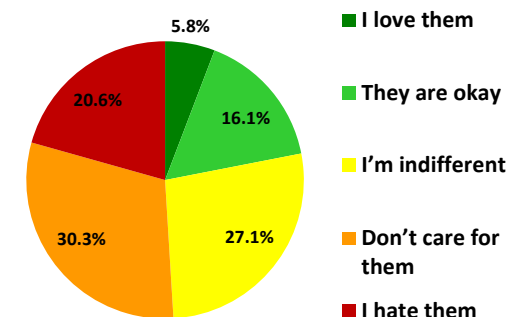


(responses at Winter Lease Meetings in Kansas, n=553)

### Cash rent auctions...

Whether you have participated in them or not, what is your opinion of cash rent auctions?

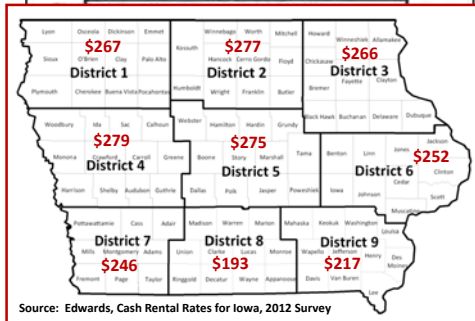
1. I love them
2. They are okay
3. I'm indifferent
4. Don't care for them
5. I hate them



(responses at Winter Lease Meetings in Kansas, n=155)



## One solution -- cash rent auctions...



**Cash Rent Auctions in Iowa -- Feb 2-4, 2012**  
**2-Year lease (2012 and 2013) -- Money up front for 2012**

	\$/acre	Acres	CSR	\$/CSR
Ac-wtd avg	\$486	3347.7	71.0	\$6.72
Average	\$476	139.5	73.5	\$6.52
Min	\$325	52.1	51.8	\$5.57
Max	\$530	421.1	92.5	\$8.15
Corr with \$/acre		0.362	0.748	0.072

Tract	County	\$/acre	Acres	CSR	\$/CSR
1	Cass	\$475	132.6	79	\$6.01
2	Guthrie	\$525	153.4	81.5	\$6.44
3	Guthrie	\$525	167.0	76.3	\$6.88
4	Hardin	\$520	78.1	77.9	\$6.68
5	Hardin	\$460	59.6	78.6	\$5.85
6	Hardin	\$510	101.3	83	\$6.14
7	Hardin	\$530	113.3	92.5	\$5.73
8	Franklin	\$520	108.4	76	\$6.84
9	Franklin	\$425	102.1	67.8	\$6.27
10	Franklin	\$425	199.4	59.6	\$7.13
11	Franklin	\$490	170.3	70.7	\$6.93
12	Franklin	\$475	53.9	73.1	\$6.50
13	Franklin	\$495	139.7	81.1	\$6.10
14	Franklin	\$490	252.7	68.9	\$7.11
15	Franklin	\$445	60.2	77	\$5.78
16	Franklin	\$460	52.1	82.6	\$5.57
17	Franklin	\$325	62.1	51.8	\$6.27
18	Butler	\$435	121.7	67.7	\$6.43
19	Butler	\$520	421.1	71.6	\$7.26
20	Cerro Gordo	\$490	145.0	72	\$6.81
21	Cerro Gordo	\$500	148.0	71.4	\$7.00
22	Hancock	\$450	214.3	55.2	\$8.15
23	Mitchell	\$530	221.0	86.1	\$6.16
24	Mitchell	\$400	70.4	62	\$6.45

## Cash rent auction in NW KS ...

## Cash rent auction in NW KS ...

Munkres cash rent auction, January 15, 2011

Tract	Cropland acres (FSA)	\$/acre rent	Annual dollars	Wheat stubble a	Corn stalks a	Milo stalks a	Govt payments	Govt pymt per acre	Avg % org matter	PPM soil test P
1	214.0	\$110	\$23,540	108.0			\$3,255	\$15.21	2.00	37.50
2	79.7	\$90	\$7,173		79.7		\$586	\$7.35	1.50	15.00
3	153.1	\$105	\$16,076		153.1		\$597	\$3.90	1.80	17.00
4	160.9	\$135	\$21,722	160.9			\$1,776	\$11.04	1.70	15.00
5	314.6	\$140	\$44,044	226.4	88.2		\$3,638	\$11.56	1.60	23.00
6	156.0	\$140	\$21,840		156.0		\$1,747	\$11.20	1.70	21.00
7	308.7	\$130	\$40,131	240.0	68.7		\$3,441	\$11.15	1.74	24.55
8	305.9	\$125	\$38,238			305.9	\$3,847	\$12.58	1.80	24.00
9	299.0	\$135	\$40,365			299.0	\$5,465	\$18.28	2.00	20.00
10	156.3	\$120	\$18,756		78.2	78.2	\$1,709	\$10.93	1.65	21.00
Total	2,148.2		\$274,884	735.3	729.9	683.1	\$26,061			
Overall per acre values			\$126.56					\$12.13	1.75	21.80
Correlation of cash rent with above columns>								0.51	0.14	0.04

Only marginal differences in farmability and land quality across tracts, except that tract 2 had several acres in a lagoon.

All land is non-irrigated, fairly flat, little erosion, and has good road and grain market access.

All land is open, i.e., no growing wheat.

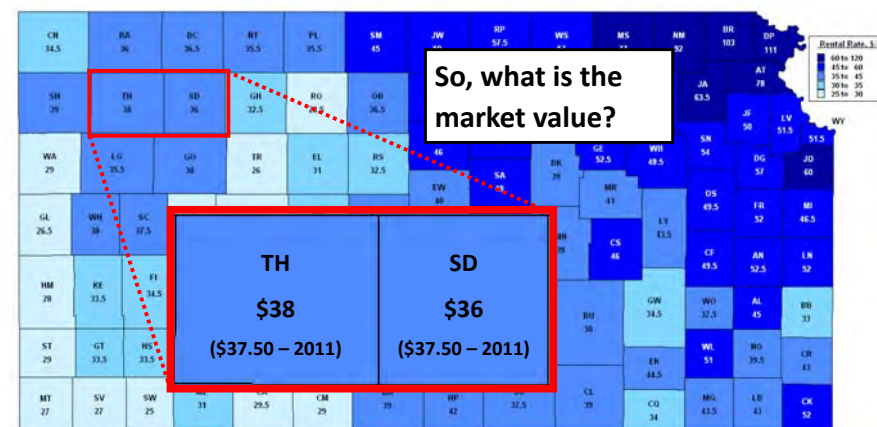
Land leased for 5 years and tenant must ensure no loss of soil fertility during lease term, i.e., must reimburse

landowner at end of lease for any reduced fertility (both N and P), as judged by before & after soil tests.

Land located near Rexford and Gem in both Thomas and Sheridan counties, Kansas.

Pre-auction expectations likely were centered around \$80/acre.

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



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



Article about land cash rent auctions in Iowa  
(The Progressive Farmer / April 2012)

Cash rent auctions are a great way for “leveling the playing field” with regard to information!



**NO SECRETS.** Farmland tenants generally dislike public lease auctions for two reasons: 1) They remove the traditional, personal relationship bond between the owner/tenant and reduce it to a numbers game; and 2) It publicizes actual cash rents so all the landlords in the area can compare how their leases stack up.

## Landowner ethics

- Landowners may use their land for non-ag purposes and yet expect the same rent
  - e.g., 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; no double crop, 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”

**The off-farm siblings have it all wrong, focusing on the prices received. This superficial analysis fails to examine the input costs and all the risk and volatility in today's agriculture.**

**Many producers are commenting that margins are being squeezed and are even negative, given some input price scenarios. However, the off-farm siblings only see land values and cash rents increasing.**

**To all parents reading this article, be careful of the pressures being exerted by your children who are not involved in the farm. ... As a tip for those children on the farm, be ready to show how much high input costs and variation in prices have impacted farm and ranch economics in recent years.**

## 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?

- 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)
- More transparent than ad hoc “bonuses”
- A good way (requirement?) of working with the “new breed” of landowners?
- 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
- May not be 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)

## Summary

- Trend away from crop share leases will likely continue – increases the importance of communication for tenants
- Likely will see an increased number of “hybrid” leases in the future (makes lease evaluation/comparisons more difficult)
- Average rents reported in surveys have limited value for setting rates of individual parcels for numerous reasons
- Use of cash rent auctions likely will increase as a means of “leveling the field” with respect to information (tenants are encouraged to be pro-active in sharing information)
- Communication and relationships are important aspects of rental arrangements – don’t abuse either one of them
- Lease-related problems that exist are often associated with non-business like behavior (family often the worst)





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**KANSAS STATE UNIVERSITY** Department of Agricultural Economics


For more information and decision tools related to farm management, marketing, and risk management go to [www.AgManager.info](http://www.AgManager.info)

## Resources...

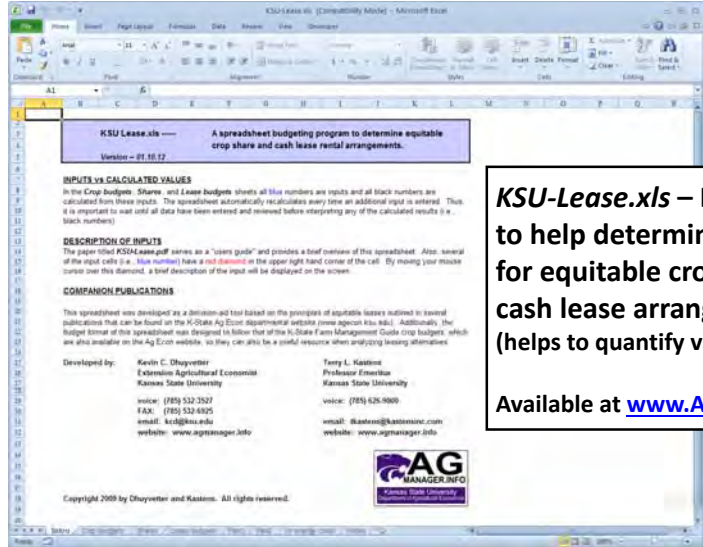


← [www.aglease101.org](http://www.aglease101.org)  
(lease-related information developed as part of a North Central Region project)

[www.agmanager.info](http://www.agmanager.info) →  
(Kansas State University Ag Econ information related to land and crop and livestock production and marketing, and more...)



## Resources...



**KSU Lease.xls** — A spreadsheet budgeting program to determine equitable crop share and cash lease rental arrangements.  
Version — 01.10.12

**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.xls.pdf* serves as a "users guide" and provides a brief overview of the 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 Department website ([www.agmanager.info](http://www.agmanager.info)). 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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**AG MANAGER.INFO**  
Kansas State University  
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**KSU-Lease.xls** – Decision tool to help determine the terms for equitable crop share and cash lease arrangements (helps to quantify values).

Available at [www.AgManager.info](http://www.AgManager.info)