

Land-Lease Arrangements

Kevin C. Dhuyvetter, K-State Ag. Economist
Terry L. Kastens, K-State Ag. Economist
kcd@ksu.edu – 785-532-3527
tkastens@ksu.edu – 785-626-9000

www.agmanager.info

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Purpose of land talks

- Develop an understanding of the underlying economic principles and management aspects of land ownership and leasing
- Trying to reduce decisions to numbers
- Two decision tools:
 - *KSU-Landbuy.xls*
 - *KSU-Lease.xls*

Related papers are found at
www.agmanager.info

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Basic Lease Types on Crop Land

- **Crop-share**
 - Landowner shares in annual revenues and typically in certain annual costs
- **Cash rent**
 - Landowner gets a fixed annual cash amount for use of land
- **Numerous variants around these two**

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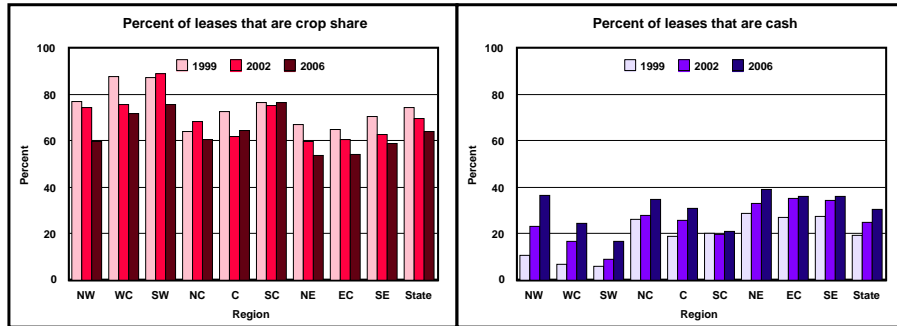
Distribution of leases by type of lease ...

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 -- 2006 KAS/KSU survey

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Basic Lease Types in Kansas



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

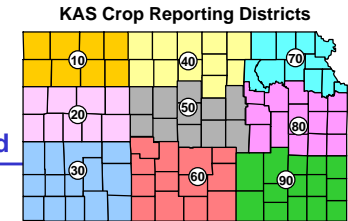
Crop share continues to be the most prevalent, but the trend has been a shift from crop share arrangements towards more cash rent leases.

Questions to ask:

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

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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

Source: Schegel and Tsoodle -- 2006 KAS/KSU survey

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Distribution of crop share percentages...

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
10.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%
16.5%	1.7%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.6%
20.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.7%	0.0%
25.0%	2.9%	0.0%	4.1%	0.4%	0.3%	0.9%	3.8%	1.3%	1.1%
33.3%	90.1%	96.1%	89.5%	69.4%	85.2%	94.3%	20.5%	79.5%	92.6%
40.0%	0.0%	1.7%	0.9%	25.9%	9.4%	3.5%	25.7%	10.6%	4.0%
45.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
50.0%	4.1%	2.2%	3.2%	3.5%	2.8%	1.3%	50.0%	7.9%	1.7%
60.0%	0.0%	0.0%	0.5%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%
66.7%	0.0%	0.0%	1.8%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%
100.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: Schlegel and Tsoodle -- 2006 KAS/KSU survey

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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.

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Equitable vs. traditional share rent ...

Equitable: Income is shared in the same proportion as the contribution of total inputs.

Traditional: Income and shared expenses (if any) are shared in the same proportion as what has been done in the past. Share rent based on tradition may, or may not, be equitable.

Traditional = Equitable in the long-run

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)

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

1. Yield increasing inputs should be shared
2. Share arrangements should be reviewed as technology changes
3. Total returns divided in same proportion as resources contributed

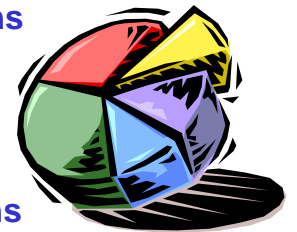
4. Compensation for unused long-term investments at termination
5. Good landlord/tenant communications

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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).

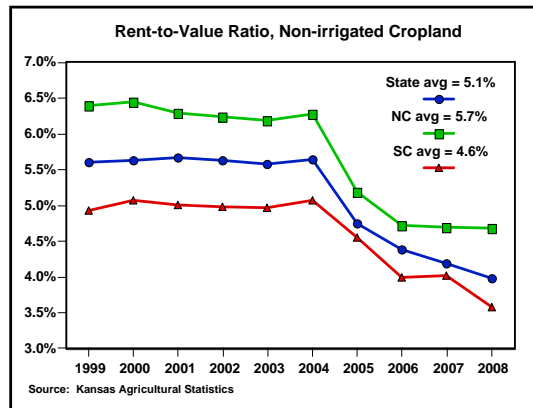


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Land contribution ...

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.



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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.



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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 currently deviate significantly from historical averages (e.g., fertilizer, fuel)?

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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)

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**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. This is especially true as the volatility of crop and input prices increases.

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.

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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”?

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**In recent years, the majority of leasing
questions received pertain to:**

- Impact of adopting new technologies
- Cash renting
- “Non-traditional” leases
 - Net share rent
 - Flexible cash rent
 - Bushel rent
 - Combination cash/cropshare

**... while “hot topic” has varied over time, the
method of addressing questions has not changed.**

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“Non-traditional” leases ...

Numerous good reasons to use these different types of leases, but landowners and producers need to recognize several things when doing so ...

- Communication is critical
- Rules-of-thumb really don’t exist
- More important to have a written lease
- Pay special attention to FSA rulings

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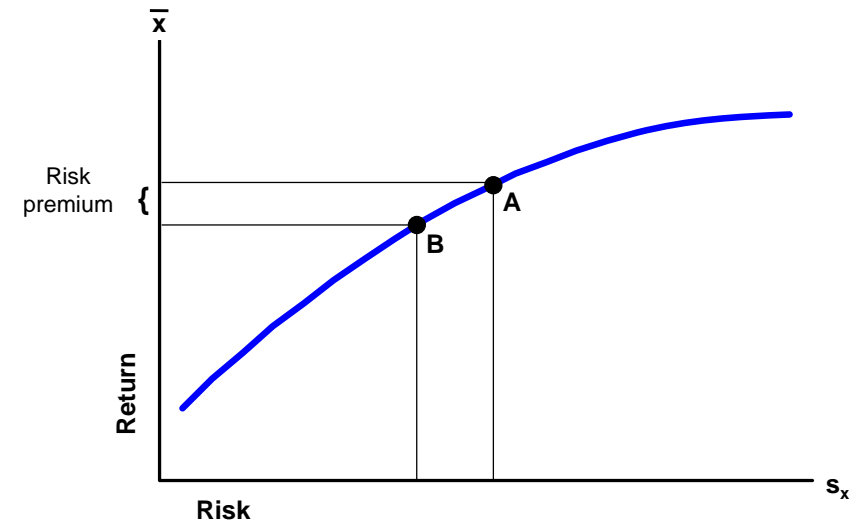
Cash rents ...

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

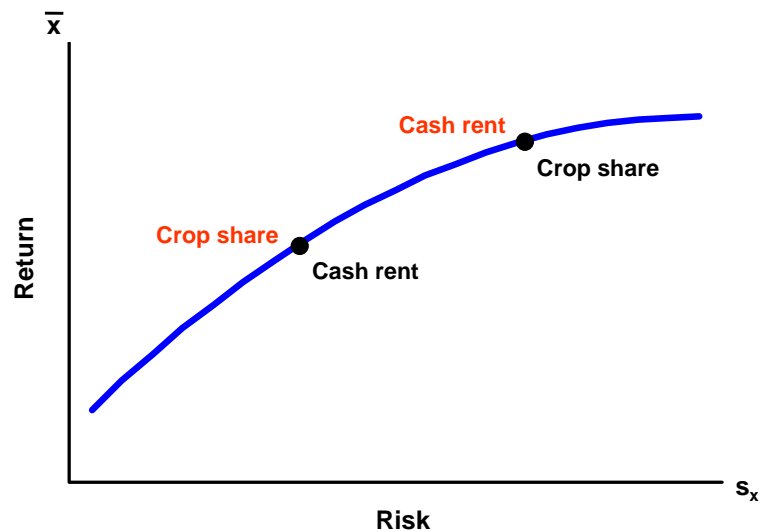
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Risk-return tradeoff



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Landowner/producer risk-return tradeoff



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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

Just when we got used to ignoring risk, it seems to come back into play . . .

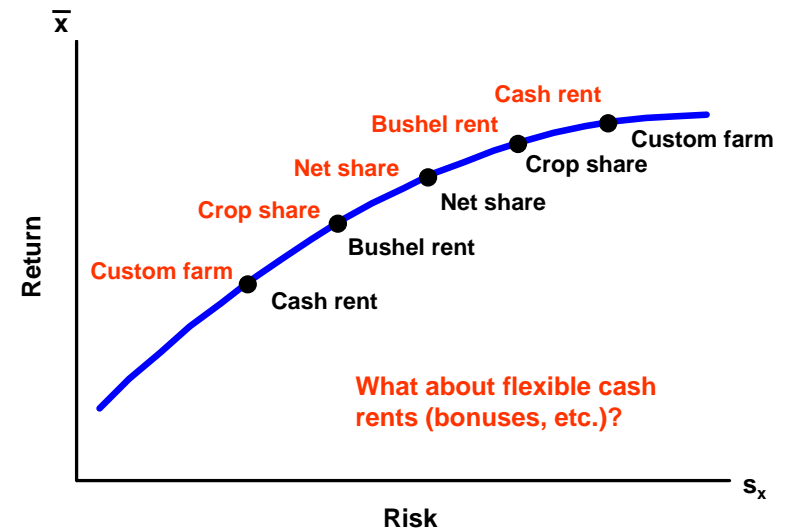
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“Non-traditional” leases ...

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

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Landowner/producer risk-return tradeoff



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Flexible cash rents (method of paying bonuses)

1) Establish base cash rent

2) Flex/modify base rent based on...

- price deviation from base (fixed bushel rent)
- yield deviation from base
- price and yield (revenue) deviation from base

- Does flex work both ways?
- Communication and documentation are extremely important to make sure everybody understands what they are agreeing to

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Example of Flex Lease

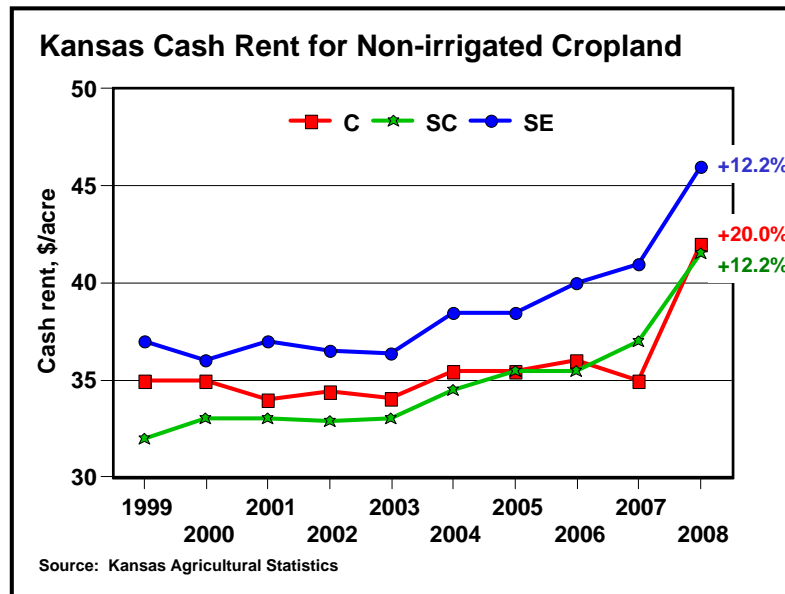
Base cash rent, \$/acre					\$46.00
Flex direction (Both (up and down) vs Up)					Up
Percent of change to factor into flexible rent					50.0%
Adjustments based on Base acres or Actual acres					Base
	Wheat	Milo	Corn	Soybeans	Total
Base acres	72	18	3	7	100
Base yield	45	80	90	27	
Base price	\$4.50	\$2.70	\$3.00	\$7.00	
Revenue	\$202.50	\$216.00	\$270.00	\$189.00	\$20,601

Issues to resolve:

- 1) Where does base cash rent come from?
- 2) Where do base acres, yields, and prices come from
(these should be consistent with base rent)?
- 3) What crops should all be included?
- 4) Does rent flex on yield, price, or combination (revenue)?
- 5) Does rent flex both directions or only up?
- 6) What percent change from base should be used?

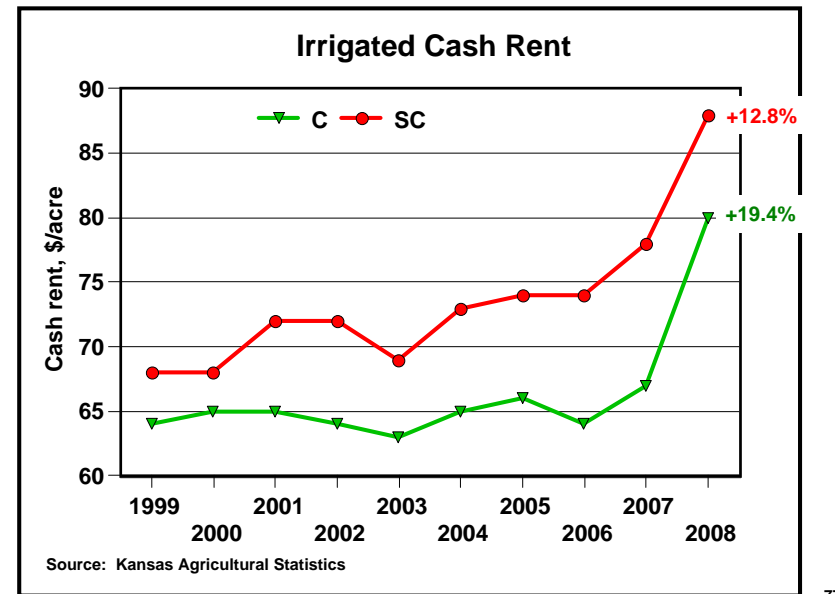
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Market going rate ...



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Market going rate ...



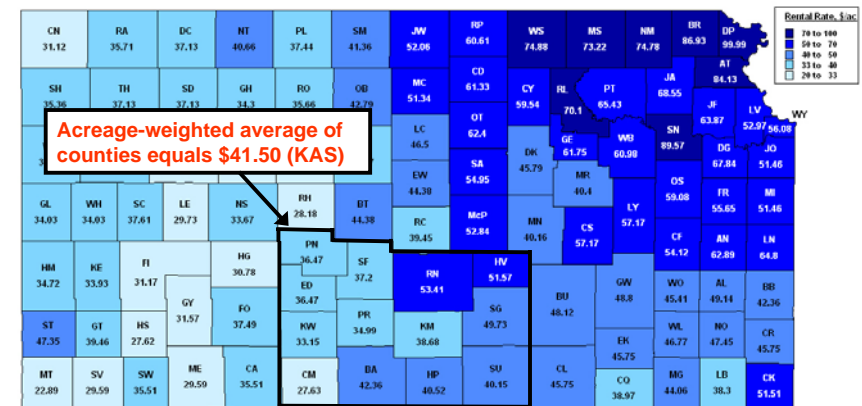
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County-level cash rents ...

- County-level cash rents were estimated for non-irrigated crop and pasture land based upon the KAS reported CRD values
- CRD values prorated to individual counties based on 3-year average of county-level rents from FSA and 2002 census acreage data
- Weighted average county-level cash rents are exactly equal to the KAS reported district value
- Similar procedure was done for land values

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



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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

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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)

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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

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The screenshot shows the Microsoft Excel interface for 'KSU Lease.xls'. The title bar indicates the file name and version: 'Version -- 11.17.08'. The spreadsheet content includes a title box with the text: 'KSU Lease.xls ----- A spreadsheet budgeting program to determine equitable crop share and cash lease rental arrangements.' Below this, there are sections for 'INPUTS vs CALCULATED VALUES', 'DESCRIPTION OF INPUTS', and 'COMPANION PUBLICATIONS'. The 'DESCRIPTION OF INPUTS' section mentions that blue numbers are inputs and black numbers are calculated values. The 'COMPANION PUBLICATIONS' section lists the developers: Kevin C. Dhuyvetter and Terry L. Kastens, both Extension Agricultural Economists at Kansas State University. Contact information for both is provided, including phone, fax, email, and website. At the bottom, the 'Various tabs' section shows a list of tabs: 'Intro', 'Crop budgets', 'Shares', 'Lease budgets', 'Energy costs', and 'Notes'. The 'AG MANAGER.INFO' logo is also visible in the bottom right corner.

KSU-Lease.xls with 2009 SC KS crop budgets

CROP BUDGETS SHOWING TOTAL COSTS AND RETURNS

Crop/System	Wht (C)	Wht (R)	Corn	Milo	Soybean	DC SF	Total	Per Acre	Per Acre
Planted acres of each crop	36.0	36.0	3.0	18.0	7	0.0	100.0	Planted	Planted
Tillable acres per planted acre	1.00	1.00	1.00	1.00	1.00	0.00	100.0	Planted	Tillable
INCOME PER ACRE									
A. Yield per acre	45.0	45.0	90.0	80.0	27.0	1,000.0	---	---	---
B. Price per unit	\$6.03	\$6.03	\$3.84	\$4.18	\$8.50	\$0.16	---	---	---
C. Net government payments	\$15.35	\$15.35	\$15.35	\$15.35	\$15.35	\$15.35	\$1,535	\$15.35	\$15.35
D. Indemnity payments	\$0.00	\$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	\$0.00	\$0	\$0.00	\$0.00
F. Returns/acre ((A x B) + C + D + E)	\$286.70	\$286.70	\$360.95	\$349.75	\$244.85	\$174.20	\$29,735	\$297.35	\$297.35
COSTS PER ACRE									
1. Seed	\$9.60	\$16.00	\$47.04	\$9.48	\$33.75	\$20.02	\$1,470	\$14.70	\$14.70
2. Herbicide	6.43	2.85	26.19	20.03	9.06	19.47	836	8.36	8.36
3. Insecticide / Fungicide	1.00	1.00	1.00	0.00	0.00	6.46	75	0.75	0.75
4. Fertilizer and Lime	81.48	105.90	113.53	100.88	31.16	60.66	9,120	91.20	91.20
5. Crop Consulting	0.00	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	0.00	0	0.00	0.00
7. Drying	0.00	0.00	0.00	0.00	0.00	3.90	0	0.00	0.00
8. Miscellaneous	5.75	5.75	5.75	5.75	5.75	5.00	575	5.75	5.75
9. Machinery Expense	98.87	98.87	101.72	96.29	59.52	55.89	9,573	95.73	95.73
10. Non-machinery Labor	11.18	11.18	11.44	10.92	6.76	5.98	1,083	10.83	10.83
11. Irrigation	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
12. Land Charge / Rent	46.00	46.00	46.00	46.00	46.00	0.00	4,600	46.00	46.00
G. SUB TOTAL	\$260.30	\$287.54	\$352.67	\$289.35	\$192.00	\$177.38	\$27,333	\$273.33	\$273.33
13. Interest on 1/2 Nonland Costs	7.25	8.34	10.90	8.44	5.04	6.19	781	7.81	7.81
H. TOTAL COSTS	\$267.55	\$295.88	\$363.58	\$297.79	\$197.04	\$183.57	\$28,114	\$281.14	\$281.14
I. RETURNS OVER COSTS (F - H)	\$19.15	(\$9.18)	(\$2.63)	\$1.96	\$47.81	(\$9.37)	\$1,621	\$16.21	\$16.21
J. TOTAL COSTS/UNIT (H/A)	\$5.95	\$6.58	\$4.04	\$3.72	\$7.30	\$0.18	---	---	---
K. RETURN TO TOTAL COST (H+13)/G	10.14%	-0.29%	2.35%	20.88%	27.53%	-1.79%	5.77%	5.77%	5.77%

TABLE 1. Production Inputs Used for Budgets

ITEM	Wht (C)	Wht (R)	Corn	Milo	Soybean	DC SF	\$/unit
Seeding rate (lbs, seeds, etc)	60	100	21	135	22	22	
Seed price, \$/unit	\$0.16	\$0.16	\$2.24	\$3.16	\$0.25	\$0.91	
Fertilizer:							
82-0-0	64	60	86	77	0	0	\$0.570 /lb
N (dry/liquid)	15	40	20	15	0	47	\$0.850 /lb
P	25	30	39	36	24	19	\$1.090 /lb
K	0	0	0	0	0	0	\$0.620 /lb
Lime	500	500	500	500	500	0	\$0.010 /lb
Herbicide							
Bicep Lite II Magnum (PRE)			2				\$11.28 /qt
Atrazine 4L + crop oil			1	1			\$3.63 /qt
Bicep II Magnum (PRE)				1.6			\$10.25 /qt
Glyphosate					32	24	\$0.28 /oz
+ 2% Ammonium Sulfate					1.5	1.5	\$0.20 /oz
Ally		0.1					\$12.47 /oz
+ Banvel	4	4					\$0.40 /oz
Glean	0.25						\$19.31 /oz
2,4-D IV Ester							\$5.24 /qt
Prowl H2O						3	\$4.19 /qt
Insecticide / Fungicide							
Seed treatment			1				\$1.00 /ac
Seedbox treatment	1	1					\$1.00 /ac
Warrior IEC						0.025	\$258.46 /gal
xxx							
Irrigation water, inches/acre	0	0	0	0	0	0	\$4.50 /in
Irrigation repairs, \$/acre-inch							\$0.33 /in
Drying cost, \$/unit (bu, cwt, etc)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0039	

64 x 0.57
+ 15 x 0.85
+ 25 x 1.09
+ 0 x 0.62
+ 500 x 0.01
= \$81.48/ac

CROP BUDGETS SHOWING TOTAL COSTS AND RETURNS

Crop/System	Wht (C)	Wht (R)	Corn	Milo	Soybean	DC SF	Total	Per Acre	Per Acre
Planted acres of each crop	36.0	36.0	3.0	18.0	7	0.0	100.0	Planted	Planted
Tillable acres per planted acre	1.00	1.00	1.00	1.00	1.00	0.00	100.0	Planted	Tillable
INCOME PER ACRE									
A. Yield per acre	45.0	45.0	90.0	80.0	27.0	1,000.0	---	---	---
B. Price per unit	\$6.03	\$6.03	\$3.84	\$4.18	\$8.50	\$0.16	---	---	---
C. Net government payments	\$15.35	\$15.35	\$15.35	\$15.35	\$15.35	\$15.35	\$1,535	\$15.35	\$15.35
D. Indemnity payments	\$0.00	\$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	\$0.00	\$0	\$0.00	\$0.00
F. Returns/acre ((A x B) + C + D + E)	\$286.70	\$286.70	\$360.95	\$349.75	\$244.85	\$174.20	\$29,735	\$297.35	\$297.35
COSTS PER ACRE									
1. Seed	\$9.60	\$16.00	\$47.04	\$9.48	\$33.75	\$20.02	\$1,470	\$14.70	\$14.70
2. Herbicide	6.43	2.85	26.19	20.03	9.06	19.47	836	8.36	8.36
3. Insecticide / Fungicide	1.00	1.00	1.00	0.00	0.00	6.46	75	0.75	0.75
4. Fertilizer and Lime	81.48	105.90	113.53	100.88	31.16	60.66	9,120	91.20	91.20
5. Crop Consulting	0.00	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	0.00	0	0.00	0.00
7. Drying	0.00	0.00	0.00	0.00	0.00	3.90	0	0.00	0.00
8. Miscellaneous	5.75	5.75	5.75	5.75	5.75	5.00	575	5.75	5.75
9. Machinery Expense	98.87	98.87	101.72	96.29	59.52	55.89	9,573	95.73	95.73
10. Non-machinery Labor	11.18	11.18	11.44	10.92	6.76	5.98	1,083	10.83	10.83
11. Irrigation	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
12. Land Charge / Rent	46.00	46.00	46.00	46.00	46.00	0.00	4,600	46.00	46.00
G. SUB TOTAL	\$260.30	\$287.54	\$352.67	\$289.35	\$192.00	\$177.38	\$27,333	\$273.33	\$273.33
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H. TOTAL COSTS	\$267.55	\$295.88	\$363.58	\$297.79	\$197.04	\$183.57	\$28,114	\$281.14	\$281.14
I. RETURNS OVER COSTS (F - H)	\$19.15	(\$9.18)	(\$2.63)	\$1.96	\$47.81	(\$9.37)	\$1,621	\$16.21	\$16.21
J. TOTAL COSTS/UNIT (H/A)	\$5.95	\$6.58	\$4.04	\$3.72	\$7.30	\$0.18	---	---	---
K. RETURN TO TOTAL COST (H+13)/G	10.14%	-0.29%	2.35%	20.88%	27.53%	-1.79%	5.77%	5.77%	5.77%

TABLE 2. Machinery and Land Resources Used for Budgets

ITEM	Wht (C)	Wht (R)	Corn	Milo	Soybean	DC SF	\$/unit
Drill/Plant, \$/acre	\$10.91	\$10.91	\$13.83	\$12.18	\$14.12	\$13.91	
Tillage and Chemical Applications:							
Chisel	1	1	0	0	0	0	\$11.04 /ac
Disk	1	1	1	1	0	0	\$9.07 /ac
Field cultivate	2	2	1	1	0	0	\$8.29 /ac
Cultivate with sidedress	0	0	1	0	0	0	\$7.24 /ac
Anhydrous application	1	1	1	1	1	1	\$9.68 /ac
Fertilizer application	1	1	1	1	1	1	\$4.80 /ac
Herbicide application	1	1	1	2	2	1	\$5.15 /ac
Insecticide application	0	0	0	0	0	1	\$5.14 /ac
Harvest							
Base charge, \$/acre	\$19.28	\$19.28	\$25.33	\$19.96	\$25.87	\$23.89	
Charge for high yields, \$/unit	\$0.183	\$0.183	\$0.188	\$0.182	\$0.181	\$0.002	
High yield	21	21	71	36	28	1400	
Hauling, \$/unit	\$0.177	\$0.177	\$0.164	\$0.175	\$0.164	\$0.003	
Non-machinery labor, hr/acre							
Irrigation labor, hr/acre	0.86	0.86	0.88	0.84	0.52	0.46	\$13.00 /hr
Average land value, \$/acre /A	\$46	\$46	\$46	\$46	\$46	\$46	
Annual return to land, % /A							100.0%
Interest on capital, %							8.0%
Irrigation Equipment							
Well, pump and gearhead value	\$0	n/a		25			0%
Power unit and meter	\$0	n/a		7			0%
Irrigation system	\$0	n/a		20			0%
Price scenarios to consider							
Long-run prices (MF-1013) - Oct	\$5.19	\$5.19	\$3.20	\$3.10	\$7.48	\$0.1398	0
Short-run prices (MF-1013) - Oct	\$6.03	\$6.03	\$3.84	\$4.18	\$8.50	\$0.1588	1
2009 bids (SC KS - 12/03/08)	\$4.90	\$4.90	\$3.35	\$2.74	\$7.36	\$0.1375	0

Equitable crop-share arrangement – SC KS

Microsoft Excel - KSU-Lease--(SC)

Average landowner, South Central KS, 555-987-6543

Operator: Average farmer, South Central KS, 555-123-4567

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

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

Crop/System	Wht (C)	Wht (R)	Corn	Milo	Soybean	DC SF	Total
Planted acres	36.0	36.0	3.0	18.0	7.0	0.0	100.0
Seed	100%	100%	-100%	-100%	-100%	-100%	
Fertilizer:							
82-0-0	-100%	-100%	-100%	-100%	-100%	-100%	
N (dry/liquid)	-100%	-100%	-100%	-100%	-100%	-100%	
P	-100%	-100%	-100%	-100%	-100%	-100%	
K	-100%	-100%	-100%	-100%	-100%	-100%	
Lime	0%	0%	0%	0%	0%	0%	
Herbicide							
Bicep Lite II Magnum (PRE)	-100%	-100%	-100%	-100%	-100%	-100%	
Atrazine 4L + crop oil	-100%	-100%	-100%	-100%	-100%	-100%	
Bicep II Magnum (PRE)	-100%	-100%	-100%	-100%	-100%	-100%	
Glyphosate	-100%	-100%	-100%	-100%	-100%	-100%	
+ 2% Ammonium Sulfate	-100%	-100%	-100%	-100%	-100%	-100%	
Ally	-100%	-100%	-100%	-100%	-100%	-100%	
+ Banvel	-100%	-100%	-100%	-100%	-100%	-100%	
Glean	-100%	-100%	-100%	-100%	-100%	-100%	
2,4-D IV Ester	-100%	-100%	-100%	-100%	-100%	-100%	
Prowl H20	-100%	-100%	-100%	-100%	-100%	-100%	
Insecticide / Fungicide							
Seed treatment	100%	100%	-100%	-100%	-100%	-100%	
Seedbox treatment	100%	100%	-100%	-100%	-100%	-100%	
Warrior 1EC	-100%	-100%	-100%	-100%	-100%	-100%	
xxx	-100%	-100%	-100%	-100%	-100%	-100%	
Crop consulting	100%	100%	100%	100%	100%	100%	
Crop insurance	-100%	-100%	-100%	-100%	-100%	-100%	
Drying cost	-100%	-100%	-100%	-100%	-100%	-100%	
Operator's equitable share (OS%)	67.8%	69.0%	66.3%	63.8%	50.7%	95.2%	66.8%

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

Equitable crop-share arrangement – SC KS

Microsoft Excel - KSU-Lease--(SC)

Operator's share of machinery, labor, irrigation, and land (enter -100% if shared equitably)

	Wht (C)	Wht (R)	Corn	Milo	Soybean	DC SF	Total
Crop/System	36.0	36.0	3.0	18.0	7.0	0.0	100.0
Planted acres							
Drill/Plant	100%	100%	100%	100%	100%	100%	
Tillage and Chemical Applications:							
Chisel	100%	100%	100%	100%	100%	100%	
Disk	100%	100%	100%	100%	100%	100%	
Field cultivate	100%	100%	100%	100%	100%	100%	
Cultivate with sidedress	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 application	-100%	-100%	-100%	-100%	-100%	-100%	
Harvest							
Harvest	100%	100%	100%	100%	100%	100%	
Hauling	100%	100%	100%	100%	100%	100%	
Miscellaneous							
Non-machinery labor	75%	75%	75%	75%	75%	75%	
Irrigation expenses							
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							
Well, pump and gearhead	0%	0%	0%	0%	0%	0%	
Motor	0%	0%	0%	0%	0%	0%	
Irrigation system	0%	0%	0%	0%	0%	0%	
Land							
Cash payment to landowner, \$/acre	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
Operator's equitable share (OS%)	67.8%	69.0%	66.3%	63.8%	50.7%	95.2%	66.8%
Landowner's equitable share (LS%)	32.2%	31.0%	33.7%	36.2%	49.3%	4.8%	33.2%

CROP BUDGETS SHOWING OPERATOR'S COSTS AND RETURNS

Microsoft Excel - KSU-Lease--(SC)

Average farmer, South Central KS, 555-123-4567

Equitable share (OS%) = 66.8%

	Wht (C)	Wht (R)	Corn	Milo	Soybean	DC SF	Total	Per Planted Acre	Per Tillable Acre
Total tillable acre	36.0	36.0	3.0	18.0	7.0	0.0	100.0		
Planted acres of each crop	36.0	36.0	3.0	18.0	7.0	0.0	100.0		
Harvested yield per acre	45.0	45.0	90.0	80.0	27.0	1,000.0			
INCOME PER ACRE									
A. Yield per acre	30.1	30.1	60.1	53.4	18.0	668.0			
B. Price per unit	\$6.03	\$6.03	\$3.84	\$4.18	\$8.50	\$0.16			
C. Net government payments	\$10.25	\$10.25	\$10.25	\$10.25	\$10.25	\$10.25	\$1,025	\$10.25	\$10.25
D. Indemnity payments	\$0.00	\$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	\$0.00	\$0	\$0.00	\$0.00
F. Returns/acre ((Ax) + C + D + E)	\$191.53	\$191.53	\$241.13	\$233.64	\$163.57	\$116.37	\$19,864	\$198.64	\$198.64
COSTS PER ACRE									
1. Seed	\$9.60	\$16.00	\$31.42	\$6.33	\$22.55	\$13.37	\$1,288	\$12.88	\$12.88
2. Herbicide	4.29	1.90	17.50	13.38	6.05	13.01	559	5.59	5.59
3. Insecticide / Fungicide	1.00	1.00	0.67	0.00	0.00	4.32	74	0.74	0.74
4. Fertilizer and Lime	51.09	67.40	72.50	64.05	17.48	40.52	5,759	57.59	57.59
5. Crop Consulting	0.00	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	0.00	0	0.00	0.00
7. Drying	0.00	0.00	0.00	0.00	0.00	2.61	0	0.00	0.00
8. Miscellaneous	4.31	4.31	4.31	4.31	4.31	3.75	431	4.31	4.31
9. Machinery Expense	95.56	95.56	98.42	91.28	54.51	50.88	9,200	92.00	92.00
10. Non-machinery Labor	8.94	8.94	9.15	8.74	5.41	4.78	867	8.67	8.67
11. Irrigation	0.00	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	0.00	0	0.00	0.00
G. SUB TOTAL	\$174.81	\$195.13	\$233.97	\$188.09	\$110.30	\$133.24	\$18,177	\$181.77	\$181.77
H. Interest on 1/2 Nonland Costs	5.71	6.52	8.04	6.30	3.68	4.54	604	6.04	6.04
I. TOTAL COSTS	\$180.52	\$201.65	\$242.01	\$194.39	\$113.98	\$137.78	\$18,781	\$187.81	\$187.81
J. RETURNS OVER COSTS (F - H)	\$11.01	(\$10.13)	(\$0.89)	\$39.26	\$49.59	(\$21.41)	\$1,083	\$10.83	\$10.83
K. RETURN TO TOTAL COST (I/H)	6.10%	-5.02%	-0.37%	20.19%	43.50%	-15.54%	5.77%	5.77%	5.77%

CROP BUDGETS SHOWING LANDOWNER'S COSTS AND RETURNS

Microsoft Excel - KSU-Lease--(SC)

Average landowner, South Central KS, 555-987-6543

Equitable share (100 - OS%) = 33.2%

	Wht (C)	Wht (R)	Corn	Milo	Soybean	DC SF	Total	Per Planted Acre	Per Tillable Acre
Total tillable acre	36.0	36.0	3.0	18.0	7.0	0.0	100.0		
Planted acres of each crop	36.0	36.0	3.0	18.0	7.0	0.0	100.0		
Harvested yield per acre	45.0	45.0	90.0	80.0	27.0	1,000.0			
INCOME PER ACRE									
A. Yield per acre	14.9	14.9	29.9	26.6	9.0	332.0			
B. Price per unit	\$6.03	\$6.03	\$3.84	\$4.18	\$8.50	\$0.16			
C. Net government payments	\$5.10	\$5.10	\$5.10	\$5.10	\$5.10	\$5.10	\$510	\$5.10	\$5.10
D. Indemnity payments	\$0.00	\$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	\$0.00	\$0	\$0.00	\$0.00
F. Returns/acre ((Ax) + C + D + E)	\$95.17	\$95.17	\$119.82	\$116.11	\$81.28	\$57.83	\$9,871	\$98.71	\$98.71
COSTS PER ACRE									
1. Seed	\$0.00	\$0.00	\$15.62	\$3.15	\$11.20	\$6.65	\$182	\$1.82	\$1.82
2. Herbicide	2.13	0.95	8.69	6.65	3.01	6.46	278	2.78	2.78
3. Insecticide / Fungicide	0.00	0.00	0.33	0.00	0.00	2.15	1	0.01	0.01
4. Fertilizer and Lime	30.39	38.50	41.03	36.83	13.68	20.44	3,362	33.62	33.62
5. Crop Consulting	0.00	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	0.00	0	0.00	0.00
7. Drying	0.00	0.00	0.00	0.00	0.00	1.29	0	0.00	0.00
8. Miscellaneous	1.44	1.44	1.44	1.44	1.44	1.25	144	1.44	1.44
9. Machinery Expense	3.30	3.30	3.30	3.30	3.30	3.30	373	3.73	3.73
10. Non-machinery Labor	2.24	2.24	2.29	2.18	1.35	1.20	217	2.17	2.17
11. Irrigation	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
12. Land Charge / Rent	46.00	46.00	46.00	46.00	46.00	46.00	4,600	46.00	46.00
G. SUB TOTAL	\$85.50	\$92.42	\$118.70	\$101.26	\$81.70	\$44.14	\$9,156	\$91.56	\$91.56
H. Interest on 1/2 Nonland Costs	1.54	1.81	2.86	2.14	1.36	1.65	177	1.77	1.77
I. TOTAL COSTS	\$87.03	\$94.23	\$121.56	\$103.40	\$83.06	\$45.79	\$9,333	\$93.33	\$93.33
J. RETURNS OVER COSTS (F - H)	\$8.14	\$0.95	(\$1.74)	\$12.70	(\$1.78)	\$12.04	\$538	\$5.38	\$5.38
K. TOTAL COSTS/UNIT (H/A)	\$5.83	\$6.31	\$4.07	\$5.89					
K. RETURN TO TOTAL COST (I/H)	9.35%	1.00%	-1.43%	12.28%	-2.14%	26.29%	5.77%	5.77%	5.77%

Microsoft Excel - KSU-Lease--(SC)

File Edit View Insert Format Tools Data Window Help

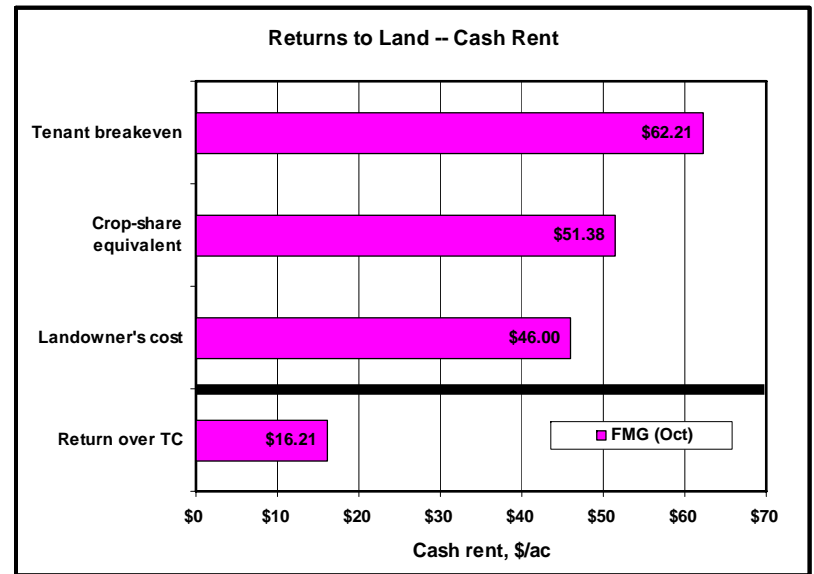
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Print cash rent info 9:50 PM 12/03/08

Crop/System	Wht (C)	Wht (R)	Corn	Milo	Soybean	DC SF	Total	Per 100.0 Planted	Per Tillable Acre
ALTERNATIVE METHODS OF ESTIMATING CASH RENT									
Total tillable acre	----->								
Planted acres of each crop	36.0	36.0	3.0	18.0	7.0	0.0	100.0		
A. Landowner's COST									
Land	\$46.00	\$46.00	\$46.00	\$46.00	\$46.00	\$0.00	\$4,600	\$46.00	\$46.00
Irrigation equipment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0	\$0.00	\$0.00
Total	\$46.00	\$46.00	\$46.00	\$46.00	\$46.00	\$0.00	\$4,600	\$46.00	\$46.00
B. Landowner's EQUITABLE SHARE RENT ----- risk adj factor 0.0%									
Total income	\$286.70	\$286.70	\$360.95	\$349.75	\$244.85	\$174.20	\$29,735	\$297.35	\$297.35
Landowner's share	33.2%	33.2%	33.2%	33.2%	33.2%	33.2%	33.2%	33.2%	33.2%
Landowner's income	\$95.17	\$95.17	\$119.82	\$116.11	\$81.28	\$57.83	\$9,871	\$98.71	\$98.71
Landowner operating expense	41.03	48.23	75.56	57.40	37.06	45.79	4,733	47.33	47.33
Income less operating expense	\$54.14	\$46.95	\$44.26	\$58.70	\$44.22	\$12.04	\$5,138	\$51.38	\$51.38
Less risk adjustment	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
Cash rent equivalent	\$54.14	\$46.95	\$44.26	\$58.70	\$44.22	\$12.04	\$5,138	\$51.38	\$51.38
C. Amount tenant CAN AFFORD TO PAY									
Total income	\$286.70	\$286.70	\$360.95	\$349.75	\$244.85	\$174.20	\$29,735	\$297.35	\$297.35
Total operating expense	\$221.55	\$249.88	\$317.58	\$251.79	\$151.04	\$183.57	\$23,514	\$235.14	\$235.14
Return to land and irr equip	\$65.15	\$36.82	\$43.37	\$97.96	\$93.81	(\$9.37)	\$6,221	\$62.21	\$62.21
Comparison of alternative cash rent methods									
Low	\$46.00	\$36.82	\$43.37	\$46.00	\$44.22	(\$9.37)	\$4,600	\$46.00	\$46.00
Average	\$55.10	\$43.25	\$44.55	\$67.55	\$61.34	\$0.89	\$5,320	\$53.20	\$53.20
High	\$65.15	\$46.95	\$46.00	\$97.96	\$93.81	\$12.04	\$6,221	\$62.21	\$62.21
Returns above all costs (profit)	\$19.15	(\$9.18)	(\$2.63)	\$51.96	\$47.81	(\$9.37)	\$1,621	\$16.21	\$16.21

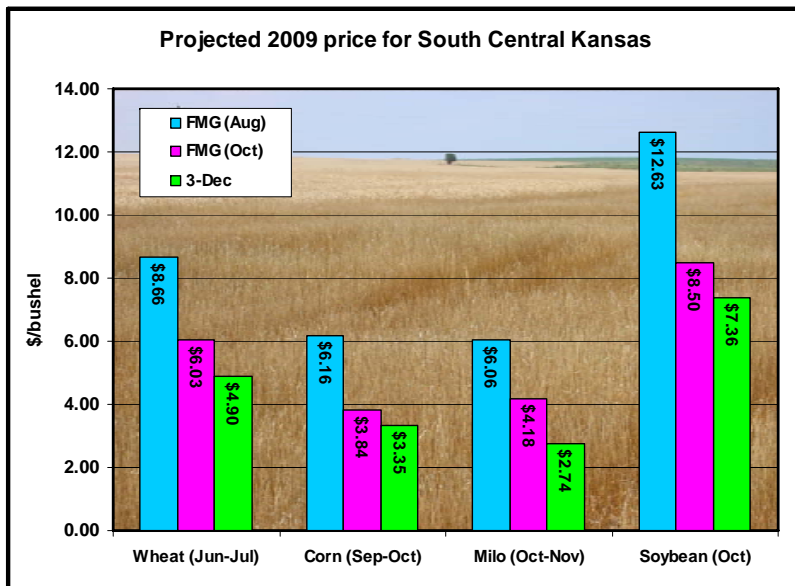
Ready

Returns to land...



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Alternative price scenarios...



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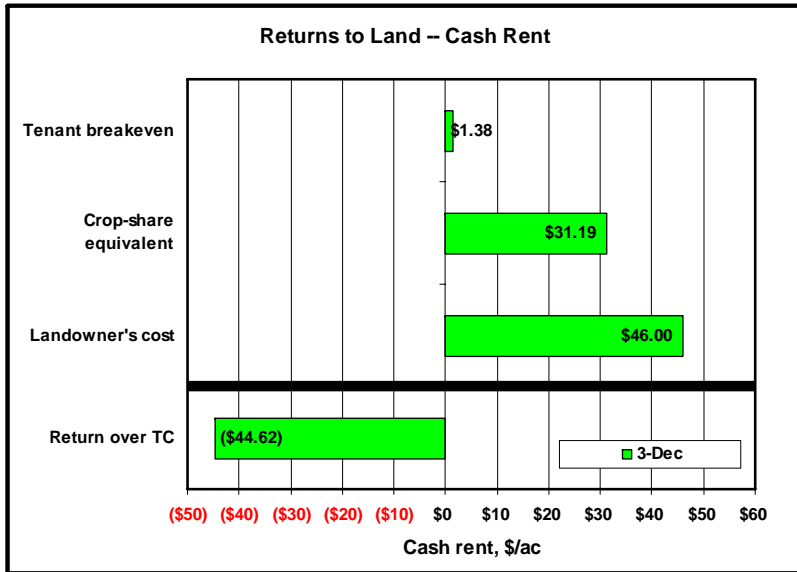
2009 KSU Farm Management Guides for South Central KS (prices are based on 2009 forward contract bids as of 12/03/08)

ALTERNATIVE METHODS OF ESTIMATING CASH RENT 9:53 PM 12/03/08

Crop/System	Wht (C)	Wht (R)	Corn	Milo	Soybean	DC SF	Total	Per 100.0 Planted	Per Tillable Acre
ALTERNATIVE METHODS OF ESTIMATING CASH RENT									
Total tillable acre	----->								
Planted acres of each crop	36.0	36.0	3.0	18.0	7.0	0.0	100.0		
A. Landowner's COST									
Land	\$46.00	\$46.00	\$46.00	\$46.00	\$46.00	\$0.00	\$4,600	\$46.00	\$46.00
Irrigation equipment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0	\$0.00	\$0.00
Total	\$46.00	\$46.00	\$46.00	\$46.00	\$46.00	\$0.00	\$4,600	\$46.00	\$46.00
B. Landowner's EQUITABLE SHARE RENT ----- risk adj factor 0.0%									
Total income	\$235.85	\$235.85	\$316.85	\$234.55	\$214.07	\$152.89	\$23,652	\$236.52	\$236.52
Landowner's share	33.2%	33.2%	33.2%	33.2%	33.2%	33.2%	33.2%	33.2%	33.2%
Landowner's income	\$78.29	\$78.29	\$105.18	\$77.86	\$71.06	\$50.76	\$7,852	\$78.52	\$78.52
Landowner operating expense	41.03	48.23	75.56	57.40	37.06	45.79	4,733	47.33	47.33
Income less operating expense	\$37.26	\$30.06	\$29.62	\$20.46	\$34.01	\$4.97	\$3,119	\$31.19	\$31.19
Less risk adjustment	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
Cash rent equivalent	\$37.26	\$30.06	\$29.62	\$20.46	\$34.01	\$4.97	\$3,119	\$31.19	\$31.19
C. Amount tenant CAN AFFORD TO PAY									
Total income	\$235.85	\$235.85	\$316.85	\$234.55	\$214.07	\$152.89	\$23,652	\$236.52	\$236.52
Total operating expense	\$221.65	\$249.88	\$317.58	\$251.79	\$151.04	\$183.57	\$23,514	\$235.14	\$235.14
Return to land and irr equip	\$14.30	(\$14.03)	(\$0.73)	(\$17.24)	\$63.03	(\$30.68)	\$138	\$1.38	\$1.38
Comparison of alternative cash rent methods									
Low	\$14.30	(\$14.03)	(\$0.73)	(\$17.24)	\$34.01	(\$30.68)	\$138	\$1.38	\$1.38
Average	\$32.52	\$20.68	\$24.97	\$16.41	\$47.68	(\$8.57)	\$2,619	\$26.19	\$26.19
High	\$46.00	\$46.00	\$46.00	\$46.00	\$63.03	\$4.97	\$4,600	\$46.00	\$46.00
Returns above all costs (profit)	(\$31.70)	(\$60.03)	(\$46.73)	(\$63.24)	\$17.03	(\$30.68)	(\$4,462)	(\$44.62)	(\$44.62)

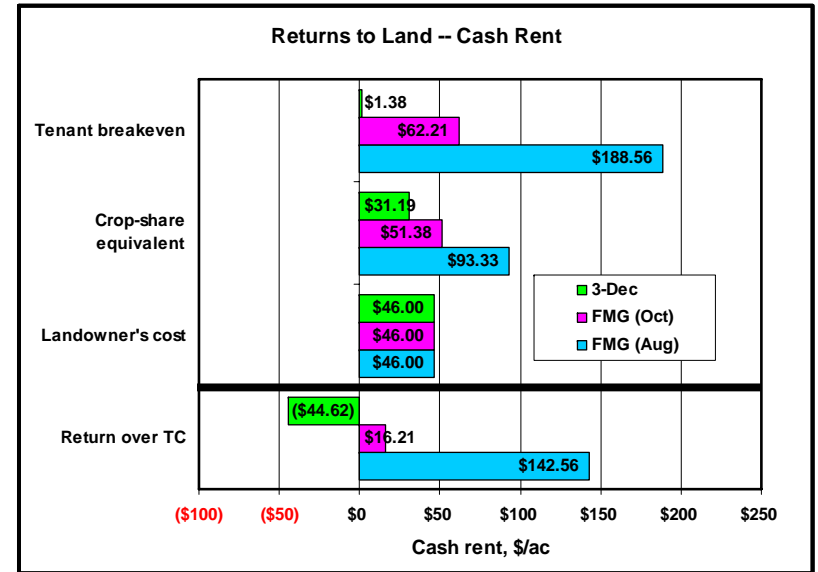
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Returns to land...



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Returns to land under alternative price scenarios...



Is it any wonder we are all scratching our heads wondering what to do?

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- Nonirrigated Crop-Share Leasing Arrangement in Kansas
- Grain Outlook Radio Program
- Livestock and Hay Charts
- Crop Basis Maps
- Updated Crop Basis Tool
- Kansas Grain Price Spread-Transportation Returns
- Iowa Insurance Workshop Video Presentation
- KEMA Monthly Newsletter
- KSU-NPL CropBudgets.xls - Crop budget spreadsheet (Excel) with N and P fertilizer and irrigation levels determined optimally.
- Updated PPT Slides for SURE and ACRE
- World Grain Supply and Demand Estimates (WASDE)

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