Kansas State University

Department of Agricultural Economics

Leasing & Excel Workshop

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Ethics of Leasing

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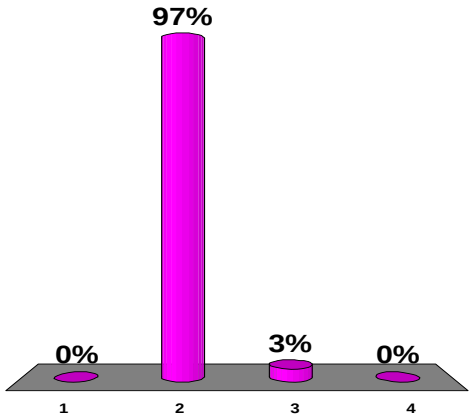
View of other party to the lease…

How do you view the other party in a lease?

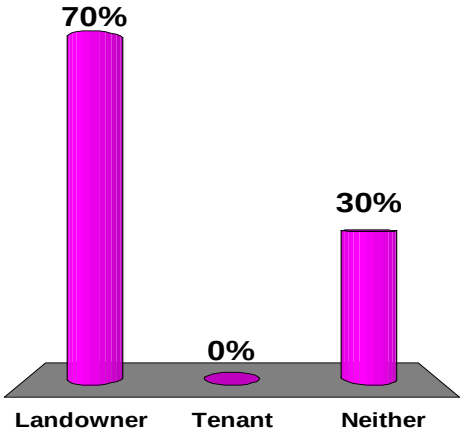
1. Competitor
2. Partner
3. Neither C nor P
4. Does not apply



View of other party to the lease…

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

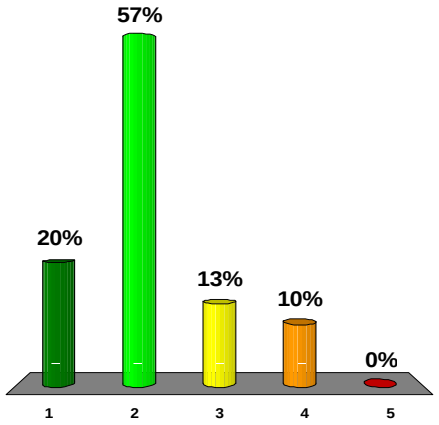
1. Landowner
2. Tenant
3. Neither
   (roughly equal)



“Other” government program payments…

Producers should receive 100% of payments from programs that are due to their management (e.g., CSP).

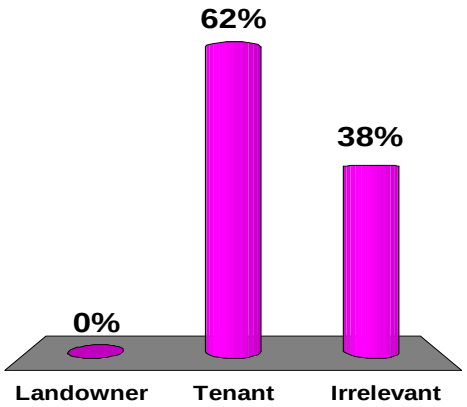
1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree



View of other party to the lease…

Who “typically” needs the income from the land the most?

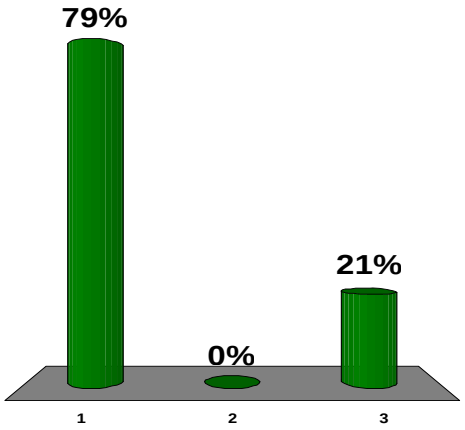
1. Landowner
2. Tenant
3. Does not matter



Mineral / wind rights leasing…

If land is leased for mineral/wind rights, who should receive the income?

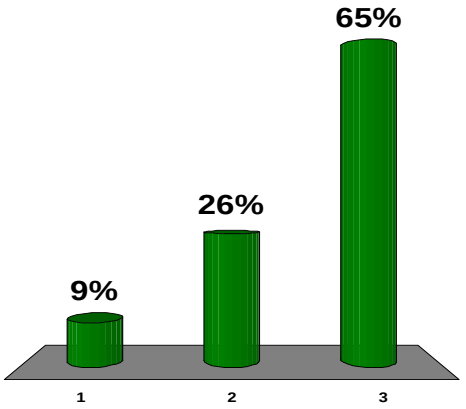
1. Landowner
2. Tenant
3. Shared



Mineral / wind rights leasing…

Who should receive income for compensation for damages associated with oil / gas exploration?

1. Landowner
2. Tenant
3. Shared



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
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  - Uni
  - 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 occasionally will 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!

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Logic of Sharing Certain Inputs

Double-Cropping

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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 re-evaluated as technology changes
3. Total returns divided in same proportion as resources contributed

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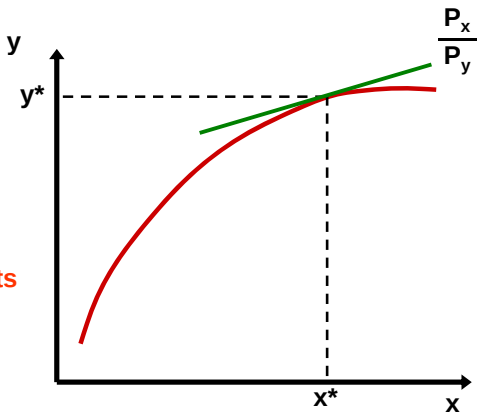
4. Compensation for unused long-term investments at termination
5. Good landlord/tenant communications

Principle #1:
Yield increasing inputs should be shared

Examples of yield increasing inputs

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



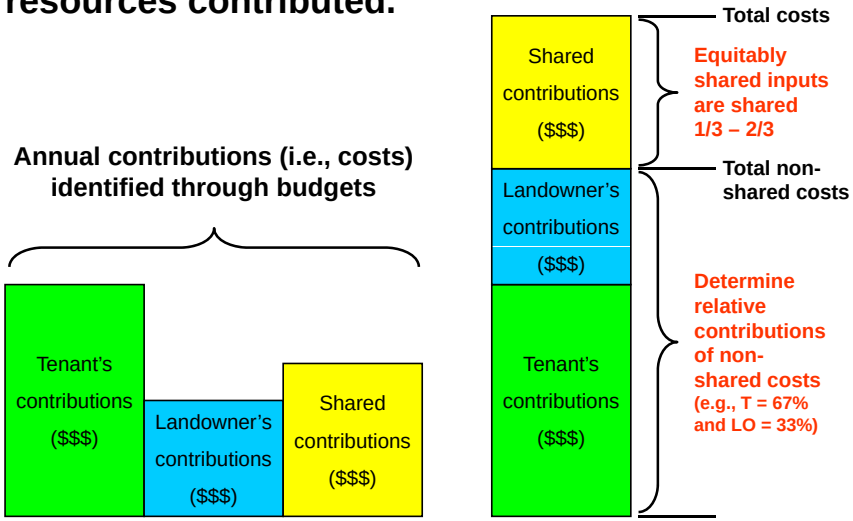
Sharing yield increasing inputs in the same % as income provides the economic signal to both parties to apply the optimal amount of the input.

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 (swath control)

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



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

fig. 5

Typical 2009 Crop Share Lease - Corn

Landlord		Tenant	
Land	$190	Labor	$ 30
		½ Inputs	$165
½ Inputs*	$165	Machinery	$125
		Management	$ 65
Share of Costs	$355	Share of Costs	$355
½ the Crop		½ the Crop	

* The owner is assumed to pay 50 percent of the costs for seed, fertilizer, lime, pesticides, crop insurance, interest as well as drying and storage on ½ the crop. Source: Iowa State University.

Shared expenses (contributions)

What inputs all belong in the "yellow box"?

1. Those exhibiting characteristics such as depicted in fertilizer example.
2. Any input the landowner and tenant agree to, i.e., there is no principle saying that any input should not shared.
3. Unexpected expenses?

Unexpected expenses (contributions)

Assuming you have developed a share lease appropriately based on contributions…

1. What happens when an unexpected cost is incurred?
2. Are costs associated with double cropping unexpected?
3. Your lease should be designed such that it provides incentives for optimal management. Ask yourself, is rented land farmed the same way as owned land?

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How Crop Insurance Impacts Lease Agreements

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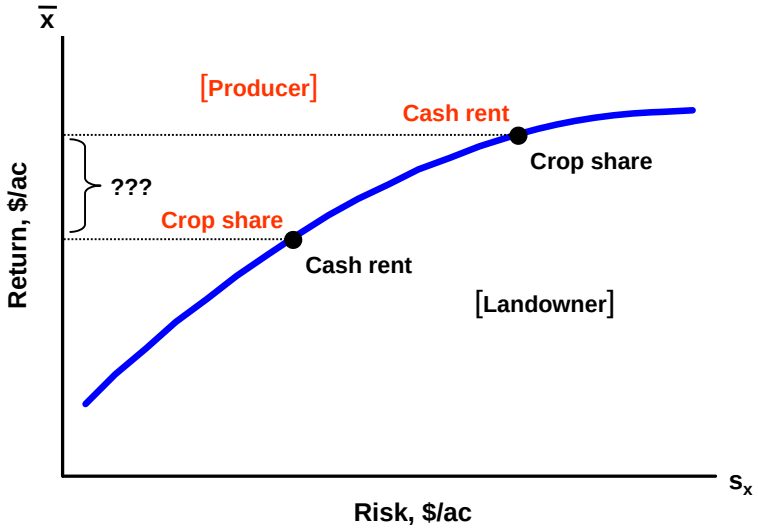
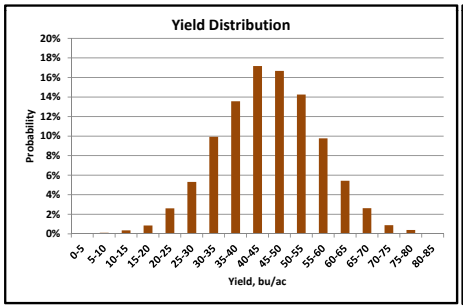
Crop insurance on leased land

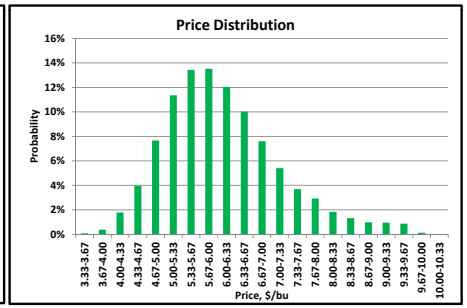
- Risk is about getting something different (less) than expected
- Crop share leases “share the risk” of low revenue
- Crop insurance can be used to offset some of the risk of low revenue
- How do returns compare with crop share versus cash leases both with and without insurance?

Landowner/producer risk-return tradeoff



Crop insurance on leased land





Wheat yield distribution (n=10,000)

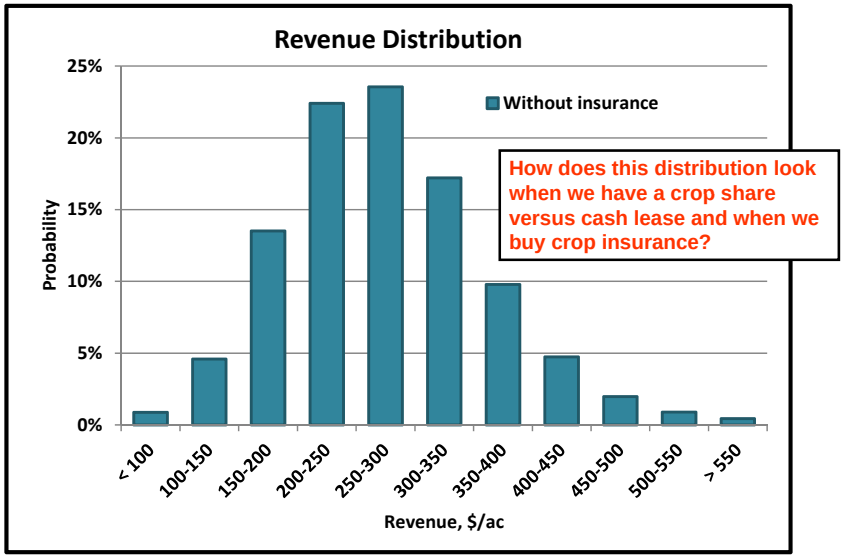
- Expected yield = 45 bu/ac
- Range = 0 to 80
- Standard deviation = 11.4
- Coefficient of variation = 25%

Wheat price distribution (n=10,000)

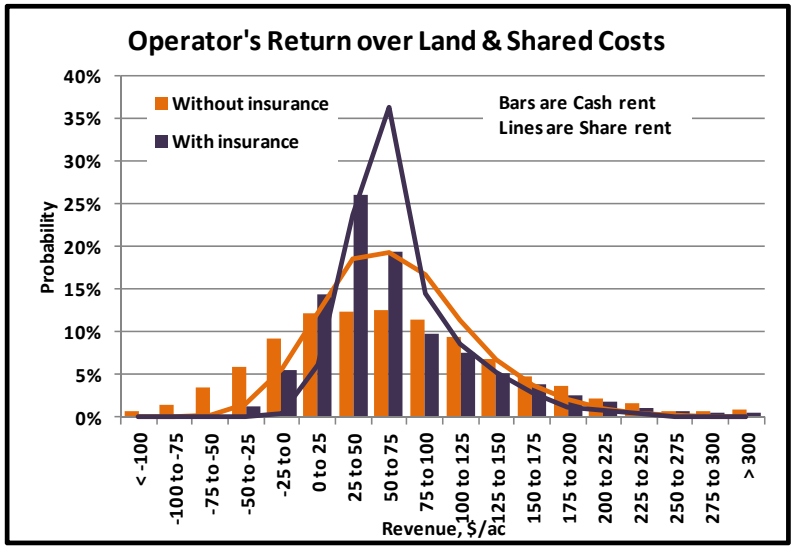
- Expected futures price = $6.67
  (range = $4.04 to $10.00)
- Expected basis = -$0.60
  (range = -$1.33 to $0.15)
- Average cash price = $6.10
  (range = $3.37 to $10.01)

Revenue distribution

(assuming no insurance and 100% of crop)



Net revenue distribution



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Using KSU-Lease.xls

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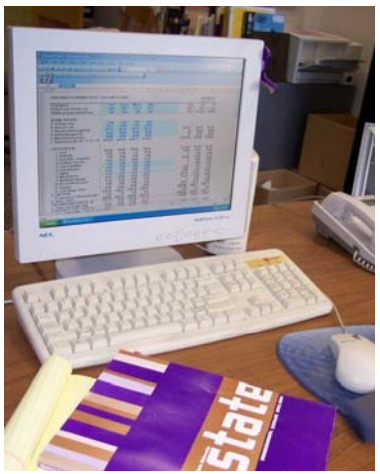
KSU-Lease.xls

- 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)

Using "*KSU-Lease.xls*" to determine equitable crop share and cash leases …



Information/data required:

1. Crop rotation/mix
2. Income information
3. Production inputs
4. Machinery costs
5. Land value
6. Irrigation equipment

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7. Contributor of input
8. Risk adjustment

Sources of data …

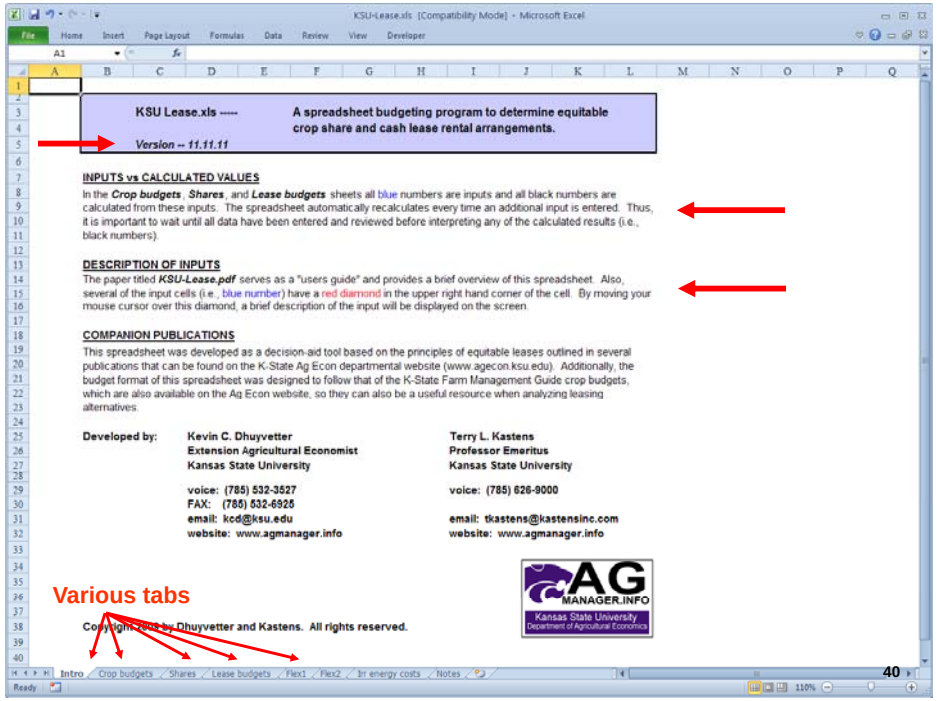
- Crop budgets are designed to follow KSU Farm Management Guides (available on www.AgManager.info) and thus these budgets are often a good "first start" at inputs
- Machinery costs are based on custom rates approach (as opposed to investment per acre)
- Generally suggest using "average" data as opposed to farm-specific data, but this will depend on situation

Time horizon of lease …

- If intent of analysis is to establish a one-year lease, inputs (e.g., rotation, yield, prices, costs) should be based on expectations for next year
- If intent of analysis is to establish a multi-year lease, inputs should be based on longer term averages

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



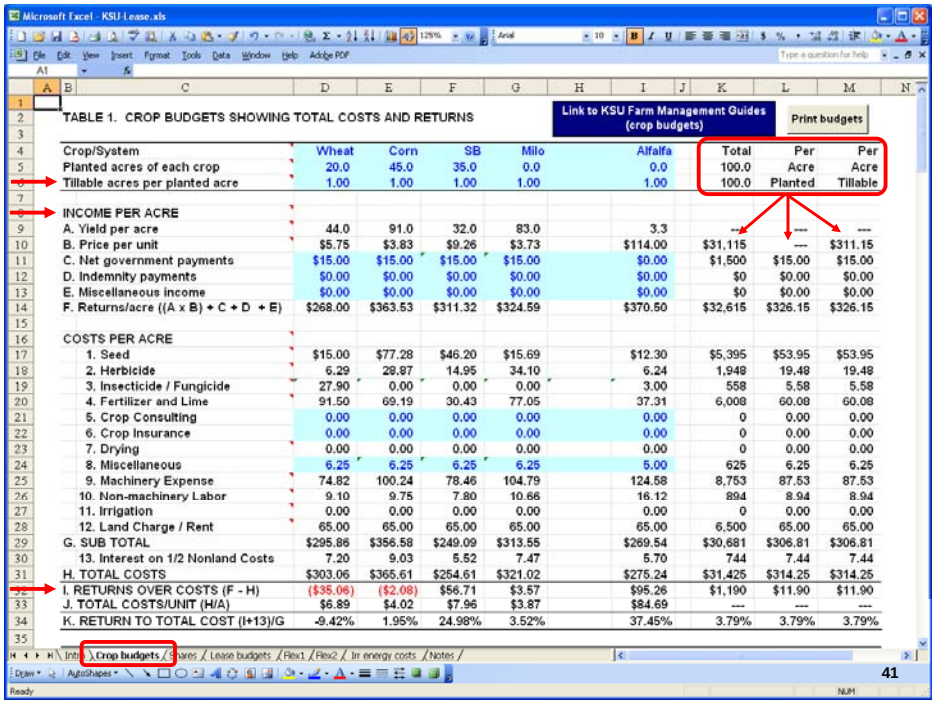


TABLE 1. CROP BUDGETS SHOWING TOTAL COSTS AND RETURNS

Link to KSU Farm Management Guides (crop budgets) | Print budgets

Crop/System	Wheat	Corn	SB	Milo	Alfalfa	Total	Per Acre Planted	Per Acre Tillable
Planted acres of each crop	20.0	45.0	35.0	0.0	0.0	100.0	Acre	Acre
Tillable acres per planted acre	1.00	1.00	1.00	1.00	1.00	100.0	Planted	Tillable
INCOME PER ACRE								
A. Yield per acre	44.0	91.0	32.0	83.0	3.3	---	---	---
B. Price per unit	$5.75	$3.83	$9.26	$3.73	$114.00	$31,115	---	$311.15
C. Net government payments	$15.00	$15.00	$15.00	$15.00	$0.00	$1,500	$15.00	$15.00
D. Indemnity payments	$0.00	$0.00	$0.00	$0.00	$0.00	$0	$0.00	$0.00
E. Miscellaneous income	$0.00	$0.00	$0.00	$0.00	$0.00	$0	$0.00	$0.00
F. Returns/acre ((A x B) + C + D + E)	$268.00	$363.53	$311.32	$324.59	$370.50	$32,615	$326.15	$326.15
COSTS PER ACRE								
1. Seed	$15.00	$77.28	$46.20	$15.69	$12.30	$5,395	$53.95	$53.95
2. Herbicide	6.29	28.87	14.95	34.10	6.24	1,948	19.48	19.48
3. Insecticide / Fungicide	27.90	0.00	0.00	0.00	3.00	558	5.58	5.58
4. Fertilizer and Lime	91.50	69.19	30.43	77.05	37.31	6,008	60.08	60.08
5. Crop Consulting	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
6. Crop Insurance	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
7. Drying	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
8. Miscellaneous	6.25	6.25	6.25	6.25	5.00	625	6.25	6.25
9. Machinery Expense	74.82	100.24	78.46	104.79	124.58	8,753	87.53	87.53
10. Non-machinery Labor	9.10	9.75	7.80	10.66	16.12	894	8.94	8.94
11. Irrigation	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
12. Land Charge / Rent	65.00	65.00	65.00	65.00	65.00	6,500	65.00	65.00
G. SUB TOTAL	$295.86	$356.58	$249.09	$313.55	$269.54	$30,681	$306.81	$306.81
13. Interest on 1/2 Nonland Costs	7.20	9.03	5.52	7.47	5.70	744	7.44	7.44
H. TOTAL COSTS	$303.06	$365.61	$254.61	$321.02	$275.24	$31,425	$314.25	$314.25
I. RETURNS OVER COSTS (F - H)	($35.06)	($2.08)	$56.71	$3.57	$95.26	$1,190	$11.90	$11.90
J. TOTAL COSTS/UNIT (H/A)	$6.89	$4.02	$7.96	$3.87	$84.69	---	---	---
K. RETURN TO TOTAL COST (I+13)/G	-9.42%	1.95%	24.98%	3.52%	37.45%	3.79%	3.79%	3.79%

Crop budgets | Shares | Lease budgets | Flex1 | Flex2 | Irr energy costs | Notes

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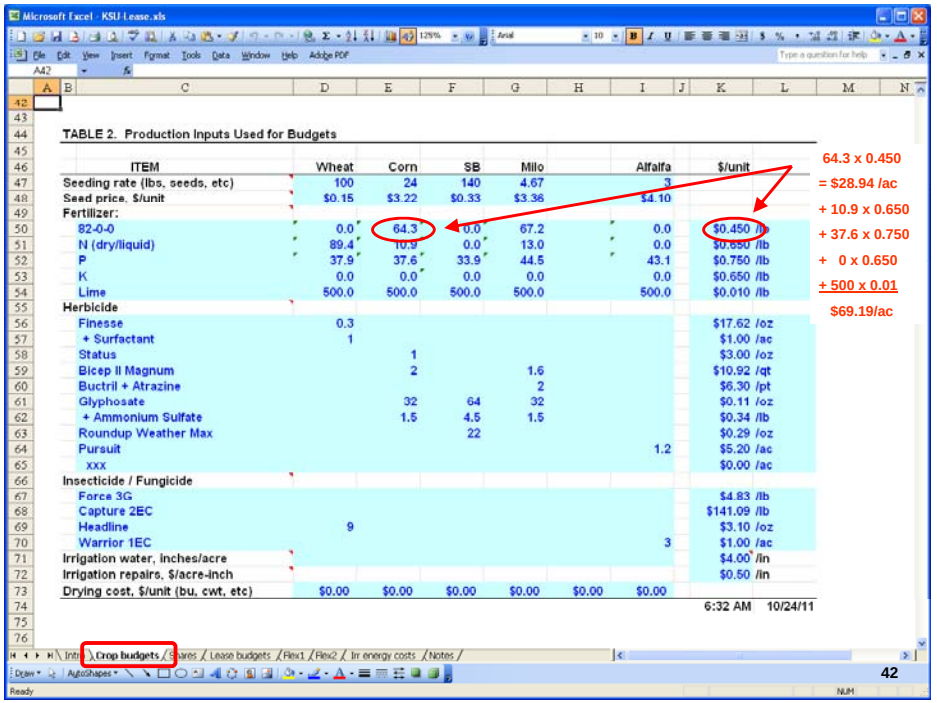

TABLE 2. Production Inputs Used for Budgets

ITEM	Wheat	Corn	SB	Milo	Alfalfa	$/unit
Seeding rate (lbs, seeds, etc)	100	24	140	4.67	3	
Seed price, $/unit	$0.15	$3.22	$0.33	$3.36	$4.10	
Fertilizer:						
82-0-0	0.0	64.3	0.0	67.2	0.0	$0.450 /lb
N (dry/liquid)	89.4	10.9	0.0	13.0	0.0	$0.650 /lb
P	37.9	37.6	33.9	44.5	43.1	$0.750 /lb
K	0.0	0.0	0.0	0.0	0.0	$0.650 /lb
Lime	500.0	500.0	500.0	500.0	500.0	$0.010 /lb
Herbicide						
Finesse	0.3					$17.62 /oz
+ Surfactant	1					$1.00 /ac
Status		1				$3.00 /oz
Bicep II Magnum		2		1.6		$10.92 /qt
Buctril + Atrazine				2		$6.30 /pt
Glyphosate		32	64	32		$0.11 /oz
+ Ammonium Sulfate		1.5	4.5	1.5		$0.34 /lb
Roundup Weather Max			22			$0.29 /oz
Pursuit					1.2	$5.20 /ac
xxx						$0.00 /ac
Insecticide / Fungicide						
Force 3G						$4.83 /lb
Capture 2EC						$141.09 /lb
Headline	9					$3.10 /oz
Warrior 1EC					3	$1.00 /ac
Irrigation water, inches/acre						$4.00 /in
Irrigation repairs, $/acre-inch						$0.50 /in
Drying cost, $/unit (bu, cwt, etc)	$0.00	$0.00	$0.00	$0.00	$0.00	

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64.3 x 0.450
= $28.94 /ac
+ 10.9 x 0.650
+ 37.6 x 0.750
+ 0 x 0.650
+ 500 x 0.01
$69.19/ac

Crop budgets | Shares | Lease budgets | Flex1 | Flex2 | Irr energy costs | Notes

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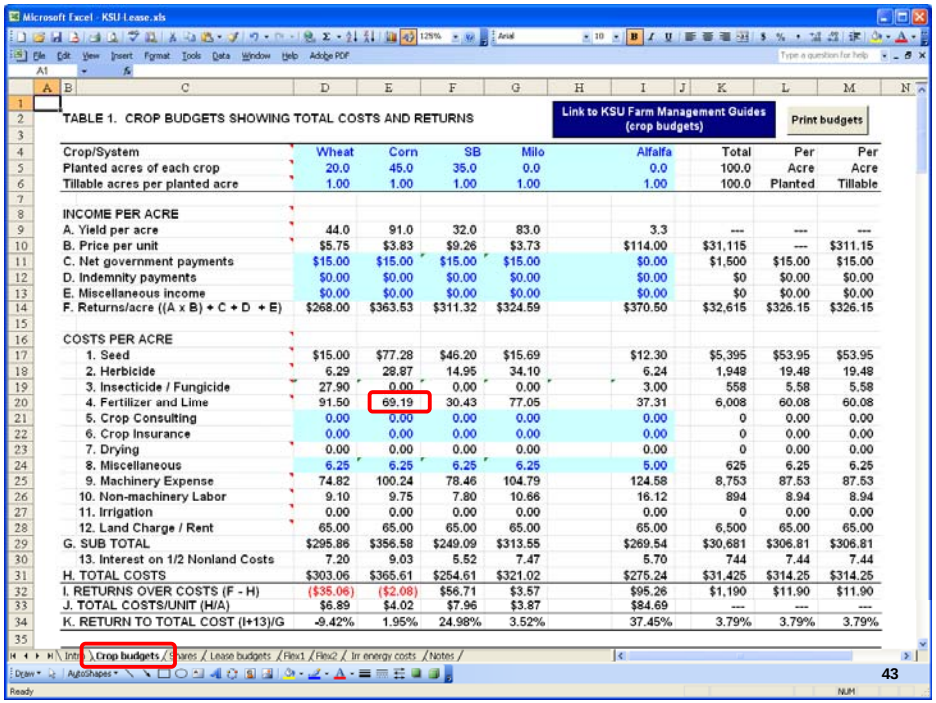

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8. Miscellaneous	6.25	6.25	6.25	6.25	5.00	625	6.25	6.25
9. Machinery Expense	74.82	100.24	78.46	104.79	124.58	8,753	87.53	87.53
10. Non-machinery Labor	9.10	9.75	7.80	10.66	16.12	894	8.94	8.94
11. Irrigation	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
12. Land Charge / Rent	65.00	65.00	65.00	65.00	65.00	6,500	65.00	65.00
G. SUB TOTAL	$295.86	$356.58	$249.09	$313.55	$269.54	$30,681	$306.81	$306.81
13. Interest on 1/2 Nonland Costs	7.20	9.03	5.52	7.47	5.70	744	7.44	7.44
H. TOTAL COSTS	$303.06	$365.61	$254.61	$321.02	$275.24	$31,425	$314.25	$314.25
I. RETURNS OVER COSTS (F - H)	($35.06)	($2.08)	$56.71	$3.57	$95.26	$1,190	$11.90	$11.90
J. TOTAL COSTS/UNIT (H/A)	$6.89	$4.02	$7.96	$3.87	$84.69	---	---	---
K. RETURN TO TOTAL COST (I+13)/G	-9.42%	1.95%	24.98%	3.52%	37.45%	3.79%	3.79%	3.79%

Crop budgets | Shares | Lease budgets | Flex1 | Flex2 | Irr energy costs | Notes

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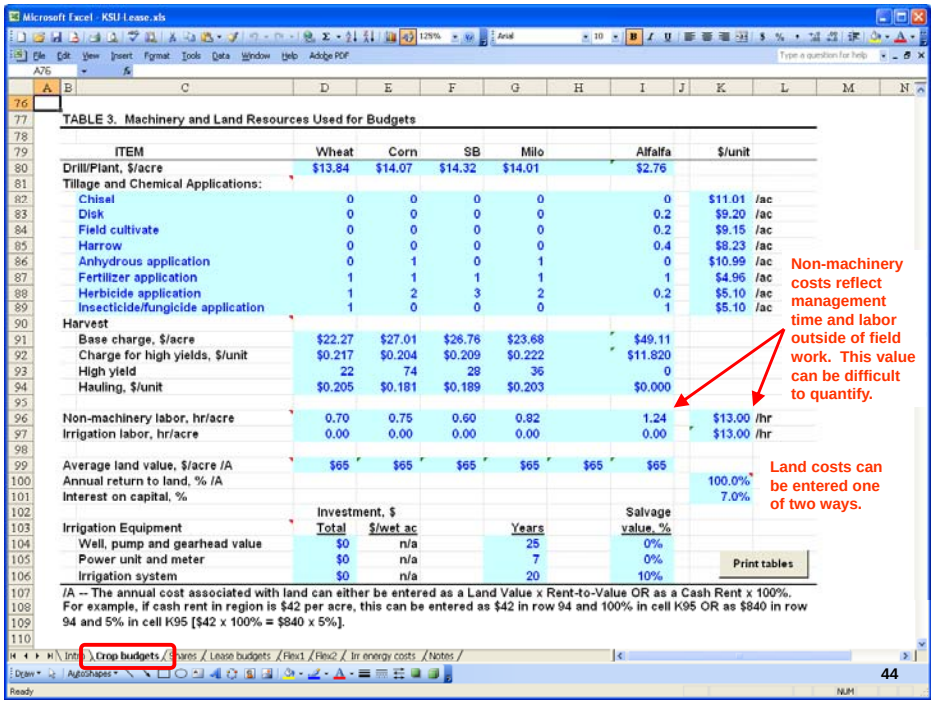

TABLE 3. Machinery and Land Resources Used for Budgets

ITEM	Wheat	Corn	SB	Milo	Alfalfa	$/unit
Drill/Plant, $/acre	$13.84	$14.07	$14.32	$14.01	$2.76	
Tillage and Chemical Applications:						
Chisel	0	0	0	0	0	$11.01 /ac
Disk	0	0	0	0	0.2	$9.20 /ac
Field cultivate	0	0	0	0	0.2	$9.15 /ac
Harrow	0	0	0	0	0.4	$8.23 /ac
Anhydrous application	0	1	0	1	0	$10.99 /ac
Fertilizer application	1	1	1	1	1	$4.96 /ac
Herbicide application	1	2	3	2	0.2	$5.10 /ac
Insecticide/fungicide application	1	0	0	0	1	$5.10 /ac
Harvest						
Base charge, $/acre	$22.27	$27.01	$26.76	$23.68	$49.11	
Charge for high yields, $/unit	$0.217	$0.204	$0.209	$0.222	$11.820	
High yield	22	74	28	36	0	
Hauling, $/unit	$0.205	$0.181	$0.189	$0.203	$0.000	
Non-machinery labor, hr/acre	0.70	0.75	0.60	0.82	1.24	$13.00 /hr
Irrigation labor, hr/acre	0.00	0.00	0.00	0.00	0.00	$13.00 /hr
Average land value, $/acre /A	$65	$65	$65	$65	$65	$65
Annual return to land, % /A						100.0%
Interest on capital, %						7.0%

Irrigation Equipment	Investment, $ Total	$/wet ac	Years	Salvage value, %
Well, pump and gearhead value	$0	n/a	25	0%
Power unit and meter	$0	n/a	7	0%
Irrigation system	$0	n/a	20	10%

Print tables

/A -- The annual cost associated with land can either be entered as a Land Value x Rent-to-Value OR as a Cash Rent x 100%. For example, if cash rent in region is $42 per acre, this can be entered as $42 in row 94 and 100% in cell K95 OR as $840 in row 94 and 5% in cell K95 [$42 x 100% = $840 x 5%].

Non-machinery costs reflect management time and labor outside of field work. This value can be difficult to quantify.

Land costs can be entered one of two ways.

Crop budgets | Shares | Lease budgets | Flex1 | Flex2 | Irr energy costs | Notes

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Alternative yield and price scenarios…

TABLE 4. Alternative Yield and Price Scenarios (minimum of one must be entered)

Yield scenarios to consider

	Wheat	Corn	SB	Milo		Alfalfa	Use (Y=1, N=0)	
Used in analysis above	44	91	32	83	0	3.25	1	
Multi-county average (10-yr)	44	91	32	83		3.25	1	(base)
FM guides average	52	90	35	90		3.5	0	
FM guides high	65	110	45	110		3	0	
FM guides low	40	70	25	70		4	0	
Crop insurance APH yields	54	136	45	100		3.25	0	

Price scenarios to consider

	Wheat	Corn	SB	Milo		Alfalfa	Use (Y=1, N=0)	
Used in analysis above	$5.75	$3.83	$9.26	$3.73	$0.00	$114.00	1	
5-yr average harvest (local coop)	$5.75	$3.83	$9.26	$3.73		$114.00	1	(base)
5-yr avg for region (mktg year)	$5.97	$4.13	$9.82	$3.93		$114.00	0	
10-yr avg for region (mktg year)	$4.65	$3.13	$7.77	$2.95		$99.00	0	
Current futures + basis (2011-2014)	$6.64	$5.68	$11.40	$5.53		$120.00	0	
Slightly below budget	$6.50	$5.50	$12.00	$4.25		$135.00	0	

Machinery cost adjustment (percent of values entered in Table 2) 115.0%

Yield and price scenarios to use in analysis are "picked" by entering 1's and 0's in column K.

Previously entered machinery costs can be proportionately adjusted by changing value in cell K131.

TABLE 1. CROP BUDGETS SHOWING TOTAL COSTS AND RETURNS

Link to KSU Farm Management Guides (crop budgets) | Print budgets

Crop/System	Wheat	Corn	SB	Milo		Alfalfa	Total	Per Acre	Per Acre
Planted acres of each crop	20.0	45.0	35.0	0.0		0.0	100.0	Planted	Tillable
Tillable acres per planted acre	1.00	1.00	1.00	1.00		1.00	100.0		
INCOME PER ACRE									
A. Yield per acre	44.0	91.0	32.0	83.0		3.3			
B. Price per unit	$5.75	$3.83	$9.26	$3.73		$114.00	$31,115		
C. Net government payments	$15.00	$15.00	$15.00	$15.00		$0.00	$1,500		
D. Indemnity payments	$0.00	$0.00	$0.00	$0.00		$0.00	$0		
E. Miscellaneous income	$0.00	$0.00	$0.00	$0.00		$0.00	$0		
F. Returns/acre ((A x B) + C + D + E)	$268.00	$363.53	$311.32	$324.59		$370.50	$32,615		
COSTS PER ACRE									
1. Seed	$15.00	$77.28	$46.20	$15.69		$12.30	$5,395	$53.95	$53.95
2. Herbicide	6.29	28.87	14.95	34.10		6.24	1,948	19.48	19.48
3. Insecticide / Fungicide	27.90	0.00	0.00	0.00		3.00	558	5.58	5.58
4. Fertilizer and Lime	91.50	69.19	30.43	77.05		37.31	6,008	60.08	60.08
5. Crop Consulting	0.00	0.00	0.00	0.00		0.00	0	0.00	0.00
6. Crop Insurance	0.00	0.00	0.00	0.00		0.00	0	0.00	0.00
7. Drying	0.00	0.00	0.00	0.00		0.00	0	0.00	0.00
8. Miscellaneous	6.25	6.25	6.25	6.25		5.00	625	6.25	6.25
9. Machinery Expense	74.82	100.24	78.46	104.79		124.58	8,753	87.53	87.53
10. Non-machinery Labor	9.10	9.75	7.80	10.66		16.12	894	8.94	8.94
11. Irrigation	0.00	0.00	0.00	0.00		0.00	0	0.00	0.00
12. Land Charge / Rent	65.00	65.00	65.00	65.00		65.00	6,500	65.00	65.00
G. SUB TOTAL	$295.86	$356.58	$249.09	$313.55		$269.54	$30,681	$306.81	$306.81
13. Interest on 1/2 Nonland Costs	7.20	9.03	5.52	7.47		5.70	744	7.44	7.44
H. TOTAL COSTS	$303.06	$365.61	$254.61	$321.02		$275.24	$31,425	$314.25	$314.25
I. RETURNS OVER COSTS (F - H)	($35.06)	($2.08)	$56.71	$3.57		$95.26	$1,190	$11.90	$11.90
J. TOTAL COSTS/UNIT (H/A)	$6.89	$4.02	$7.96	$3.87		$84.69	---	---	---
K. RETURN TO TOTAL COST (I+13)/G	-9.42%	1.95%	24.98%	3.52%		37.45%	3.79%	3.79%	3.79%

Yields and prices reflect values "chosen" below (had a "1" been entered in all five rows, these would be averages of the five scenarios).

TABLE 5. Breakdown of Shares of Expenses

Landowner ==========> NC Kansas Landowner 11/11/11

Operator ==========> NC Kansas Farmer 2:10 PM

Basis for equitable share calculations: For the entire rotation (L5 = 0), Crop-by-crop (L5 = 1) L5 ==> 0

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

Crop/System	Wheat	Corn	SB	Milo		Alfalfa	Total
Planted acres	20.0	45.0	35.0	0.0		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							
Finesse	-100%	-100%	-100%	-100%	-100%	-100%	
+ Surfactant	-100%	-100%	-100%	-100%	-100%	-100%	
Status	-100%	-100%	-100%	-100%	-100%	-100%	
Bicep II Magnum	-100%	-100%	-100%	-100%	-100%	-100%	
Buctril + Atrazine	-100%	-100%	-100%	-100%	-100%	-100%	
Glyphosate	-100%	-100%	-100%	-100%	-100%	-100%	
+ Ammonium Sulfate	-100%	-100%	-100%	-100%	-100%	-100%	
Roundup Weather Max	-100%	-100%	-100%	-100%	-100%	-100%	
Pursuit	-100%	-100%	-100%	-100%	-100%	-100%	
xxx	-100%	-100%	-100%	-100%	-100%	-100%	
Insecticide / Fungicide							
Force 3G	-100%	-100%	-100%	-100%	-100%	-100%	
Capture 2EC	-100%	-100%	-100%	-100%	-100%	-100%	
Headline	-100%	-100%	-100%	-100%	-100%	-100%	
Warrior 1EC	-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%)	56.8%	72.1%	63.1%	63.9%		68.2%	66.9%

Print operator's shares

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

Crop/System	Wheat	Corn	SB	Milo	---	Alfalfa	Total
Planted acres	20.0	45.0	35.0	0.0	---	0.0	100.0
OPERATOR'S share of machinery, labor, irrigation, and land (enter -100% if shared equitably)							
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%	
Harrow	100%	100%	100%	100%	100%	100%	
Anhydrous application	100%	100%	100%	100%	100%	100%	
Fertilizer application	100%	100%	100%	100%	100%	100%	
Herbicide application	-100%	-100%	-100%	-100%	-100%	-100%	
Insecticide/fungicide application	-100%	-100%	-100%	-100%	-100%	-100%	
Harvest							
Harvest	100%	100%	100%	100%	100%	100%	
Hauling	100%	100%	100%	100%	100%	100%	
Miscellaneous	75%	75%	75%	75%	75%	75%	
Non-machinery labor	100%	100%	100%	100%	100%	100%	
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	100%	100%	100%	100%	100%	100%	
Motor	100%	100%	100%	100%	100%	100%	
Irrigation system	100%	100%	100%	100%	100%	100%	
Land	0%	0%	0%	0%	0%	0%	
Cash payment to landowner, $/acre	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0
Operator's equitable share (OS%)	56.8%	72.1%	63.1%	63.9%		68.2%	66.9%
Landowner's equitable share (LS%)	43.2%	27.9%	36.9%	36.1%		31.8%	33.1%

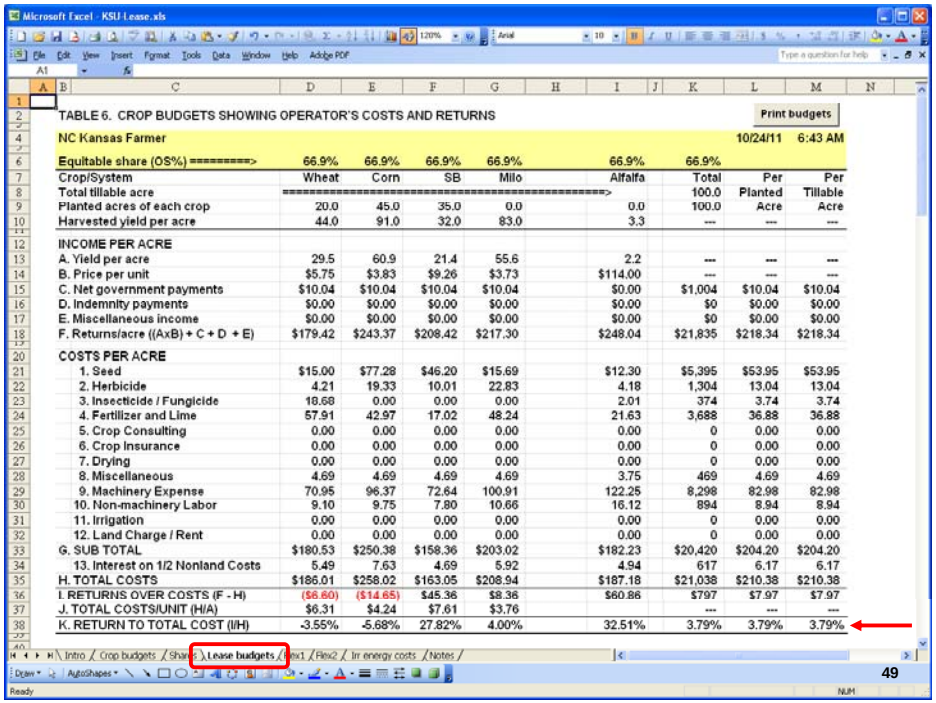

TABLE 6. CROP BUDGETS SHOWING OPERATOR'S COSTS AND RETURNS

Print budgets

NC Kansas Farmer — 10/24/11 6:43 AM

Equitable share (OS%) ========>	66.9%	66.9%	66.9%	66.9%	66.9%	66.9%		
Crop/System	Wheat	Corn	SB	Milo	Alfalfa	Total	Per Planted Acre	Per Tillable Acre
Total tillable acre ==========						100.0		
Planted acres of each crop	20.0	45.0	35.0	0.0	0.0	100.0		
Harvested yield per acre	44.0	91.0	32.0	83.0	3.3	---	---	---
INCOME PER ACRE								
A. Yield per acre	29.5	60.9	21.4	55.6	2.2	---	---	---
B. Price per unit	$5.75	$3.83	$9.26	$3.73	$114.00	---	---	---
C. Net government payments	$10.04	$10.04	$10.04	$10.04	$0.00	$1,004	$10.04	$10.04
D. Indemnity payments	$0.00	$0.00	$0.00	$0.00	$0.00	$0	$0.00	$0.00
E. Miscellaneous income	$0.00	$0.00	$0.00	$0.00	$0.00	$0	$0.00	$0.00
F. Returns/acre ((AxB) + C + D + E)	$179.42	$243.37	$208.42	$217.30	$248.04	$21,835	$218.34	$218.34
COSTS PER ACRE								
1. Seed	$15.00	$77.28	$46.20	$15.69	$12.30	$5,395	$53.95	$53.95
2. Herbicide	4.21	19.33	10.01	22.83	4.18	1,304	13.04	13.04
3. Insecticide / Fungicide	18.68	0.00	0.00	0.00	2.01	374	3.74	3.74
4. Fertilizer and Lime	57.91	42.97	17.02	48.24	21.63	3,688	36.88	36.88
5. Crop Consulting	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
6. Crop Insurance	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
7. Drying	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
8. Miscellaneous	4.69	4.69	4.69	4.69	3.75	469	4.69	4.69
9. Machinery Expense	70.95	96.37	72.64	100.91	122.25	8,298	82.98	82.98
10. Non-machinery Labor	9.10	9.75	7.80	10.66	16.12	894	8.94	8.94
11. Irrigation	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
12. Land Charge / Rent	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
G. SUB TOTAL	$180.53	$250.38	$158.36	$203.02	$182.23	$20,420	$204.20	$204.20
13. Interest on 1/2 Nonland Costs	5.49	7.63	4.69	5.92	4.94	617	6.17	6.17
H. TOTAL COSTS	$186.01	$258.02	$163.05	$208.94	$187.18	$21,038	$210.38	$210.38
I. RETURNS OVER COSTS (F - H)	($6.60)	($14.65)	$45.36	$8.36	$60.86	$797	$7.97	$7.97
J. TOTAL COSTS/UNIT (H/A)	$6.31	$4.24	$7.61	$3.76		---	---	---
K. RETURN TO TOTAL COST (I/H)	-3.55%	-5.68%	27.82%	4.00%	32.51%	3.79%	3.79%	3.79%

Intro / Crop budgets / Share / Lease budgets / Flex1 / Flex2 / Irr energy costs / Notes /

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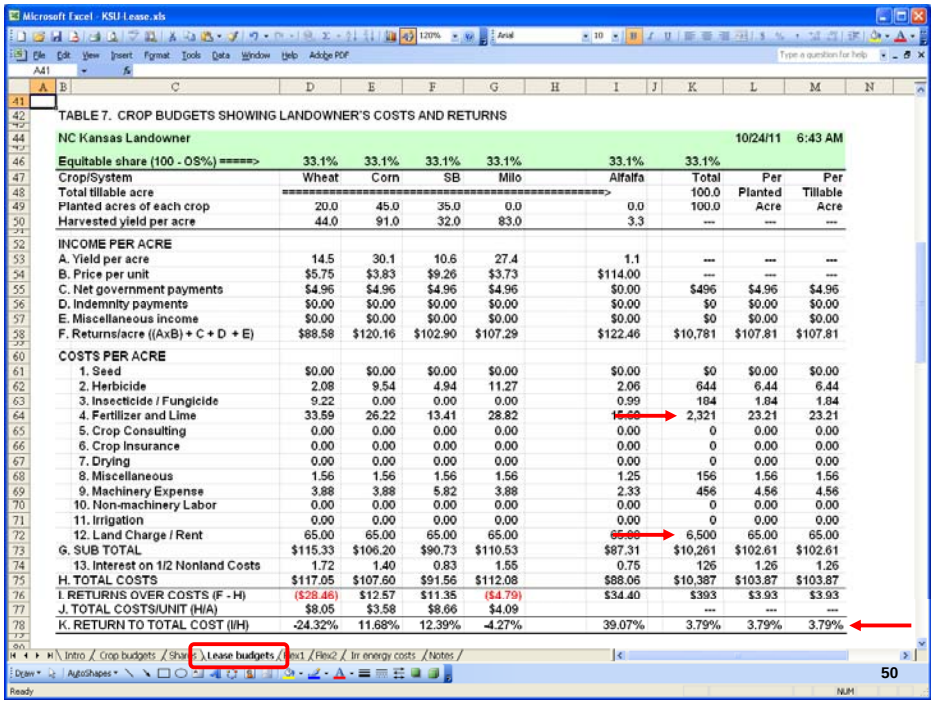

TABLE 7. CROP BUDGETS SHOWING LANDOWNER'S COSTS AND RETURNS

NC Kansas Landowner — 10/24/11 6:43 AM

Equitable share (100 - OS%) =====>	33.1%	33.1%	33.1%	33.1%	33.1%	33.1%		
Crop/System	Wheat	Corn	SB	Milo	Alfalfa	Total	Per Planted Acre	Per Tillable Acre
Total tillable acre ==========						100.0		
Planted acres of each crop	20.0	45.0	35.0	0.0	0.0	100.0		
Harvested yield per acre	44.0	91.0	32.0	83.0	3.3	---	---	---
INCOME PER ACRE								
A. Yield per acre	14.5	30.1	10.6	27.4	1.1	---	---	---
B. Price per unit	$5.75	$3.83	$9.26	$3.73	$114.00	---	---	---
C. Net government payments	$4.96	$4.96	$4.96	$4.96	$0.00	$496	$4.96	$4.96
D. Indemnity payments	$0.00	$0.00	$0.00	$0.00	$0.00	$0	$0.00	$0.00
E. Miscellaneous income	$0.00	$0.00	$0.00	$0.00	$0.00	$0	$0.00	$0.00
F. Returns/acre ((AxB) + C + D + E)	$88.58	$120.16	$102.90	$107.29	$122.46	$10,781	$107.81	$107.81
COSTS PER ACRE								
1. Seed	$0.00	$0.00	$0.00	$0.00	$0.00	$0	$0.00	$0.00
2. Herbicide	2.08	9.54	4.94	11.27	2.06	644	6.44	6.44
3. Insecticide / Fungicide	9.22	0.00	0.00	0.00	0.99	184	1.84	1.84
4. Fertilizer and Lime	33.59	26.22	13.41	28.82	15.69	2,321	23.21	23.21
5. Crop Consulting	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
6. Crop Insurance	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
7. Drying	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
8. Miscellaneous	1.56	1.56	1.56	1.56	1.25	156	1.56	1.56
9. Machinery Expense	3.88	3.88	5.82	3.88	2.33	456	4.56	4.56
10. Non-machinery Labor	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
11. Irrigation	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
12. Land Charge / Rent	65.00	65.00	65.00	65.00	65.00	6,500	65.00	65.00
G. SUB TOTAL	$115.33	$106.20	$90.73	$110.53	$87.31	$10,261	$102.61	$102.61
13. Interest on 1/2 Nonland Costs	1.72	1.40	0.83	1.55	0.75	126	1.26	1.26
H. TOTAL COSTS	$117.05	$107.60	$91.56	$112.08	$88.06	$10,387	$103.87	$103.87
I. RETURNS OVER COSTS (F - H)	($28.46)	$12.57	$11.35	($4.79)	$34.40	$393	$3.93	$3.93
J. TOTAL COSTS/UNIT (H/A)	$8.05	$3.58	$8.66	$4.09		---	---	---
K. RETURN TO TOTAL COST (I/H)	-24.32%	11.68%	12.39%	-4.27%	39.07%	3.79%	3.79%	3.79%

Intro / Crop budgets / Share / Lease budgets / Flex1 / Flex2 / Irr energy costs / Notes /

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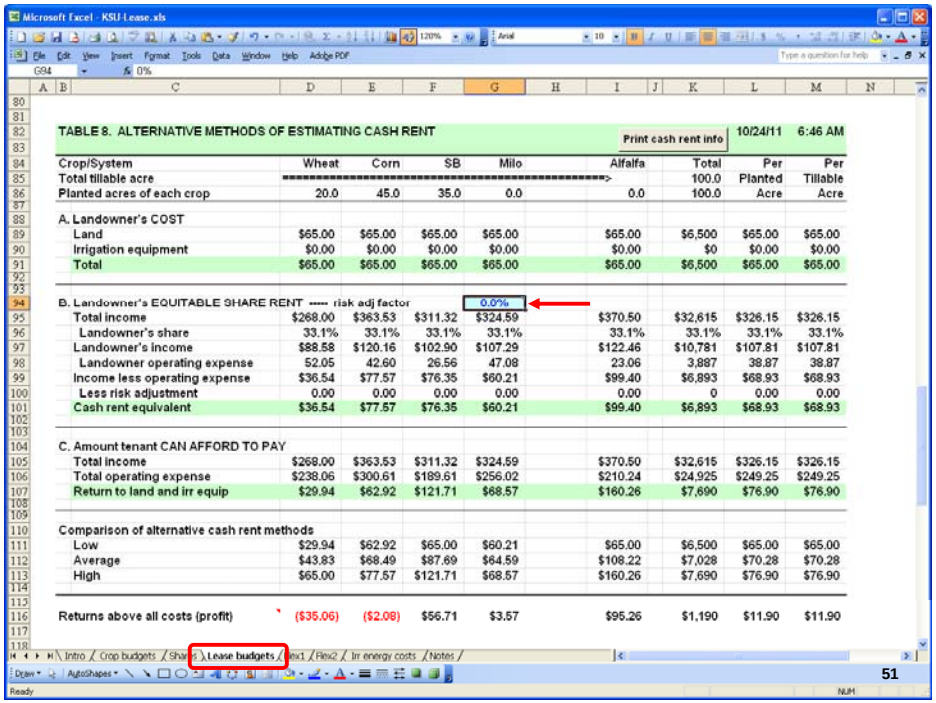

TABLE 8. ALTERNATIVE METHODS OF ESTIMATING CASH RENT

Print cash rent info — 10/24/11 6:46 AM

Crop/System	Wheat	Corn	SB	Milo	Alfalfa	Total	Per Planted Acre	Per Tillable Acre
Total tillable acre ==========						100.0		
Planted acres of each crop	20.0	45.0	35.0	0.0	0.0	100.0		
A. Landowner's COST								
Land	$65.00	$65.00	$65.00	$65.00	$65.00	$6,500	$65.00	$65.00
Irrigation equipment	$0.00	$0.00	$0.00	$0.00	$0.00	$0	$0.00	$0.00
Total	$65.00	$65.00	$65.00	$65.00	$65.00	$6,500	$65.00	$65.00
B. Landowner's EQUITABLE SHARE RENT ----- risk adj factor				0.0%				
Total income	$268.00	$363.53	$311.32	$324.59	$370.50	$32,615	$326.15	$326.15
Landowner's share	33.1%	33.1%	33.1%	33.1%	33.1%	33.1%	33.1%	33.1%
Landowner's income	$88.58	$120.16	$102.90	$107.29	$122.46	$10,781	$107.81	$107.81
Landowner operating expense	52.05	42.60	26.56	47.08	23.06	3,887	38.87	38.87
Income less operating expense	$36.54	$77.57	$76.35	$60.21	$99.40	$6,893	$68.93	$68.93
Less risk adjustment	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
Cash rent equivalent	$36.54	$77.57	$76.35	$60.21	$99.40	$6,893	$68.93	$68.93
C. Amount tenant CAN AFFORD TO PAY								
Total income	$268.00	$363.53	$311.32	$324.59	$370.50	$32,615	$326.15	$326.15
Total operating expense	$238.06	$300.61	$189.61	$256.02	$210.24	$24,925	$249.25	$249.25
Return to land and irr equip	$29.94	$62.92	$121.71	$68.57	$160.26	$7,690	$76.90	$76.90
Comparison of alternative cash rent methods								
Low	$29.94	$62.92	$65.00	$60.21	$65.00	$6,500	$65.00	$65.00
Average	$43.83	$68.49	$87.69	$64.59	$108.22	$7,028	$70.28	$70.28
High	$65.00	$77.57	$121.71	$68.57	$160.26	$7,690	$76.90	$76.90
Returns above all costs (profit)	($35.06)	($2.08)	$56.71	$3.57	$95.26	$1,190	$11.90	$11.90

Intro / Crop budgets / Share / Lease budgets / Flex1 / Flex2 / Irr energy costs / Notes /

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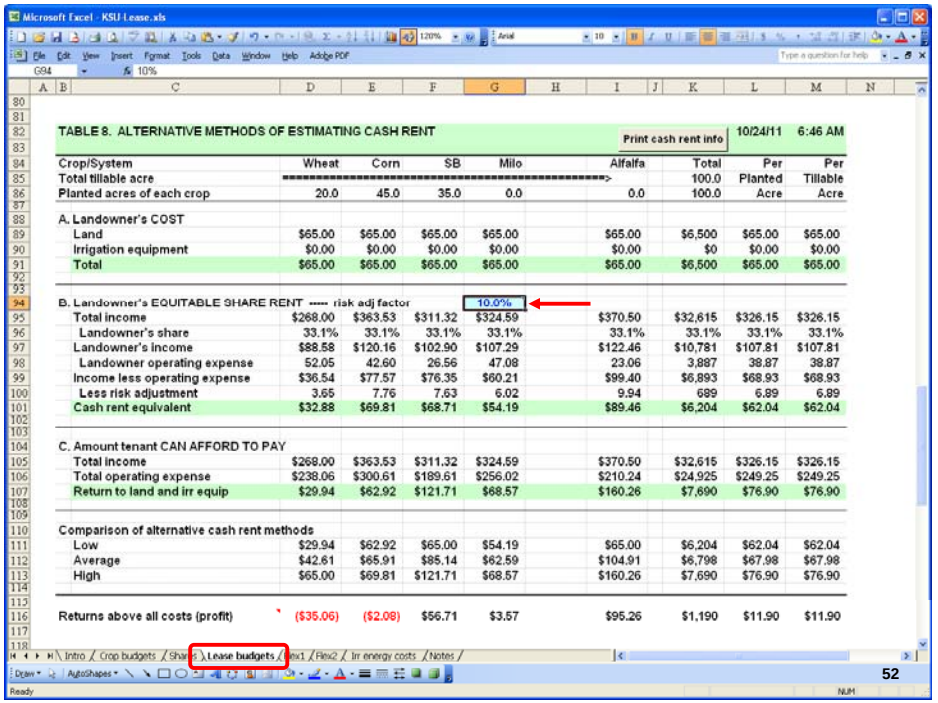

TABLE 8. ALTERNATIVE METHODS OF ESTIMATING CASH RENT

Print cash rent info — 10/24/11 6:46 AM

Crop/System	Wheat	Corn	SB	Milo	Alfalfa	Total	Per Planted Acre	Per Tillable Acre
Total tillable acre ==========						100.0		
Planted acres of each crop	20.0	45.0	35.0	0.0	0.0	100.0		
A. Landowner's COST								
Land	$65.00	$65.00	$65.00	$65.00	$65.00	$6,500	$65.00	$65.00
Irrigation equipment	$0.00	$0.00	$0.00	$0.00	$0.00	$0	$0.00	$0.00
Total	$65.00	$65.00	$65.00	$65.00	$65.00	$6,500	$65.00	$65.00
B. Landowner's EQUITABLE SHARE RENT ----- risk adj factor				10.0%				
Total income	$268.00	$363.53	$311.32	$324.59	$370.50	$32,615	$326.15	$326.15
Landowner's share	33.1%	33.1%	33.1%	33.1%	33.1%	33.1%	33.1%	33.1%
Landowner's income	$88.58	$120.16	$102.90	$107.29	$122.46	$10,781	$107.81	$107.81
Landowner operating expense	52.05	42.60	26.56	47.08	23.06	3,887	38.87	38.87
Income less operating expense	$36.54	$77.57	$76.35	$60.21	$99.40	$6,893	$68.93	$68.93
Less risk adjustment	3.65	7.76	7.63	6.02	9.94	689	6.89	6.89
Cash rent equivalent	$32.88	$69.81	$68.71	$54.19	$89.46	$6,204	$62.04	$62.04
C. Amount tenant CAN AFFORD TO PAY								
Total income	$268.00	$363.53	$311.32	$324.59	$370.50	$32,615	$326.15	$326.15
Total operating expense	$238.06	$300.61	$189.61	$256.02	$210.24	$24,925	$249.25	$249.25
Return to land and irr equip	$29.94	$62.92	$121.71	$68.57	$160.26	$7,690	$76.90	$76.90
Comparison of alternative cash rent methods								
Low	$29.94	$62.92	$65.00	$54.19	$65.00	$6,204	$62.04	$62.04
Average	$42.61	$65.91	$85.14	$62.59	$104.91	$6,798	$67.98	$67.98
High	$65.00	$69.81	$121.71	$68.57	$160.26	$7,690	$76.90	$76.90
Returns above all costs (profit)	($35.06)	($2.08)	$56.71	$3.57	$95.26	$1,190	$11.90	$11.90

Intro / Crop budgets / Share / Lease budgets / Flex1 / Flex2 / Irr energy costs / Notes /

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Situation…

You have a chance to rent 200 acres of non-irrigated crop land (or you could be a landowner looking to lease it to someone else) and you want to identify what reasonable rental terms might be.

You also have the following information:

1) **Crop mix/rotation is 60% wheat, 20% milo, 15% soybeans, and 5% corn.**
2) **Possibility for double crop soybeans, but not typically done**
3) **Machinery costs are assumed to be 115% of average custom rates.**

KSU-Lease.xls example…

Budget information for costs of dryland crops for SC KS has been pre-entered, we need to do the following:

1) **Complete the budgets (enter acres, yields, prices, land cost) and examine profit potential**
2) **Identify what an equitable crop share arrangement would be**
3) **Identify an appropriate cash rent – think about implied risk premium**
4) **Examine potential terms for a flexible cash rent**

Crop share percentages in region…

Table 9. Central-50 Nonirrigated Crop-Share Arrangements

Crop	Landlord's Percent of Crop Received (or of Costs Paid)*			
	33% Share	40% Share	50% Share	Other % Share
Wheat (75 Leases)	59	13		3
% of Total Leases in Lease Arrangement	78.7%	17.3%	No	4.0%
% of Leases Sharing Fertilizer Costs	100.0%	100.0%	Responses	33.3%
% of Leases Sharing Herbicide Costs	57.6%	100.0%		33.3%
% of Leases Sharing Insecticide Costs	35.6%	84.6%		33.3%
Corn (8 Leases)	7	1		
% of Total Leases in Lease Arrangement	87.5%	12.5%	No	No
% of Leases Sharing Fertilizer Costs	100.0%	100.0%	Responses	Responses
% of Leases Sharing Herbicide Costs	71.4%	0.0%		
% of Leases Sharing Insecticide Costs	42.9%	0.0%		
Sorghum (20 Leases)	18	1	1	
% of Total Leases in Lease Arrangement	90.0%	5.0%	5.0%	No
% of Leases Sharing Fertilizer Costs	100.0%	100.0%	100.0%	Responses
% of Leases Sharing Herbicide Costs	66.7%	100.0%	100.0%	
% of Leases Sharing Insecticide Costs	66.7%	100.0%	100.0%	
Soybeans (19 Leases)	16	3		
% of Total Leases in Lease Arrangement	84.2%	15.8%	No	No
% of Leases Sharing Fertilizer Costs	100.0%	100.0%	Responses	Responses
% of Leases Sharing Herbicide Costs	68.8%	100.0%		
% of Leases Sharing Insecticide Costs	50.0%	66.7%		

* 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, 57.6% of landlords receiving 33% of the wheat crop paid 33% of herbicide expenses.

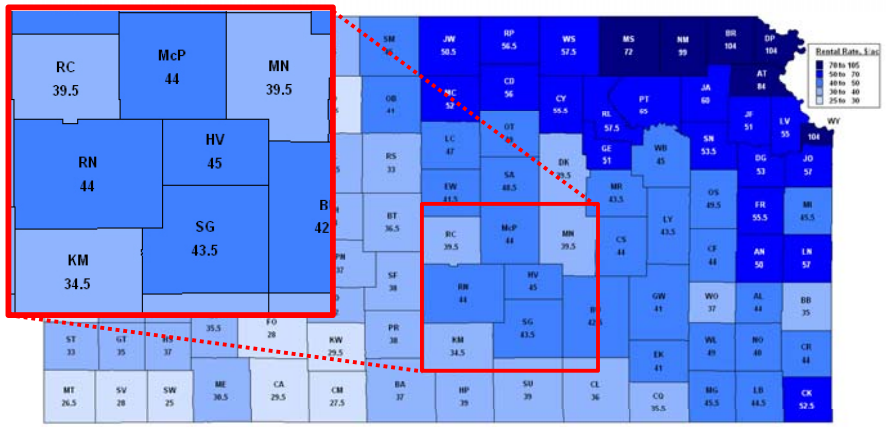
Crop share percentages in region…

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
Wheat (84 Leases)	76	8		
% of Total Leases in Lease Arrangement	90.5%	9.5%	No	No
% of Leases Sharing Fertilizer Costs	100.0%	100.0%	Responses	Responses
% of Leases Sharing Herbicide Costs	60.5%	25.0%		
% of Leases Sharing Insecticide Costs	40.8%	75.0%		
Corn (8 Leases)	6	2		
% of Total Leases in Lease Arrangement	75.0%	25.0%	No	No
% of Leases Sharing Fertilizer Costs	100.0%	50.0%	Responses	Responses
% of Leases Sharing Herbicide Costs	100.0%	100.0%		
% of Leases Sharing Insecticide Costs	50.0%	0.0%		
Sorghum (14 Leases)	12		1	1
% of Total Leases in Lease Arrangement	85.7%	No	7.1%	7.1%
% of Leases Sharing Fertilizer Costs	100.0%	Responses	100.0%	0.0%
% of Leases Sharing Herbicide Costs	75.0%		0.0%	0.0%
% of Leases Sharing Insecticide Costs	33.3%		0.0%	0.0%
Soybeans (20 Leases)	20			
% of Total Leases in Lease Arrangement	100.0%	No	No	No
% of Leases Sharing Fertilizer Costs	100.0%	Responses	Responses	Responses
% of Leases Sharing Herbicide Costs	70.0%			
% of Leases Sharing Insecticide Costs	55.0%			

* 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, 60.5% of landlords receiving 33% of the wheat crop paid 33% of herbicide expenses.

Kansas Nonirrigated Cash Rents, 2011*



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

County average rents reported by KAS for 2011 ranged from $40-$45 per acre in region.

Various yield and price scenarios you might consider…

Yield scenarios to consider						
	Wheat	Corn	SB	Milo		DC SB
Used in analysis above	N/A	N/A	N/A	N/A	N/A	N/A
Base for budget	0.0	0.0	0.0	0.0		0
Multi-county average (5-yr)	34.4	80.4	26.8	64.0		20
FM guides high	55	110	35	100		35
FM guides average	45	90	27	80		20
FM guides low	35	70	20	60		15
Other ???	40	85	30	70		20

Price scenarios to consider						
	Wheat	Corn	SB	Milo		DC SB
Used in analysis above	N/A	N/A	N/A	N/A	N/A	N/A
Base for budget	$0.00	$0.00	$0.00	$0.00		$0.00
FM Guides (forecast for 2012)	$6.69	$5.68	$11.46	$5.58		$11.46
5-yr avg for region (harvest)	$6.20	$4.24	$9.95	$4.03		$9.95
High prices	$8.00	$6.00	$13.50	$5.60		$13.50
Low prices	$5.50	$4.00	$9.50	$3.70		$9.50
Multi-year futures implied bids	$6.20	$5.09	$10.52	$4.75		$10.52

What would you recommend?

(and why?)

Let's go to KSU-Lease and figure it out…

Kansas State University
Department of Agricultural Economics
North Central Risk Management Education Center

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