

## CRP Re-enrollment: Economic and Risk Considerations



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## Outline of Presentation:

- Background on CRP program and recent happenings.
- Review previous research
- Methods and data used.
- Results for western KS (WKS) and eastern KS (EKS)
- Summary and comments

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## Background and Rationale

- Between 2009-2012, 18.31 million acres of CRP contracts expire nationally.
- In Kansas: 436,710 acres expired in 2009; 618,521 acres in 2010. 532,000 acres will expire in 2011 and 520,000 acres expire in 2012 (2.1 million acres over four years).
- 70% of the expiring land is in the western one-third of the state.

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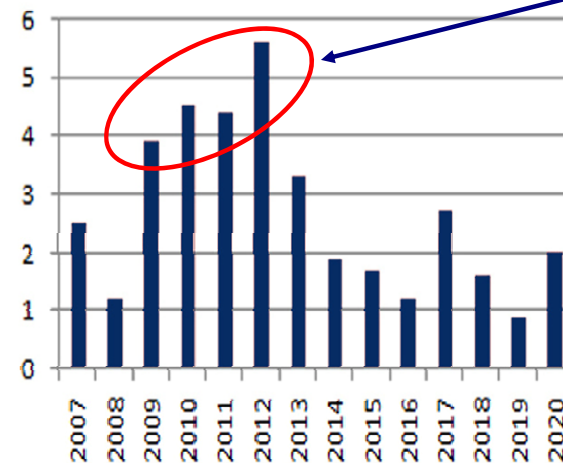


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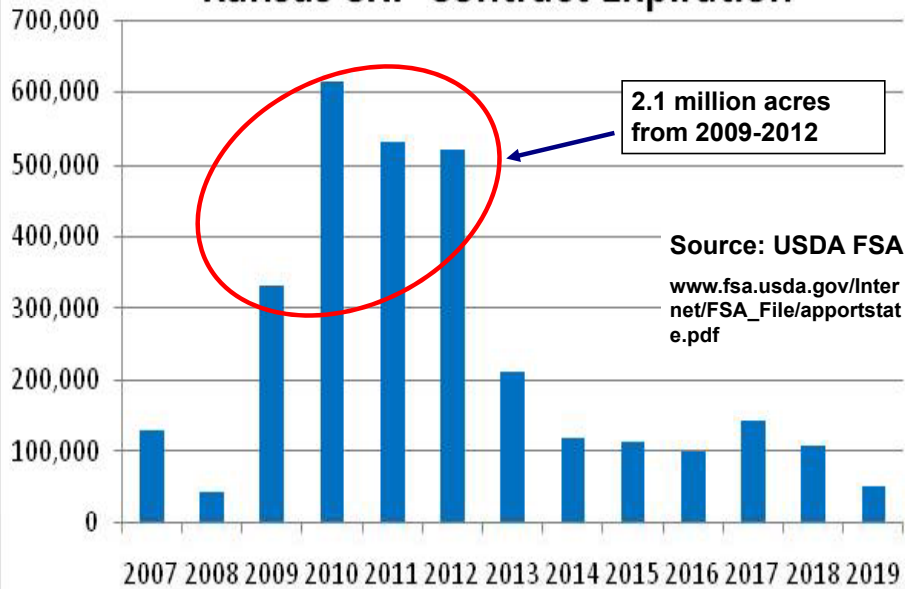
## U.S Contract Expirations in Million Acres



18.31 million acres  
 from 2009-2012

Source: USDA FSA  
[www.fsa.usda.gov/Internet/FSA\\_File/apportstate.pdf](http://www.fsa.usda.gov/Internet/FSA_File/apportstate.pdf)

## Kansas CRP Contract Expiration



## Background and Rationale (continued)

- Higher crop prices and net returns in 2008 and latter half of 2010 increased interest in converting CRP to crop production.
- 2008 Farm Bill lowered CRP cap from 39.2 million acres to 32.0 million beginning in 2010, lower than 2009 33.7 million enrolled acres. November 2010: 31.5 million acres.
- Kansas ranks 3<sup>rd</sup> in total CRP acreage: 3.098 million acres in 2009, dropping to 2.771 million acres in 2010.
- Half of Kansas' CRP acres expire between 2009- 2012.

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## Recent CRP News

- May, 2009: FSA announced 3-5 year extensions would be available for some of the expiring CRP.
- Nationally, 40% of expiring contracts in 2009 were eligible for extension. In Kansas, only 28% were eligible. In 2010, 42% of expiring contracts nationally were eligible; only 31% of Kansas contracts were eligible for renewal.
- 118,416 acres eligible for the extension in Kansas in 2009. Of these, 79% or 94,395 acres, were extended. Nationally, 70% of eligible acres were extended in 2009.
- In 2010, 147,684 acres were eligible for extension with 81% or 119,624 acres extended. Nationally, 72% were extended, not counting expiring acres re-enrolled in general signup.

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## Recent CRP News

- August, 2010: General Sign-up 39.
  - 4.34 million acres preliminarily approved nationally.
  - Kansas acreage from SU 39: 618,905. (98% acceptance rate).
- Total CRP acres under contract as of November, 2010: 31.4 million acres, 600,000 acres below the cap.
- With 4.4 million acres expiring in 2011, this leaves about 5 million acres below the cap.
- CRP General Signup 41: March 14-April 15, 2011
  - Land that is not currently enrolled in CRP may be offered for enrollment during CRP sign-up 41. In addition, CRP participants with contracts expiring on Sept. 30, 2011, may submit offers.

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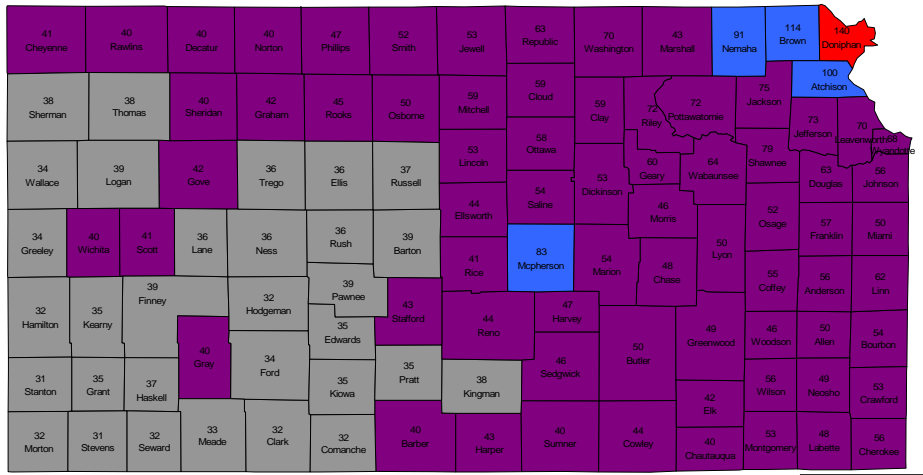


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## Kansas CRP Rental Rates, 2010



Source: USDA FSA



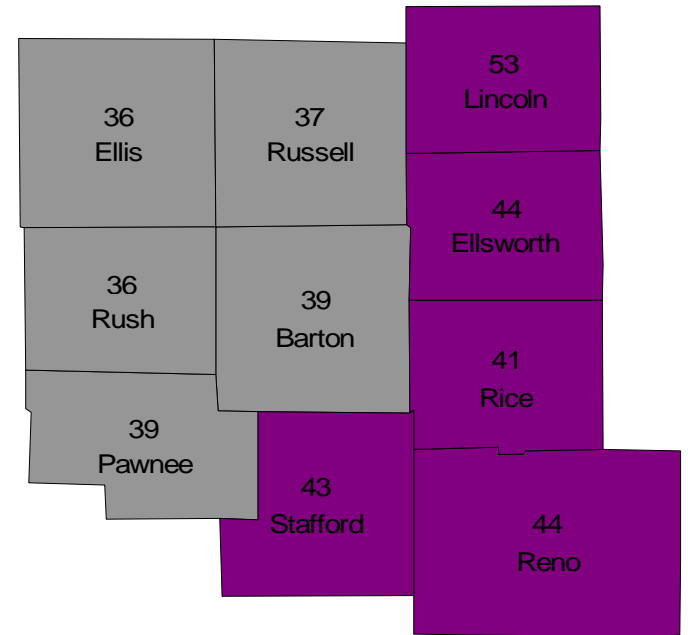
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## 2010 Average CRP Rental Rates Central KS Counties



Source: USDA FSA



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## Summary of Previous Research:

- CRP never included as an alternative
- Disk-tillage previously found to be good for conversion in 1999, but should consider NT now, particularly if already doing it.
- Reduced or no-till systems generally better than conventional tillage
- Rotations (W-GS-F in WKS; C-S or GS-S in EKS), are generally preferred, especially when considering risk.



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## Methods

- Enterprise budgeting, used to determine net returns to land and management.
- Assumes that CRP acres returning to crop production will be eligible for commodity programs.
- In WKS: evaluated NT, RT, and CT wheat-sorghum-fallow rotation compared to CRP. Use average CRP payment of \$38 per acre for comparison.
- In EKS: evaluated NT, RT, and CT for continuous soybean, wheat and grain sorghum as well as S-W and S-GS rotations, all compared to CRP. An average NE Kansas CRP payment of \$83 per acre was used.



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## Data

- Yields, input types and rates, and field operations are from 11 years of experiment station data for WKS (Tribune) and 12 years of data for EKS (Manhattan).
- Production costs are based on actual field operations and input rates. Costs of two disking operations included for conversion of native grass CRP to cropland. But in practice, could mow, burn, hay, then NT.
- Field operation costs are Kansas Ag Statistics custom rates.
- Prices are from the Kansas Ag Statistics west-central (WKS) and north-east (EKS) crop and livestock reporting districts for 2006-2009, and are state prices for 2010. The 2011 projections are from KSU Farm Management Guides.

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## Results: Average Net Returns for W-S-F (WKS)

- Without accounting for risk: Average net return is highest for RT. NT strategy has 2<sup>nd</sup> highest net return for cropping. CT is significantly lower.
- Using lower crop prices (2006-2007 average):
  - CRP typical payment (\$38/A) is higher than CT, RT or NT tillage
- Using higher crop prices (2006-2008 average):
  - RT and NT have higher average net returns than the typical CRP payment.
- Using high (current) prices (2011 projected):
  - RT, NT, and CT have higher net returns than the typical CRP payment, with RT and NT significantly higher. CT is virtually the same as CRP.

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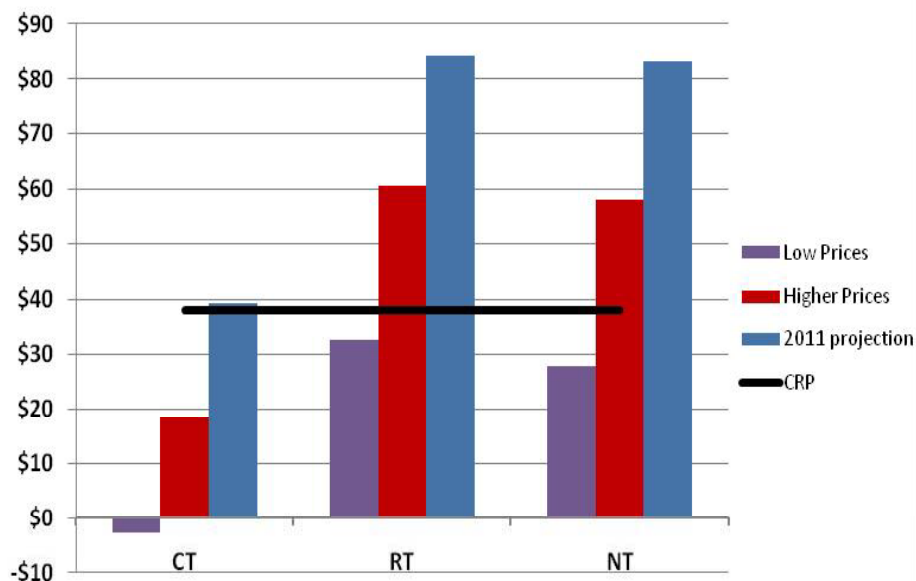


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## Western Kansas Net Returns By Rotation



## Results: Average Net Returns (EKS)

- Without accounting for risk:
  - NT S-GS has the highest average net return, followed by NT S-W.
- Using lower crop prices (2006-2007):
  - CRP average payment (\$83) for NE KS in 2010 is higher than continuous soybeans, continuous grain sorghum, as well as CT S-G and NTCW.
  - The average CRP payment (\$83) is less than NT S-G, RT S-G, CTCW, and RTCW and for soybean-wheat for all tillage systems.

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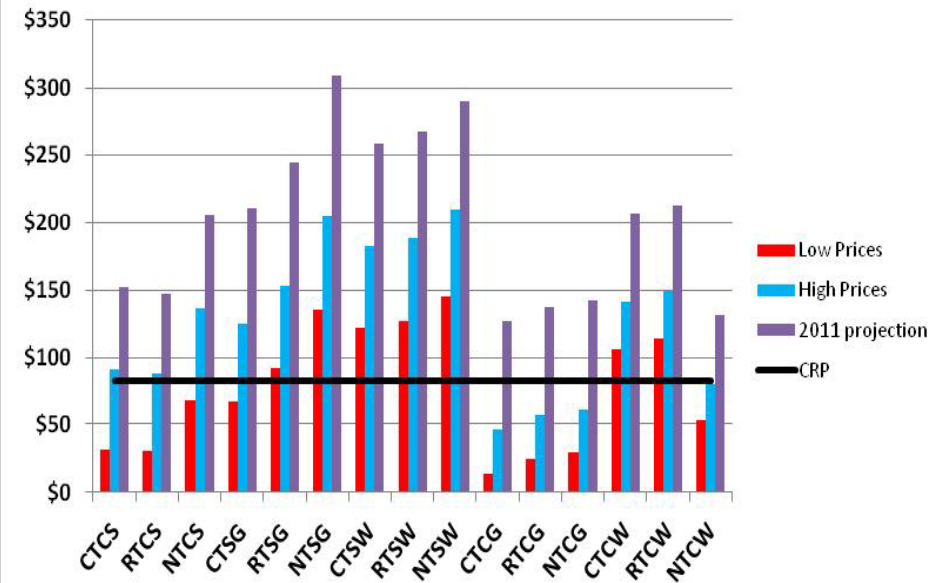


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## Results: Average Net Returns (EKS)

- Using higher crop prices (2006-2009):
  - All crop-tillage systems except continuous grain sorghum and NTCW have higher returns than average CRP payments.
- Using high current crop prices (2011 projections):
  - All crop-tillage systems have higher returns than average CRP payments.

## Eastern Kansas Net Returns By Rotation



## WKS Results: Risk Analysis

### For low prices (2006-2007):

- CRP is preferred by risk-neutral and risk-averse decision-makers over all cropping systems.
- RT is preferred to NT, which is preferred to CT.

### For higher prices (2006-2008):

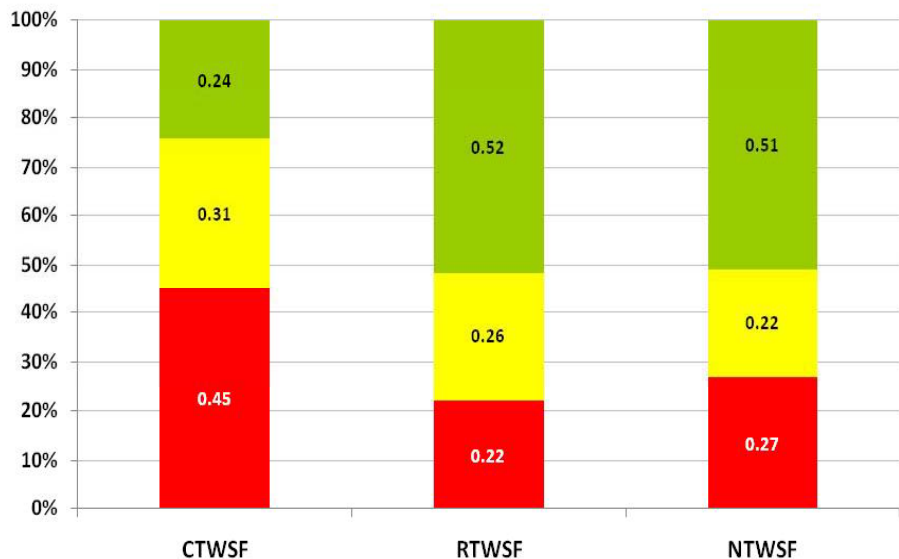
- RT and NT are preferred to CRP by risk-neutral and slightly risk-averse decision-makers, with RT being preferred to NT
- CRP is preferred by moderately and strongly risk-averse decision-makers

## WKS Results: Risk Analysis

### For high prices (2006-2010):

- RT, and NT are preferred to CRP by risk-neutral and moderately risk-averse decision-makers, with RT being preferred to NT
- CRP is still preferred by strongly risk-averse decision-makers.

### WKS Probabilities of Having Returns Less Than \$0.00 and Greater Than \$38.00 (2006-2010 Monthly Prices)



### EKS Results: Risk Analysis

#### For low prices (2006-2007 average):

- NTSW is preferred by risk-neutral and slightly risk-averse producers.
- CRP is preferred by moderately or strongly risk averse decision-makers.

#### For higher prices (2006-2009 average):

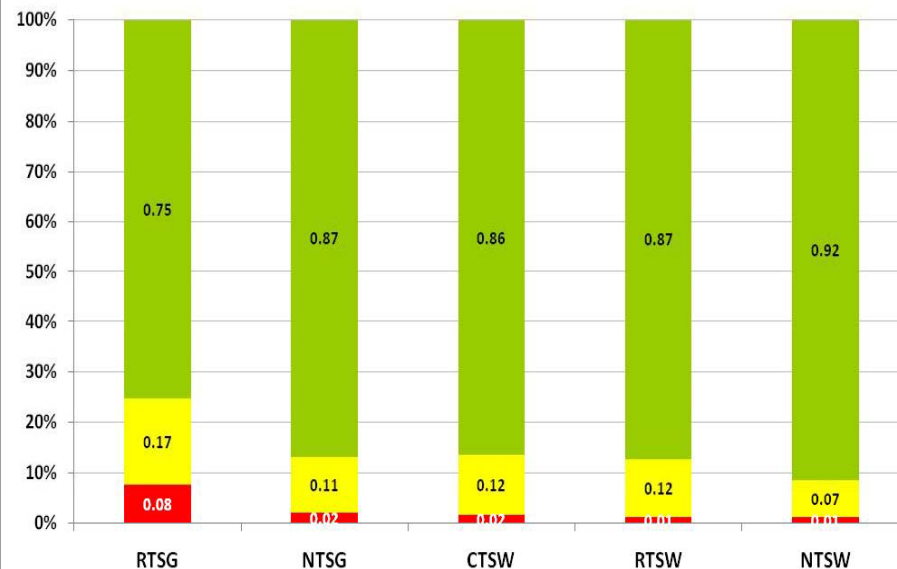
- NTSW is preferred by risk-neutral and slightly risk-averse producers.
- CRP is preferred by strongly risk averse individuals.
- If CRP not available, strongly risk-averse decision-makers prefer RTCW.

### EKS Results: Risk Analysis

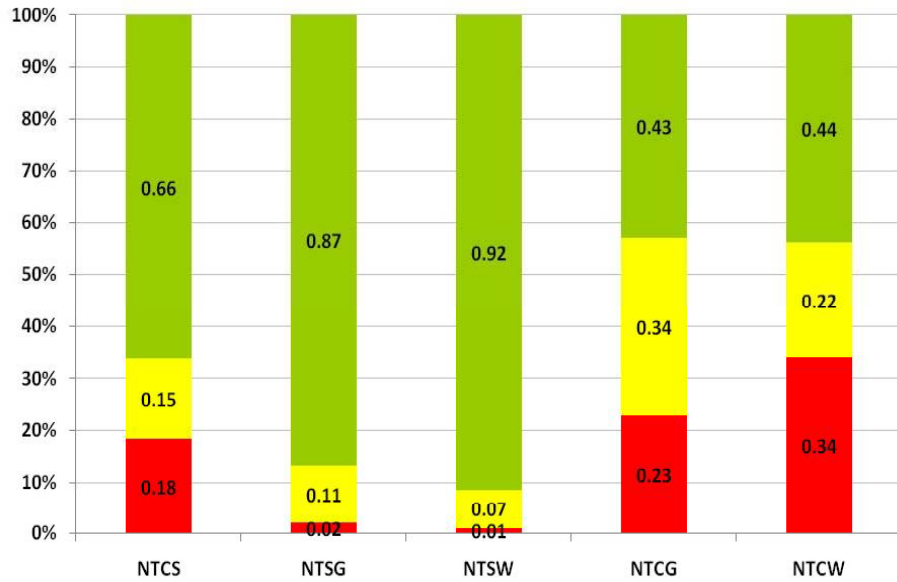
#### For high prices (2006-2010):

- All systems are preferred over CRP by risk-neutral, slightly, and moderately risk-averse producers.
- CRP is preferred by strongly risk averse decision-makers over all cropping systems.
- NTSG is the preferred cropping system, followed by NTSW. RTSW is third.

### EKS Probabilities of Having Returns Less Than \$0.00 and Greater Than \$83.00 for Top Systems (2006-2010 Monthly Prices)



EKS Probabilities of Having Less Than \$0.00 and Greater Than \$83.00 for NT Systems (2006-2010 Monthly Prices)



## Conclusions: WKS

- The RT system is preferred to the other tillage systems by risk-neutral and risk-averse decision-makers. NT is preferred to CT.
- With low prices, CRP is preferred at all levels of risk-aversion.
- With relatively higher prices, risk-neutral to slightly risk-averse managers prefer RT and NT systems to CRP. Moderately and strongly risk-averse producers prefer CRP.
- With very high (current) prices, only strongly risk-averse individuals prefer CRP to any of the cropping systems.

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## Conclusions: EKS

- NT and RT systems are preferred over CT systems, with NT generally being preferred over RT.
- The NTSW system is preferred to the other tillage systems by risk-neutral and slightly to moderately risk-averse decision-makers at all price levels.
- Only at strong levels of risk aversion is CRP preferred to all cropping systems, at any level of prices.
- If CRP is not available, strongly risk-averse producers would prefer RTCW.

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## Other Comments:

- Haying or grazing options not considered.
- Government payments were included for both WKS and EKS, but in many cases, turned out to be only direct payments. ACRE was not considered.
- Much depends on land quality:
  - Good land → consider cropping
  - Poor land → keep in CRP
  - In between → ??
- Erosion control was one reason to put land in CRP. This still needs to be considered in the decision to crop or keep land in CRP.

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### Other Comments:

- High net returns as in 2008 and latter 2010 may entice producers to consider converting CRP land to crop production.
- But, be careful, since lower prices in the future result in CRP being more preferred.
- CRP payments may increase as grain prices and land values/rents increase. How high will they go???

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### Bottom line:

- For strongly risk-averse producers, maybe keep it in CRP. For less risk-averse producers, consider cropping.
- EKS: cropping is more profitable. The further west in Kansas, cropping is relatively less profitable, and relatively more risky.
- If coming out of CRP:
  - RT or NT rotation of wheat and grain sorghum in WKS
  - NTSW followed by RTSW in EKS.

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# Thank you!

## Questions?

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