# High Coverage Policies in Low Margin Environment

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2024 Crop Insurance Workshop

Salina, KS

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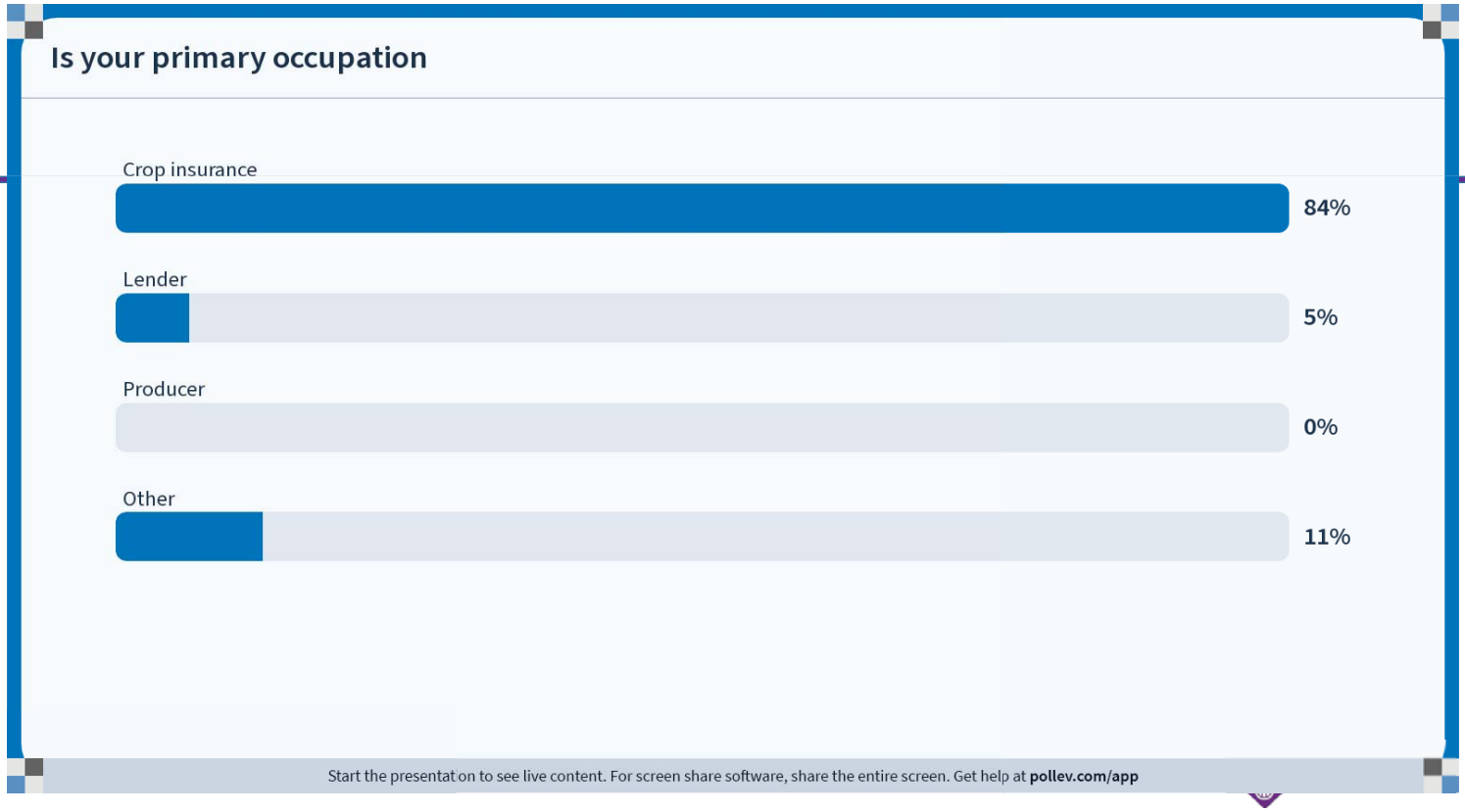
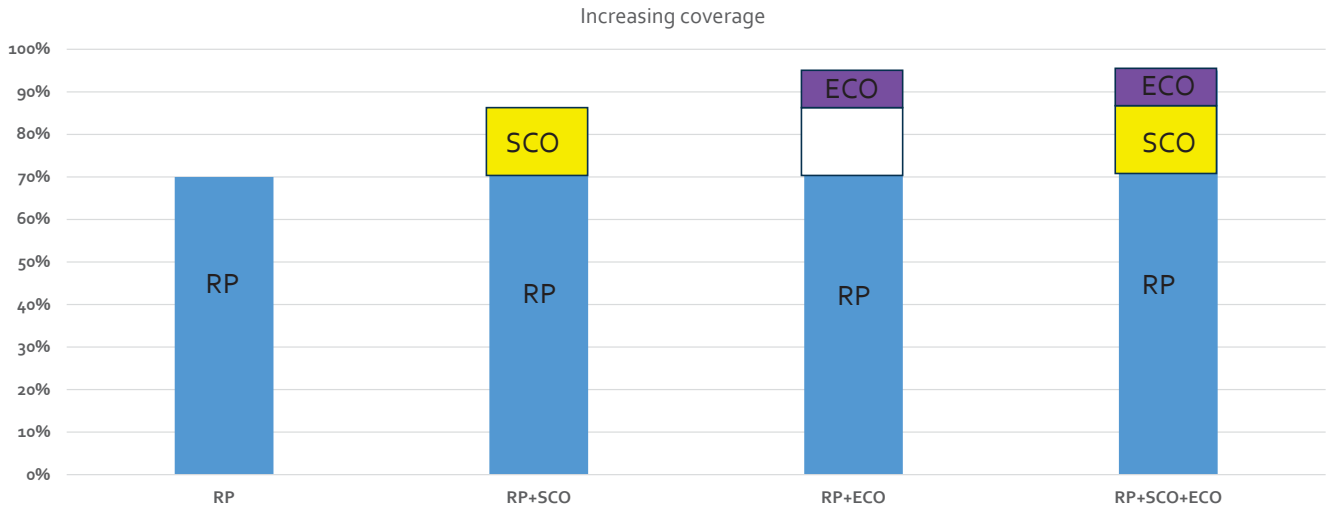


# Topics

1. Brief review
2. Implications of ECO subsidy increase
3. High coverage policies and low profit margins



# High coverage policies: MP, ECO, SCO



# High coverage policies: MP, ECO, SCO

- Endorsements that add additional county-based coverage to an underlying individual policy
  - MP can be stand-alone
- Costly due to more frequent expected payouts, but a few years can pass without a payout
- Producer needs to be comfortable with the county-based trigger
  - See link to KS yield correlation tool in resources section
- (More) overlap with hedging



# Refresher-Supplemental Coverage Option

- Increases underlying coverage to 86%
- Not available if ARC (Agricultural Risk Coverage) is used for the covered crop*
- 65% premium subsidy
- County based trigger
- 2023 RP loss ratio = 1.82

| | 2015 | 2022 | 2024 |
|---|---|---|---|
| Policies | 1522 | 1949 | 3366 |
| Acres | 310,000 | 730,000 | 1.24 million |
| Loss ratio | 0.82 | 1.62 | TBD |



Source: RMA Summary of Business

# Refresher-Enhanced Coverage Option

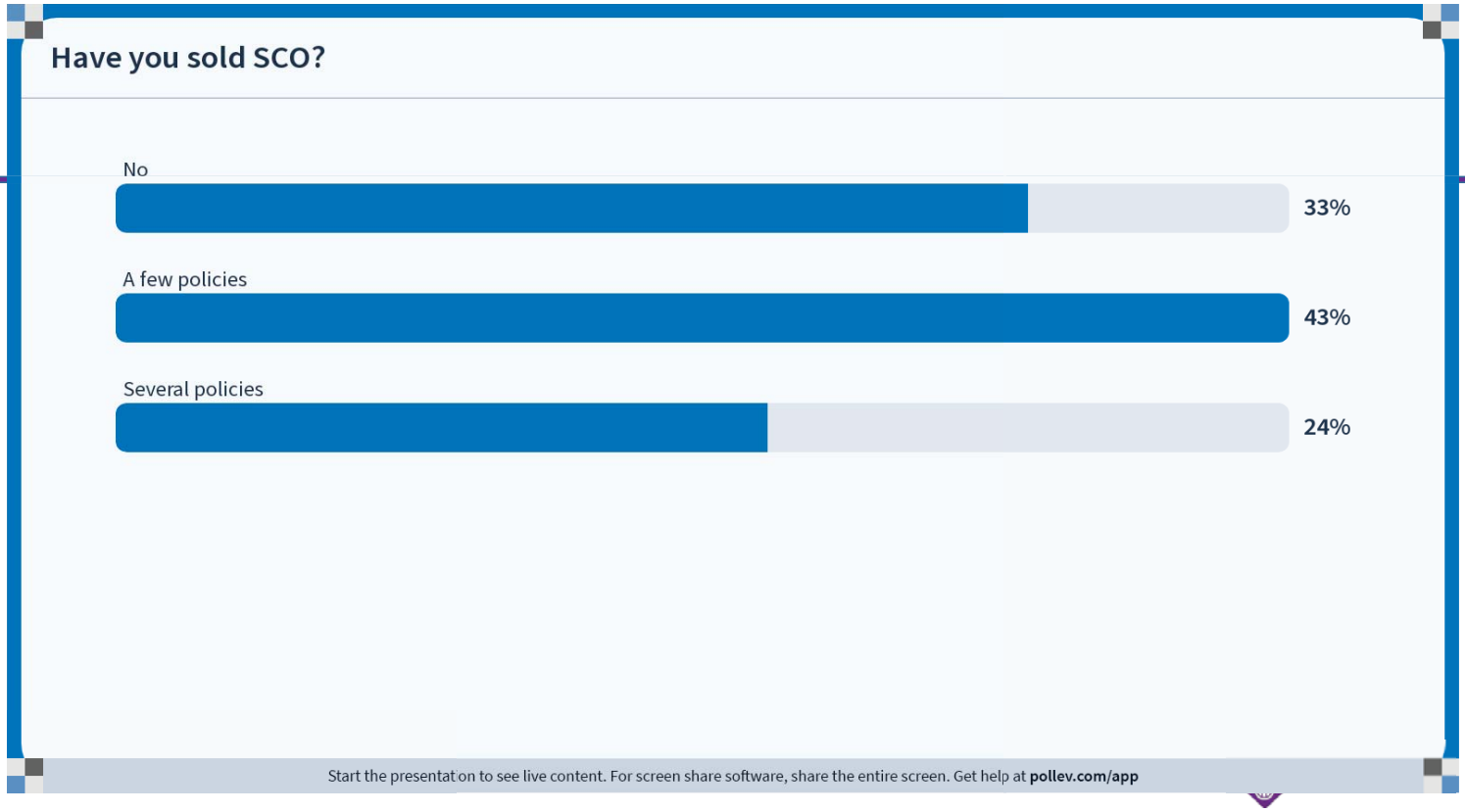
- Can be used with or without SCO
- Covers revenue from 86% to either
  - 90%
  - 95%
- Premium subsidy
  - 65% (up from 44%) - RP
  - 65% (up from 51%) - YP

| | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|
| Policies | 724 | 981 | 1484 | 2123 |
| Acres | 339,000 | 459,000 | 713,600 | 838,000 |
| Loss ratio (RP) | 0.69 | 1.56 | 1.57 | TBD |

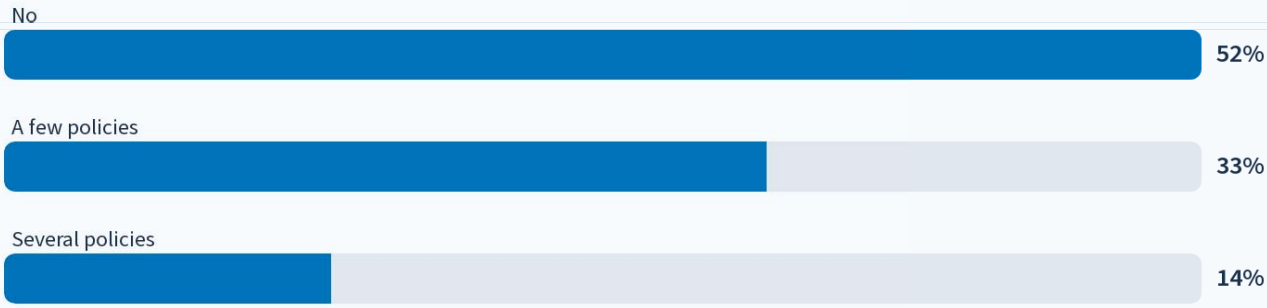


Source: RMA Summary of Business



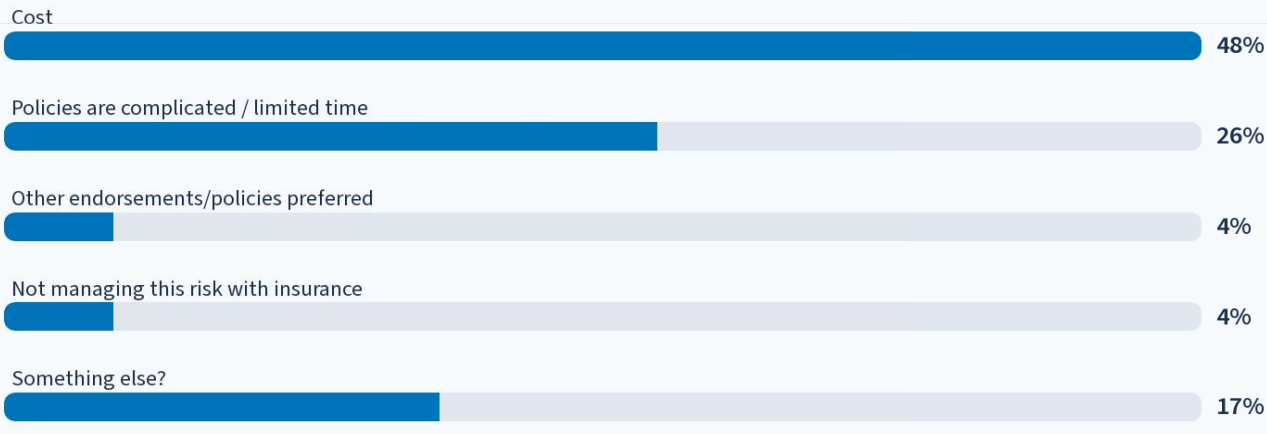


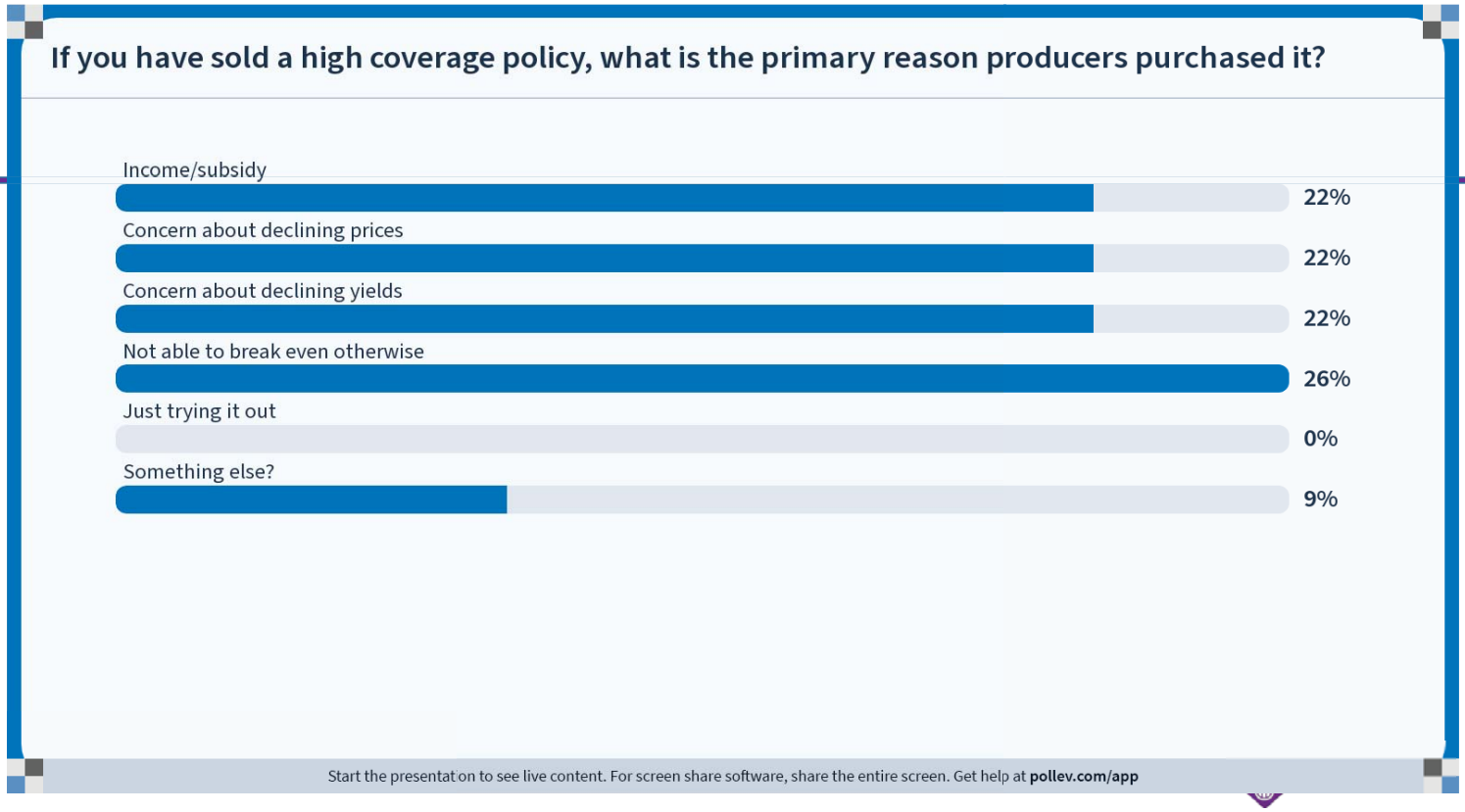
## Have you sold ECO?






## What is the main challenges to selling SCO and ECO?






# Nemaha county 2024 example premiums: dryland corn

| Coverage level | RP | SCO | ECO 95% | ECO 95% with 65% premium subsidy |
|---|---|---|---|---|
| 60% | $8 | $18 | $20 | $13 |
| 65% | $9 | $16 | $20 | $13 |
| 70% | $11 | $14 | $20 | $13 |
| 75% | $15 | $10 | $20 | $13 |

85% RP - $46/acre



USDA RMA Cost estimator – sample premiums only – enterprise units, 145 APH/approved yield

# Sumner Co. 2025 premiums – dryland wheat

| Coverage level | RP | SCO | ECO 95% | ECO 95% with 65% premium subsidy |
|---|---|---|---|---|
| 60% | $3 | $11 | $11 | $7 |
| 65% | $4 | $10 | $11 | $7 |
| 70% | $5 | $8 | $11 | $7 |
| 75% | $7 | $6 | $11 | $7 |

85% RP - $23/acre

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USDA RMA Cost estimator – sample premiums only – enterprise units, 62 APH/approved yield

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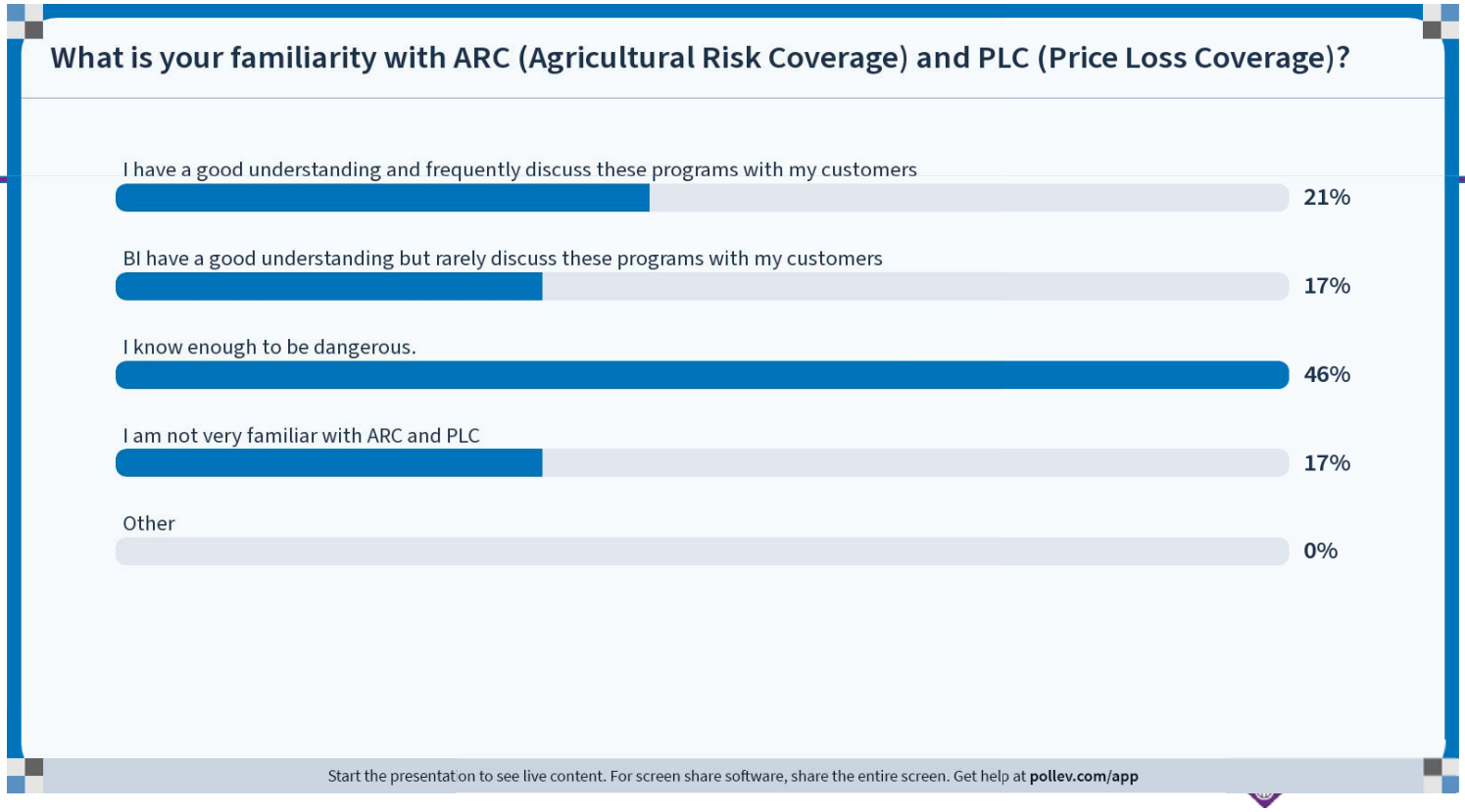

# SCO, ARC, and PLC

| | Corn | Grain Sorghum | Soybeans | Wheat |
|---|---|---|---|---|
| 2024 Projected Price | $4.66 | $4.67 | $11.55 | $7.34 |
| 2024 Harvest Price | $4.17* | $4.18* | $10.15* | $6.27 |
| % price decline | 10.5% | 10.5% | 12% | 16% |
| 2025/6 PLC Price | $4.26 | $4.51 | $9.66 | $5.56 |
| 2025/26 ARC | $5.03 | $5.30 | $12.15 | $6.72 |
| 2025 Harvest Futures | $4.35 | $4.36** | $10.21 | $5.90/6.12*** |



* Currently 'in discovery'
**Grain sorghum insurance prices are based on corn futures
***$5.90 is actual projected price for 2025 policies , $6.12 is current winter wheat harvest futures prices



# SCO, ARC, and PLC

- Comparable ARC guarantee highly likely to be higher than the comparable SCO guarantee in 2025
- ARC + ECO may be attractive
- PLC may be more likely to trigger upon a modest price decline

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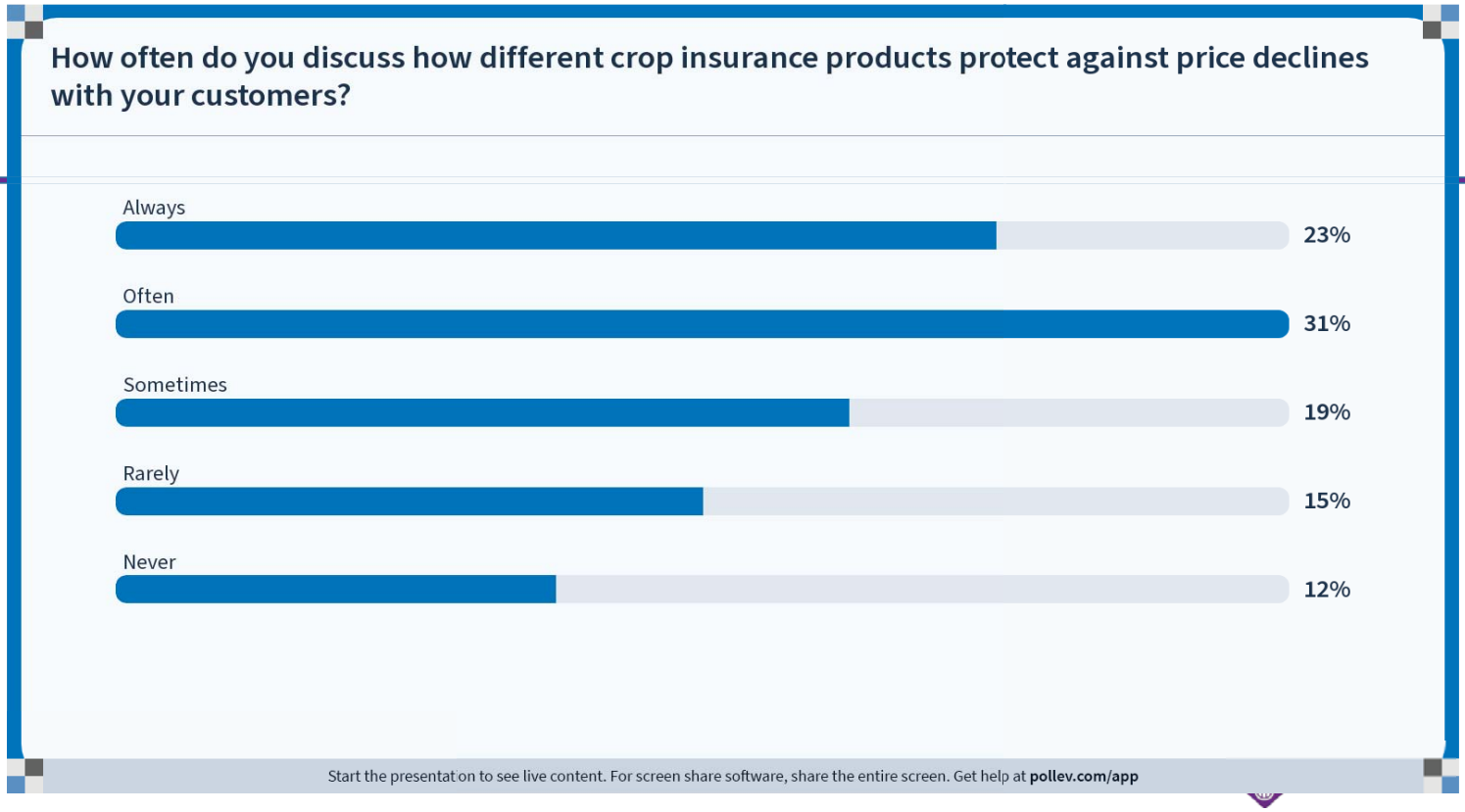
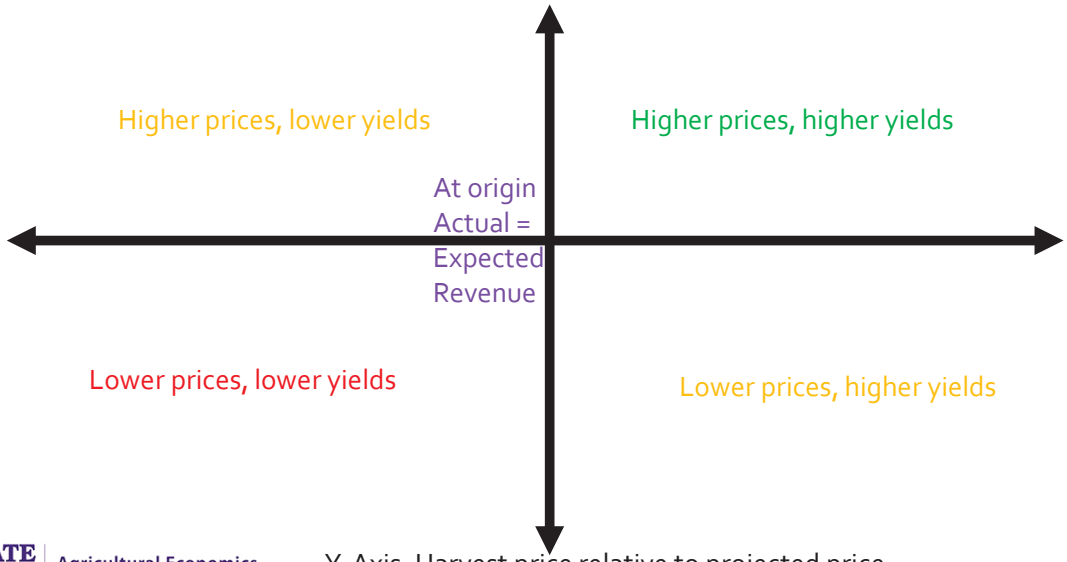



# ECO and hedging

- Price declines alone will rarely trigger a 70-75% RP payout
- 2024 corn
  - $4.66 projected price
  - $4.17 harvest price (pending/in discovery)
  - 10.5% decline
- Prices declines are much more likely to trigger high coverage policies
  - For counties with average yields, 2024 95% ECO corn policies are likely to make a payout this year
- Some overlap, but
  - ECO deductible
  - **ECO may not pay out when yields are higher than average**

# Types of risk

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Y-Axis: Harvest price relative to projected price
Origin = harvest price = projected price

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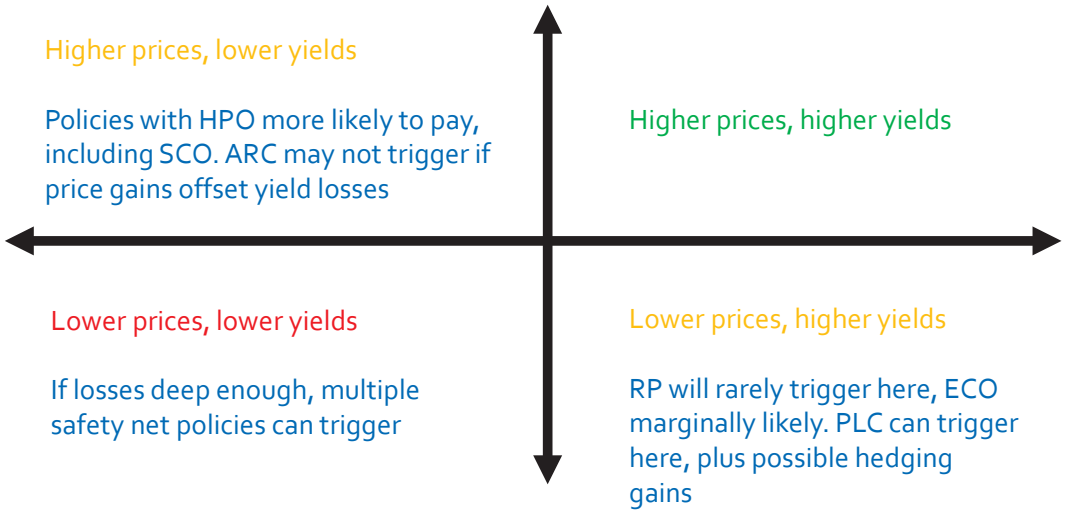
# Types of risk

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# County level, KS, 1990-2020

| | Irrigated corn | Dryland Corn |
|---|---|---|
| Actual revenue < 0.75 X Expected | 9% | 26% |
| Actual revenue < 0.75 X Expected, with HPO only | 1.7% | 1.7% |
| Revenue higher than expected | 28% | 46% |
| Shallow loss: Yields decrease + prices increase | 6.1% | 3.2% |
| Shallow loss: Yields decrease + prices decrease | 20% | 7.7% |
| Shallow loss: Yields increase, prices decrease | 35% | 15% |



https://agmanager.info/crop-insurance/risk-management-strategies/crop-insurance-2022-projected-prices-update-and-analysis



# Profit margins - 2024

Example: 2024 NE KS non-irrigated corn, 145 bushels per acre at $3.93 per bushel, expected revenue of $570/acre (estimated Aug. 2024)

| | $ per acre | Share of revenue |
|---|---|---|
| Direct expenses | $433 | 74% |
| Fixed expenses | $192 | 35% |
| Total expenses | $620 | 109% |



https://agmanager.info/farm-budgets/updated-2024-farm-management-guides-irrigated-and-non-irrigated-crops

# Profit margins – 2025

Example: 2025 NE KS non-irrigated corn, 145 bushels per acre at $3.93 per bushel, expected revenue of $570/acre ($594/acre), assuming a decrease in direct expenses and cash rents proportional to 2025 Farmdoc crop budget

| | $ per acre | Share of revenue | Share of revenue-higher prices (~$4.10/bu) |
|---|---|---|---|
| Direct expenses | $413 | 72% | 69% |
| Fixed expenses | $184 | 34% | 31% |
| Total expenses | $595 | 106% | 100% |



https://agmanager.info/farm-budgets/updated-2024-farm-management-guides-irrigated-and-non-irrigated-crops
https://farmdocdaily.illinois.edu/2024/09/2025-illinois-crop-budgets.html



# Profit margins – 2025

Example: 2025 SC KS non-irrigated wheat, 62 bushels per acre at $5.33 per bushel, expected revenue of $331/acre ($343/acre)

| | $ per acre | Share of revenue | Share of revenue-higher prices (~$5.53/bu) |
|---|---|---|---|
| Direct expenses | $195 | 59% | 57% |
| Fixed expenses | $112 | 34% | 33% |
| Total expenses | $308 | 93% | 90% |

Note: this is the only practice/region combination with positive economic returns for wheat projected for 2025



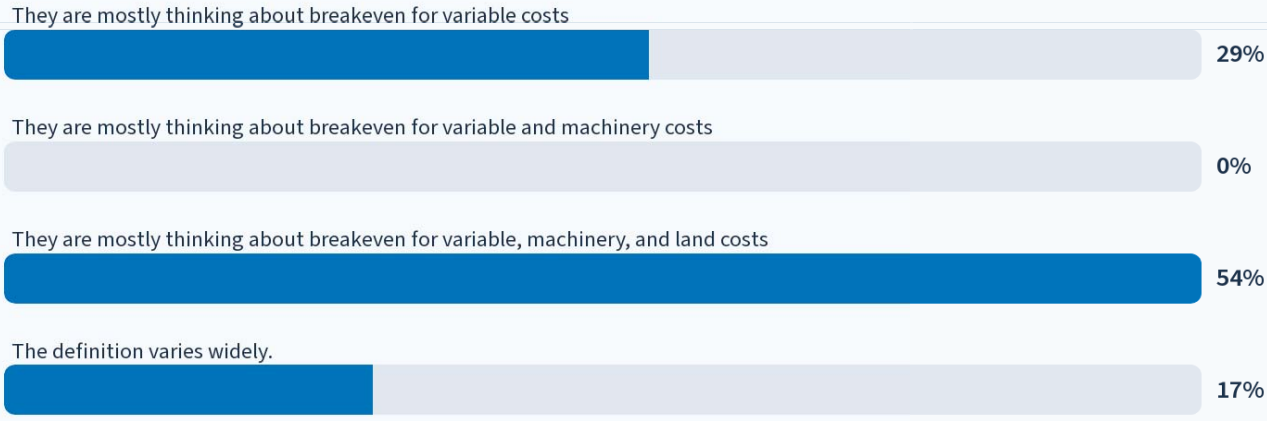
https://agmanager.info/farm-budgets/updated-2024-farm-management-guides-irrigated-and-non-irrigated-crops


# High likelihood of tight profit margins in 2025

Reduce costs

Protect breakeven revenue

## When producers talk/think about their breakeven revenue

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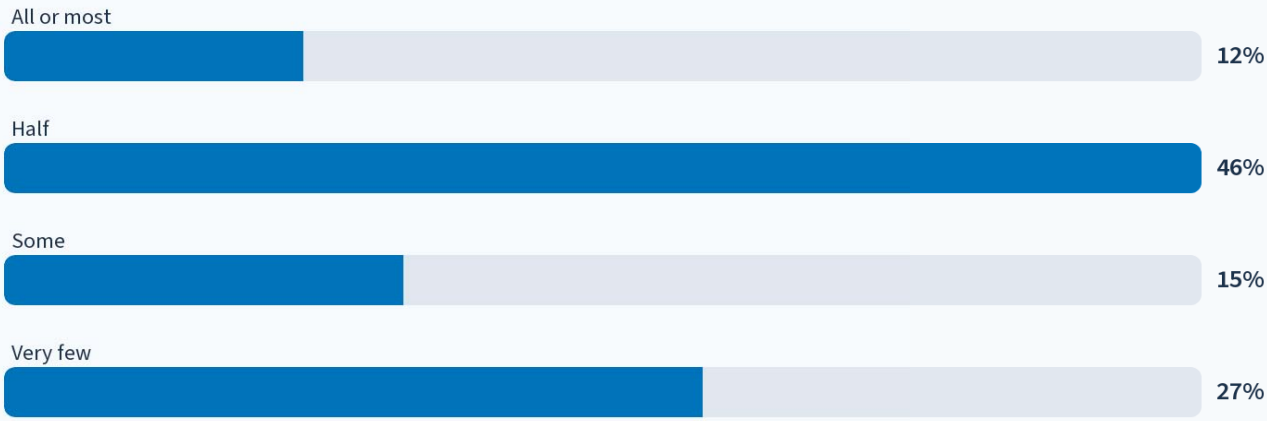
## What share of crop producers that you work with have a good understanding of what their breakeven revenue is

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## When profits margins are low, will the majority of your customers


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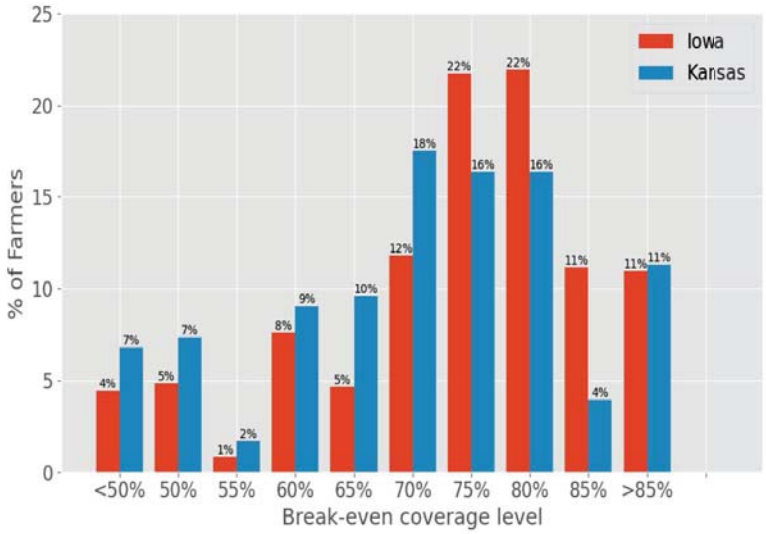
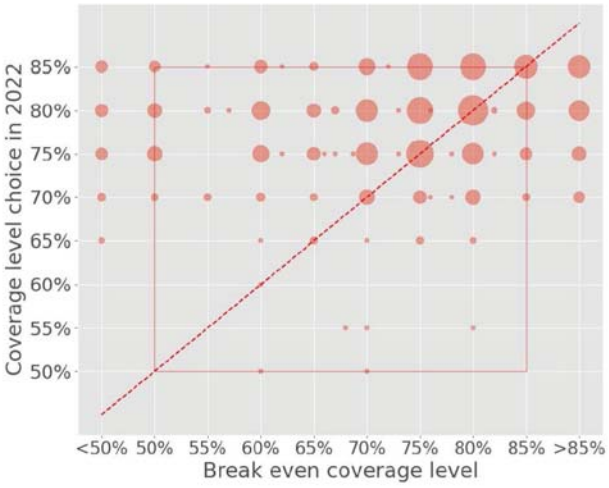
# Breakeven coverage levels (early 2023)




Source: Working paper by Xuche Gong et al.

# Farmers tend to insure near their breakeven

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Source: Working paper by Xuche Gong et al.

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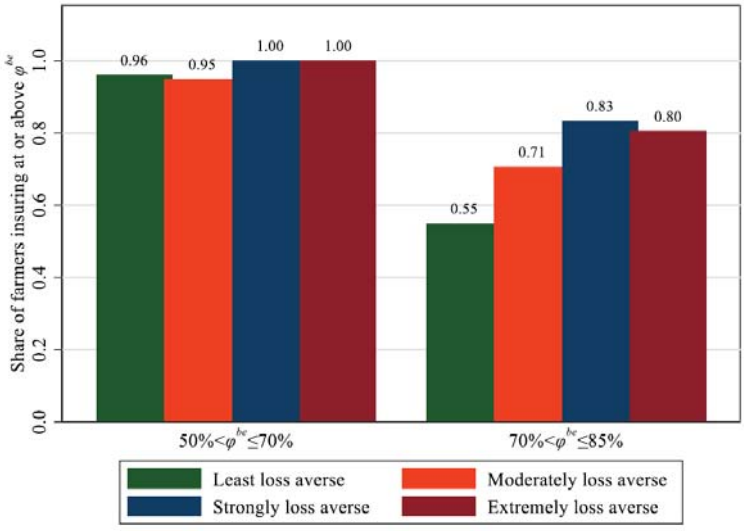
# When breakeven is higher, attitudes towards losses are related to coverage level




Share of farmers who insured below their BECLs in 2022, by loss aversion level and BECL.

Least, moderately, strongly, and extremely loss averse farmers are farmers who reported that it is slightly, quite, very, and extremely important to have insurance guarantee to allow them to break even in a typical year, respectively

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Source: Working paper by Xuche Gong et al.

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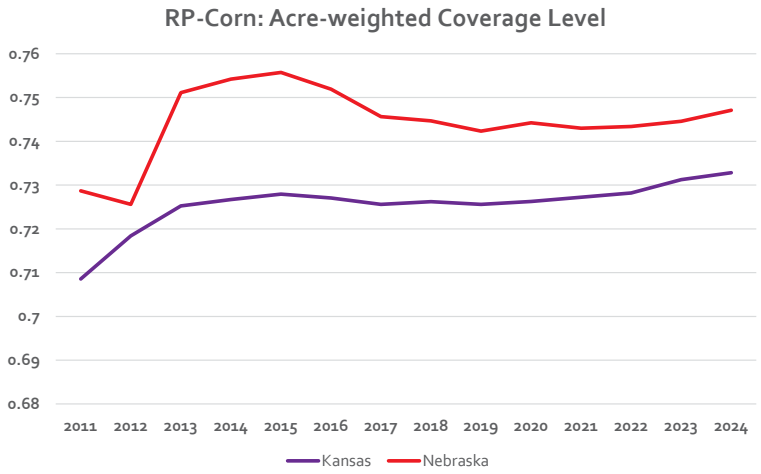
# Coverage levels vary over time

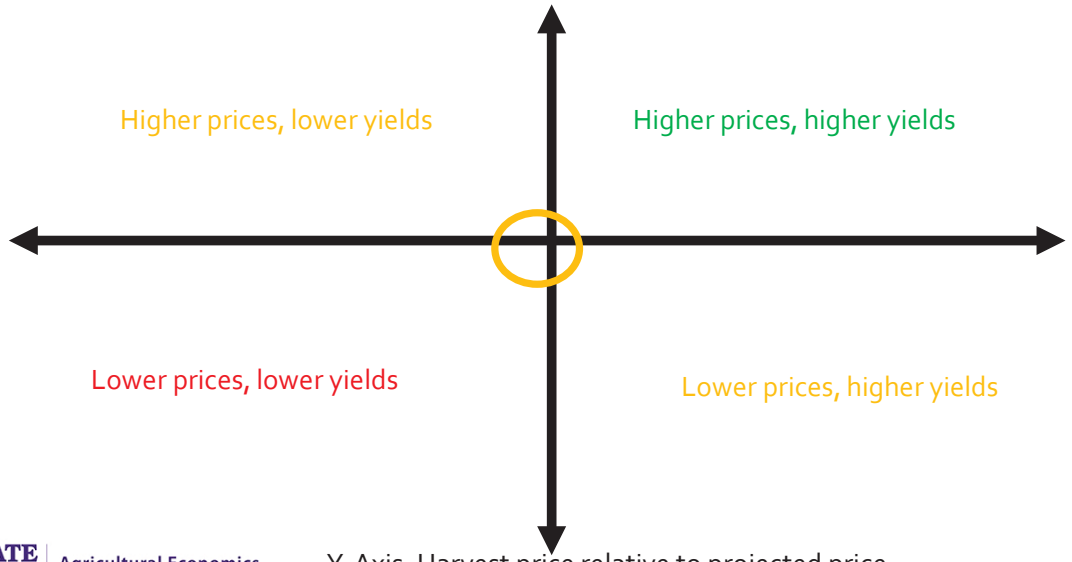





# Example: Using 75% RP + ARC + ECO for wheat

- RP guarantee is 62 bu/acre X $5.90 bushel X 0.75 = $274 per acre
- ECO guarantee is $33 / acre
- Premium 75% RP + ECO = $7 + $7 = $14/acre
- $14/acre is about 5% of the guarantee
- $14/acre is about 60% of expected profit margin

# Circle of disappointment

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Y-Axis: Harvest price relative to projected price
Origin = harvest price = projected price

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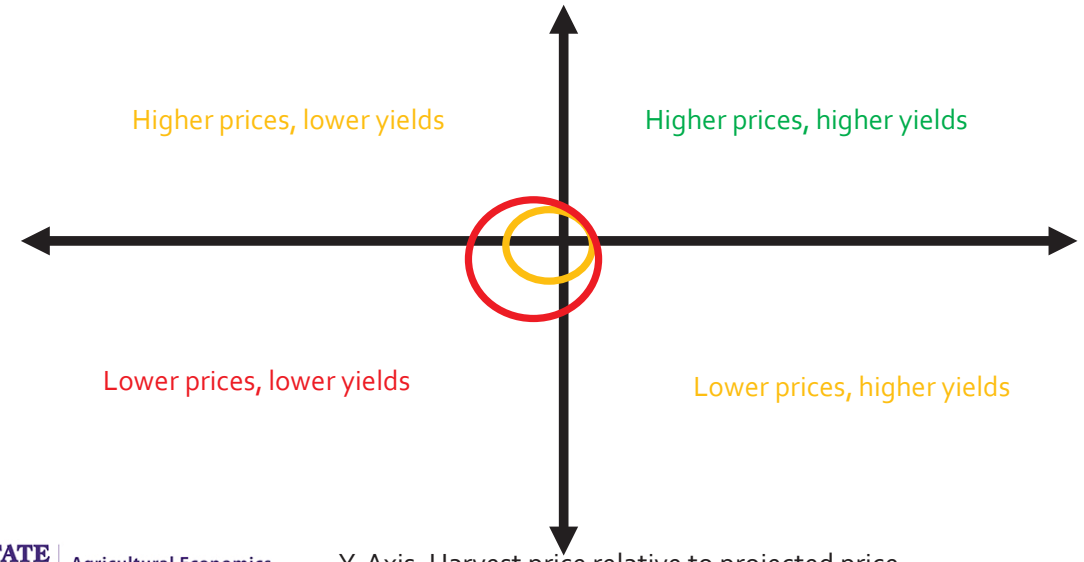
# Circle of even more disappointment

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Y-Axis: Harvest price relative to projected price
Origin = harvest price = projected price

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# Example policy – dryland wheat

## 75% RP + ARC + 95% ECO

| Crop insurance expected revenue | Expected revenue | Breakeven | Expected Profits | RP guarantee | ARC guarantee | ECO guarantee |
|---|---|---|---|---|---|---|
| $366 | $330 | $195/$308 | $22 | $274 | $26* | $33 ($314-$347) |

Note- ARC guarantee is unofficial/estimate. In this example we use a higher-than-average wheat APH for Sumner County, that is 50% higher than the ARC yields or crop insurance average yields. This allows our insurance guarantee to closely match the K-State wheat budget, but our example ARC guarantee is relatively lower and provides less relative protection, despite the higher ARC price. This illustrates how farm versus county yields, as well as base acres, are key considerations for the PLC/ARC selection decision.



# Shallow loss scenarios (no RP trigger)

| Scenario | Actual crop insurance revenue | Actual profit margin | RP + ECO Premium | Payout |
|---|---|---|---|---|
| Stable price, high yields (or vice versa) | $400 | $53 | $14 | $0 |
| 5% yield decline, stable prices | $347 | $6 | $14 | $0 |
| Stable yield, 10% price decline | $330 | -$11 | $14 | $18 (ECO), PLC likely |
| 20% yield decline, stable prices | $293 | -$47 | $14 | $33, ARC likely, no RP, PLC unlikely |
| 25% yield decline, 10% higher price | $302 | -$35 | $14 | $36, ARC unlikely, PLC unlikely |
| 5% yield decline, 10% price decline | $313 | -$25 | $14 | $33, ARC unlikely, PLC likely |

# Concluding thoughts

- ECO subsidy increase is "real money"
- High coverage policies are relatively affordable/less expensive, compared to higher RP coverage levels
- Absent a large positive shock, tight profit margins are likely over the next few years
- Producers using high coverage policies need to be comfortable with
  - County yield trigger
  - Very shallow losses or actual = expected revenue: large share of profit margin goes to insurance
  - Shallow losses – No/little profit, but breakeven is protected



## Questions?
## Comments?
## Thank you!

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# Acknowledgement

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# AgManger.info ECO and SCO Resources

2023 Update

https://agmanager.info/crop-insurance/crop-insurance-papers-and-information/high-coverage-crop-insurance-policies-2023

Tools

https://agmanager.info/crop-insurance/crop-insurance-papers-and-information/kansas-yield-correlation-tool

https://agmanager.info/crop-insurance/kansas-crop-insurance-maps

https://agmanager.info/crop-insurance/crop-insurance-papers-and-information/2023-supplemental-coverage-option-sco-and

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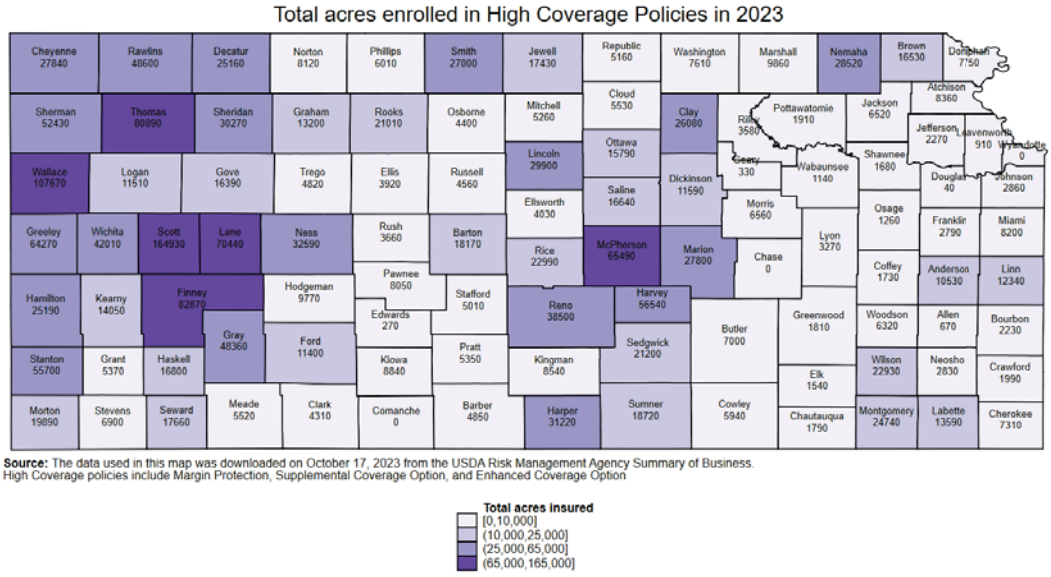
# Many Kansas counties use high coverage policies




**Source:** The data used in this map was downloaded on October 17, 2023 from the USDA Risk Management Agency Summary of Business.
High Coverage policies include Margin Protection, Supplemental Coverage Option, and Enhanced Coverage Option