



Crop Insurance (SCO/ECO) and Grain Marketing

2025 Grain Marketing Webinar
Series

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Today

- Start our discussion by conceptualizing the decision environment
- Describe and motivate crop insurance – specifically Supplemental Coverage Option (SCO) and Enhanced Coverage Option (ECO)
- Describe and motivate pre-harvest marketing
- Discuss linkages and strategies between pre-harvest marketing and crop insurance

SCO/ECO

- Relatively new
 - ECO: 2021
 - SCO: 2015
- County level policy
 - County yield
 - Farm level uses farm historical Actual Production History (APH)
 - Price
 - Same as farm level
 - Corn: \$4.72
 - Soybeans: \$10.57
- Premium subsidy
 - ECO: 65%
 - SCO: 65%

SCO/ECO

- Coverage

- ECO

- 86% to 90% or 95%

- SCO

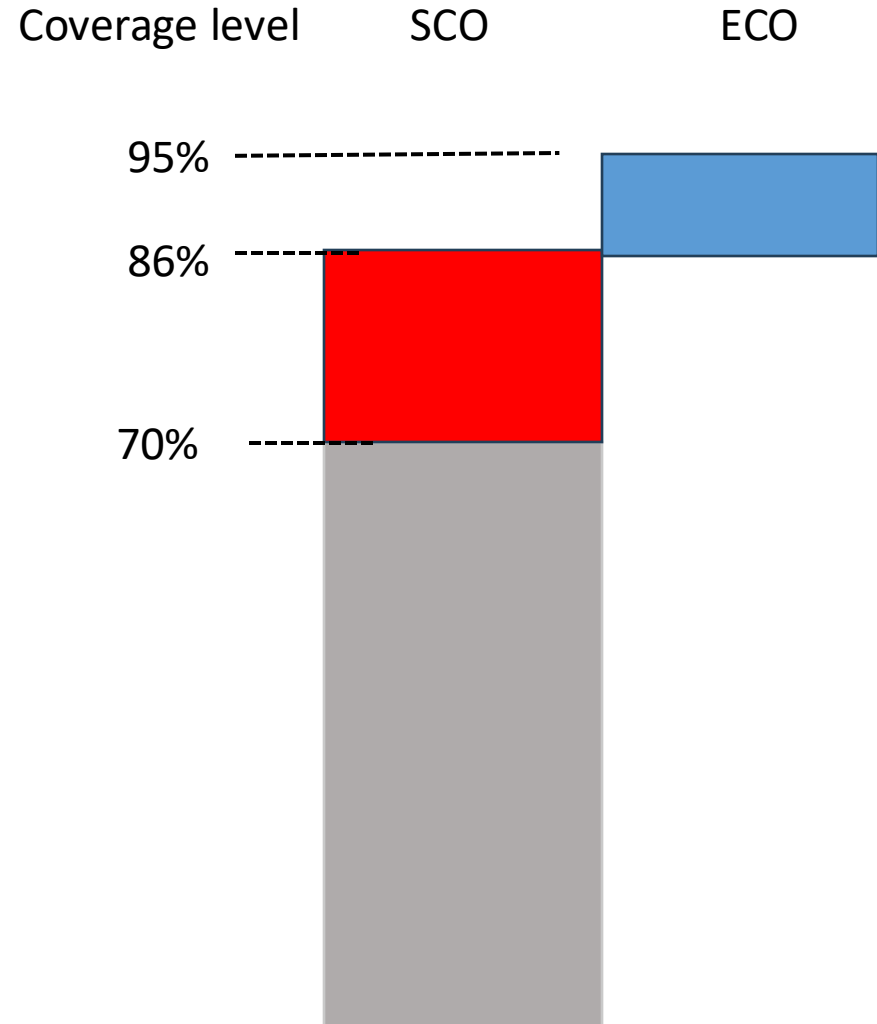
- Individual level up to 86%

- Liability

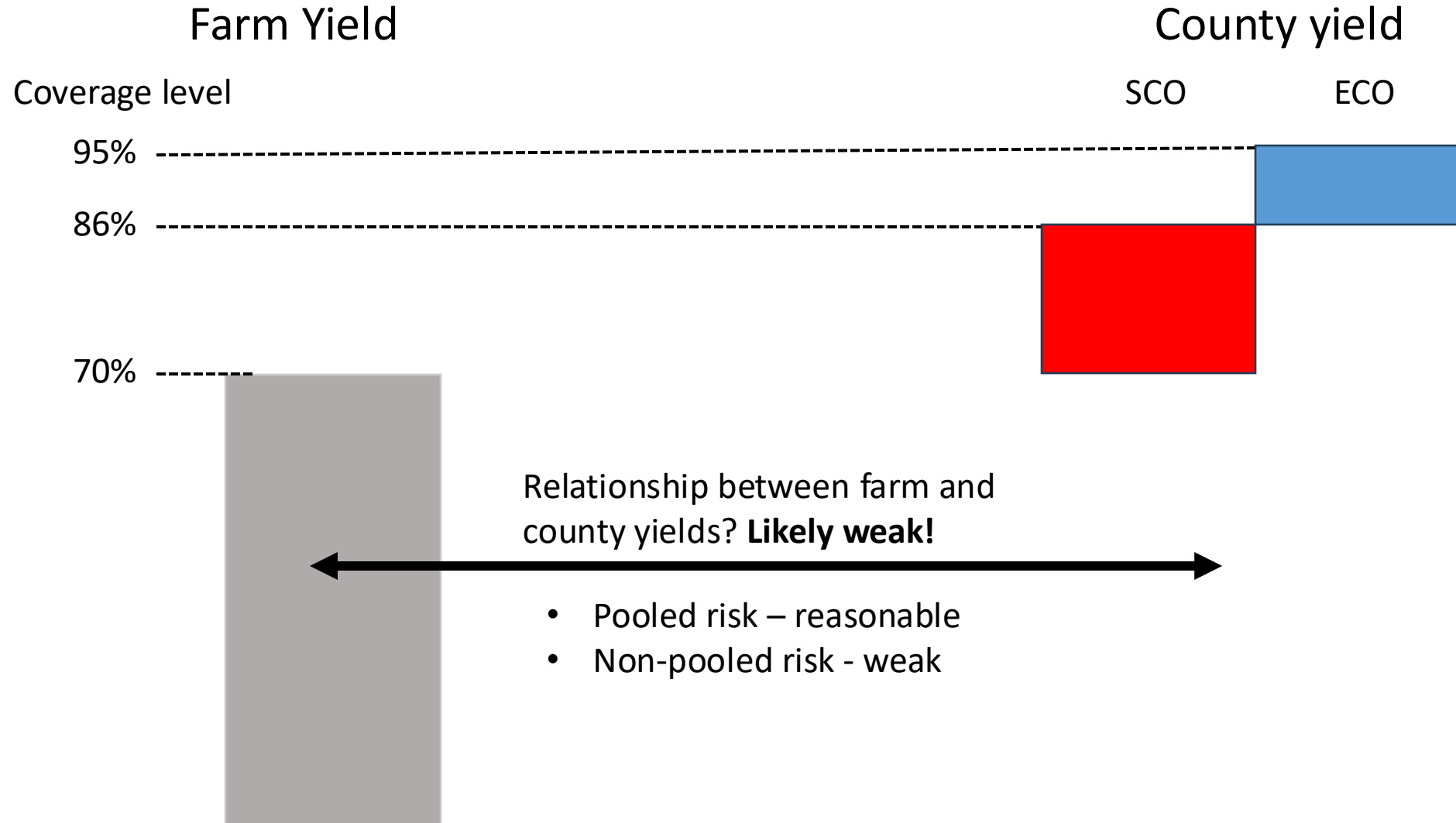
- Function of underlying policy through the %

- More \$ coverage with higher APH

- 9% of 100 = 9 bu
 - 9% of 120 = 10.8 bu

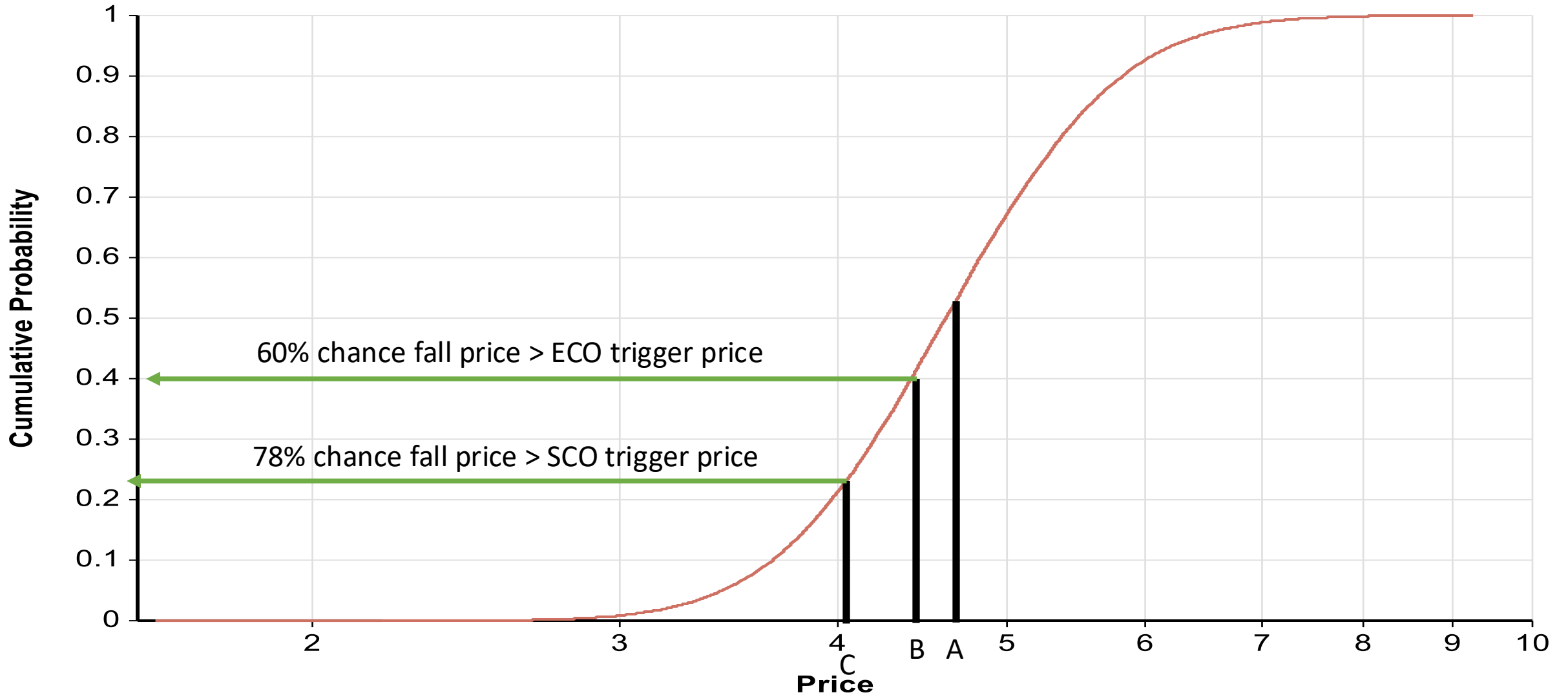


SCO/ECO



December Futures Price Distribution

- A) Current projected price = \$4.72
- B) 95% of \$4.72 = \$4.484, ECO trigger
- C) 86% of \$4.72 = \$4.059, SCO trigger



What is the county yield?

- Not always what you think!
- Generally different yield for irrigated and non-irrigated
 - There are exceptions
- Ask your agent!

Figure 1, Blended Corn Yield Counties

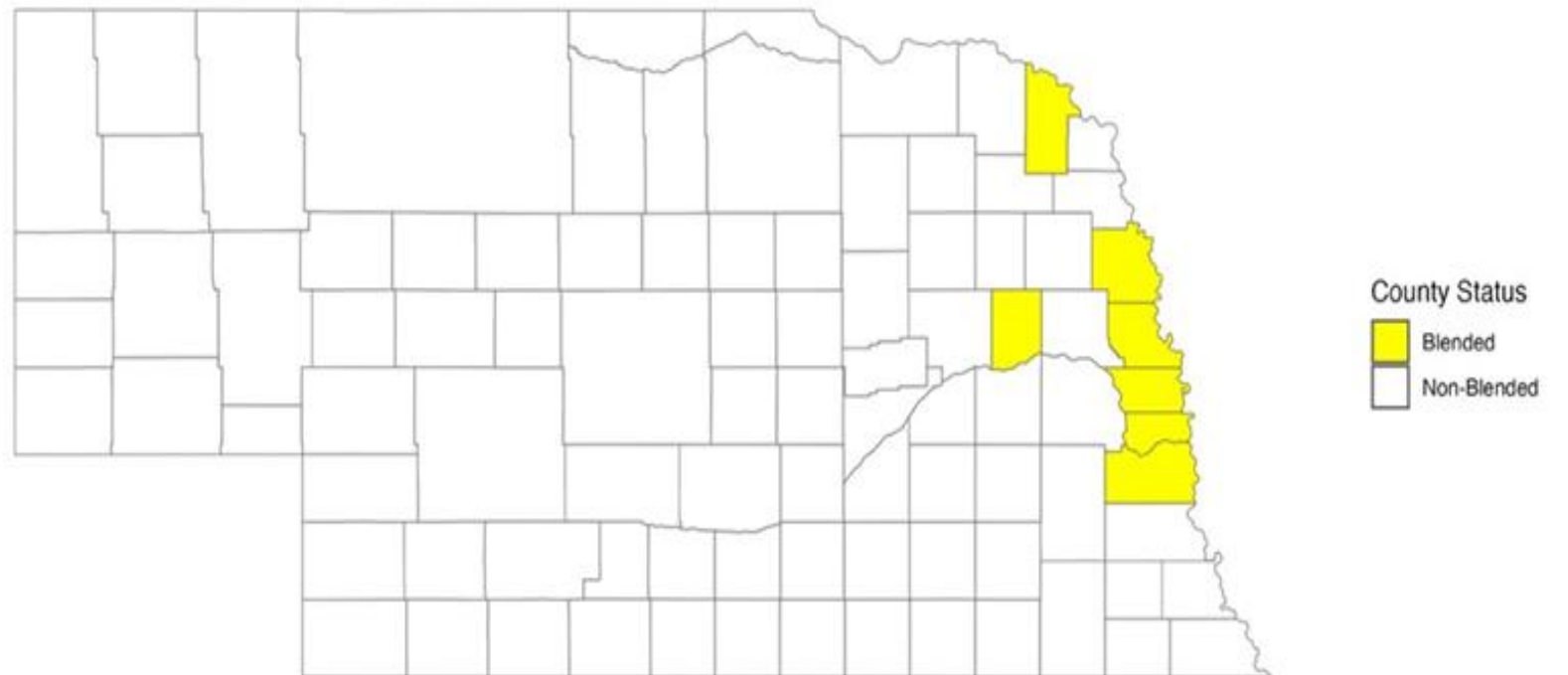


Figure 1, Blended Corn Yield Counties

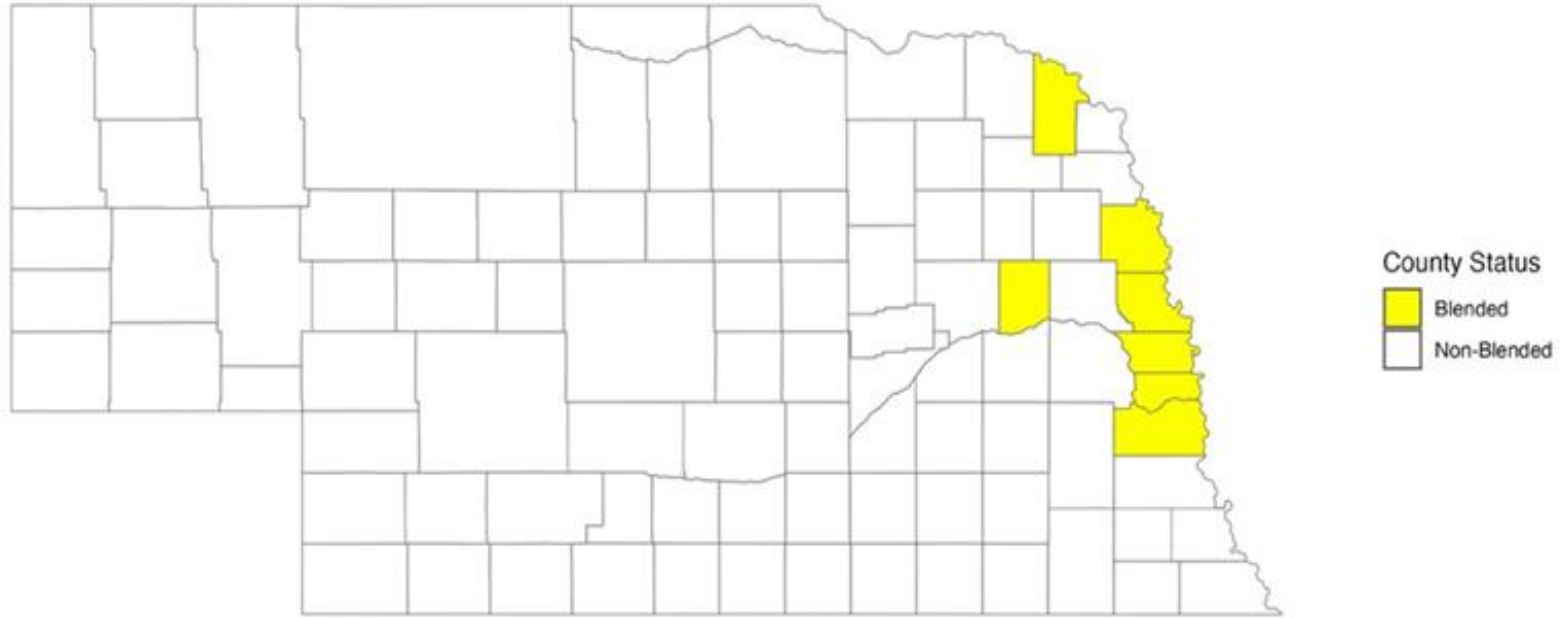
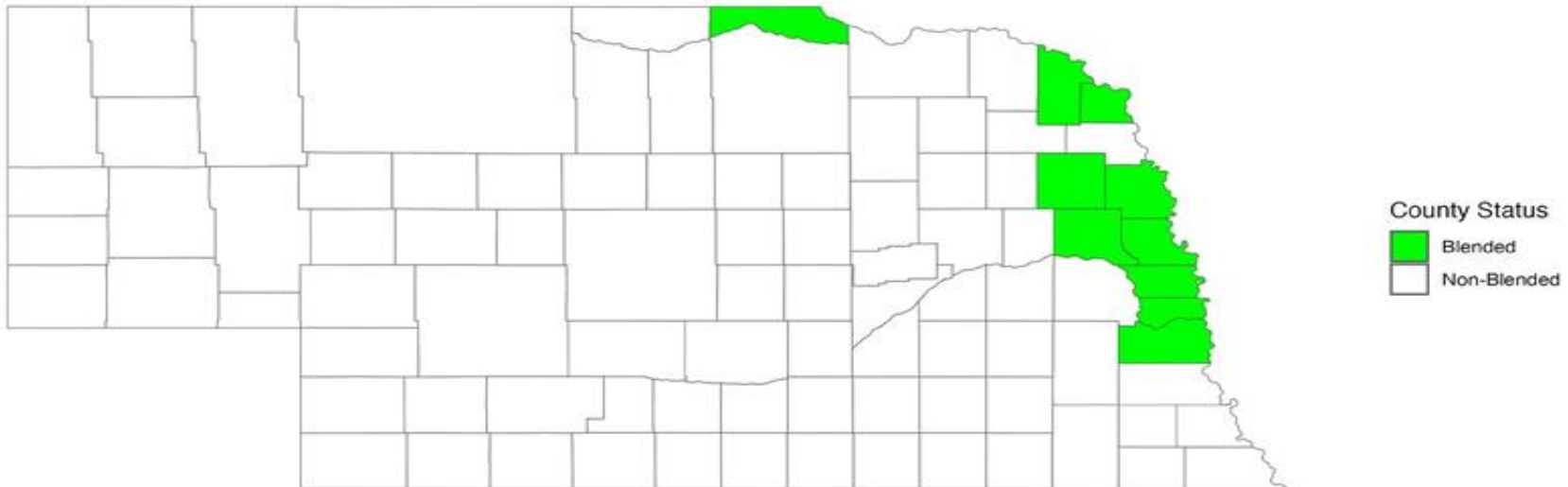


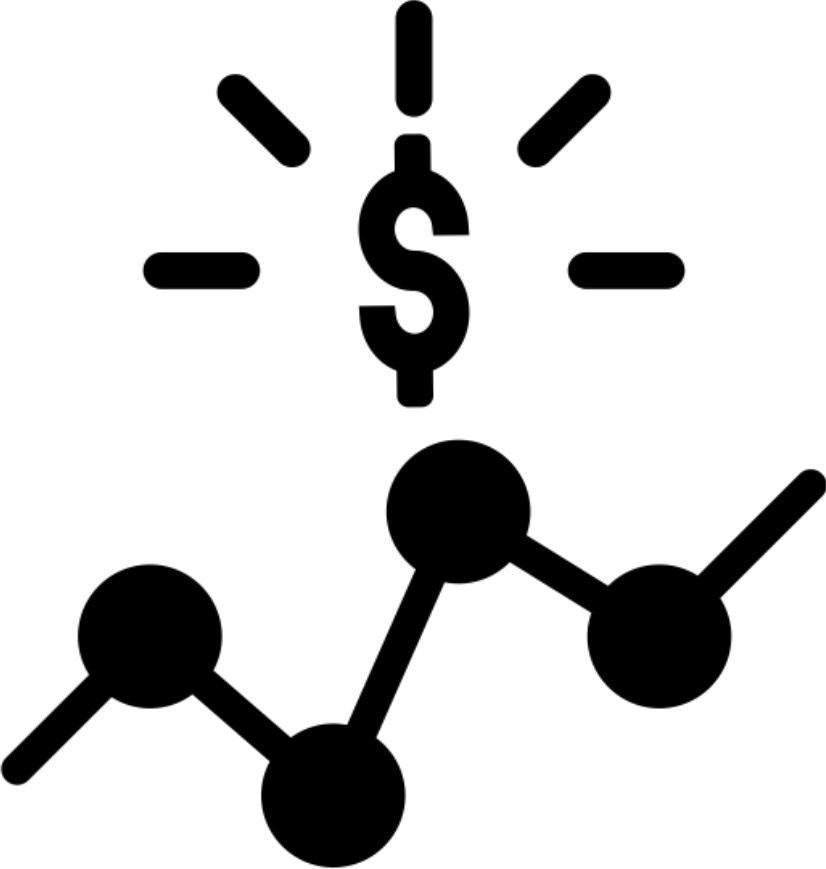
Figure 2, Blended Soybean Yield Counties



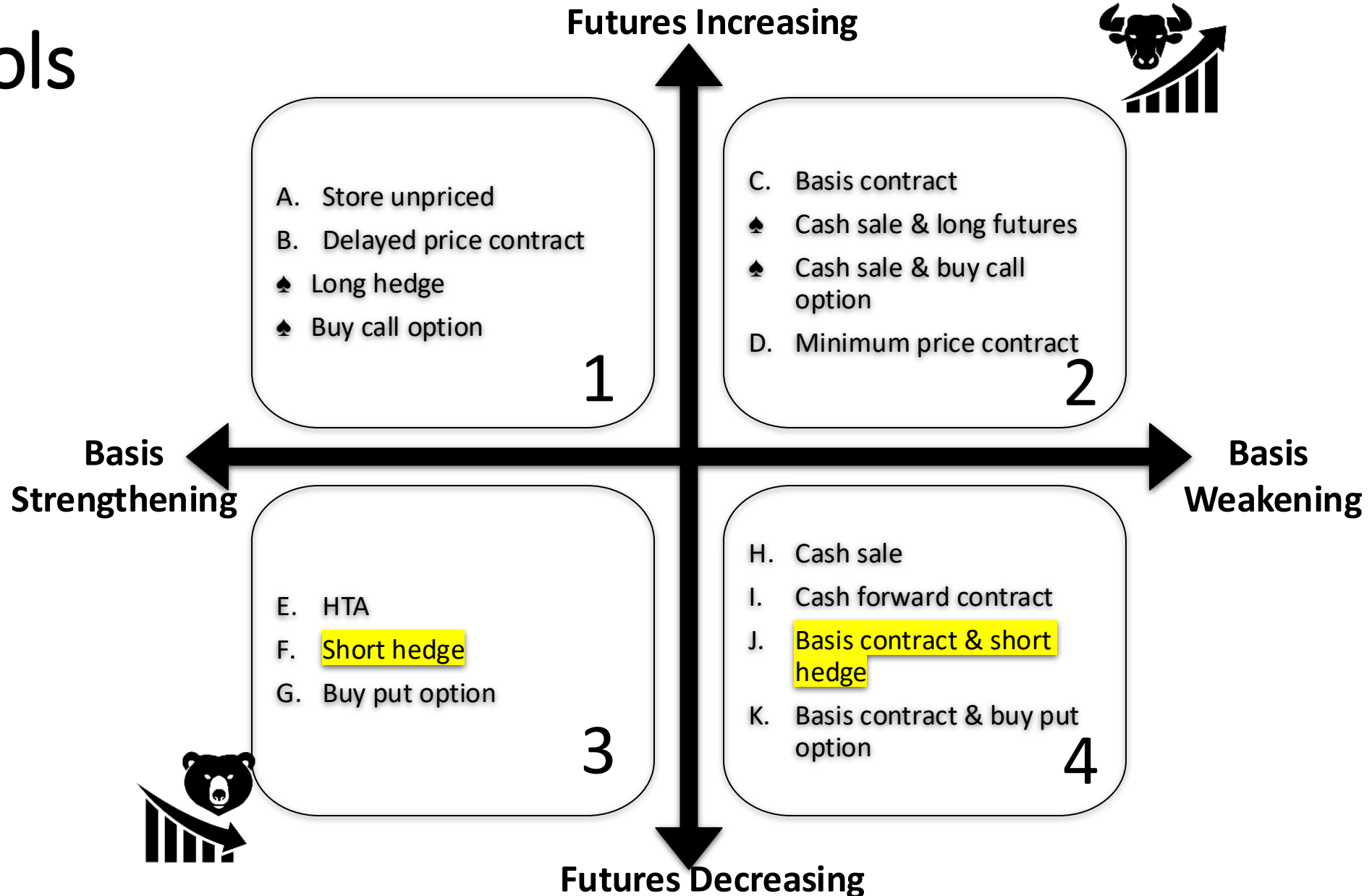
SCO/ECO

- Appears to be a reasonable price protection strategy
 - Uncertain yields along for the ride
- Not a good yield protection strategy
 - Farm vs county yield

Hedging



Tools



What are your goals?

- Hedger:

- Breakeven
- Keep farming
- Produce grain and make money
- Use marketing as a tool to reduce price risk

- Speculator:

- Trade contracts (futures and options) solely to make money

Hedgers vs. Speculators

- Hedger

- Someone who buys and sells futures contracts to protect themselves against adverse movements in cash price while simultaneously meeting objectives of positive expected profit

- Speculator

- Someone who buys and sells futures contracts purely to make a profit from the act of trading futures contract

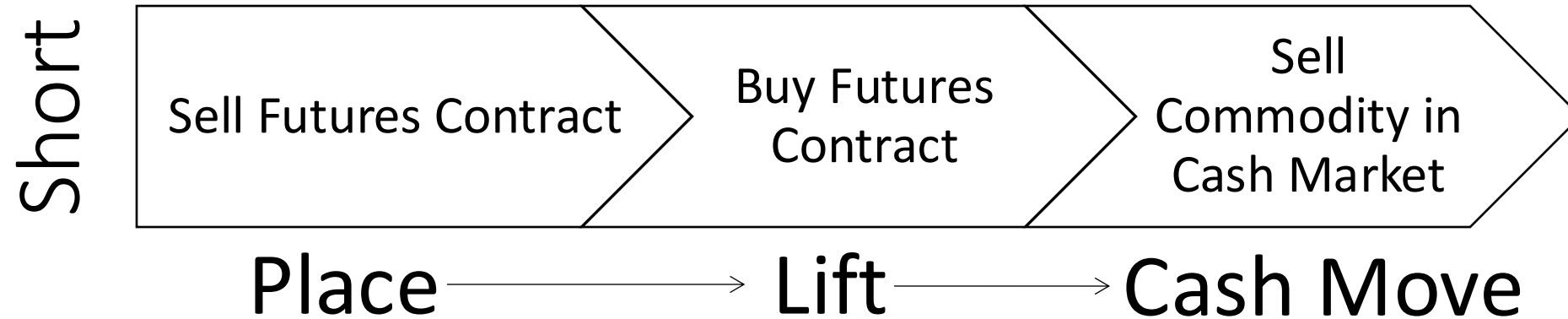
Hedging

- **Hedging** buying/selling futures contracts to protect against financial loss due to changing cash markets
- Taking a position in a futures market opposite the position held in the cash market
 - **Short** – plan to sell a commodity - protects the seller against falling prices
 - **Long** – plan to purchase a commodity - protects the buyer against rising prices

Short in bearish market



Short Hedging... Sell High, Buy Low



Hedging Example

Short: Grain Producer

Place	Sell (+)	\$4.00
Lift	Buy (-)	\$3.40
<hr/>		
Hedge		+\$0.60
Fees		-\$0.04
Cash Move		\$3.00
<hr/>		
Actual Sale Price		\$3.56

The short hedge increases the sale price of grain for the grain producer in a decreasing market.

Hedging Math...

- **What is the current basis?**

$$\text{Basis} = \text{Cash Price} - \text{Futures Price}$$

- **What is the current cash forward contract price?**

$$\text{Cash Price} = \text{Current Futures} + \text{Current Basis}$$

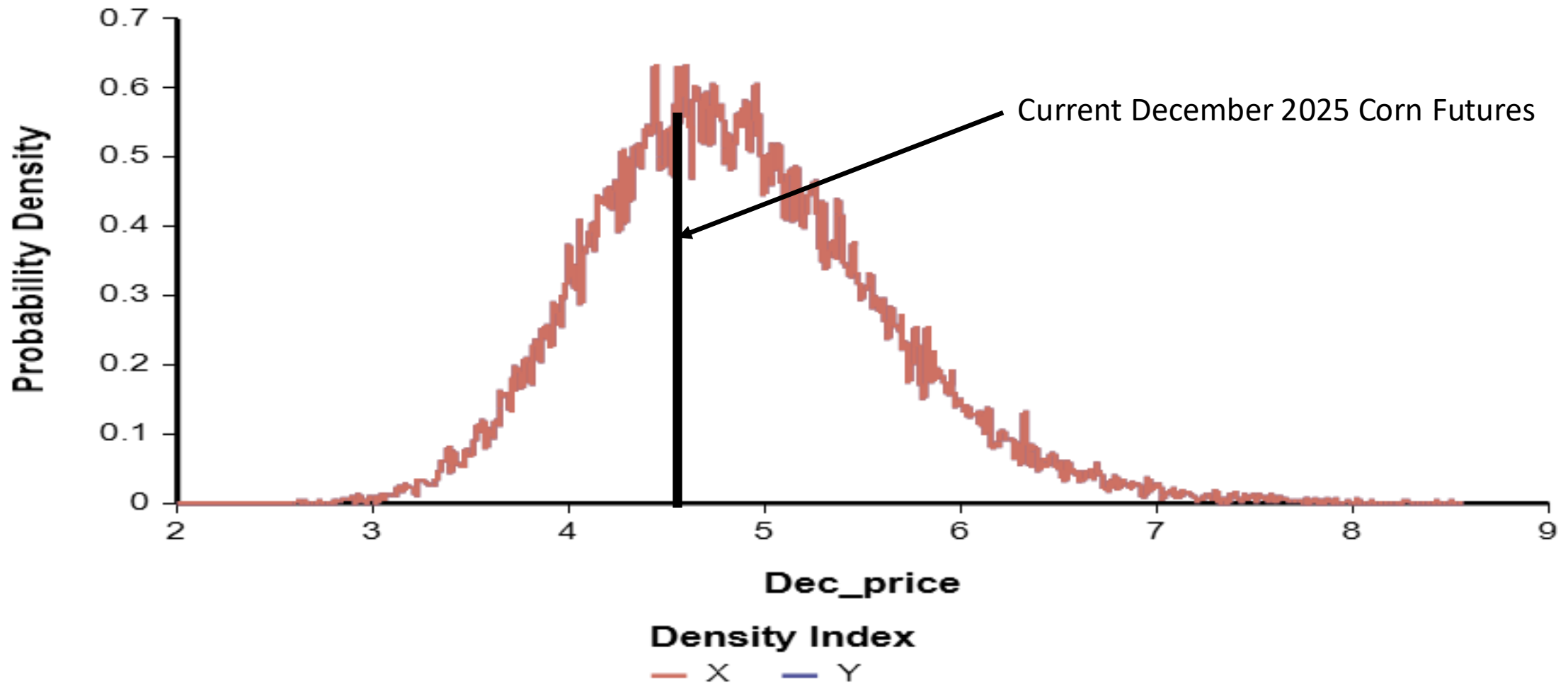
- **What is the expected cash price of the hedge?**

$$\text{Futures} + \text{Expected Basis} - \text{Fees} = \text{Expected Cash Price}$$

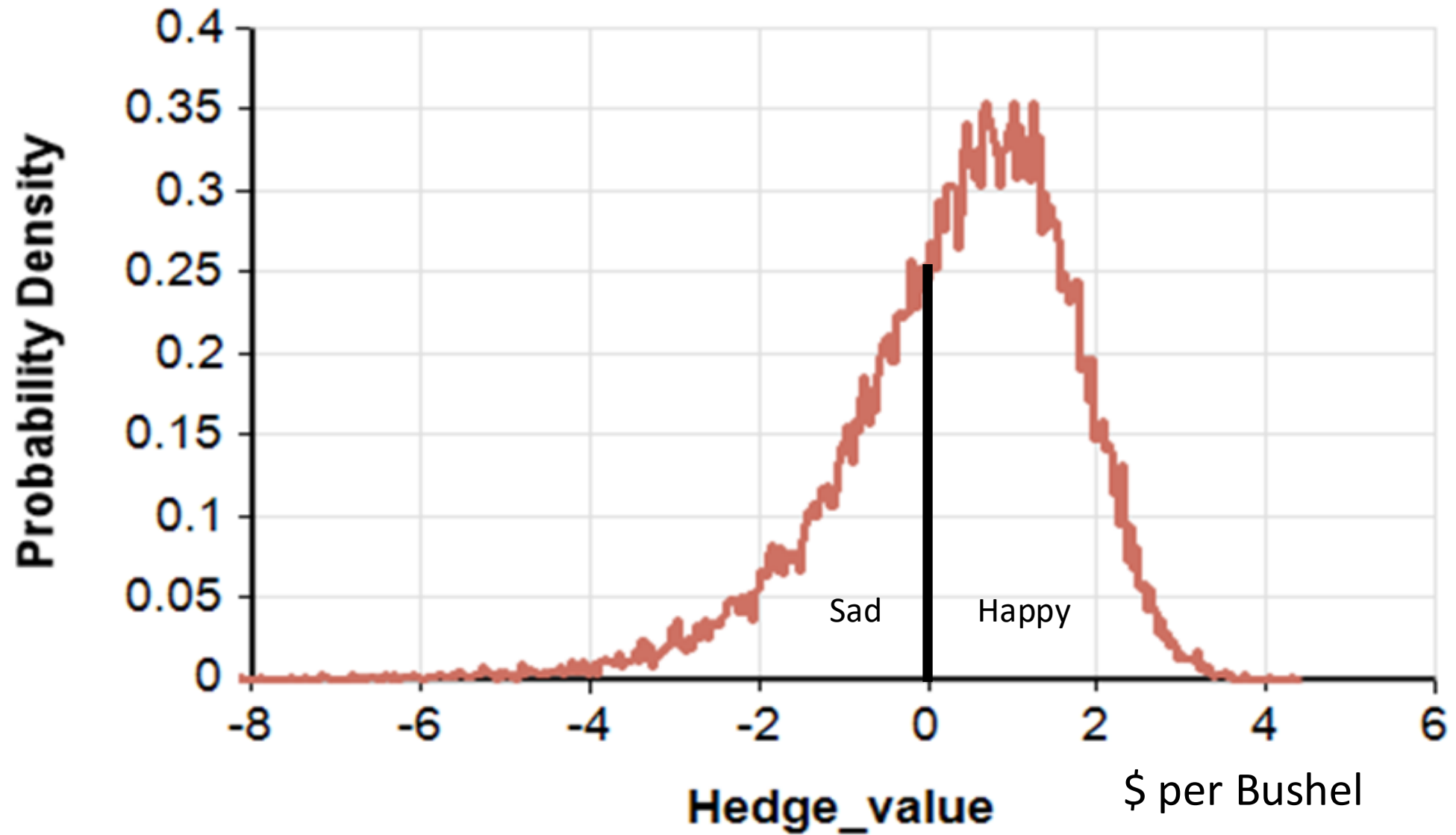
- **What is the actual sale price from the hedge?**

$$\text{Cash Price} + \text{Hedge Gain/Loss} - \text{Fees} = \text{Actual Sale Price}$$

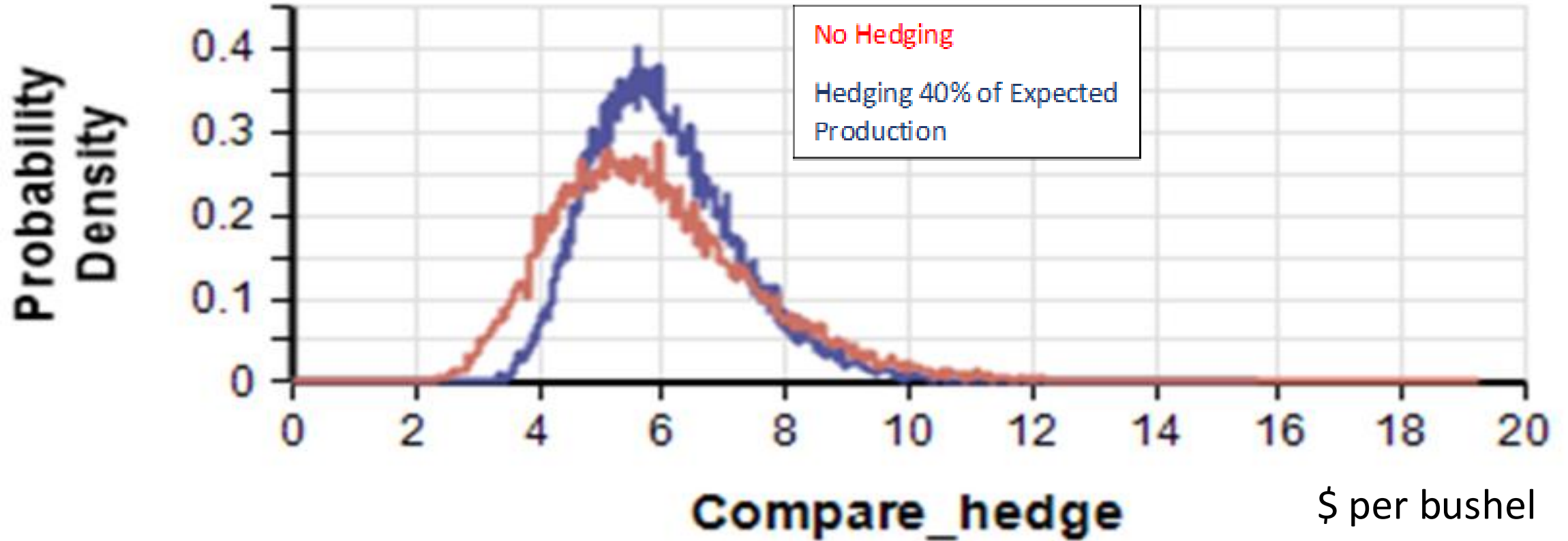
Price Risk – Not Predictable so only can Manage



Hedging Gains/Losses Evaluation at End of Year



Creating an Average Farm Price



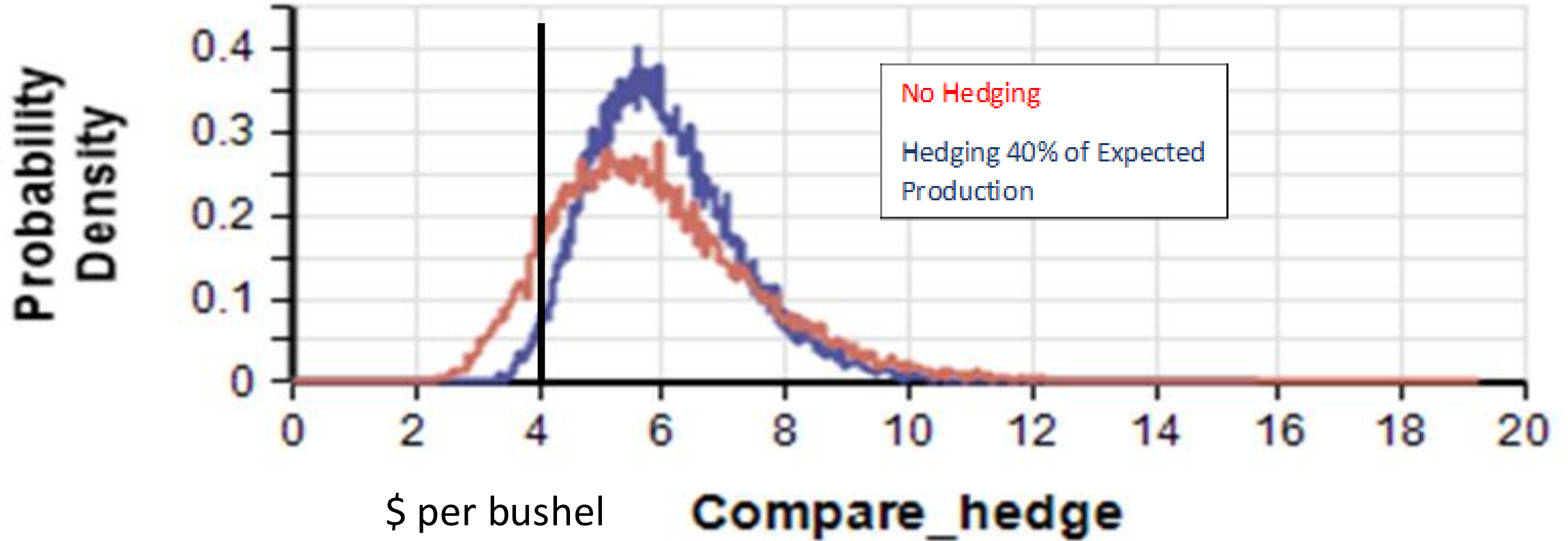
Compare_hedge

— Dyn_Nov1_price[Time=171]

— Porfolio_Hedge_value

Creating an Average Farm Price

Per bushel production costs



Hedging changes the sampling distribution

Compare_hedge

— Dyn_Nov1_price[Time=171]

— Porfolio_Hedge_value

You never go broke taking a profit



Don't sell something you don't have



- Every year the mantra “marketing is important” will be repeated from different points of view:
 - Marketing services claim that pre-harvest marketing can help farmers increase their bottom line
 - Bank loan officers often imply that hedging can reduce price uncertainty
 - Agricultural Economists join in by suggesting that hedging is a best management practice

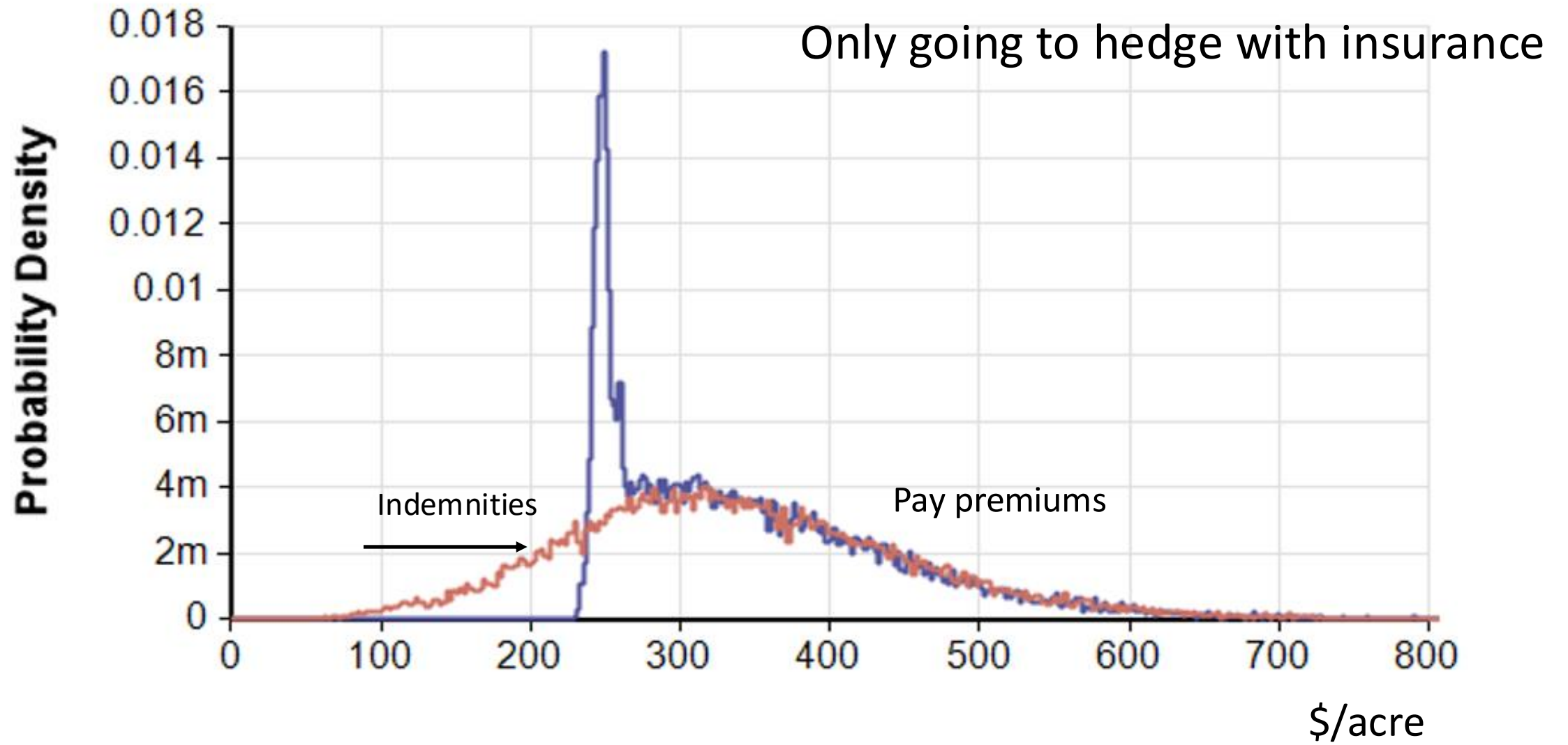
- Producers have smelled roses and felt thorns
 With some horror stories in between

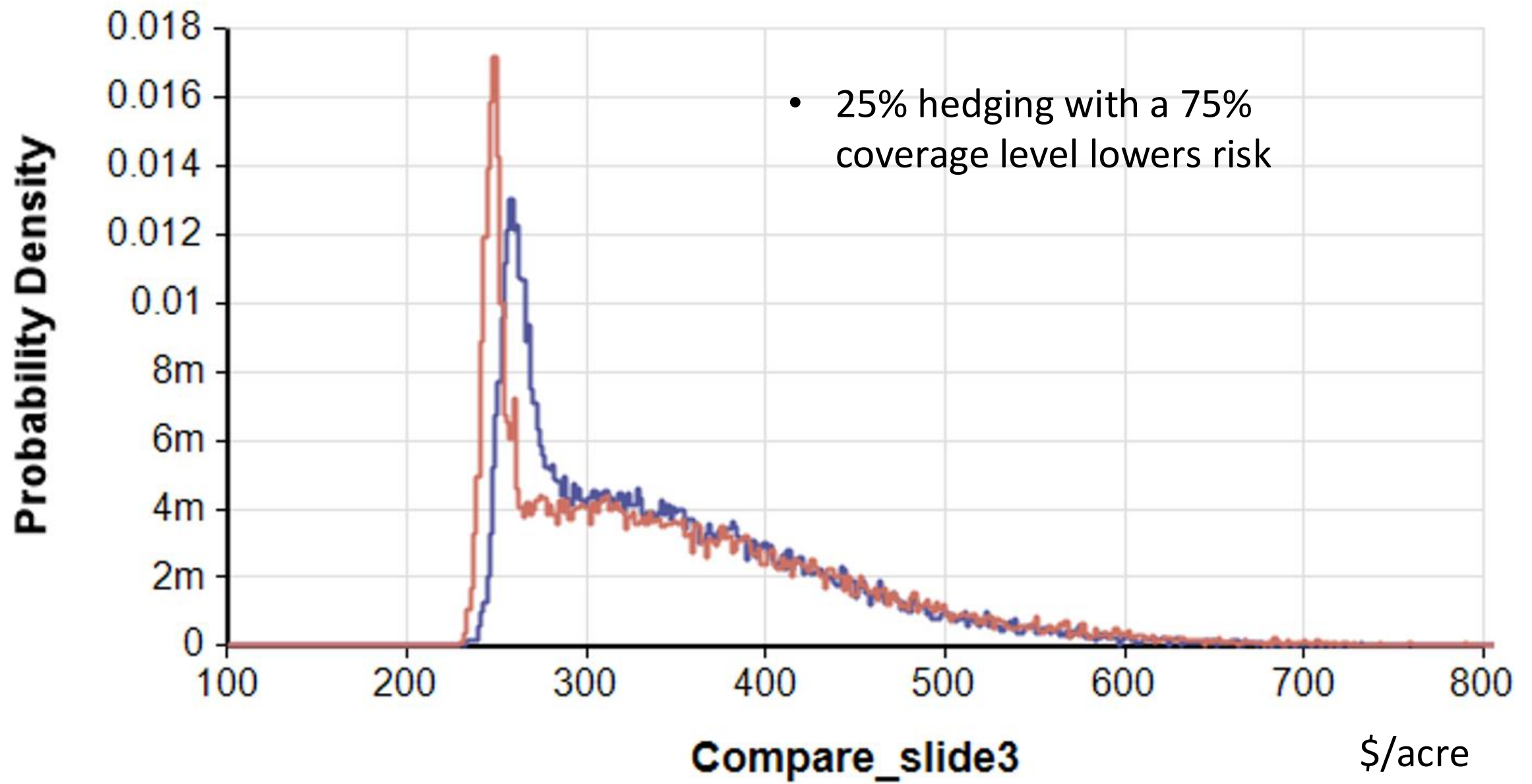
- So much contradictory advice →→→→ confusing mystery

- What happens at insured production?
 - Can you hedge this? Sure (you can hedge anything)
 - Need to understand where the \$ go and \$ exposure to understand the role of insurance in hedging
- Guarantee = price*yield*coverage level
- Farmer max net payment from insurance = guarantee – producer premium
 - Clearly less than guarantee

- Max farmer payment = guarantee – producer premium
- If hedge up to guarantee, you have hedged past your max payment
- Hedging brings the probability of buy-back fees into the equation
 - High levels of hedge => highest probability of buy-back fees
 - Buy-back fee implies less \$ for farmer
- We have found the optimal, long-run hedging %, in the spring, when nothing about the crop is known to be around 40% in non-irrigated and higher in irrigated

Crop Income With and Without Insurance, no hedge



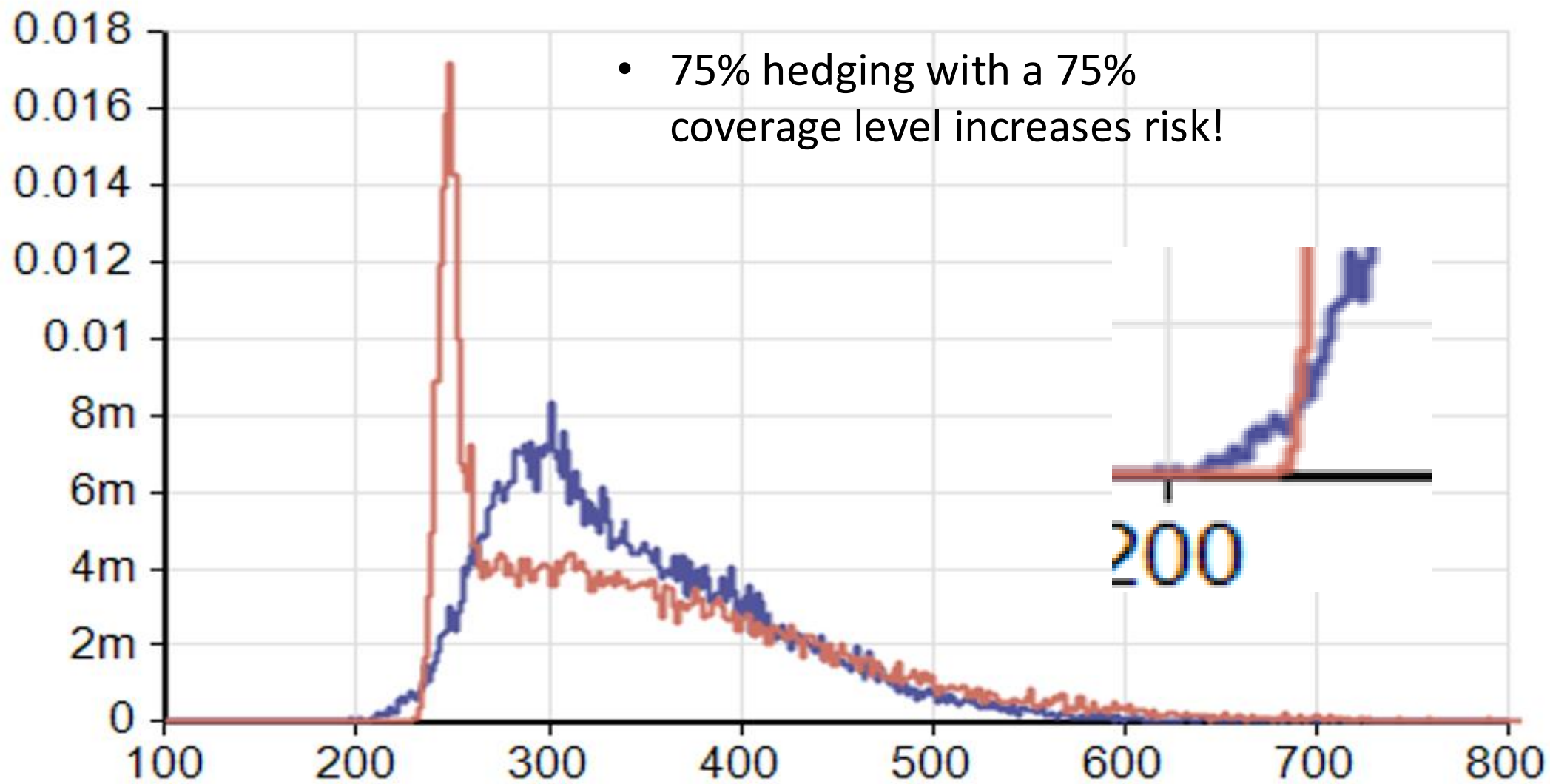


Islide3

— RP 75% Ins no hedge

— RP 75% Ins 25% hedge

Probability Density



Islide2

— RP 75% Ins no hedge

— RP 75% Ins 75% hedge

Summary

- ECO/SCO
 - Understand well what they do/don't do
 - Think deeply about whether these policies fit into your goals and objectives
 - Perhaps use strategically
- Hedging
 - Is well defined
 - Need a solid framework to make decisions
 - Building average farm price = solid
 - Comparing to harvest price = emotional
- Hedging and insurance
 - Follow the money flows
 - Evaluate different scenarios
 - Especially low price and/or yield
- We encourage you to think about what you are doing to your net income distribution, particularly the low revenue side when buying insurance and/or hedging